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The role of documents in collaboration within the UK Integrated Emergency Management System

Rukshan Christopher De Mel

School of Science, Engineering and Environment
University of Salford, U.K.

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To my family, what can I say? I wouldn't be here if it weren't for you.

To my friends – this has been an epic saga. It'll be nice to talk about something else in my life after this.

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Declaration

This thesis is submitted under the University of Salford requirements for the award of a PhD degree by research. The researcher declares that no portion of the work referred to in the thesis has been submitted in support of an application for another degree of qualification to the University of Salford or any other institution, and all work within the study has been carried out solely by the researcher.

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Rukshan De Mel

Acronyms

CCA or CCA (2004) – The Civil Contingencies Act (2004)

CHAT – Cultural Historical Activity theory

CONOPs – (Central Government) Concept of Operations

COBR – Cabinet Office Briefing Room

CRR – Community Risk Register

DSS – Documentary Support Structures

EPO(s) – Emergency Planning Officer(s)

EPRR – Emergency Preparedness, Response and Recovery

IEM – Integrated Emergency Management (system)

JESIP – Joint Emergency Services Interoperability Programme

LRF – Local Resilience Forum

LA – Local Authority

LGD – Lead Government Department

MHCLG – Ministry of Housing, Communities and Local Government

NHS – National Health Service

NRR – National Risk Register

NSRA – National Security Risk Assessment

PIR – Post Implementation Review

RED – Resilience and Emergencies Directorate or Division (of MHCLG)

R&R – Roles and Responsibilities

SCG – Strategic Coordinating Group

STAC – Scientific and Technical Advice Cell

TCG – Tactical Coordinating Group

UN – United Nations

UNDP – United Nations Development Programme

UNISDR – United Nations - International Strategy for Disaster Reduction

Abstract

Effective collaboration between involved stakeholders is a crucial requirement in most any disaster management scenario, where increasingly every stage is a multi-agency effort. In the UK, Local Resilience Forums (LRFs) form the platform for this engagement between agencies, bringing a range of public and private bodies together – with 38 such across England alone, representing over 300 local authorities. Much of the legitimacy for emergency management in the UK is derived from the Civil Contingencies Act (2004). It and its associated guidance documents are a primary vehicle by which both legal duties and best practice are communicated from national to local level. This study centres on the documentary supporting structures formed by such national guidance, both statutory and non-statutory. National guidance can be described as balancing act of standardisation against subsidiarity, a contentious issue. Furthermore, there are gaps in the understanding of the role of documents in supporting an environment for effective collaboration, with a lack of defining characteristics of a body of documents that would enhance collaboration. It is also little explored how clearly national guidance and documents describe the collaboration seen in practice, or how the documents themselves affect stakeholders' context of collaboration and the extent to which familiarisation with the guidance would allow stakeholders to participate more effectively as a collaborative participant during an incident.

To investigate this and determine how such structures could be improved to increase the effectiveness of existing collaboration, a qualitative research approach was taken. The study follows a pragmatist philosophy and abductive reasoning, using an in-depth qualitative analysis of 1) a critical case selection of documents and 2) the stakeholder perceptions of stakeholder within LRFs across England. The results highlight that despite being derived from the same legislation and guidance, LRFs show significant differences in form and procedure – from allocated funding, capacity, frequency of meetings, membership outside of the core, participation, to delegation of roles and responsibilities between partners to name a few. The guidance itself has many shortcomings, with heavy redundancy between large volumes of text, broadly suitable only for an audience already well-versed in the content. The study developed a documentary assessment framework and sets forth

recommendations on how guidance should be improved as a set. It further developed a framework to conceptualise the relationship of stakeholder interaction with guidance and policy.

Key Words: documents; national guidance; collaboration; civil contingencies; local resilience forums; disasters

Chapter 1

1. Introduction to the Research

1.1. Background and Motivation to the study

The central consideration of this research is an exploration of the role of documents in collaboration between stakeholders within the UK Integrated Emergency Management (IEM) system and their effect on the collaborative arrangements within this system. When considering the field of disaster management, it has evolved greatly from its early period of response and recovery, seeing a drive from reactive measures to disaster incidents towards pro-active undertakings to reduce the risks of such disasters and establish measures to respond and recover from them more effectively, which has been noticeable from the international stage down to more local levels (Alexander, 2002; Wisner *et* al, 2003; Janssen *et* al, 2010; Coetzee and van Niekerk, 2012; UNISDR, 2016). The recent decade has seen an ever-increasing landscape of disaster events within the UK, from the increasing risk of natural hazards posed by climate change that as a result of societal factors such as urbanisation, increasingly population density and populations growth continue to impact more and more people geographically, with increasing dependencies between infrastructure lead to a greater risk of cascading disasters alongside the existing risks critical infrastructure failure and security concerns, from war and terrorism to cybersecurity continue to be at the fore of national concern (see Cabinet Office, 2015, 2017a, 2020a).

Effective management of disasters necessitates the involvement of a wide range of stakeholders, both public and private, from public organisations such police, fire and rescue, administrative or legislative national and local government agencies or bodies, health services and armed forces, to sectors such as transport and utilities,

and the voluntary sector; and increasingly, the collaboration of these ranging stakeholders is formalised in national disaster management policies (Kahn and Barondess, 2008; Janssen *et* al, 2010; Eburn, 2014; Bearman *et* al, 2015; Johansson *et al*, 2018). For instance, within the UK Integrated Emergency Management (IEM) system through the Civil Contingencies Act (2004) (which covers the local arrangements for civil protection, as well as the remit of emergency powers) a 'duty of cooperation' is placed upon stakeholders (particularly the defined group of Category 1 responders) at the highest level of these organisations, who have need to collaborate during the phases of disaster management, from preparation to response and recovery, and the mitigation or prevention of the disaster event, by combining their individual, and often specialised, capacities in jointly managing incidents (CCA, 2004; Cabinet Office, 2012a, Cabinet Office, 2013a).

Importantly, these responding agencies have a legal requirement to jointly assess risk and to develop and maintain emergency plans, along with other related duties, under the Civil Contingencies Act (2004). Collaboration between stakeholders in the UK IEM occurs through regionally established **Local Resilience Forums**, of which there are 38 in England, representing over 300 local authorities within it. The Civil Contingencies Act (CCA, 2004, Schedule 1) identifies Category 1 responders, from the blue light services (police, fire, and ambulance) to port authorities, as well as Category 2 responders, including utilities and transport. This allows the possibility of examining methods to enhance collaboration in a context where it is required by law. However, despite being formed as the collaborative platform for emergency response and recover in the UK by the CCA 2004, LRFs are *not legal entities.* They do not have the power to direct their members in and off themselves. The resulting entity is a mix of stakeholders from the identified Category 1 and 2 organisations, and strictly speaking, the "official" LRF, composed of the senior most members of the organisations is only legally required to meet once every 6 months, a frequency grossly insufficient to carry out the duties outlined within the CCA. Within each responding organisation, however, responders are further divided by command tier, implemented through a gold-silver-bronze structure, which respectively describe strategic, tactical and operational command layers in an organisation (Cabinet office, 2013a). It is the at the lower tiers that the majority of the work is carried out

in fulfilling the requirements of the CCA. It is also at these lower tiers that the individual collaborative arrangements of the LRFs become less clear (for more on the CCA see also Anderson and Adey, 2011a and 2011b; Brassett, & Vaughan-Williams, 2013; Moosavian, 2014; Julie *et al*, 2015; Grimwood,2017; Oldham & Astbury, 2018).

"Collaboration", at a basic level, encompasses all work where two or more people, or organisations, work together to achieve a goal. Different terminology such as coordination or cooperation, as well as terms such joint or multi-agency work, represent this idea to various degrees, with distinctions on the level of this joint working (Gray, 1989; Frost and Practice, 2005; Patel et a; 2012; Cabinet Office, 2013a; Tamarack Institute, 2015). However, despite a legal requirement for cooperation, collaborative arrangements still face many challenges. Some major findings of the a review by Pollock (2013) which assessed issues of interoperability in the UK included identification of challenges with initial command, control and coordination activities on arrival at scene; the need for common joint operational and command procedures; the challenges in identifying those in charge at the scene and the resulting delays in planning response activity as a result; the lack of clarity for services in the role of others, especially specialist resources and the reasons for their deployment; as well as misunderstandings when sharing incident information; and differing risk thresholds between services. A follow-on report by Pollock (2017) found that there was still a lack of "strategic buy-in across organisations", wherein momentum was lost in developing interoperability unless major events, such as the Olympics, are a driving factor. The report also found that despite previous exercises and training, debrief recommendations remained mostly the same, underscoring similar issues, with a continued difficulty in learning from incidents and exercises, recommending that the way training and exercising is usually delivered in the UK needs to be amended by "*shifting from large scale complex exercises to smaller shorter exercises, designed to specifically enhance participants' skills, rather than knowledge*".

Many other issues have been identified in current collaboration efforts in disaster management; from shortcomings in the training of stakeholders to engage in collaborative practices; to issues in existing policy and its implementation; as well

as in implementing changes to policy (Smith et al, 1999; Janssen et al, 2010; Rogers, 2011; Kim, 2014; Sebillo et al, 2016, Connon, 2017; Wilson, 2021; Radburn *et al*, 2023). There is also a divergence of practice and from good or best practice, in particular with capturing and applying 'lessons learned' (Kim, 2014). This all exists in continuing face of austerity and reduced public services across the board. As such, whether in terms of developing policy or practice, promoting collaborative arrangements across the country is a significant undertaking. Within this context, this study considers the role that documents play within the UK IEM and in the collaboration with it.

Documents play a crucial, albeit not necessarily well explored, role within most systems. Freeman and Maybin (2011) note that documents are a central mechanism by which governments convey policy and information to all levels of government and citizens, across the large geographical areas that constitute their jurisdiction and that in short *"Government is unthinkable, impracticable, not feasible, without documents: messages, memoranda, laws, statements, diplomatic briefs, warrants, reports, White Papers, submissions, applications, records, minutes of meetings, job descriptions, letters of guidance, press releases, Bills, budgets and accounts".* The material properties of documents that enables such action by government over space and time is the combination of "**immutability**" and "**mobility**" that documents inherently possess (Latour, 1984; Freeman, 2006; Freeman and Maybin, 2011; Brown and Duguid, 1996) and act as the primary vehicle by which both legal duties and best practice are communicated from national to local level.

In the UK, revolving around Acts of Parliament are hosts of government documents: supporting structures, guidance and policies that break down the legal jargon, and lay out the policy and practice. This is similarly true in disaster governance, and the landscape of collaboration resulting from documents encompasses Acts of Parliament, particularly the Civil Contingencies Act (2004); legislations giving authority and legitimacy to stakeholders in the disaster management process; the guidance documents published to supplement these primary legislative documents, in the form of good and best practice recommendations; as well as key technical

documents; to subsidiary documents within individual areas of disaster management; to reports, assessments, forms, maps etc.

The role of such documents, therefore, plays a central role, not just as the "voice of government", as described by Freeman and Maybin (2011), in laying out policy, but also as "tools" or "artefacts" and an essential component in facilitating the resulting collaboration (Woulfin, 2016; Penadés *et al*, 2017)**.** Other authors, such as Patel *et al* (2012) represent the role of documents through the idea of "supporting structures" in facilitating collaboration. Patel *et* al (2012) describe supporting structures as encompassing the tools, networks and resources aimed at training and building the teams that carry out the collaborative goals, including structures to manage knowledge and error. Arguably, therefore, documents are the most ubiquitous "tool" or "artefact" used in disaster management systems.

Having examined the issues with collaboration, particularly interoperability in the current UK IEM, the researcher posits that improving documentary support structures (DSS) as a strategy to consider in addressing this gap. Documents inform the multitude of stakeholders their roles and responsibilities, and lay out the formal structures, as well as command and control arrangements, and such would allow the development of common ground between stakeholders. However, often the practical use of government documents across these stakeholders and their various hierarchies is limited by the sheer volume of material available and the size of individual documents, be it policy documents or instructional material (Penadez *et al*, 2017). The researcher found a high volume of the guidance and information material around the CCA as well, and within this high volume, the researcher noted a lack of clarity on which documents to read, in which order, and the question of whether the documents are enough by themselves to familiarise a stakeholder with the disaster management system and their role in it is currently not well explored. The relationship between the command tier (gold-silver-bronze) and the need for and actual interaction with published guidance is also little explored, although the researcher posited that at lower levels of the command structure, it could be argued there is less of a need to read the national guidance, but would require comprehensive emergency planning, training and exercising at the local level. The UK "Emergency Preparedness" guidance (Cabinet Office, 2012a) for instance,

identifies over 50 types of emergency plans or planning procedures and minimum requirements for generic emergency response or major incident plans; but looking at the list of agencies involved in the UK IEM, how these responsibilities and planning arrangements are divided is up to the individual LRFs or regions. The statutory guidance within the "Emergency response and recovery" (Cabinet Office, 2013a, pg.18) for instance emphasises the concept of "subsidiarity", one of the eight guiding principles of the UK IEM, wherein the UK IEM system "*is founded on a bottom-up approach in which operations are managed and decisions are made at the lowest appropriate level*".

Additionally, though the UK IEM model does stress the importance of plans and planning, as well as regular multi-agency training exercises, various authors question the efficacy of such plans. Penadez *et al* (2017) for example describe emergency plans as "*text-based, monolithic documents that give little evidence of either diversity or efficiency*", where "*their structures and basic contents are based on law, which is not flexible enough to cope with unexpected changes, making adaptability difficult*". Considering the brief list of minimum requirements for generic plans (Cabinet Office, 2012, Chapter 5, p.71), there is little indication of review on the content of emergency plans between local authorities or Local resilience forums, notably given that it was found that there is *no formal monitoring and auditing process* within the UK IEM, which partly ties back to the LRF is itself a non-legal entity. This lack of monitoring and auditing is a cause for concern the researcher identified, in that the LRFs are not assessed against standardised metrics, by national or any independent bodies, despite various non-statutory guidance asserting to provide leading practice, including the recently published National Resilience Standards for Local Resilience Forums (Cabinet Office, 2020a). In fact, the question of the degree of standardisation within LRFs is a pervasive one and centralising the role of documents is an ideal avenue to study this issue, given their role in forming the basis of common ground.

Only three journals were found that conducted a detailed review of UK guidance, Drury *et al* (2013), Chmutina *et al* (2016) and Ntontis *et al* (2019) looked at 15, 30 and 28 UK guidance documents respectively. However, these studies were essentially a consideration of the *language* within the documents, with Drury *et al*

(2013) looking at how "mass panic" is represented and whether crowds were represented as psychologically vulnerable or as contributing to psychosocial resilience, which they reasoned would affect the planning assumptions. Chmutina *et* al (2016) and Ntontis *et al* (2019) meanwhile studied the variations of the conceptualisation of "resilience" in UK guidance. Meanwhile, articles around the CCA or national emergency legislation in other countries focussed more on the national policy implications of the legislations, particularly the concerns over the remit of emergency powers (Head, 2010; Walker, 2014a; Walker 2014b; Lindsay, 2014; Blick, 2014; Ng and Gray, 2021; Silverstein, 2011), rather than how these policies are interpreted and implemented at a local level. On the other hand, while more articles exist on emergency plans themselves and on the plan development process, these fall short in determining what factors or characteristics would improve the utility of the guidance documents themselves.

These gaps identified by the researcher in examining the collaborative arrangements within LRFs and mapping the documentary structures therein underpin a research study initiated and sustained by the researchers doubts and beliefs, which Saunders et al (2015) underpin a philosophy of pragmatism. Given the central role documents play therefore, the study explores the combination of policy documents, information material, published plans and other relevant documents as supporting structures to the collaboration process within the IEM system in the UK, and a review of the literature and these documents prompted the research questions identified below to explore the gaps found in current research in the study area.

1.1.1. Research questions

1. What is the role of documents in supporting an environment for effective collaboration in the disaster management process?
2. What are the characteristics of a body of documents that would enhance the collaboration in?
3. How clearly do the national guidance and documents on the UK disaster management describe the collaboration seen in practice?

4. How do the documents affect the stakeholder's collaboration context?
5. Would reading the current guidance allow for stakeholders to participate more effectively as a collaborative participant during an incident?
6. Could a framework be developed to enhance the collaboration in the disaster management process through their use of documents?

These research questions guide the study in order to investigate the overall research question "*How could the documentary support structures (DSS) be improved to increase the effectiveness of the existing collaboration process within the UK Integrated Emergency Management system in planning, preparing and responding to emergencies?*"

1.1. Aim and Objectives

The aim of this research is to investigate how the documentary support structures could be improved to increase the effectiveness of the existing collaboration process within the UK disaster management system in planning, preparing and responding to emergencies.

Research Objectives:
1. Examine collaboration in disaster management and the role of documents in supporting it
2. Identify and explore the documentary support structures and collaborative arrangements within the UK IEM
3. Develop a framework to assess the documentary support structures
4. Evaluate the effectiveness of national and local documentary support structures in supporting collaboration and capture the perceptions of stakeholders using these supporting structures
5. Develop a framework and/or recommendations to enhance the documentary support structures to collaborative disaster management in the UK

1.2. The research methodology in brief

The study follows a pragmatist philosophy and abductive reasoning, utilising two in-depth qualitative analysis of two methods, documentary analysis and semi-structured interviews.

Utilising this abductive research approach, the iterative documentary analysis consisted of a review of secondary data from published documents in national policy and guidance material, published government and independent reports pertaining to notable incidents, and local emergency plans and guidance material. Of these documents, a detailed assessment of a critical-case selection of documents that form the basis of national policy and guidance within the UK IEM was made, consisting of the Civil Contingencies Act (2004) and its Regulations (2005), 4 gov.uk webpages and 12 published guidance material using the developing Documentary assessment framework. The Documentary assessment framework (DAF) was developed in an iterative process. Factors initially identified during the literature review that were determined to affect the effectiveness of a document individually and as a collective in shaping the context of collaboration were explored within the semi-structured interviews, and from the thematic analysis, factors were extracted to validate and refine the Documentary assessment framework, following the general outline of the tree nodes that resulted from the data coding. The interview of stakeholders consisted of 12 semi-structured interviews, of which 9 are senior management officers within Local resilience forums (LRF) across England, two national government liaisons and a local partner within an LRF. The semi-structured interviews were analysed using thematic analysis. These research methodological perspectives are discussed in detail in **Chapter 4**.

1.3. The Research Scope

Due to the devolution of certain powers between the countries that form the UK, the statutory arrangements for local response vary between England and Wales, and Northern Ireland and Scotland. The scope of the study is England only. The UK Civil Contingencies Act (2004) requires collaboration at local, regional, and national levels. The focus of this study is at the local level to cross-regional level, which is indicated in **Figure 1.1** from the "Local response only" green circle to the "Significant – Level 1" orange circle, covering the roles and responsibilities of the partners within the Local Resilience Forums (LRF) and its responsibilities as a whole.
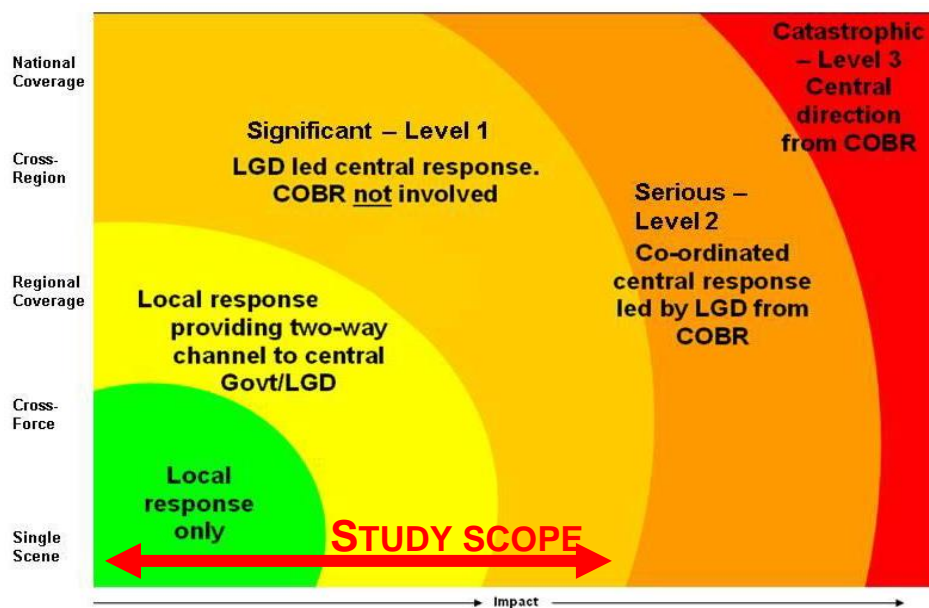
Figure 1.1 Escalation of response in the UK disaster management system (Cabinet Office, 2013)

The areas of interest within the IEM system are in relation to planning, preparation and response. The study does not include "recovery" related mechanisms and documents, nor does it go into the specifics of risk assessment. During the study, a range of documentary support structure (DSS) types within the UK IEM were identified, from national government (i.e., from the Cabinet Office, Home Office, or other national governmental departments) to national organisational documents (such as the Police, Fire, etc.), down to the local and regional documents (within local authorities, the LRFs, down to for example Hospital X's emergency response and recovery plan). The study focus is predominantly on the use of national governmental DSS in developing the other DSS types and in enhancing its role in collaboration within the UK IEM.

1.4. Research contribution

The main research contribution is from the position of knowledge on collaborative working within UK disaster management by enhancing the application of documents in supporting multi-agency collaboration at a local level in the UK, and the study had several contributions to both knowledge and practice.

1.1.2. Contribution to knowledge

As seen from **Section 1.1**, given the rarity of the research study area, there has been much in terms of new knowledge the research has to offer. Previous studies that centralise the role of documents are heavily focussed on planning, training and exercising, and risk assessments, however there is typically little consideration of the use of the document itself as an artefact. The literature review also found that considerations of policy documents tend to focus on interpretations of text (i.e., their language) and potential for misuse, more so on the national level, rather than implementation by local governance. The study provided a detailed look at collaborative arrangements and mapped variations in governance, structure, and capacity of a range of LRFs across England, contributing knowledge to the gap in the understanding of how national UK IEM policy is implemented by local governance, particularly given the scope for interpretation of policy. The research has also extensively mapped documentary structures at both nation and local level. The holistic consideration of documents as they move down tiers of government, with documentation falling into tiers themselves, which then go on to produce more local documentary structures is an overlooked phenomenon which this study addressed, developing a model of the hierarchical interplay of documents and stakeholders within the UK IEM.

1.1.3. Contribution to Policy and Practice

The Documentary Assessment Framework (DAF) provides a baseline by which to assess both existing and future documents individually and related documents as a collective, in order to produce material better suited to support collaboration as whole within the UK IEM. The combined findings of the documentary review and interviews provided detailed information on the use of national and local

documentary structures and has identified and evaluated shortcomings of the current system, resulting in the compilation a range of recommendations to practice.

1.2. Outline of the thesis

The report is organised as follows:

Chapter 1: Introduction

This chapter provides a general overview of the study and establishes the need for undertaking the study.

Chapter 2: Document utilisation, disaster management and collaboration: a review

Chapter 2 contains the literature review, and explores the key terminology of the research area, and sets out these terms in the context of the research and reviews the existing literature around the central themes of study: disasters and disaster management cycles, collaboration, and the role of documents in collaboration and in collaboration within disaster management, utilising a thematic literature review approach. The UK IEM system is introduced with the context of collaboration in disaster management within the UK, identifying the major stakeholders and the standard collaborative arrangements.

Chapter 3: Theoretical Foundation and the Initial Documentary Assessment Framework (DAF) development

Chapter 3 is a continuation of the literature review, however more focussed on setting out the theoretical foundation developed for the research design and the development of the framework from literature to conduct the study. A combination of two theories, negotiated order and activity theory; and a developed conceptual framework (in its early iteration) to represent the interactions assumed by the researcher between the tiers of documents and partners within the UK IEM are presented in this chapter, which combined helped form the basis of directing the research design for this study. Having stated our theoretical foundation, the

development of the initial Document Assessment Framework (DAF) from the study of literature is next presented here.

Chapter 4: Research Methodology

Chapter 4 explores the research methodology used. It discusses the researcher's philosophical stance, the rationale for using a pragmatist paradigm, and the appropriateness the methods used in data collection and the subsequent analysis. Issues of reliability and validity, bias, the sampling process and the advantages and disadvantages of the selected research methods are also discussed.

Chapter 5: Qualitative Findings and Analysis: Documentary review and initial Documentary Assessment

Chapter 5 presents the findings of the overarching document review, and the initial document assessment findings of the 11 guidance documents identified. It links the findings of the document review and assessment to the development of the interview design and presents the final list of 18 triangulated documents for assessment with the Documentary Assessment Framework under development.

Chapter 6: Qualitative Findings and Analysis: Semi-structured interviews

Chapter 6 presents the results of the 12 semi-structured interviews. It is organised in terms of the themes that emerge from analysis of the semi-structured information

Chapter 7: Cross-synthesis of findings and the Documentary Assessment Framework (DAF) development

The major findings and the thematic results of the data analysis are discussed further here in comparison to existing literature, and a model of the hierarchical interplay of documents and stakeholders within the UK IEM is also presented, as seen from the study and present and discuss the developed final Documentary Assessment Framework.

Chapter 8: Conclusion

Chapter 8 summarises the work and is the final chapter of this report.

1.5. Summary

This chapter introduces the research study, exploring the motivations and the existing research gaps that engendered the study. It sets out the scope of the study, and briefly introduces the research methodology, and outlines the structure of the thesis. The next chapter presents a review of literature to present the background of disaster management and collaboration in general, and the role of documents in collaboration and within disaster management in general.

Chapter 2

2. Document utilisation, disaster management and collaboration: a review

2.1. Introduction

The previous chapter introduced the research study and established the motivation for its undertaking. This chapter focuses on the review of literature pertaining to the key areas of the study, using a thematic literature review approach. This includes the three central themes of this research: disaster management, collaboration, and documents. Alongside the literature around the general topic and similar studies, this chapter reviews the context of the UK Integrated Emergency Management (IEM) system, which is more accurately a documentary review, rather than existing literature, as the number of studies within the research area are very limited. This is necessary to provide much of the context to explain the subsequent research design and theoretical foundations of the study. As such, this chapter looks at the Acts that form the basis of this governance, focussing predominantly on the Civil Contingencies Act (2004), which forms the basis of much of the UK IEM. It examines the IEM system's activities, guiding principles, stakeholders, and processes, and in addition map the collaborative and command arrangements within it, specifically of the Local Resilience Forums (LRFs). Finally, it explores the documentary support structures within the UK IEM, and discuss what role documents play.

2.2. Documents

2.2.1. What is a document?

In this section, the meaning of "documents" and the broader role of documents in policy and practice in general and disaster management is examined. In the Introduction, the concept and relevance of documents to government was summarised, and this is expanded on here.

According to the Oxford Learner's Dictionary (2022, online) the definition of a document (noun) is:

> "*An official paper, book or electronic file that gives information about something, or that can be used as evidence or proof of something*"[1].

This is an extremely broad definition; however, it does some key concepts, particularly to our study discussion, namely the idea that a document comes in many forms or media; the idea that it has an "official" capacity; its role in providing information; and its capacity to be used as evidence or proof.

However, this can be added onto in many nuanced ways, which truly highlight why documents are crucial to the functioning of society and government at all levels. In short, the researcher attempts to impress here the utility of documents, and their significance in organisations, and the varied functions they may perform. Freeman and Maybin (2011), for example, discuss that *"government is unthinkable, impracticable, not feasible, without documents: messages, memoranda, laws, statements, diplomatic briefs, warrants, reports, White Papers, submissions, applications, records, minutes of meetings, job descriptions, letters of guidance, press releases, Bills, budgets and accounts".* While simultaneously highlighting the variety of document types here, they note that documents are a central mechanism by which governments convey policy and information to all levels of government and citizens, across the large geographical areas that constitute their jurisdiction.

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[1] The second definition "*a computer file that contains text that has a name that identifies it*" is not relevant here.

For government, Freeman and Maybin (2011) go on to express, the material properties of documents that gives them such value is the combination of "***immutability***" and "***mobility***" that documents inherently possess, which enables action over space and time.

The two terms are derived from a sociologist's examination of scientific method, Latour (1987), whose conception of 'immutable mobiles' (i.e., documents) enabling scientists a standard collection of data from multiple sites. Latour (1987) describes these two properties as having a stabilising and multiplying effect on each other, which Freeman and Maybin (2011) summarise succinctly, reasoning that "*in the same way, the physical properties of policy documents extend the scope and reach of governments in space and time. Their material inscription means that a standard message can be communicated to numerous public servants in numerous and often distant locations, coordinating their actions. And the same message can serve as a reference point for successive actors and actions over time.*"

This is a significant point and reasoning behind the choice of review of documents as an artefact in the collaboration by the researcher. Documents are fundamentally a primary vehicle by which things get done. Despite critique of "red tape", bureaucracy is the backbone of continued governance. Forms, forms, and more forms gatekeep most actions, from the requisition or mobilization of resources to simple requests for information - much of this must go through documents and established process (Brown & Duguid, 1996; Buckland, 1997; Smith, 2001; Day, 2007; Lund, 2009). Indeed, documents essentially perform the same function for any large organisation. Whether it is to coordinate actions from a distance or control employee's behaviour, whatever the document is designed to do, as Cooren (2004) succinctly states "*the mere presence of these texts makes a difference in organizational life, often triggering specific behaviours*".

Even examining this in terms of single concept, such as record-keeping, a range of motivations may be present. The motivations for example of record-keeping could be for internal monitoring purposes, such to ensure quality control or stockkeeping,

to external purposes ensure public accountability or provide transparency or auditing. This is essentially true for any organisation accountable to the government (even if only for taxes), public or shareholders, irrespective of size. Documents serve a multitude of functions, therefore. They act as containers of data and information and are also conduits for this information communication. Documents allow for record-keeping of data or information, including any maintenance of history of access of information. Documents exist as proof of ownership, records of birth, death, to name but a few.

Freeman (2006) who examined document functions within health, from their architecture to the development and organisation to the relationships *"with others that parallel, precede, and succeed them"* emphasis the documents being the "primary vehicle" through which politics is expressed and realised. Subsequent studies where in Freeman was a primary author (Freeman and Maybin, 2011; Freeman *et al*, 2011; Freeman, 2019) continue this representation of documents as vehicles for message, discourse and ultimately authority. Determining a hierarchical arrangement for the documents being examined in the study is a necessity for this research study, given the documents form a complicated web. This is in fact one of the first research findings shown in **Chapter 5**, after the research methodology is described. This inter-related web of documents is defined as a "*documentary support structure*" (DSS) within this study, and this is detailed further in the **Section 5.3,** which presents the results of our documentary review.

Rose and Norwich (2014) for instance, in a study on interprofessional work, while neither centralising documents nor being in disaster management within their study, examined a range of factors within the context of collaborative work in multi-agency settings as shown below in **Figure 2.1**.
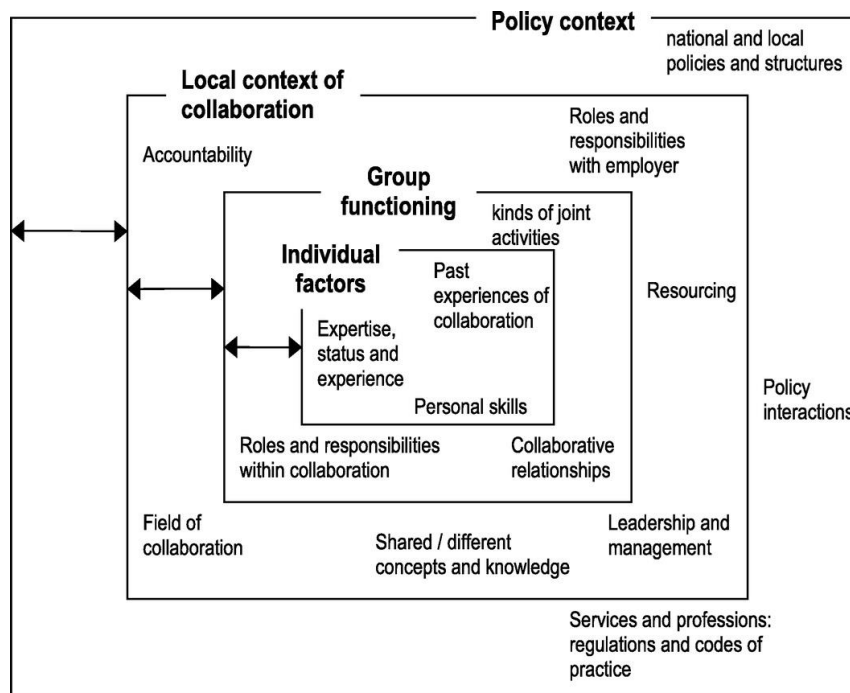
Figure 2.1 A contextual framework of collaboration (Rose and Norwich, 2014)

This was a pivotal paper for the researcher in that it drove the perspective of contextualising the role of documents in influencing the resultant collaborative arrangements and the context of collaboration for both individual and the collective. In Rose and Norwich's (2014) framework the approximation of the documents support structures would be the outermost "Policy context" and "Local context of collaboration".

The "Policy context" is sub-divided into 3 key factors:

- *national and local government policies and structures;*
- *interactions and tensions between different policies; and*
- *the regulations and codes of practice of different services and professions.*

And the "Local context of collaboration" into 6 concepts:

- *the purpose of collaborative action;*
- *roles and responsibilities of specific professions;*
- *leadership and management structures;*
- *lines of accountability;*

19

- *resourcing; and*
- *shared/differing concepts and knowledge.*

Rose and Norwich (2014, pg. 64)

The researcher noted that in many of the concepts and factors identified within these sub-layers, documents were the primary vehicle or artefact within which this information was contained and conveyed. For instance, anything policy related is as previously discussed laid out in some form of legislative or administrative document. Formal expressions of roles and responsibilities (R&R) or assigned accountabilities and other formal structures are likewise recorded within documentation, through which these structures gain legitimacy. The consideration of "formal" and "informal" structures is discussed further in **Section 2.4.5** and the impact of Rose and Norwich's (2014) framework on the research theoretical foundation is laid out in **Chapter 3, Section 3.5**.

The various typologies of documents that were identified and examined within the study are described in detail within **Chapter 5**, containing the results of the documentary review, notably within **Section 5.2** and **Section 5.3**, which establish a hierarchy of documents and the relationship of the documents within this hierarchy respectively.

2.2.2. Legislative documents in disaster management

At its highest level a document may be a statement of intent, or a legally binding regulation, an Act of Parliament, or any legislation. In the context of disaster management, the mechanisms individual countries take may differ widely, however, where disaster management practices exist, they would revolve around central legislation. In the UK the legislative basis for disaster management is derived from the Civil Contingencies Act (2004), which is discussed in detail subsequently. In the US, a national disaster management system was formalised by President Jimmy Carter via the Presidential Reorganization Plan No. 3 of 1978 and implemented by two Executive Orders in 1979, which established the Federal Emergency

Management Agency (FEMA), with the two primary functions of civil defence and emergency management (see for example Kahn and Barondess, 2008). Disaster management practice range from national bodies set up for this expressly, often seen in lower income country or those with smaller geographical extents, to state and federal disaster management policies within countries using such forms of governance, as seen in Canada, the US and Australia, down to local governance mandated emergency management, as in the case of the UK (Kahn and Barondess, 2008; Brattberg, 2012; Eburn, 2014; Lindsay, 2014, Zhang *et al*, 2018). The researcher notes that such legislation will:

- Identify stakeholders and legitimise their actions
- Set the boundaries for action and the scope of stakeholder roles and responsibilities (R&R)
- Allow for the mobilisations of resources and funding
- Often creates specific organisations (for example, national, federal or local disaster management centres) to carry out these roles and responsibilities
- Facilitate or mandate the cooperation between existing organisations and bodies

Beyond central legislation are typically further government documents, guidance and policy documents that supplement these primary legislative documents and break down the legal jargon, laying out policy and practice in the form of good and best practice recommendations, as well as key technical documents, to subsidiary documents within individual areas of disaster management, to reports, assessments, forms, maps etc.

2.2.3. The legislative basis of disaster governance in the UK

The Civil Contingencies Act (2004) and its associated Regulations (2005) form the basis of provisions for civil contingencies in the UK. When the CCA (2004) was introduced, it superseded a range of Acts of Parliament. These include the notably the:

- Emergency Powers Act (1920)
- Civil Defence Act (1939)
- Civil Defence Act (1948)
- Civil Defence (Armed Forces) Act (1954)
- Emergency Powers Act (1964)
- Civil Protection in Peacetime Act (1986)

The previous Acts that formed the bulk of the remit for emergency response in England was the Civil Defence Act 1948, however as noted by Walker and Broderick (2006), these provisions were for "civil defence" rather than "civil contingencies", given their enactment during or after the Second World War. The CCA (2004) meanwhile goes beyond this, establishing a much broader definition for emergencies (which is discussed subsequently in **Section 2.3.2**) and places duties (**see Section 2.5.1**) upon a large range of stakeholders, notably public bodies, in the event of an emergency. It is notably a de-militarisation of civil contingencies and emergency powers from the previous Civil Defence Acts (Head, 2010; Blick, 2014; Walker, 2014a).

As an Act of Parliament, the Civil Contingencies Act (2004) was a relatively late introduction to the disaster management field within the UK. The development of the CCA (2004) can be tracked to pressures internally in the early 2000s due to the fuel riots, an outbreak of foot and mouth disease, severe flooding events, and external motivations, predominantly the terrorist attacks of 11th September 2001, in the United States. Walker and Broderick (2006) carried out an extensive review of the CCA (2004) and its Regulations (2005), which is referred to extensively in literature pertaining to the implementation of the CCA in the UK. Theirs is a more balanced review of the controversy around provisions within the Act, notably Part 2

of the Act, pertaining to Emergency powers and the ability there in to make temporary emergency regulations and is the replacement for and the reduction in scope of the previous "royal prerogative" laws (Blick, 2014).

Although Part 2 of the CCA has never been invoked to date, and emergency planning guidance specifically requires that planners do not presume the activation of these powers as a consideration in any plans that are made (Cabinet Office, 2013a), nevertheless many concerns have been raised on the ethics of the wide-ranging powers that this section allows, and the lack of limits on the scope of what constitutes an "emergency". The Human Rights Act 1998 and Part 2 of the CCA itself are for instance the only legislation which may not be amended by the emergency powers. Tempest and Batty (2004) from the Guardian for example quote one interviewee (Tony Bunyan, the editor of Statewatch at the time) as saying, *"The powers available to the government and state agencies would be truly draconian. Cities could be sealed off, travel bans introduced, all phones cut off, and websites shut down. Demonstrations could be banned and the news media be made subject to censorship. New offences against the state could be "created" by government decree… This is Britain's Patriot Act. At a stroke, democracy could be replaced by totalitarianism."*

Head (2010), Blick (2014), Anderson and Adey (2011a), Silverstein (2011), Nash (2020) and Ng and Gray (2021) are just a few examples of the persistence of the concern over emergency powers, not just within the UK. Despite assurance of emergency powers within Part 2 being constrained within a "triple-lock", which is purported to ensure that an emergency may only be declared in the event of a serious threat, that the regulations drafted from the Act are necessary and proportionate. Regulations made under the CCA lapse automatically after 30 days unless renewed with the approval of Parliament. New measures are required to be presented to parliament as soon as possible, and if put in place while Parliament is prorogued, they must be recalled within 5 days (CCA, 2004).

Previously, the importance of documents in legitimising the action of persons or bodies was discussed. The stakeholders identified by the CCA (who are discussed in detail in **Section 2.5.4**) to act within the UK IEM have separate defined remits, roles and responsibilities enshrined in legislation to legitimise their action as public bodies. **Table 2.1** below gives some examples.

Table 2.1 Example list of Acts or Regulations legitimising stakeholder activity in the UK IEM

Stakeholder	Legislation or Regulation
Police	Police Act 1964 Police and Criminal Evidence Act 1984 Police Act 1997 Policing and Crime Act 2009 Serious Organised Crime and Police Act 2005
Fire	Fire and Rescue Services Act 2004
Health	National Health Service Act 2006 Health and Social Care Act 2012 Health and Social Care Act 2022
Local authorities	Local Government Acts (various) The Control of Major Accident Hazards Regulations 1999
Various	Health and Safety at Work etc. Act 1974 Pipelines Safety Regulations (PSR) 1996 Control of Major Accident Hazards (COMAH) Regulations 2015 The Radiation (Emergency Preparedness and Public Information) Regulations 2019

Often, work within the context of the UK IEM is an intersection of these different legislation, which can be better contextualised by considering the duties placed by the CCA to answer the question of where individual organisational responsibility end, and the multi-agency one begins. Large infrastructure facilities often produce their own policies and emergency plans as well, which is often the result of separate

regulations placed upon such facilities, such as for example the Health and Safety at Work etc. Act of 1974.

Three major regulations that are in a similar vein to the CCA, but as per the CCA Regulations (2005, Part 2, Section 12) are already "*Existing emergency planning duties*" and as such need not be performed by Category 1 responders (**see Section 2.5.4**) within the scope of the CCA are the Control of Major Accident Hazards Regulations (COMAH) 1999, the Pipelines Safety Regulations (PSR) 1996 and The Radiation (Emergency Preparedness and Public Information) Regulations 2001, also better known as REPPIR. Their latest iterations in legislation are noted in **Table 2.1** above. These are pre-existing legislation within the UK IEM. COMAH for instance, is under the greater umbrella of the Health and Safety at Work, etc Act 1974, and enforced by relevant competent authorities, such as the Environmental Agency (EA) or the Health and Safety Executive (HSE) and places the duties in relation to planning and preparation for major accidents within COMAH on local authorities, rather than the stakeholders (i.e., the Category 1 responders) of the LRF as a whole. This is much the case for the PSR and REPPIR regulations, who also have competent authorities. The CCA is different however in the sense there is no competent authority that enforces, monitors, or audits the UK IEM as a whole. This is discussed further within **Section 2.5,** which details the structure of LRFs, the platform through which the CCA is enacted in local governance and elaborate on the duties placed by the CCA (2004) and its Regulations (2005).

This chapter will return to a discussion of the role of documents within the disaster management and the UK IEM itself, however, first the next section presents context into what constitutes a disaster and disaster management practices for context both generally and within the UK IEM, discussing this in relation to some documents that are significant within this study.

2.3. Disasters: definitions and categorisations

2.3.1. What is a disaster?

It is important to note that the terminology in the disaster management field often has a complex history and etymology behind it. While there has been substantial growth in our perceptions and understandings, a substantial amount of recurring terminology still does not have formal or universal definitions (Rubin and Dahlberg, 2017; Clarke and Dercon, 2016; Wisner *et al*, 2003). This lack extends to a fundamental level, in the definition of a "disaster" itself. For instance, a layman's definition of a disaster in the Oxford dictionary is:

> *"A sudden accident or a natural catastrophe that causes great damage or loss of life."*

> Soanes and Stevenson, 2006

Albeit being a reasonable starting point for the general populace, in context of a study within the field of disaster management, this definition neither enables a quantitative assessment of an incident as falling within the bounds of a pre-defined criteria to be classed as a disaster, nor qualitatively captures the many characteristics and variations of a disaster event. A definition satisfying either of these requirements would allow for a systematic study of the phenomena or often as in the case of quantitative inclined studies, to begin or maintain an epidemiology of disasters. Historically, various definitions for 'disaster' have been put forward by different organisations and studies. Various reasons exist for the continued lack of consensus on a definition for disasters, stemming from differences in the system used to define them or the context or situation from which they result. A system here could refer to various technological, sociological, environmental, political, or medical systems, while the context may be based on geographic, political, or economic situations (see for example Alexander, 2002; Wisner et al, 2003; Masys, 2014; and Clarke and Dercon, 2016). Nevertheless, a common starting point for disasters (including within quantitative definitions) is an **event or incident**, which *results* in the consequences leading to a disaster (Wisner *et al,* 2003; Boin and McConnell, 2007).

By looking at disaster management literature, it is observed that there is a consideration of 'levels' of an incident, in the order of severity, from emergency to crisis to disaster and, finally, to catastrophe, or in some rare cases extinction level events (Boin and McConnell, 2007; Wisner *et al*, 2003; Rubin and Dahlberg, 2017).

Emergency → Crisis → Disaster → Catastrophe → Extinction level event

Despite a similar absence of formal/universal definitions for these different levels, both emergencies and crises involve serious, unexpected situations requiring immediate action. However, authors make distinctions between these levels. For instance, Rubin and Dahlberg (2017) note that *"an emergency is typically distinguished from a disaster by its urgency and from a crisis by the fact that the situation has already taken a path towards a negative outcome".* Boin and McConnell (2007) discuss that this categorisation has also been described by the idea that emergencies lead to a "sense of crisis", while disasters are "crises with a bad ending".

A catastrophe, although sometimes used synonymously with disaster, implies a much greater level of impact. Academics make the distinction between disasters and catastrophes in the scale, often alongside positions that such events would overwhelm not just local levels of response, but national capacities to respond and recover rapidly. As discussed in the Introduction, the study scope is at a local level of response in the UK, up to the Lead Government Department led Local Resilience Forum level, therefore an explicit consideration of disasters at this level is not presented within the study.

However, it could also arguably be stated that the determination to label a disaster as a "catastrophe" is an issue of perception, and dependent on the stakeholder in question. For instance, an incident that results in few dozens of casualties and injuries could be handled by a large city without stretching their resources, but a small town may find their resources, from the hospitals to morgues, overwhelmed by such an influx (Wisner *et al*, 2003; Clarke and Dercon, 2016).

Although an emergency is by this view *not yet* a disaster, the term "disaster management" and "emergency management" are both synonymous within the field. The use of the term "crisis management" is also observed in literature. For the purpose of this study, the term "disaster management" is used generally in this report, except when referring directly to the UK IEM. Other references to levels are also used to indicate severity, scale or scope of a disaster are described by different organisations, governments, and bodies. For instance, an incident level (or threat level) may be described numerically in ordinal scales, for instance the use of 8 levels to describe accidents/incidents by the nuclear industry; or geographically – where an emergency or disaster may be declared at a local, regional, state, or national level (Wisner *et al*, 2003).

Revisiting the Oxford definition, while it stipulates the idea of "sudden" events leading to disasters, in reality, such events, viewed as perturbations to a 'norm', could either be discrete (or 'sudden', 'pulse' or 'shock' events, such as earthquakes) or continuous (seen as long-term stresses, such as droughts or the COVID pandemic of 2019-21, which is one such long-term event that had a notable impact during the research study). It is instead the impacts that result from these perturbations and their significance that result in such incidents being considered as disasters.

Another key advancement in disaster management science is the distinction between a hazard and a disaster. Historically, this differentiation was less well made, in that, phenomena that resulted in disasters, for example earthquakes, were described as the disaster itself, despite the intersection of between the event and a population being necessary for there to be any affected community (Alexander, 2002; Wisner *et al*, 2003). Additionally, disaster management used to be focused solely on disaster caused by "natural hazards", which is perhaps one reason why such events have been, and often still, ubiquitously, and erroneously called "natural disasters" by the general population and media despite now being rejected by scientific and professional communities (Rubin and Dahlberg, 2017). Wisner *et al's* (2003) discussion of disasters as "a complex mix of natural hazards and human

action" was notable for its time in its consideration of human action and vulnerability in disaster management. While distinctions are made between man-made (intentional or otherwise) and natural hazards, Rubin and Dahlberg (2017) define a hazard as being "*any source of potential damage or harm to life or health that may result in an emergency or disaster when faced with a vulnerable system*", which is in line with definitions used presently.

2.3.2. UK Definitions of an Emergency

Given the scope of this study within the UK disaster management system, the definitions of interest require a consideration of the terminology used within the UK. For instance, the UK disaster management system forms its basis from a definition of an "emergency" rather than a "disaster". This definition for an "emergency" is derived from the Civil Contingencies Act (CCA) (2004), which as discussed in **Section 2.2.3** is the key Act of Parliament that facilitates the UK disaster management system, identifying the stakeholders responsible for the management of such events and legitimises their actions. The relevant clauses for this definition are outlined below.

> *"Meaning of "emergency"*
>
> 1. *In this Part "emergency" means—*
>   a. *an event or situation which threatens serious damage to human welfare in a place in the United Kingdom,*
>   b. *an event or situation which threatens serious damage to the environment of a place in the United Kingdom, or*
>   c. *war, or terrorism, which threatens serious damage to the security of the United Kingdom.*
> 2. *For the purposes of subsection (1)(a) an event or situation threatens damage to human welfare only if it involves, causes or may cause—*
>   a. *loss of human life,*
>   b. *human illness or injury,*
>   c. *homelessness,*
>   d. *damage to property,*

e. *disruption of a supply of money, food, water, energy or fuel,*

f. *disruption of a system of communication,*

g. *disruption of facilities for transport, or*

h. *disruption of services relating to health.*

3. *For the purposes of subsection (1)(b) an event or situation threatens damage to the environment only if it involves, causes or may cause—*

a. *contamination of land, water or air with biological, chemical or radio-active matter, or*

b. *disruption or destruction of plant life or animal life."*

Civil Contingencies Act, 2004, Part 1, Section 1

In summary, an "emergency" is defined here as an event or situation that threatens serious damage or impact to either human welfare, the environment or security (effectively war or terrorism). Additionally, to constitute as an emergency, an event or situation **must** require the implementation of special arrangements by one or more "Category 1 Responders" (see **Section 2.5.4**), who are the key stakeholders identified within this legislation as having the power to declare an emergency.

The "Lexicon of UK civil protection terminology" (Cabinet office, 2010a) provides two further definitions applicable in this context, namely for "major incidents" and "major accidents" as:

"Major accident: Accident of a sufficiently large scale to constitute an emergency"

"Major incident: Event or situation requiring a response under one or more of the emergency services' major incident plans"

Cabinet office, 2010a

In theory, any officer from any Category 1 responder organisation can declare a major incident regardless of rank, status or grade. This is primarily due to the need for mobilising resources and structures as soon as possible to prevent an emergency escalating into a disaster, or the impacts worsening. A delay in declaring

an emergency could result in possible loss of life and agencies may constantly have to play catch up depending on the situation they are faced with. The JESIP (2016) doctrine for example, presents the case it is always beneficial to declare a major incident early as an assessment of the situation afterwards can stand down any resources activated if there is no need to manage the incident at its level.

Within this terminology, be it as "emergency" or disaster", further categorisation is prevalent, and the next section discusses the categorisation of disasters (or disaster typologies) in general and within the UK IEM, and the significance and need for the definitions discussed within this section, and in the categorisation itself.

2.3.3. Disasters typologies

The categorisation of disasters (or the classification of "disaster typologies") can vary according to different principles. Wisner *et al* (2003) and Alexander (2002) for example present disaster typologies as being assigned based for example, on the triggering hazard; their timing/dynamics; or the level or the type of the damage/destruction caused by the disaster.

Where disaster typologies are based on the triggering hazard, an overarching distinction is often made between natural and man-made disasters, such as technological disasters, or as a discussion of "hybrid" or combined disasters resulting from a mix of these.

The United Nations Environmental Programme, which created the Centre for Research on the Epidemiology of Disasters (CRED, 2019a), maintains the "EM-DAT" database, which utilises a comprehensive classification system based on the triggering hazard, distinguishing between two broad categories for disasters: natural and technological. The natural disaster category is divided into 6 sub-groups, covering 17 disaster types and more than 30 sub-types. The technological disaster category is divided into 3 sub-groups, covering in turn 15 disaster types.

Natural disasters are subdivided in this database into:

1. *geophysical disasters* triggered by a hazard originating from the processes of the Earth (earthquakes, volcanoes, tsunamis)

2. *meteorological disasters* triggered by short-lived extreme weather and atmospheric conditions (extreme temperatures, fogs, storms)

3. *hydrological disasters* triggered by the occurrence, movement, and distribution of surface and subsurface freshwater and saltwater (floods and some landslides)

4. *climatological disasters* triggered by more long-term macro-level atmospheric processes (droughts, wildfires, and glacier melts)

5. *biological disasters* triggered by outbreaks of disease or contagion of plant and animal life (epidemics and pandemics)

6. *Extra-terrestrial disasters*: caused by asteroids, meteoroids, and comets as they pass near-earth, enter the Earth's atmosphere, and/or strike the Earth, and by changes in interplanetary conditions that effect the Earth's magnetosphere, ionosphere, and thermosphere.

The three technological disasters in the CRED database are subdivided into industrial accidents, transport accidents or miscellaneous accidents, for example chemical spills, nuclear meltdowns, gas leaks, transport accidents, and poisoning all fall within this.

Where the categorisation takes place in terms of the dynamics of the disaster, notably its timings, the distinction lies instead between "*rapid-onset disasters*" that happen quickly and with little or no warning and "*slow-onset disasters*" that unfold over months or even years. Whereas rapid-onset disasters tend to unleash their destruction through the immediate physical impacts, slow-onset disasters impact livelihoods through economic and social consequences (Alexander, 2002). Examples of rapid-onset disasters include earthquakes, tsunamis, flash floods, and storm surges, whereas drought, sea-level rise and desertification are categorized as slow-onset disasters.

Disasters can also be categorized according to the level of destruction. For example, disasters that mainly destroy the natural environment can be termed "ecological disasters", while those that result in massive damages can be termed "major disasters" or "economic disasters" (Alexander, 2002).

2.3.4. Quantitative descriptions of disasters

When considering the use of criteria to determine if an incident is a disaster, another way of defining a disaster have been the many attempts seen in projects and studies to *quantitatively* represent disasters. Wisner *et al (*2003) refers to various examples where studies have used quantitative measures to determine if an incident has crossed a threshold, upon which they are classified as disasters. This may typically, for example, be where a disaster is defined as one where over X people have died; and/or Y injuries; and/or over Z in damages and losses. This can lead to substantial variation in the criteria for selection, and therefore when referring to documents that use such metrics, care must be taken when relating them to other studies. Additionally, Wisner *et al* (2003) critique this method in it not considering the capacity of the affected location, taking again the example of an incident that results in a similar number of injuries in a city, when compared to a small town may result in a complete overwhelming of the towns resources, while have little impact on the functioning of city.

Considering once more the "EM-DAT" database maintained by the UNEP CRED programme, for a disaster to be entered into the CRED (2019b) database at least one of the following criteria must be fulfilled:
1. Ten (10) or more people reported killed
2. Hundred (100) or more people reported affected
3. Declaration of a state of emergency
4. Call for international assistance

In this definition, the first and second criteria are explicit numerical thresholds for a disaster to be recorded. The CRED definition for disasters does not however include

a criterion for damage and loss relating to an event, although it does record this information, where available.

As can be seen, undertaking a quantitative evaluation of disasters leads to many variations and interpretations. However, almost all disaster assessments use the terms risk, vulnerability, capacity, and hazard, which is discussed shortly in **Section 2.3.7**. They may also explicitly include concepts such as capacity, pathways, sources, and receptors, but these are typically implied in subtext.

2.3.5. Why is the definition and categorisation of a "disaster" important?

These considerations of the etymology of disaster related terminology were introduced in order to provide an overview of the current theory and academia. In the discussion of what constitutes a disaster, the concept of levels of an incident is introduced, moving from emergencies, through to crises, to disasters and catastrophes. Within the categorisation of disasters, in particular their typologies, the typology of a disaster has a direct impact on the participants of any response, the nature of the response, require different types of documentation, will affect the stakeholders involved or the duration of response or recovery, the affected population and the vulnerability of different populations to different typologies (Alexander, 2002). However, categorization is not merely a retrospective exercise. It is an immediate deliberation in determining *when an incident needs to be escalated*. The idea of "subsidiarity" within the UK IEM system, which will be delved further in subsequent sections, encapsulates this idea – wherein an incident or decision-making process is conducted at the lowest appropriate level of authority to which end it is essential to first *know* when this escalation needs happen.

These considerations are the case even at pre-disaster stages, such as risk assessments and planning, as such categorisation is often the first step in disaster management. Some types of disasters will be more familiar or have a higher frequency or prevalence, which would affect the quality of the response, have more standardised or specific plans as such, which may be more tried and tested.

For academics and emergency planners and practitioners, proper categorisation would allow for a better epidemiology of disasters to be produced. The NatCatSERVICE (Munich RE) and EM-DAT (CRED) databases (Below *et al*, 2009) are two notable examples of available databases to this end.

Considering what has been discussed this far, there are many and varied reasons for the differences in definitions for a 'disaster', and there is a tendency to lean towards a generic definition where a study does not necessarily require a rigorous metric, as noted by Rubin and Dahlberg (2017): *"Today, disaster is broadly understood as a generic term covering all kinds of dramatic events with mass fatalities and/or great structural and economic losses."* This is because in both a practical and political sense, having a rigid definition of "disasters" can be a contentious endeavour. For instance, considering the third criteria for CRED, declarations of a "state of emergency" (or "state of disaster") are the remit of elected officials as these measures are designed to activate discretionary or additional funding, and sometimes grant authorities' additional powers to act during the event (Alexander, 2002). In many countries, a declaration of a disaster is often necessary to mobilise funding, resources or national response, particularly in federal systems (Kahn and Barondess, 2008; Eburn, 2014; Lindsay, 2014).

Section 2.2.3 discussed some of the controversy around the remit of emergency powers within the CCA itself. Emergency powers, not just in UK, are frequently debated in terms of their potential for abuse, and from a human rights perspective, make the case for clearer scope and duration to such powers, and highlights the need for careful consideration of definitions from a different angle (Head, 2010; Walker, 2014a; Walker 2014b).

2.3.6. The UK categorisation of disasters

As in the case of defining "emergency" within the UK, the categorisation of disasters is also a formalised process within which a number of documents play a role. As a starting point, the UK *National Risk Register* (NRR) (Cabinet Office, 2017a) shows that a range of hazards are assessed in terms of national *risk* and classified into broad disaster typologies accordingly rather than adhering to a strict disaster classification system. Therefore, readers see the use of multiple disaster typologies in concert here resulting in the 5 broad classifications as summarised in the **Table 2.2** below.

Table 2.2 Disaster typologies in the UK based on risk adapted from the UK National Risk Register (Cabinet Office, 2017a)

Natural Hazards	Diseases	Major accidents	Societal risks	Malicious attacks
Flooding	Human	Widespread electricity failure	Industrial action	Attacks on crowded places
Severe weather	Animal	System failure	Public disorder	Attacks on transport systems
Space weather		Transport accidents		Attacks on infrastructure
Volcanic eruptions		Industrial and urban accidents		Cyber attacks
Poor air quality				Chemical, biological, radiological and nuclear attacks
Earthquakes				
Wildfires				

The 2020 National Risk Register (Cabinet Office, 2020a) makes some changes to these categorisations. Diseases is combined directly as "Human and Animal Health", "Natural Hazards" are classes instead as "Environmental Hazards" and "Serious and Organised Crime" is included within Societal risks, but broadly remains

the same. Compared to the CRED EM-DAT database, this categorisation within the UK risk register is quite lacking and no publicly available database for major incidents or disasters in the UK maintained by central government or independently.

2.3.7. Capacity, Risk and Vulnerability

The determination of significance of disasters is another crucial point and definitions of disaster, which are intended to be operationalised, as such often indicate to this, although not necessarily quantifiably. For instance, the United Nations Office for Disaster Risk Reduction, formerly the UN International Strategy for Disaster Reduction (UNISDR, 2009) defines a disaster as a the "*serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources.*"

This definition introduces the concept of the "capacity" of the affected being important. Capacity, as either a qualitative or quantitative measure, is the potential for using one's capabilities to prevent, absorb, adapt to, or restore after an impact (Zhou *et al*, 2009). Capacity can be described as the opposite of the vulnerability. While the UNISDR does not explicitly use the term "vulnerability" in its definition of a disaster, it implies the exceedance of the capacity of the community or society to cope using its own resources and is such referring to the vulnerabilities within the society.

However, vulnerability is a complex concept that encompasses more than the idea of resources. The idea of "vulnerability" of the affected, where disasters are the result of a meeting of hazards and vulnerabilities, is represented more clearly in the Pressure and Release (PAR) model (Wisner *et al*, 2003) and 'disasters' in this equation are considered in terms of "risk", rather than being labelled after the fact. Wisner *et* al (2003) discuss vulnerability as a result of root causes, dynamic pressures and unsafe conditions, but this is no means a universal definition and

Manyena (2006), for example, tabulates over 20 definitions of vulnerability across different studies.

THE PROGRESSION OF VULNERABILITY
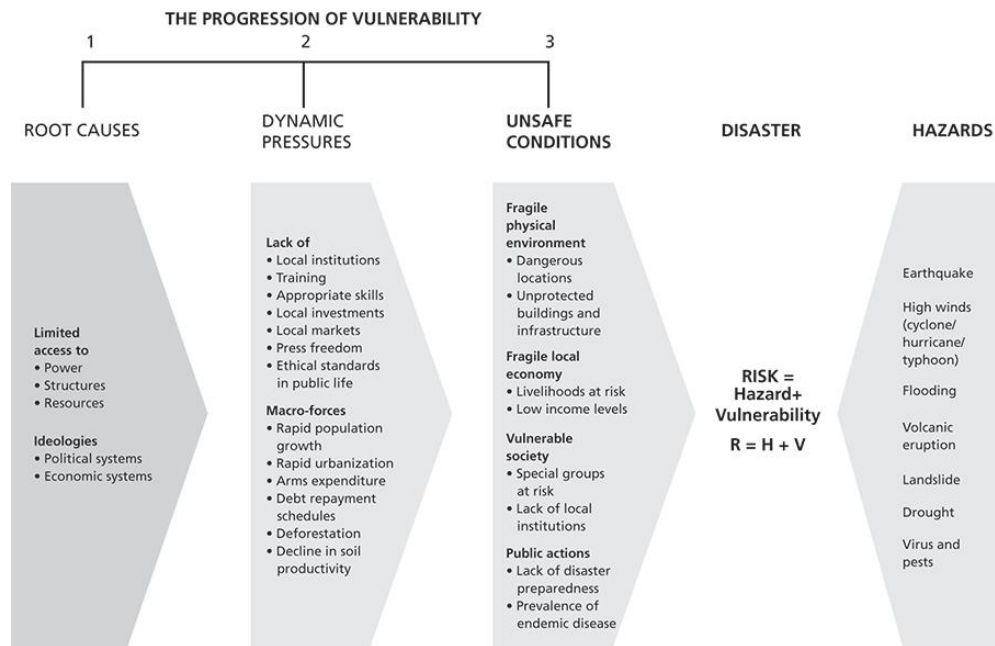
Figure 2.2 Pressure and release (PAR) model (Wisner et al, 2003, p.51)

In the case of Wisner *et al* (2003) and the PAR model, the risk is related more specifically to the risk of a disaster occurring, where "a disaster is the intersection of two opposing forces: those processes generating vulnerability on one side, and the natural hazard event (or sometimes a slowly unfolding natural process) on the other". However, risk is difficult term to define, and Rubin and Dahlberg (2017) note this by describing risk as "a *broad concept concerned with the likelihood of loss. Many definitions of risk exist: an uncertain event with potential negative outcome, exposure to a hazard, the product of probability and consequence, the intersection of hazard and vulnerability, etc.*" A key term here is uncertainty, which represents the lack of precise, or any, information surrounding a specific risk.

2.3.8. Documents and risk assessment

Risk assessment is a science in and of itself, through considerations of sources of the risk, the pathways they take and the final receptor (Alexander, 2002). Its inclusion is integral in any disaster management context. It is only once a risk is better understood, either qualitatively (by subjective analysis from experts) or quantitatively (through models) that one can begin to predict future events. In part, much of the capacity built in recent times to disasters stems from our ability to predict, forecast or model future events fuelled by the rapid advancements in technology and understanding of physical phenomena (Ahrens and Henson, 2018), yet Rubin and Dahlberg (2017) note that "*forecasting is also highly dependent on the notion of uncertainty, and an indication of the degree of uncertainty attached should be communicated with any forecast. Effectively communicating uncertainty can be a great challenge for authorities and experts when informing the public about potential hazards.*" Some events however, such as earthquakes and volcanoes, continue to remain inadequately understood enough to be predicted precisely.

2.3.8.1. Risk assessment in the UK IEM

Having discussed the importance of categorisation of disasters, the way this is done in the UK National Risk Register (Cabinet Office 2015, 2017a and 2020a) raises a few issues besides the concerns around emergency powers.

The mechanics of the National Risk Register (NRR) creation are confidential. In the national guidance on "*Risk assessment: how the risk of emergencies in the UK is assessed*" (Cabinet Office, 2013f), the first NRR is stated to have been published in 2008. The NRR is itself a creation or rather a sanitised version of the National Risk Assessment (NRA), which is stated to be reviewed every five years, although in recent years, the time period between NRRs is much shorter, the last three having been published in 2015, 2017 and 2020 respectively.

Essentially, assessments, particularly risk assessments, are a central part of its UK IEM model, with all four pre-disaster phases of the IEM (see **Section 2.5**) driven by

risk determination (Cabinet Office, 2013a and 2013f). The UK carries out regular national risk assessments, and publishes a sanitised version of this, called the "National Risk Register", the latest being the 2020 version. It is legal requirement for Local government, including Local authorities and Local Resilience Forums to carry out further local risk assessments, and produce regionally a "Community Risk Register", with a sanitised version of this being made available to the public (Cabinet Office, 2013f). These risk assessments form the basis of the determination of the typology of plans produced within the local disaster management context.

The UK uses an **ordinal scale** within its National Risk Registers. However, comparing different versions of this document, it is not a consistent scale (see Cabinet Office, 2015, 2017a, 2020a). In the 2015 and 2017 version "Impact severity" is measured on a scale of 1-5 but switched to A-E in the 2020 report. The 2020 report also contains the only detail as to what this means in terms of given indicators, as shown below in **Table 2.3**. The indicators being economic impact, fatalities, evacuation and shelter needs, public perception, environmental damage, impact to essential services and electric supply, and international relation, however it is not clear if a similar matrix was used in the 2015 and 2017 versions. Despite this, even with the use of an ordinal scale, there is presently no database of disasters that occur within the UK, nor reports the researcher could find that use this scale to review incidents across any time period.

The follow on role documents play after the categorisation of disasters, is in the process of assessing the risk of these disasters, and in understanding and recording the available capacities and vulnerabilities within the assessed area, which is discussed in the following two sections.

Table 2.3 Level of impact, ordinal scale used in the NRR 2020 version (adapted from Cabinet Office, 2020a)

Indicator	A	B	C	D	E
Economic impacts	less than £10 million	£10 million to £100 million	100 million to £1 billion	£1 billion to £10 billion	more than £10 billion
Fatalities in the UK	circa 1 to 8	circa 9 to 40	circa 41 to 200	circa 201 to 1000	more than 1000
Evacuation and shelter	50 people evacuated over 3 days	200 to 1 thousand people evacuated over 3 days	5 thousand people evacuated over 3 days	20 thousand people evacuated over 3 days	100 thousand people evacuated over 3 days
Public perception	limited impact, small numbers of the public (less than tens of thousands) feeling more vulnerable	minor impact owing to tens of thousands of UK citizens feeling more vulnerable	moderate impact owing to hundreds of thousands of UK citizens feeling more vulnerable	high impact owing to millions of UK citizens feeling more vulnerable	extreme, widespread, prolonged impact owing to significant proportions of the UK population feeling more vulnerable
Environmental damage or contamination	of a building for up to 1 month	of the local area for 1 month OR of building for 1 year	damage to / contamination of a local area for 1 year	of a county OR city(ies) for approximately 1 year	of city(ies) or region for more than 5 years

Essential services: lack of health and care services affecting	1% of the population for 6 hours	2% of the population for 12 hours	10% of the population for 12 hours	20% of the population for 7 days	40% of the population for 30 days
Electricity supply: major disruption to electricity supply to	> 10 thousand people for longer than 18 hours	> 100 thousand people for longer than 18 hours	> 300 thousand consumers for longer than 18 hours	1 million people for longer than 18 hours	national loss of electricity supply for any period or regional loss of supply for longer than 1 week
International relations	moderate damage to UK relationship with any other country	moderate damage to UK relationship with international partner country/ organisation	significant damage to UK relationship with international partner country/ organisation	moderate damage to UK relationship with key allies	significant damage to UK relationship with key allies

2.4. Collaboration in disaster management

2.4.1. Disaster management cycles

Disaster management, as a process, is often represented as a cycle. A disaster management cycle (or emergency management cycle) is a graphical representation of different phases in disaster management, often broadly divided between phases before (pre-disaster) and after (post-disaster) the triggering event (Alexander, 2002; Khan *et al*, 2008; Coetzee and van Nierek, 2012).

Early disaster management, as examined by Wisner *et al* (2003), was centred on the post-disaster management, namely response and recovery. This traditional approach of response and recovery after disaster events only began to change during the 1970s, which saw dramatic increases in disaster events caused higher deaths and economic losses than in previous decades, and the realisation of there being better ways to spend capital than solely providing relief. A review by Coetzee and van Niekerk (2012) identifies and maps the evolution of disaster management from linear models to the earliest cyclical representations in the 1970's, leading up to the present-day models. The first linear models produced by the seminal text of Samuel H. Prince in 1920 (as cited in Coetzee and van Niekerk, 2012, p.5; Alexander, 2002) only contained the phases of emergency, transition, and rehabilitation. Looking at the present day one of the most widespread disaster management cycles (shown below in **Figure 2.3**), distinguishes between two pre-disaster management activities and consists of four phases:

1. **mitigation** or prevention - aimed at reducing the risk of a disaster occurring
2. **preparedness**, which covers planning for contingencies, building organisations, creating capacity and capability for future response operations etc.
3. **response** that represents the immediate reaction to an acute crisis
4. **recovery**, which aims at returning a disaster-stricken community or society to a state of normality.
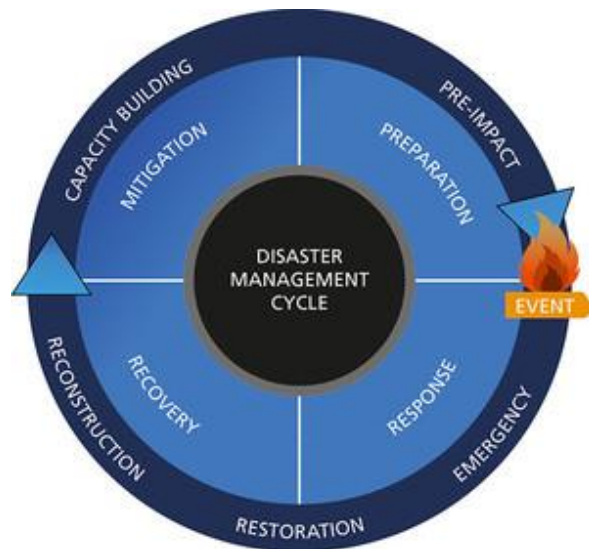
Figure 2.3 Disaster management cycles – Part 1 (Alexander, 2002)

The two first phases lie before the event (for example, an earthquake, volcanic eruption, flood, etc.), while the latter two follows. In practice, however, all four phases are closely interlinked, especially mitigation and recovery according to the idea of 'building back better'. Two other examples of disaster management cycles are shown below in **Figure 2.4 and 2.5**, and these two figures show examples of disaster management cycles divided into two parts: risk management and crisis management, and show different elements within their cycles, although they do include the major themes in the previously discussed cycle.
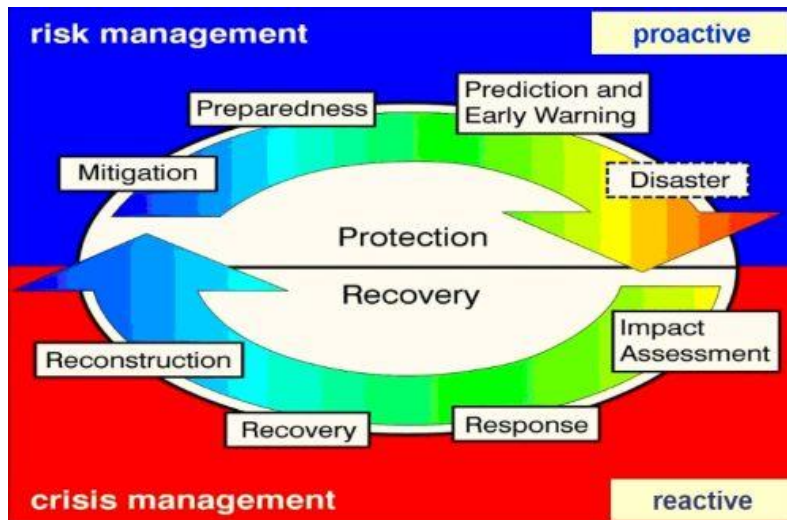
Figure 2.4 Disaster management cycle – Part 2 (Wilhite, 2006)
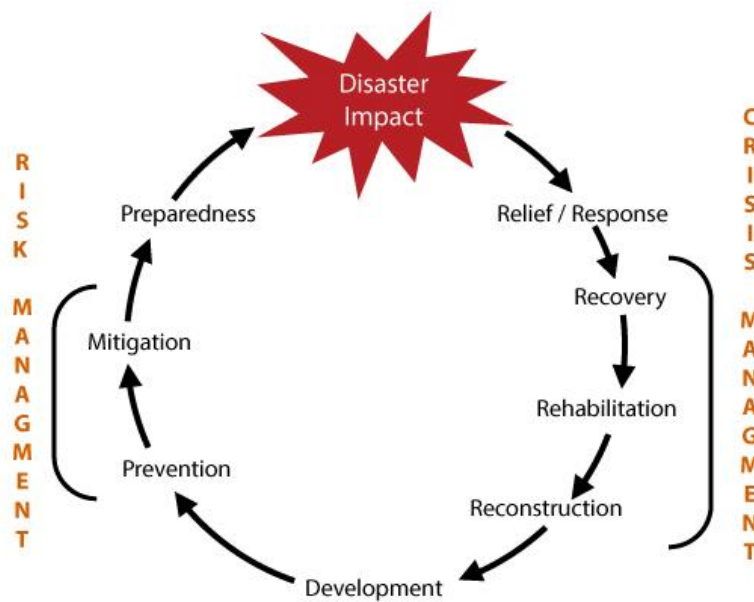
Figure 2.5 Disaster management cycle – Part 3 (Khan et al, 2008)

The importance of these disaster management cycles is enabling the visualisation of different elements in the disaster management process. The visualisation may additionally be influenced by the existing mechanisms and structures of the organisation in consideration, their priorities and focus, as such there is often greater variety in disaster management cycles (Khan et al, 2008; Coetzee and van

Nierek, 2012). Additionally, none of the three cycles here capture the idea of hysteresis – where the state of the system has been affected by the disaster incident, and as such the new state will be different to the pre-disaster state, even after recovery. These cycles are also intended to be holistic and show neither indication of the stakeholders involved, nor indications of governance within the process. They are models of how the disaster progresses or should be managed, rather than showing the dynamics of disasters, as in the case of the Wisner *et al*'s (2003) PAR model. The commonality of these three models is their representation as cyclical, but Rubin and Dahlberg (2017) note the decision-making challenges related to the reality that these phases are not easily distinguishable and treating them as such could lead to inflexible compartmental disaster management processes.

The documentation within each stage is also different. **Section 2.2** discussed the role of documents in setting the legislative basis for disaster management, in **Section 2.3** its role in containing the definitions and categorisations of disasters, ending with the role of documents in risk assessment (**Section 2.3.8**) as a process. Risk assessment or more general risk management is one stage of disaster management as a process within the cycles examined here. In every other stage, there also associated documents that support their function, although the scope of our study is preparation, planning and response. Within these cycles, and in the UK IEM itself (see **Section 2.5**), "planning" would technically be within the "preparation" stage itself, although this has been discussed separately to emphasise the consideration of planning, which as will be seen within this section has great importance in collaboration in disaster management.

From this section, disaster management is shown to be a complex multi-stage process, and **Section 2.3.3** discussed the many typologies of disasters that exist. Collaboration in is essential in disaster management across there many stages principally as no single agency has all the resources or expertise required to deal with the disaster and its consequences. The next section presents some of the

typical stakeholders in the disaster management process, followed by a discussion of the nature of collaboration and the role of documents in supporting it.

2.4.2. Who is involved in the disaster management process?

Stakeholders to the disaster management process can be people, groups or organisations that have an interest or concern in the process; either as having the ability to affect the process or be affected by it. Their interest may motivate them to attempt to influence the process and its development. The primary or key stakeholders can vary between different countries, in addition to the variations in stakeholders for example between different types of disasters, the associated scale or the respective phase within the disaster management cycle. Some key stakeholders include:

- Police, Fire, and other rescue services
- Health services, including hospitals, ambulance, coroners
- Local government
- National government agencies and public bodies
- The Armed Forces
- The private sector
- The voluntary sector
- The local or national community
- The international community
- NGOs and INGOs (for example, the UN, World Bank or Red Cross)

In terms of disaster typology, variations can occur particularly within those intended to provide technical or scientific expertise; or in terms of the leading organisation, such as the fire service taking lead in a fire, as opposed to the typical lead of the police. In terms of scale and typology, in the UK for example, the army will likely immediately respond or have a presence for terror related incidents but comes out for natural hazard related incidents only upon request where local government cannot handle by themselves (Head, 2010; Chmutina et al, 2016). On the other hand, in developing countries for example, the role of the armed forces is generally

more prominent during disaster events, particularly those due to natural hazards, as well as the presence of INGOs, such as the UN, Red Cross or World Bank. The stakeholders involved in the immediate response likely differ greatly from those involved in the recovery operations or rehabilitation. Even within individual phases, there will be varying command levels, with decisions being made from on-the-ground units to policy decisions on a national level, which is discussed further in **Section 2.5.7** within the context of the UK IEM.

Disaster management therefore requires the collaboration of public and private entities that typically are geographically distributed to facilitate a rapid and effective response to disasters (Janssen *et al*, 2010). At a minimum, establishing command and control protocols, and determining hierarchies is an important function to be undertaken to respond to disasters more effectively. However, while this is accepted as a part of standard now, this was not case always the case and as such, early collaboration in practice was dependent on individual national legislation, the initiatives of communities or as reactive exercises (Wisner *et* al, 2003; Coetzee & van Niekerk, 2012). There are also many short comings in the use of command-and-control structures within disaster management, discussed further in **Section 2.4.4,** and with the many stakeholders often involved in disaster management, limits to collaboration by size is often a key consideration. First however, some definitions of collaboration seen in literature are considered.

2.4.3. The collaboration continuum

"Collaboration", as such, is a contested term, with no universally accepted definition. A broad definition for collaboration could be given as anything that "*involves two or more people engaged in interaction with each other, within a single episode or series of episodes, working towards common goals*" (Patel et al, 2012). Yet while Patel *et al* (2012) give a broad definition of collaboration, they too note that this is provided less a unique identifying/distinguishing feature for collaboration, and more a general descriptive definition. For instance, taking this broad definition, a variety of terminology in a collaborative context is seen in in the disaster management field

alone: collaborative work may be referred to as multi-agency work (often seen as "multi-agency response), joint-up working, coordination, command and control, cooperation, or more generally communication and information sharing obligations or initiatives, or as a duty to work together, as well as various other derivatives.

As such, collaboration needs to be placed within the context of other types of working together. This is frequently represented as a consideration of different _levels of working together_, as broad definitions of collaboration do not capture the distinction between these levels and has been dubbed the "collaboration continuum" by some authors (Frost and Practice, 2005; Atkinson *et al*, 2005; Gray, 1989). Nevertheless, this is not to say there is agreement on the order of the levels themselves.

Looking at two such continua, the Tamarack Institute (2015), which works towards "collective impact" initiatives, represents the collaboration continuum as two ends of a spectrum of competition and integration, and in their continuum (seen in the **Figure 2.6**) collaboration is placed ahead of coordination in terms of the level of working together implied by the term, whereas Frost and Practice (2005), as shown in **Table 2.4**, considers coordination as being a higher level although both agree on integration being the highest in the hierarchy of terms.

Compete	Co-exist	Communicate	Cooperate	Coordinate	Collaborate	Integrate
Competition for clients, resources, partners, public attention.	No systematic connection between agencies.	Inter-agency information sharing (e.g. networking).	As needed, often informal, interaction, on discrete activities or projects.	Organizations systematically adjust and align work with each other for greater outcomes.	Longer term interaction based on shared mission, goals; shared decision-makers and resources.	Fully integrated programs, planning, funding.

Figure 2.6 The Collaboration Continuum (Tamarack Institute, 2015)

Table 2.4 Levels of working together (Frost and Practice, 2005, p.13)

Level of working together		Description
Level 1	Cooperation	Services work together towards consistent goals and complementary services, while maintaining their independence
Level 2	Collaboration	Services plan together and address issues of overlap, duplication and gaps in service provision towards common outcomes
Level 3	Coordination	Services work together in a planned and systematic manner towards shared and agreed goals
Level 4	Integration (merger)	Different services become one organization in order to enhance service delivery

In a disaster management context, coordination does not work in the sense described by Frost and Practice (2005). Coordination in disaster management is representative of "command and control", discussed further in **Section 2.4.4**, structures in disaster response, and the limitations of such pre-determined plans and arrangements is discussed in **Section 2.4.6**. Plans, in short, cannot account for every contingency, or provide detailed instructions or strict central oversight. Additionally, where established coordination agreements are insufficient, changes cannot be made to existing plans or coordination arrangements *while the disaster is in progress.* Additionally, coordination between the different agencies in disaster event may only occur during the event, since they often have little shared functions outside these, and as noted, little authority over each other.

Integration in a disaster management context is not an option for almost all the agencies involved. The various stakeholders have their own specialised functions during day-to-day functioning, providing vital services to their communities (such as police, fire service and ambulance). In the UK, for example, integration is one of the 8 guiding principles of emergency management in the UK and the disaster management cycle used by the UK is called the Integrated Emergency Management (IEM) model (discussed further in **Section 2.5**), but this is represented in the idea of "integrated effort" and not integration in the sense of the collaboration

continuum. Rather than integration, this is more likely to result in co-location where feasible, or more specific joint-task units. For example, in the UK, statutory obligations for flood planning falls under the remit of the Environmental Agency, but the UK Met Office carries out much of the actual forecasting. The consequences of the 2007 floods, and results of the Pitt (2008) review resulted in the formation of the Flood Forecasting Centre (FFC, 2019), based in the Met Office headquarters in Exeter, whose combined expertise resulted in specialised hydrometeorological service. Examining this partnership from an organisation perspective, despite the co-location and requirement for continued partnership through "*National Flood and Coastal Erosion Risk Management Strategy for England*" (Environmental Agency, 2011), it is clearly not a case of integration of organisations as the employees remain under their respective agencies.

The author therefore agrees with the Tarmack Institute (2015) positioning of collaboration in the continuum in the context of disaster management, in the key perspective of collaboration as a long-term consideration. Nonetheless, the author suggests it is not strictly relevant where collaboration falls within the continuum as the dynamics of disaster management leave collaboration, no matter how well defined, as the compromise to action in improving multi-agency work.

The nature of the collaborative work will also depend on the stated purpose or aim. For instance, Atkinson *et al* (2005), who were commissioned by the Local Government Association, examined multi-agency work in involving professionals from the Education, Social Services and Health sectors of local authorities UK and identified 5 models of multi-agency working based on their purpose, shown below in **Table 2.5**.

Model	Purpose
Decision-making groups	to provide a forum whereby professionals from different agencies could meet to discuss issues and to make decisions
Consultation and training	for the professionals from one agency to enhance the expertise of those of another by providing consultation and/or training for them
Centre-based delivery	to gather a range of expertise together in one place in order to deliver a more coordinated and comprehensive service
Coordinated delivery	to draw together a number of agencies involved in the delivery of services so that a more coordinated and cohesive response to need could be adopted
Operational-team delivery Purpose	for professionals from different agencies to work together on a day-to-day basis and to form a cohesive multi-agency team that delivered services directly to clients

The dynamics of the collaboration and the resources dedicated to it would also be affected by the timescales of the collaboration. A goal where for example a product involves a temporary joint effort by different departments or organisations is different to an ongoing process over multiple goals, or goals requiring extensive time for implementation. Gray (1989) notes two key purposes for collaboration, with the first being a problem solving domain where stakeholders work together, versus collaboration towards a shared vision. Gray (1989) describes the collaboration as involving a process of "*joint decision making among key stakeholders of a problem domain about the future of that domain*" and identifies five features critical to the process:

1. The stakeholders are interdependent
2. Solutions emerge by dealing constructively with differences
3. Joint ownership of decisions is involved
4. Stakeholders assume collective responsibility for the future direction of the domain
5. Collaboration is an emergent process

Gray (1989), who used negotiated order to examine examples of collaboration in their work, helped shape the researcher perspective on the collaborative arrangements as an "emergent process", part of the motivation for using negotiated order within their theoretical foundation (as discussed in **Chapter 3, Section 3.3**) and part of the process in determining whether the UK IEM used an approach to collaboration as a problem solving exercise or a shared vision process, and this was determined within **Section 2.6** that the shared vision of the UK IEM is towards the concept of "resilience" outside of response.

2.4.4. Command and control

Command and control arrangements describe who is in charge and what hierarchical options are available and typically used. It is a form of organisation designed to ensure that direction and execution of orders is as fast as possible during incidents. Such arrangements are formal structures, typically laid out in disaster management related laws or acts and describe the decision-making process. The 'command' is said to describe "vertical authority gradients", whereas the 'control' describes the "horizontal authority gradients" within the responders (see Alexander, 2002; Rubin and Dahlberg, 2017).

Command and control represent traditional, centralised disaster management, but they have, however, been recognised as weakly equipped to handle the "uncertainty, complexity and variability of disasters" (Wisner *et al*, 2003; Rubin and Dahlberg, 2017). It is not possible to micro-manage actions where so many stakeholders are involved, and the complexity introduced by situations being in a constant state of flux or evolution. The "truth" is simply what is known at a given moment and decisions must be made irrespective of the veracity of the available information. Command and control systems are therefore usually flexible and more informal in disaster management systems. Therefore, while the core concept of centralised command and control, hierarchies, leads, and such exist, they operate within a formalised structure that typically describe the division of levels of command with organisational structures, general guidelines and best practice and outlines

only the overarching roles and responsibilities of each, rather than detailed instructions or strict central oversight arrangements (Alexander, 2005; Clarke and Dercon, 2016; Penandex, 2017). This decentralised and significant autonomy, however, means that effective multi-agency work requires investment channels of coordination or communication, developing shared awareness, and training in inter-organisational work to be effective which is discussed further in **Section 2.4.6**. Leadership and authority within collaborative activity is another issue that many authors raise (see for instance Plowman *et* al, 2007; Uhl-Bien *et* al, 2007; Koschmann & Burk, 2016; Uhr, 2017; Kalkman *et al*, 2018). This is a consideration that becomes further complicated given the range of stakeholders and agendas within a disaster scenario, and there is the risk of stakeholder exclusion for these activities. As Johanssen *et al* (2018) note in their study of volunteer inclusion within official disaster response, a particular subset of stakeholder most likely to have difficulty falling within the official response, the volunteer organisational affiliation is often their primary source of legitimacy, with unaffiliated volunteers having many more barriers to collaboration with professional responders.

Additionally, command and control arrangements are ones necessitated by the on-the-ground response required in managing disasters and fall within the "response" stage of the disaster management cycle. When proceeding up the levels of command and moving into different stages of disaster management cycle, even this level of command and control becomes obscure. At a planning stage, where senior representatives of different organisations are present, direct coordination and control is neither appropriate nor feasible. In this light, rather than command and control, it is collaboration between the many agencies that is now seen as vital for effective disaster management.

2.4.5. "Order" within organisations

"Order" as a concept within an organisation describes the hierarchical arrangements within it, within which various authors capture the concept of "formal" and "informal" order within organisations (see for example Osborn and Hunt, 2007; Diefenbach, &

Sillince; 2011; and Child 2015). For instance, taking in their textbook, Child (2015, pg. 11) describes basic organisational choices, which include hierarchy levels or layers, which may be tall or flat, having authority which is either centralized or decentralized. Other choices such reporting lines, which may be single or multiple, involve the presence of mixed team, specialised roles, or general roles within hierarchies. Child (2015) also lays out organisations wherein roles may have either "clear" or "fuzzy" definitions, with varying job autonomies and rules and schedules. Bureaucracy is an added element that exists parallel to these organisational choices, and **Table 2.6** below summarises some of the key issues noted by Child (2015).

Table 2.6 Dimensions of classical organisation theory and bureaucracy (Child, 2015, pg. 32)

Dimensions	Classical organisation theory	Bureaucracy
Specialisation	Division of labour according to specific function	Designated roles and "offices" Horizontal specialisation (job positions & departments); Vertical specialisations (hierarchical levels)
Hierarchy	Clear vertical lines of authority; authority to correspond to the responsibilities of each position	Clearly defined formal hierarchy based on officially assigned responsibilities and authority
Control	Control by hierarchical superiors through unity of command	Insistence on following codes and rules – "bureaucratic control" through "formalisation"
Coordination	Achieved primarily by managers with limited spans of control	Through adherence to rules and procedures; also through formal committees

These are all complex factors that literature on organisation structure and behaviour tend to explore. **Table 2.6** also introduces the idea of "formal" arrangements. Informal arrangements on the other hand, refer typically to non-binding agreements i.e., are not legally enforceable and there also exists within organisations informal organisational structures, organisations which exist without written guidelines for operation, but are instead based on systems and norms developed by its members,

leading to an absence of formal and written rules, procedures, or chain of command. Informal organisational structures tend to develop within formal organisations through day-to-day interactions and interpersonal relationships. They are important because they allow members to build strong bonds, increasing cohesion and collaboration. Informal structures may also provide effective lines of communication, allowing members to stay informed and have more control over their environment. In a more general sense, informal structures provide opportunities for social interaction, which help satisfy members' social needs and boosts their morale, leading to better performance (Child, 2015).

This section highlights the complicated nature of just a single organisation due to varying choices in hierarchies, specialisations, degrees of bureaucracy to name a few in considering organisational behaviour. The significance of "order" and the consideration of informal and formal arrangements within this study is due heavily to the multi-agency nature of the collaborative arrangements being considered in the UK IEM, which understandably increases the complexity of the order within the system.

2.4.6. The role of documents within this collaboration

Effective communication, coordination, training, and resource management are all essential elements of multi-agency working, which face many challenges if agencies involved fail to work together effectively and efficiently and coordinate their efforts to respond to emergencies. The limitations of command and control discussed prior, and the decision-making process in traditional models in within the disaster management system show the vital need for collaboration. Aside from issues in command and control, many other issues have been identified in current collaboration efforts in disaster management; from shortcomings in the training of stakeholders to engage in collaborative practices; to issues in existing policy and its implementation; as well as in implementing changes to policy (Smith et al, 1999; Alexander, 2003; Janssen et al, 2010; Kim, 2014; Sebillo et al, 2016, Connon,

2017). There is also a divergence of practice and from good or best practice, in particular with capturing and applying 'lessons learned' (Kim, 2014).

In the UK, collaboration is required by law between different agencies involved in emergency management by the Civil Contingencies Act (2004), but despite this legal requirement, collaborative arrangements still face many challenges in the UK. Some major findings of the Pollock Review (2013) which assessed issues of interoperability in the UK included identification of challenges with initial command, control and coordination activities on arrival at scene; the need for common joint operational and command procedures; the challenges in identifying those in charge at the scene and the resulting delays in planning response activity as a result; the lack of clarity for services in the role of others, especially specialist resources and the reasons for their deployment; as well as misunderstandings when sharing incident information; and differing risk thresholds between services. Initiating collaborative arrangements takes time and the uncertainty involved in incidents complicates such action. For instance, JESIP (2016, pg.8) notes that "*During the early stages of an incident it takes time for operational structures, resources and protocols to be put in place. This is likely to put initial responders and control rooms under considerable pressure. All the required information may not be available, and commanders may have insufficient resources to deal with the incident.*"

An emergency plan is a document or collection of documents that sets out the overall framework for the initiation, management, co-ordination and control of personnel and assets to reduce, control or mitigate the effects of an emergency (Cabinet Office, 2013a). A plan is a **written record** of agreed future actions intended to be taken to prevent an emergency, or to respond to a disaster or emergency. Emergency plans play a crucial role in preparing all the relevant agencies by providing structure to the collaborative effort. They offer a comprehensive reference document to those involved in an emergency and should provide a platform for changes in making decisions in a chaotic situation. "*Emergency Preparedness*" guidelines (Cabinet Office, 2012a) note that plans should not be considered as final products, given the need to update such documents.

Effective communication is essential to sustaining an integrated response (Berlin and Carlstrom, 2011 and 2015; Bearman *et al*, 2015). The failure to communicate effectively can occur due to various reasons such as technical aspects of communication, the lack of common terminology used between organisations, and restrictions on information sharing or even differing perspectives and organisational culture (Pollock, 2013; Holgersson and Strandh, 2016). It is essential to anticipate and define information needs and establish information sharing agreements to enable broadcast or dissemination. Coordination is a major challenge among the individuals, groups, and agencies that respond to a disaster. Lack of coordination between agencies is one of the significant problems noted in post-disaster inquiries. Overlapping responsibilities and unclear delineation of tasks and actions required can arise if too many organisations are integrated into a network (Larson, 2017). Each group has its priorities, and separate resources are used to address each problem. Multi-agency working involves mobilising local response capacities to achieve a coordinated effort in emergency management activities. This involves ensuring that there are adequate resources such as equipment, supplies, and personnel available to respond to the emergency. It is important to ensure that resources are allocated effectively and efficiently, and that they are used in the most appropriate way possible. This involves coordinating the efforts of different agencies to ensure that resources are used effectively and efficiently, that there is an equitable distribution of resources that may be of limited availability and competed for.

Documents form the common ground and inform the multitude of stakeholders their roles and responsibilities, and lay out the formal structures, as well as command and control arrangements. The value of documents is apparent, for instance, a considerable issue with introducing new stakeholders, or engaging current stakeholders better, to the collaborative process is the time required to develop a shared awareness and common ground to effectively collaborate (Geisler, 2001; Alexander, 2003; Alexander, 2005; D'Adderio, 2011; Fominykh *et* al, 2016; Penadés *et al*, 2017). This often involves either long periods necessary to passively gain

familiarity through participation, or intensive active training (Smith *et* al, 1999; Sinclair *et al,* 2012; Warring *et al*, 2021). In this regard documents are an intermediate option, wherein a well drafted document for example lays out the roles and responsibilities of stakeholders, allows for a common ground and shared awareness, to name a few**.** Not just the central government, but local authorities and large infrastructure facilities also produce their own policies, plans and guidance. In addition to these, academic publications related to these policies and practices are present. The impact of reports and reviews of practice (e.g., Pollock review (2013), the Pitt review (2007), the Kerslake report (2017)) review) may have noticeable impacts on national or local policy. Of these examples, documents are usually seen as "**passive**", except with some notable exceptions such as the M/ETHANE document in the UK, whereas activities in support such as training, etc are viewed as "**active**" (JESIP, 2016; JESIP, 2022). However, testing of existing plans and polices, as well as training exercise, usually occur as desktop assessment, and documents are used in such instances as a key or even primary tools.

2.5. The UK Integrated Emergency Management system

The UK uses the Integrated Emergency Management (IEM) model for its disaster management system purposes. Integrated emergency management is described as a multi-agency approach to emergency management entailing six key activities and following 8 guiding principles (see Cabinet Office 2012a and 2013a). These six key activities are anticipation, assessment, prevention, preparation, response and recovery, as show below in **Figure 2.7**.
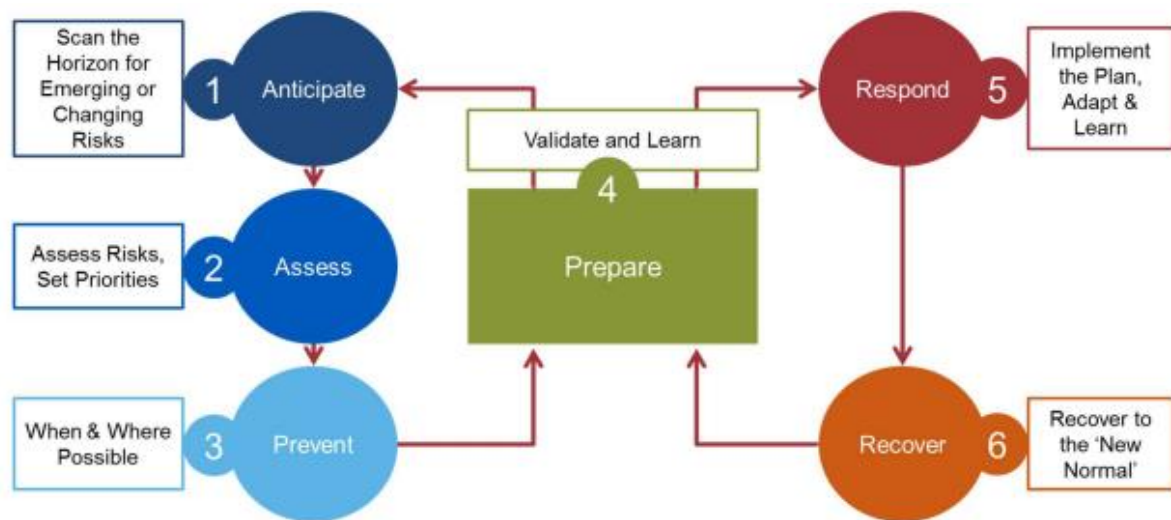
Figure 2.7 The UK Integrated Emergency Management Model (Leigh, 2019)

This is not an official model of the 6 steps with the UK IEM, as this neither from the statutory nor the non-statutory guidance of the CCA (2004), but rather from the Emergency Planning College. Other organisational documents describe the 6 steps as a circular flow similar to the disaster management cycles presented in the previous section. Regardless of how they are visualised, the 6 steps within the UK IEM follow this general trend of pre- and post-disaster phases. From Leigh's (2019) representation of the UK IEM, the "New Normal" within recovery was also not a concept that the original "*Emergency preparedness*" (Cabinet Office, 2012a) makes reference to, given ideas such as "build back better" and hysteresis were not as well

established at the time, as discussed subsequently in **Section 2.6.1** on the evolution of disaster management.

The stakeholders in the different stages of the UK IEM can vary broadly. The first 4 stages represent the concept of "peacetime" operations within an LRF, whereas "response" has more formally established collaborative arrangements that coming into effect, and "recovery" is typically a local authority led initiative, which is discussed shortly in **Section 2.5.7**.

In addition to the 6 steps within the UK IEM system are **8 guiding principles** for the successful action of these phases. These guiding principles laid out in the "Emergency response and recovery" guidance (Cabinet Office, 2013a) and are presented in **Table 2.7** and are noted as being intended for all levels of response and recover – local to national.

Table 2.7 Principles of effective response and recovery (Cabinet Office, 2013a, pg. 14-15)

Principle	Description
Anticipation	Ongoing risk identification and analysis is essential to the anticipation and management of the direct, indirect and interdependent consequences of emergencies.
Preparedness	All organisations and individuals that might have a role to play in emergency response and recovery should be properly prepared and be clear about their roles and responsibilities.
Subsidiarity	Decisions should be taken at the lowest appropriate level, with co-ordination at the highest necessary level. Local agencies are the building blocks of the response to and recovery from an emergency of any scale.
Direction	Clarity of purpose comes from a strategic aim and supporting objectives that are agreed, understood and sustained by all involved. This will enable the prioritisation and focus of the response and recovery effort.
Information	Information is critical to emergency response and recovery and the collation, assessment, verification and dissemination of information must be underpinned by appropriate information management systems. These systems need to support single and multi-agency decision making and the external provision of information that will

	allow members of the public to make informed decisions to ensure their safety.
Integration	Effective co-ordination should be exercised between and within organisations and levels (i.e., local and national) in order to produce a coherent, integrated effort.
Co-operation	Flexibility and effectiveness depends on positive engagement and information sharing between all agencies and at all levels.
Continuity	Emergency response and recovery should be grounded in the existing functions of organisations and familiar ways of working, albeit on a larger scale, to a faster tempo and in more testing circumstances.

The principle of subsidiarity, highlighted within the table, is one that plays prominence in this research study particularly, as this principle introduces much variation in the implementation of collaborative arrangements and the local documentary support structures examined within the study. It can be seen also that the guiding principles themselves call for collaborative work between the stakeholders, which is discussed in detail after a consideration of the actual duties placed upon stakeholders within the UK IEM by the CCA (2004).

2.5.1. The duties identified in the CCA (2004)

The CCA is separated into 2 substantive parts: local arrangements for civil protection (Part 1); and emergency powers (Part 2), which was briefly discussed prior. The 2017 Post implementations review of CCA, and its Regulations summarised its key provisions as being:

- *the definition of "Emergency"*
- *the duties on the organisations covered by the CCA to assess risks, to maintain plans in the event that an emergency occurs, and to maintain arrangements to advise and warn the public*
- *requirements on organisations covered by the CCA to put in place business continuity management arrangements*

- *provisions to reflect the various devolution settlements (the CCA applies to the whole of the UK)*
- *ministerial powers to monitor and enforce the CCA's provisions*
- *powers of ministers to make urgent orders in certain circumstances;*
- *regulation-making powers; and*
- *lists of the Category 1 ("core") and Category 2 ("cooperating") responders to whom provisions in the CCA apply.*

<div align="right">Cabinet Office (2017b)</div>

The duties as laid out within the CCA (2004), its Regulations (2005) and statutory guidance can be summarised as:

- the requirement to cooperate in a 'local resilience forum' (England & Wales) (and equivalent provisions for Scotland), including the ability to identify lead responsibilities amongst responders
- the duty of responders to **jointly** assess risk, and to publish a "Community Risk Register" to inform emergency planning
- the duty to prepare and maintain emergency plans, and include arrangements for the training and exercising of these plans, and develop organisation business continuity for services during emergencies
- a requirement to publish risk assessments and plans, and to have regard to the importance of not alarming the public unnecessarily
- the duty to put in place arrangements for warning and informing the public in the event of an emergency, and provide advise therein
- a duty on Local Authorities to make arrangements for the provision of advice and assistance to the public, particularly local businesses, on business continuity
- a duty to cooperate with other responders, specifically for information sharing
- Particular arrangements for Scotland, London and Northern Ireland
- the obligation to carry out a review of the regulations
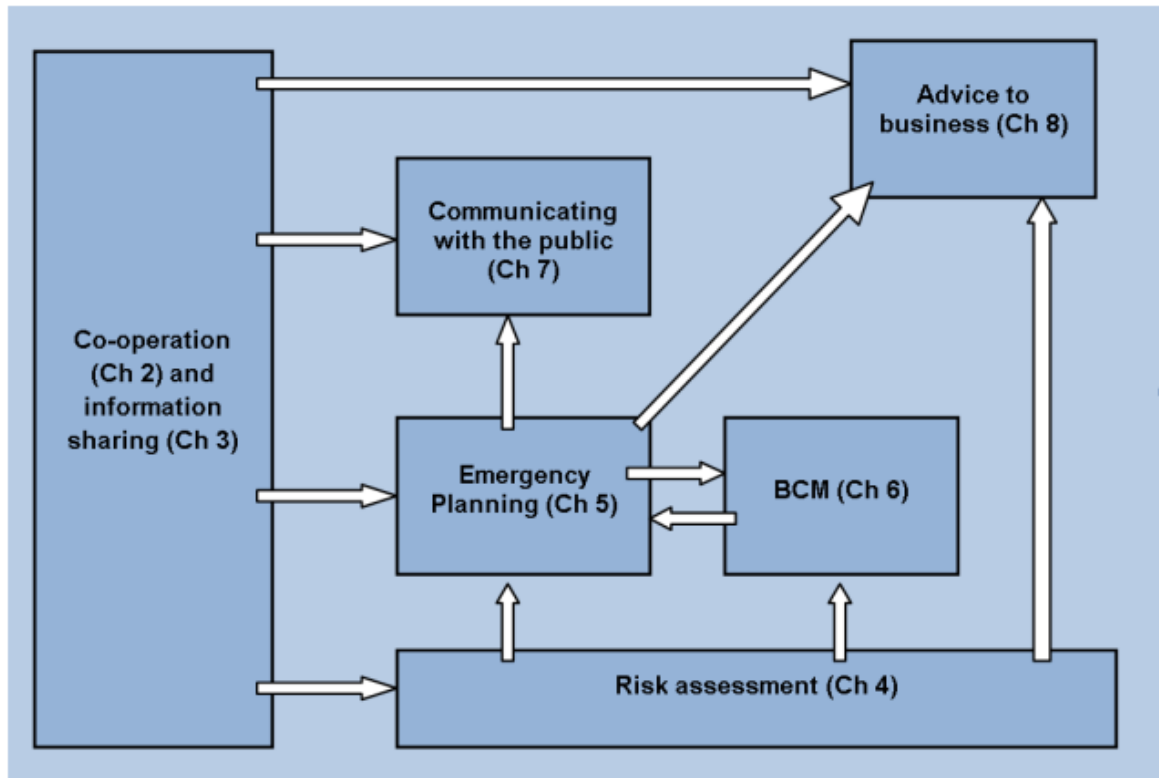
Figure 2.8 "How the seven civil protection duties under the Act and the Regulations fit together" (Cabinet Office, 2013a, "Emergency Preparedness", Chapter 1, pg. 11)

These duties are placed upon identified Category 1 responders within Schedule 1 of the CCA (2004), and these stakeholders are discussed in detail in **Section 2.5.3**. The way the CCA (2004) and its Regulations (2005) are written position the UK in such a manner that as noted by Anderson and Adey (2012) "*Treating events as both generic and singular, UK Civil Contingencies revolves around a state of preparing for emergencies' and a 'state of responding in emergency', alongside the sovereign ability to proclaim a 'state of emergency'*".

2.5.2. Duty to produce local plans

Section 2.4.6 discussed the concept of emergency plans. The creation of such plans fulfils the legal obligation of local government from the CCA. With the assessment of risk moving down from the national to the local level, comes a duty to not just **jointly** assess risks, but also a joint duty to local responders and government to produce emergency plans. This is a statutory duty under the Civil Contingencies Act (2004, Section 2, *Contingency planning*) to "assess, plan and advise". The relevant sections of interest are presented below, and the pertinent sections highlighted:

2. Duty to assess, plan and advise

   (1) A person or body listed in Part 1 or 2 of Schedule 1 shall—

      *(a) from time to time **assess the risk** of an emergency occurring,*

      …

      *(d) **maintain plans** for the purpose of ensuring that if an emergency occurs or is likely to occur the person or body is able to perform his or its functions so far as necessary or desirable for the purpose of—*

         (i) preventing the emergency,

         (ii) reducing, controlling or mitigating its effects, or

         (iii) taking other action in connection with it,

      …

      *(f) **arrange for the publication** of all or part of assessments made and plans maintained under paragraphs (a) to (d) in so far as publication is necessary or desirable for the purpose of—*

         (i) preventing an emergency,

         (ii) reducing, controlling or mitigating the effects of an emergency, or

         (iii) enabling other action to be taken in connection with an emergency, and,

> *(g) **maintain arrangements to warn the public**, and to provide information and advice to the public, if an emergency is likely to occur or has occurred.*

<div align="right">Civil Contingencies Act, 2004, Part 1, Section 2</div>

The persons and bodies listed in Part 1 of Schedule 1[2] being the whole of the identified Category 1 responders. This section of the CCA (2004) is the legislative impetus for the collaborative activity seen within the LRFs. The particular interest of this study lies in documentary support structures that aid in this, and in exploring the local documentary structures that result as a consequence of this legislation.

Contents of a typical plan may include:
- Risk and consequence assessment
- Alerting and mobilising procedures
- Resources required
- Roles and responsibilities of responding organisations and personnel
- Incident management structures and processes
- Communication
- Strategies, tactics and operational responses
- Public Information

Earlier, in **Section 2.4.6** a clear and evident importance in the role of emergency plans was shown. This section meanwhile introduced the UK IEM, making use of make national guidance documents to set the context. However, the question of how well the national guidance supports these collaborative actions and the development of local plans and documents is one this research seeks to explore.

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[2] Part 2 of Schedule 1 refers to the Category 1 responders in the devolved administrations of Scotland and Wales

The next section elaborates on Local resilience forums (LRFs) in the UK IEM, the collaborative platform through which the stakeholders discussed here in carry out the duties laid out in the CCA (2004) and its Regulations (2005).

2.5.3. Local Resilience Forums

Adey and Anderson (2011) note that before the Civil Contingencies Act of 2004, although co-operation between responders such as police, fire, and ambulance, was practised, this was as an informal process as matter of routine and necessity. When the Act came into force, these organisations, referred to now as Category 1 and 2 Responders, were given a statutory duty to plan for emergencies and co-operate with each other, along with the other duties discussed previously. Nevertheless, **Local resilience forums (LRFs) are not legal entities,** nor do they have powers to direct its members. It is <u>not</u> a *statutory body*, but rather a *statutory process* (Cabinet Office, 2013c).

While the LRF represents the Category 1 and 2 responders and is the collaborative platform for multi-agency work in the UK IEM, officially, the existence of the LRF itself is less clear. The forum itself is only required to meet *at least once every six months*, as per the CCA (2004) to carry out its duties. This is an extremely infrequent requirement, particularly given the numerous duties placed upon the responding organisations (as seen in **Section 2.5.2**). However, the CCA (2004) places these duties upon the senior most authorities within each organisation, for example, the Chief of Police and Fire, the Chief Executive within the respective Local authorities, and so on. It is therefore by placing the accountability of carrying out these duties at the highest level of the identified organisations that the LRF as an entity exists, through the subsequent delegation of these roles to emergency planners and experts within their organisations by these senior representatives, rather than as an independent body. The LRFs is also the "peacetime" collaborative platform, encompassing the first four phases anticipation, assessment, prevention, and preparation. During response, a range of other collaborative groups composed of members from the LRF form, which are discussed in **Section 2.5.7**.

The geographical distribution of the 38 LRFs with England, across its 9 regions are shown below in **Figure 2.9.**

Cleveland, Durham & Darlington, Northumbria

Humber, North Yorkshire, South Yorkshire, West Yorkshire

Cheshire, Cumbria, Greater Manchester, Lancashire, Merseyside

Derby & Derbyshire, Leicestershire, Lincolnshire, Northamptonshire, Nottinghamshire

Staffordshire, Warwickshire, West Mercia, West Midlands

Bedfordshire & Luton, Cambridgeshire & Peterborough, Essex, Hertfordshire, Norfolk, Suffolk

Avon & Somerset, Dorset, Devon, Cornwall & IoS, Gloucestershire, Wiltshire & Swindon

London

Hampshire & IoW, Kent, Surrey, Sussex, Thames Valley

Figure 2.9 Geography of 38 LRFs in England by region

2.5.4. The stakeholders within the UK IEM

This section outlines the roles and responsibilities of the main agencies and sectors that are likely to become engaged in disaster management at a local level.

The Civil Contingency Act (CCA) divides responders into two key groups: **Category 1** responders and **Category 2** responders. **Table 2.8** lists the functions of some of the key Category 1 responders taken from statutory guidance published in "*Emergency response and recovery*" (Cabinet Office, 2013a).

Table 2.8 Function of key Category 1 responders (Cabinet office, 2013a)

Police services: The police typically co-ordinate the activities of the other responders, whilst ensuring that the scene is preserved and evidence safeguarded – particularly where terrorism is suspected. They arrange for any victims to be removed from the area, acting on behalf of HM Coroners in the case of deaths, and, if necessary, coordinate search activities.

Fire and rescue services: The main role of the fire and rescue services in an emergency is the rescue of citizens trapped by fire or wreckage. They are also responsible for extinguishing fires and taking protective measures to prevent the fire from spreading. Moreover, they assist other agencies, such as the ambulance service and the police, in the removal of bodies and, where exposure to chemicals is involved, decontamination.

Ambulance services: As part of the National Health Service (NHS) the ambulance service is responsible for on-site response to short or sudden emergencies, as well as taking the victims to different hospitals, depending on priority and the types and numbers of the injured.

Local Authorities (LAs): The local authority structure in England consists of two tiers: single-tier and two-tier. Local authorities play a critical role in civil protection. They have a wide range of functions that are likely to be called upon in support of the emergency services during emergency response and recovery. Local authorities collaborate with a range of bodies to support emergency services during emergency response and recovery from disaster. Their services may include the provision of shelters, medical support and long-term survivor welfare. The local authority will play an enabling role in close

collaboration with a wide range of bodies which are not routinely involved in emergency response. Local authorities should consider and plan for the roles of both officers and elected members in emergency response and recovery.

Environment Agency (EA): The EA is the leading public body for protecting and improving the environment in England. The EA's main priorities, during the response and recovery phases are to:

- prevent or minimise the impact of the incident;
- investigate the cause of the incident and consider enforcement action; and
- seek remediation, clean-up or restoration of the environment

Other Category 1 responders identified in the CCA (2004) include:

- Maritime and Coastguard Agency
- Acute Trusts and Foundation Trusts
- Primary and community care services
- Primary Care Trusts
- The Health Protection Agency
- Port health authorities

Category 2 governmental responders identified in the CCA (2004) include:

- The Highways Agency
- Strategic Health Authorities (SHAs) in England
- The Health and Safety Executive (HSE)

The Category 2 Responders also contain non-public bodies, such as utilities, telecommunications and transport providers who are private sector organisations that play an important role, despite not regularly involved in emergency response and recovery. They include:

- Gas and electricity transmitters and distributors
- Fixed and mobile telecommunications' providers
- Water and sewerage services, and
- A range of transport companies

Of the key stakeholders noted, the Armed Forces <u>do not</u> fall within the Category 1 or 2 responder classification, given that the CCA describes *local* civil protection duties, and the activation of armed forces occurs through central government, however as Head (2010) argues "*current government and military policy assumes that considerable powers exist to mobilise armed troops internally to deal with a variety of threats to "public safety" or "order"",* as discussed in **Section 2.2.3** in the concerns surrounding emergency powers. The voluntary sector and the community, despite being key stakeholders are also not part of the identified stakeholders, however guidance on working with these stakeholders is included in the "*Emergency preparedness*" documents (Cabinet Office, 2012a). The private sector is additionally limited to utilities and transport providers in the Category 2 responders, and do not include the wider business community for example.

Although most incidents have no direct involvement by central government and are handled by Category 1 and 2 responders, where there such a need, this is undertaken through the established concept of Lead Government Departments (LGD). For both emergency response and recovery there is a predesignated list of departments that would take this role where necessary. A comprehensive list of these departments based on the type of disaster and their role as such is published by Cabinet Office (Civil Contingencies Secretariat 2004; Cabinet Office, 2010b). Other terminology also exists, which can cause misrepresentation. For instance, "emergency services" is more generally used to describe the police, fire and rescue, and NHS ambulance services, who are Category 1 responders. Meanwhile, "Blue light services", identify any "emergency vehicle" by their ability to use sirens in the course of their duties by the Road Vehicles Lighting Regulations 1989, including the emergency services, but also services such as Fire Salvage Service, NHS Blood and Transplant Services, Bomb/Explosive Disposal (Military), RNLI (for launching life boats), Mines Rescue Services, RAF Mountain Rescue, the Forestry Commission (for firefighting functions) and the HM Coastguard and the Coastguard Auxiliary service. The major stakeholders as such are summarised in **Figure 2.10**.

"Blue light" or emergency services

| Police | Fire | Ambulance |

National bodies

Local Authority

Lead Government Department

Environment Agency

Public Health England

Local Resilience Forum

Public and Private entities

Utilities

Transport

Media

Military

Voluntary Sector

Stakeholders outside of Category 1 and 2 responders

Health & Safety Exec   Highways Agency

National bodies

Cat 1 responders
Cat 2 responders
Other stakeholders

Figure 2.10 The LRF composition: key Category 1 and 2 responders under the Civil Contingencies Act (2004) and its Regulations (2005)

2.5.5. Local government in England

In the previous section, the typical stakeholders within LRFs were presented, of which Local authorities are a key Category 1 responder. However, of all the stakeholders, local governance is perhaps one of the more complicated ones. Understanding how local governance works in England and the UK is important to contextualise the local documentary structures this study intends to examine, which is done in this section.

Local government in the England can be compromised of three tiers: county (upper tier) and district (lower tier) or a unitary, single tier council. Where the local government is divided between a county and district council, they are responsible for different services (LGIU, n.d.; Ministry of Housing, Communities & Local Government, 2019).

Over the period of the study, changes to the structure of the local authorities in England were seen given a national government shift towards the consolidation of lower tier local authorities into Unitaries (LGIU, n.d). The change in local government structure during the study period is show in **Table 2.9** below. Even with the consolidations, there remain over 300 local authorities of varying tiers that are to be represented within the 38 LRFs in England. There are also around 11,000 local councils in the UK, including town, parish, community, neighbourhood and village councils, however they are not considered within the scope of this research study (LGIU, n.d.).

Table 2.9 Local government by tier in England (LGA, n.d.)

Tier of Local government (England)	2019	2022
County Councils (upper tier)	27	24
District, Borough or City Councils (lower tier)	201	181
London Boroughs (unitary)	32	33

Metropolitan Boroughs (unitary)	36	36
Unitary authorities (unitary)	55	59
Sui Generis authorities – City of London Corporation and Isles of Scilly (unitary)	2	2
Total	**353**	**339**

In Scotland, Wales and Northern Ireland (which are outside the study scope) there are only unitary, single tier councils. Respectively, Scotland has 32 Unitary authorities, Wales 22, and Norther Ireland has 11.

In addition to the local government tiers, since the establishment of Greater Manchester in 2011, clusters of councils have formed **combined authorities** in some areas of England. These combined authorities receive additional powers and funding from central government and are particularly important for transport and economic policy across the regions in which they are based. There are currently 10 combined authorities in England (LGIU, n.d.), namely Cambridgeshire and Peterborough, Greater Manchester, Liverpool City Region, North of Tyne, South Yorkshire, Tees Valley, West Midlands, West of England, West Yorkshire.

> *"A combined authority (CA) is a legal body set up using national legislation that enables a group of two or more councils to collaborate and take /collective decisions across council boundaries. It is far more robust than an informal partnership or even a joint committee. The creation of a CA means that member councils can be more ambitious in their joint working and can take advantage of powers and resources devolved to them from national government. While established by Parliament, CAs are locally owned and have to be initiated and supported by the councils involved."*
>
> *LGA, n.d.*

This complex arrangement of local governance in England perhaps puts lie to the idea that emergency management is a structured approach in the UK, from the national down to local, as considered by Kahn and Barondess (2008), who reviewed the response matrices in the USA and UK.

2.5.6. Command and control within the UK IEM: Gold-Silver-Bronze

The central government concept of operations, also known as CONOPs (Cabinet Office, 2010b, Section 5) identifies three levels of command in local response to emergencies - bronze, silver, gold, and the following descriptions are extracted from this section.

Bronze denotes the operational level, "*where the management of the immediate work is undertaken at the emergency site(s) or other affected area. Personnel first on the scene will take immediate steps to assess the nature and extent of the problem and concentrate efforts and resources on the specific tasks within their area of responsibility. For example, police will concentrate on establishing cordons, maintaining security and managing traffic. Agencies retain control of resources and personnel deployed at the scene, but each agency must also liaise and co-ordinate with other agencies.*"

Silver denotes the tactical level of command, which ensures that the actions taken by bronze "*are co-ordinated, coherent and integrated to achieve maximum effectiveness and efficiency. Silver will usually comprise the most senior officers of each agency committed within the area of operations and will assume tactical command of the event or situation.*"

Gold denotes the strategic level of local emergency response management, whose purpose is to "*establish a framework to support officers operating at the tactical level of command by providing resources, prioritising demands from officers and determining plans for the return to normality*" (Cabinet Office, 2010b, Section 5).

Figure 2.11 represents these tiers in terms of a single agency arrangement. Looking at the stakeholders discussed previously, and the LRF itself, this tiered structure of Gold-Silver-Bronze, used sometime interchangeably with Strategic-Tactical-Operational layers of command is seen in individual Category 1 agencies and the LRF during peacetime as well, however the degree of clarity of these tiers outside of response is less well-defined outside of response. In the next section, some of the multi-agency groups that exist within response in the UK IEM are discussed, before considering what gaps in our understanding of these arrangements persist despite reference to published guidance and literature.
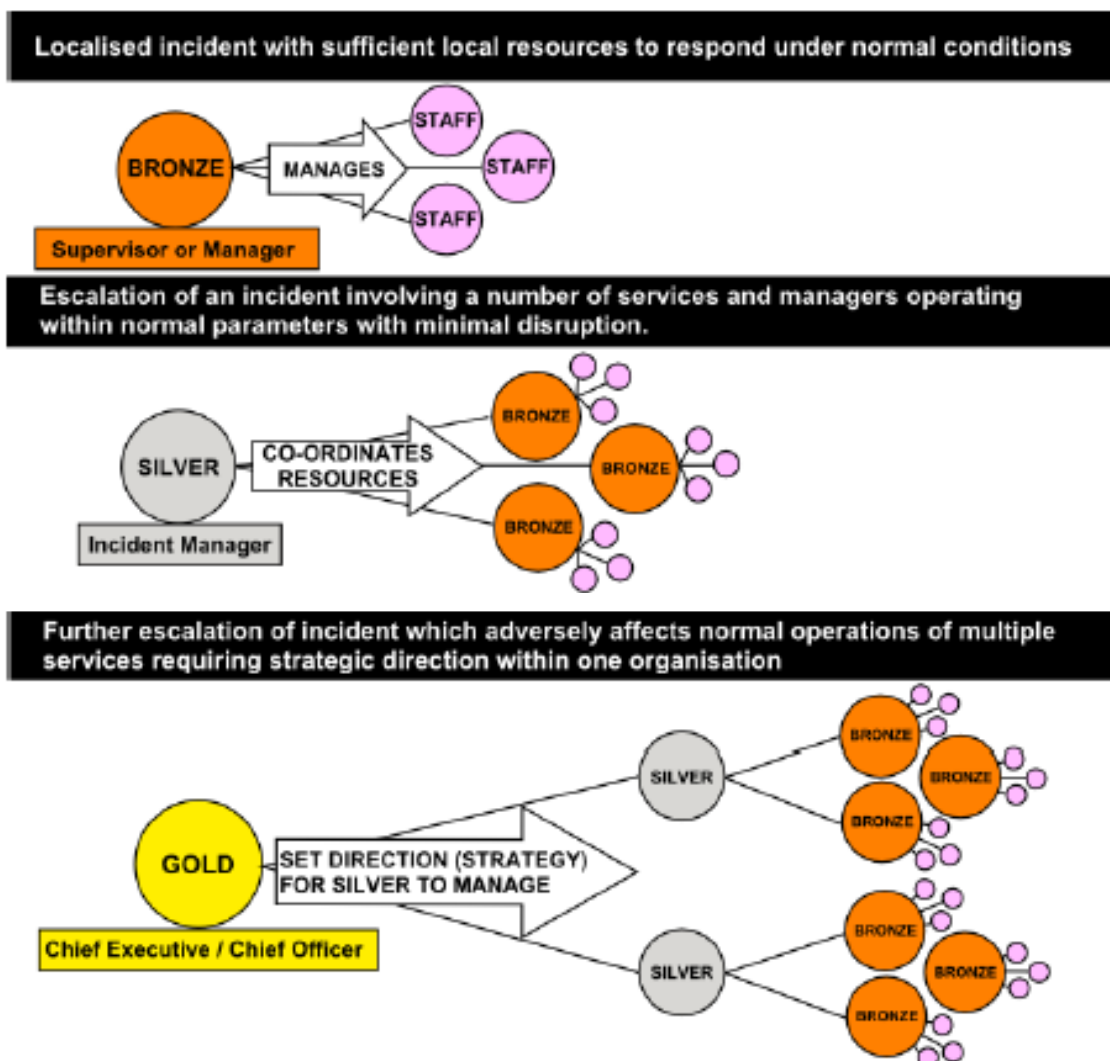
Figure 2.11 Gold-silver-bronze arrangements in the UK (Crawley Borough Council, 2013)

2.5.7. The multi-agency coordinating groups in the UK IEM

Multi-agency groups are assembled to co-ordinate the involved agencies' activities and, where appropriate, define strategy and objectives for the multi-agency response as a whole. Where multi-agency co-ordinating groups are established to define strategy and objectives, it is expected that all involved responder agencies will work in a directed and co-ordinated fashion in pursuit of those objectives (Cabinet Office, 2013a). A number of multi-agency groups are present at the local level – three during response, namely the Strategic Coordinating Groups (SCG), Tactical Coordinating Groups (TCG) and Operational Coordinating Groups (OCG); one for recovery called the Recovery Coordinating Group (RCG); as well as an advisory Scientific and Technical Advice Cell (STAC).

The Operational level indicates management of immediate or "hands-on" work at the site(s) of the emergency or other affected areas. Operational commanders concentrate their effort and resources on the specific tasks within their areas of responsibility. It is important note that single agency groups have the authority to exercise a command function over their own personnel and assets, *but no single responding agency has command authority over any other agencies' personnel or assets* (Cabinet office, 2013a). Single agencies are however required to liaise and co-ordinate with all other agencies involved, ensuring a coherent and integrated effort. Operational commanders are responsible for implementing the tactical commander's plan within their geographical area or functional area of responsibility.

A Tactical Co-ordinating Group (TCG) may be organised if formal co-ordination is required at the Tactical level. This typically includes the most senior officers of each agency committed within the area of operations and will undertake tactical co-ordination of the response to the event or situation. Working in co-ordination, the responder agencies' tactical commanders will according to Cabinet office (2013a, pg. 56):

- *determine priorities for allocating available resources;*
- *plan and co-ordinate how and when tasks will be undertaken;*

- *obtain additional resources if required;*

- *assess significant risks and use this to inform tasking of operational commanders; and*

- *ensure the health and safety of the public and personnel.*

The "Emergency response and recovery" guidance (Cabinet office, 2013a) further identifies the purpose of the SCG as to take overall responsibility for the multi-agency management of the emergency and to establish the policy and strategic framework within which lower tier command and co-ordinating groups will work. Per the guidance (Cabinet office, 2013a, pg.58) the SCG will:

- *determine and promulgate a clear strategic aim and objectives and review them regularly;*

- *establish a policy framework for the overall management of the event or situation;*

- *prioritise the requirements of the tactical tier and allocate personnel and resources accordingly;*

- *formulate and implement media-handling and public communication plans, potentially delegating this to one responding agency; and*

- *direct planning and operations beyond the immediate response in order to facilitate the recovery process.*

This is illustrated below in **Figure 2.12.**

Widespread emergency requiring multi agency strategic direction

STRATEGIC COORDINATING GROUP FORMED SCG

GOLD

GOLD

GOLD

STRATEGY SET IN PARTNERSHIP TO PRIORITISE AVAILABLE RESOURCES AND REDUCE EFFECTS OF THE EMERGENCY
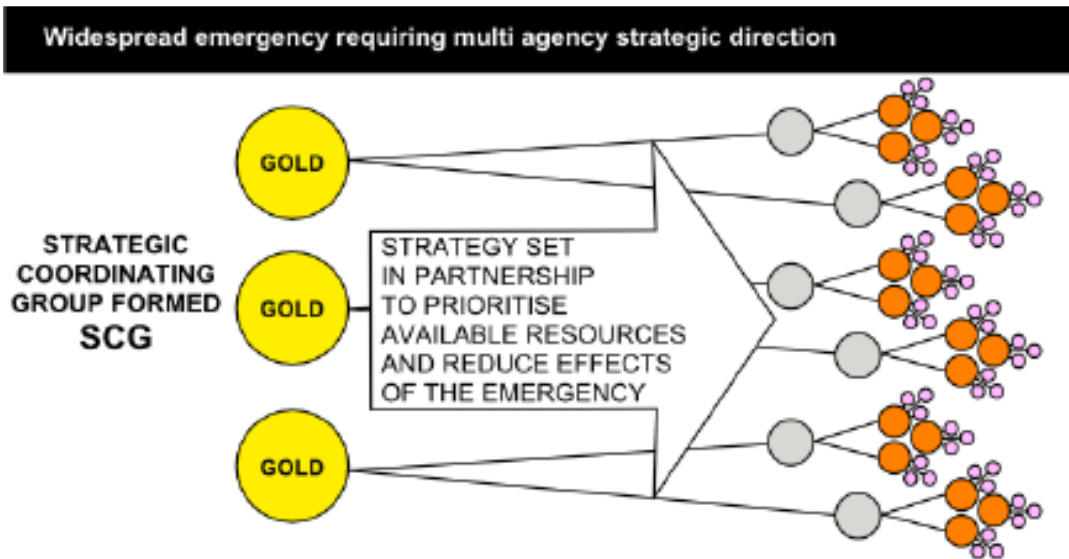
Figure 2.12 Strategic Coordinating Group (Crawley Borough Council, 2013)

The Emergency Response and Recovery guidance (Cabinet Office, 2013a) notes that even though Strategic Co-ordinating Group (SCG) may colloquially be referred to as "Gold Group", this is an ambiguous act. The same applies to referring to a Tactical Co-ordinating Group (TCG) simply as "Silver". This is because "Gold" and "Silver" describe single-agency levels of command and should clearly be distinguished from the multi-agency co-ordinating groups that exist at the corresponding level. Further, this guidance notes misleading references to SCG Chairs as "Gold Commander" – while the Police Gold Commander may also be a SCG Chair, in their capacity as SCH chair, they exercise a co-ordination function, not a command one.

Scientific and Technical Advice Cell (STAC)

The effective management of most emergencies will require access to specialist scientific and technical advice, for example regarding the public health or environmental implications of a release of toxic material, or the spread of a disease. For this purpose, establishing a Science and Technical Advice Cell (STAC) is advised by guidance (see Cabinet Office, 2007 and Cabinet Office, 2013a) to provide timely and co-ordinated advice on scientific and technical issues. The UK

Met Office, which is neither a Category 1 nor 2 responder, in fact falls within the category of STAC.

Recovery Coordinating Group (RCG)

A Recovery Co-ordinating Group (RCG) is typically activated by the local authority, frequently following a request by or agreement with the SCG, and reports to the SCG until the SCG stands down. The RCG's primary role during the response phase of an emergency is to develop a recovery strategy and inform the SCG of this strategy to ensure decisions made by the SCG do not compromise medium to long term recovery. Recovery mechanisms are outside the scope of this study, however, as stated in the introduction.

Cabinet Office Briefing Rooms (COBR)
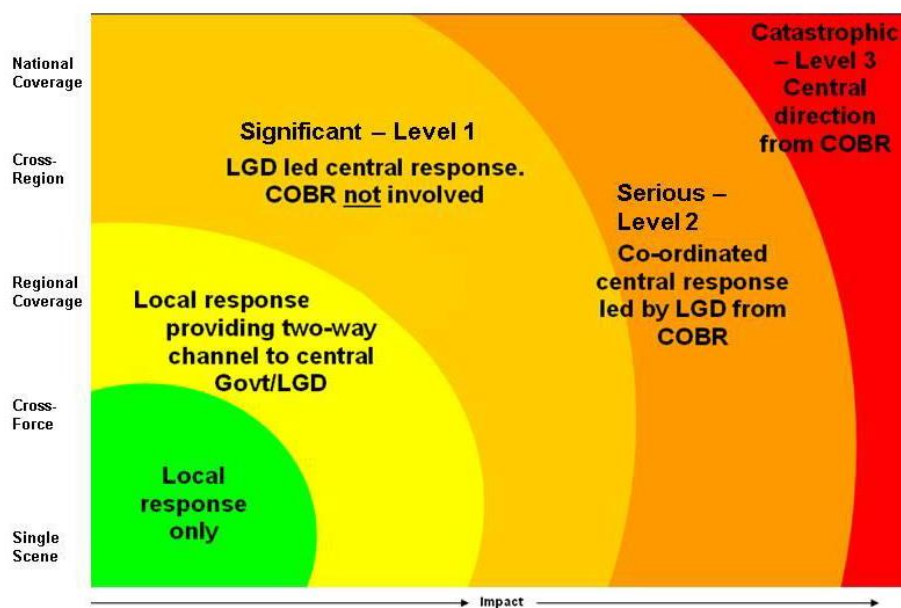
Figure 2.13 Escalation of response in the UK disaster management system (Cabinet Office, 2013a)

The Cabinet Office Briefing Rooms are activated for disasters where emergencies require central government action occur at higher levels of severity. This is a step

higher from the Lead Government Department (LGD) role during regional scale disasters, discussed previously. This level of response is outside the scope of this study, however the impact of documents or guidance released by this group is of consideration when it reaches the local level, particularly in terms of COVID guidance releases, which was an ongoing consideration during the research study. This is discussed further in later chapters.

2.5.8. Summary of collaborative units within the UK IEM

To summarise, an LRF establishes a Strategic Co-ordination Group (SCG) when there is a need for multi-agency collaboration to respond to an emergency. The SCG will then as soon as possible create a Recovery Co-ordination Group (RCG) to focus on the recovery phase. While the SCG concentrates on the immediate response, the RCG focuses on recovery, with the two groups communicating when required. When the SCG stands down, the RCG takes over until there is no longer a need for multi-agency collaboration in the recovery effort. The STAC can be part of the IEM process at any phase and is formed at the request of the other parties. Outside of local levels, the LGD may take part in any of the phases, or be involved with any of the groups, but they are only required to be present where the scale of the emergency is outside of local response only. COBR is only involved for serious (Level 2 or higher) incidents, and typically remains at the response stage only.

These groups, and the respective phases of the IEM in which they are involved, are summarised in **Table 2.10** below.

Table 2.10 Summary of collaborating units within the IEM phases

Phase of IEM	Multi-agency coordinating group at local level	Outside Local levels
Anticipation Assessment Prevention Preparation	Local Resilience Forum Scientific and Technical Advice Cell (STAC)	Civil Contingencies Secretariat, Lead Government Department (LGD)
Response	Strategic Coordinating Group (SCG) Tactical Coordinating Group (TCG) Operational Coordinating Group (OCG) STAC	LGD, Cabinet Office Briefing Rooms (COBR)
Recovery	Recover Coordinating Group STAC	LGD

Figure 2.1 below shows this single agency vs. multi-agency structures graphically.
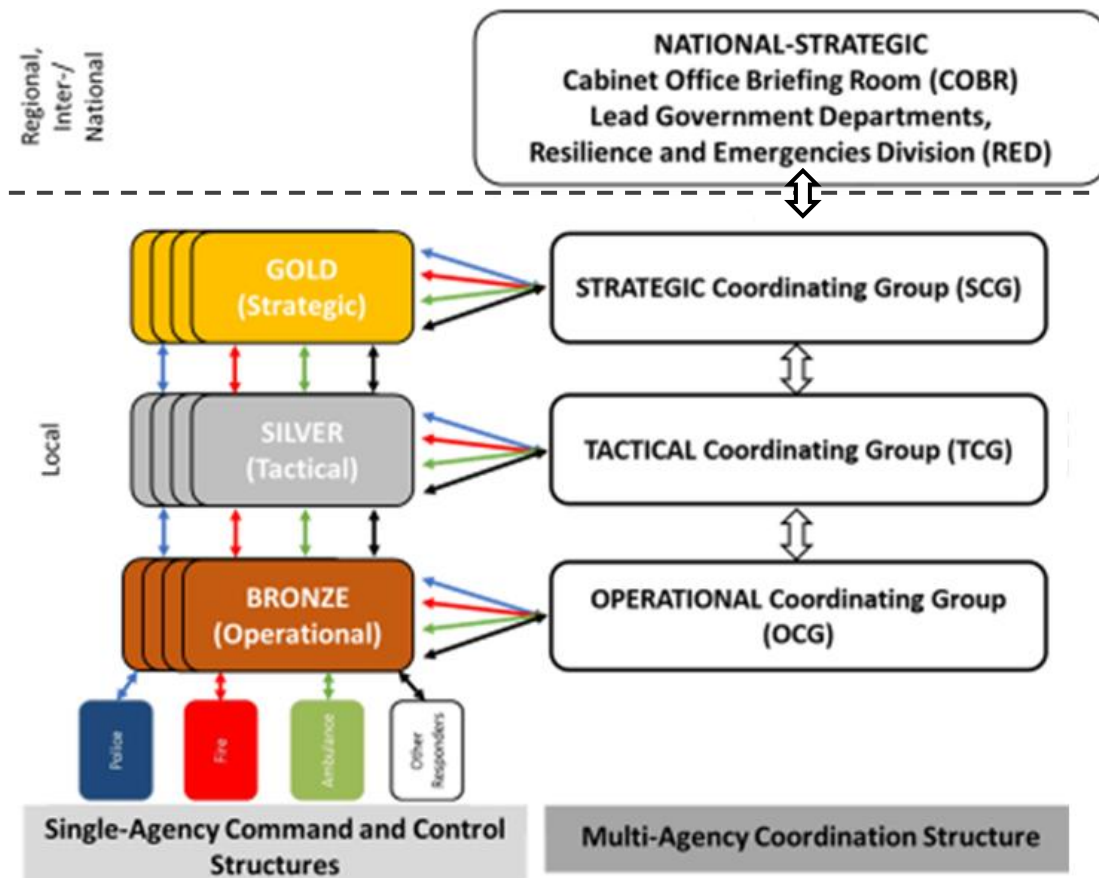
Figure 2.14 Single-agency vs. multi-agency tiers of command (Office of Mayor Greater Manchester, 2017)

The national guidance contains the formalised multi-agency coordinating groups that form in response, which were discussed here. These documents however only formalise the tiers of command (i.e., the gold-silver-bronze arrangement) and set out to develop common language, differentiating between command and control in response vs. peacetime command as strategic-tactical-operational. However, from these guidance documents the collaborative arrangements in practice at local level cannot be determined. In **Section 2.4.6,** the role of emergency plans was discussed, and it has been seen that in the UK IEM, through the principle of subsidiarity, much of the collaborative arrangements at the local level are devolved from national government. These localised arrangements are formalised through

the use of emergency plans, and it can therefore be seen that much of the resulting collaboration is formalised by arrangements at the local level, rather than mandated by national command and control protocols. Due to this, as a theoretical lens within the research study, *negotiated order* (see Strauss, 1978; Fine, 1984; Gray, 1989) is used extensively, which is detailed in **Chapter 3, Section 3.3.**

2.6. Collaboration and Resilience

2.6.1. Evolution of disaster management field towards resilience

The need for collaboration has arguably been underscored further by the development of "resilience" thinking in disaster management, which views the system as a holistic process in developing properties that would make systems more resistant to disasters or better able to recover from them (UNISDR, 2009). To understand the movement towards the development of resilience in the field of disaster management, a brief background into the advancement of disaster management policy, practice and science is beneficial.

The early period of disaster management consisted of a reactive process of response and recovery and focussed rather on the development of the response and recovery capacities and agencies is now perhaps take for granted (Alexander, 2002). Different countries reached these respective capacities at different times, often prompted by significant disaster events, which led for example to the establishment of agencies such as the fire service, constabulary, and the paramedics. As cities continued to develop however, the purely reactive nature of response and recovery became increasingly insufficient, leading to the study of risks, vulnerabilities, and hazard within systems. This step-up to response and recovery led to policies and practices aimed at identifying risk as a pathway built between a receptor and source, enhancing greatly with the development of the ability to quantify these risks. This period of development of risk assessment capacities, as well as forecasting and prediction, continues to the present day.

This was followed intuitively, perhaps, by the development of policy to reduce identified risks, and the increased prevalence of the term "disaster risk reduction" (DRR) and is generally the period during which coordinating bodies began to emerge to lead the disaster management process or the implementation of laws, such as building codes, land-use planning, early warning etc. began to increase in rigour. It is essentially about reducing the exposure to hazards and lessening vulnerability. The UN Office for Disaster Risk Reduction (UNDRR, 2019) defines

DRR as "the concept and practice of reducing disaster risks through systematic efforts to analyse and reduce the causal factors of disasters."

With increasing concern around the impact of disasters, however, the UN General Assembly declared 1990-1999 the International Decade for Natural Disaster Reduction (IDNDR), leading to the first international collaborative efforts to develop disaster risk reduction capacities are the worlds. In 1999, the first international body dedicated to disaster management formed, the United Nations International Strategy for Disaster Reduction (UNISDR), where this first international disaster risk reduction (DRR) frameworks were developed: the Yokohama Strategy and Plan of Action for a Safer World (1994); the Hyogo Framework for Action (2005-2015); and the Sendai Framework for Action (2015-2030) (UNISDR, 2007, 2015b). As such, the UNISDR coordinated international efforts in this field, producing regular reports on the progress of implementation of these frameworks (UNISDR, 2015a, 2015c). This is an interesting point because while individual countries can and do take their DRR policies further, these frameworks provide a baseline against which countries can be compared using the same indicators (UNISDR, 2016). While it is important to note that while International NGOs initiatives are not always successful (Ismail *et al¸* 2014*)*, these international perspectives, pressures and outcomes led to a global development of the field given such developments were key to the development of definitions, terminology, accepted standards and practice, capacities, capabilities, best practice.

Building upon lessons learned from the Yokohama Strategy and Plan of Action for a Safer World (2004), the Hyogo Framework (UNISDR, 2007) was a voluntary, non-binding agreement providing guidelines for the reduction of vulnerabilities to natural hazards, approved in 2005 by UN member states committed to reducing disaster risk, which first brought the concept of resilience into it. The agreement's key objective was to shift attention from post-disaster response towards more comprehensive approaches that included prevention and preparedness measures.

The framework listed five priority areas for action as:

1. Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation.
2. Identify, assess and monitor disaster risks and enhance early warning.
3. Use knowledge, innovation and education to build a culture of safety and resilience at all levels.
4. Reduce the underlying risk factors.
5. Strengthen disaster preparedness for effective response at all levels.

While its goals were not fully achieved, the Hyogo Framework is noted for increasing the implementation multi-hazard approaches to disaster risk reduction, building disaster management capacities, introducing the concept of "resilient cities" to the international agenda and mainstreaming gender in risk reduction measures (UNISDR, 2007).

The successor the Hyogo Framework, the Sendai framework, is another voluntary, non-binding UN agreement on disaster risk reduction, running from 2015 to 2030, adopted during the third UN world conference on DRR. The framework has seven targets and four priorities for action (UNISDR, 2015b). The targets aim to reduce the adverse impacts of disaster (mortality rates, affected people, economic damages, and the destruction of critical infrastructure), while at the same time increasing and improving national risk reduction strategies, international cooperation, and early warning systems. The action priorities include improving disaster risk understandings and management as well as investing in resilience and reconstruction measures. Collaboration was higher on the agenda, in its recognition that while the main role to reduce disaster risk lies with national authorities, the responsibility should be shared with other stakeholders including local government, the private sector, and other stakeholders.

Th evolution of the disaster management system can therefore be summarised into four key phases, the traditional development of disaster response and recovery

capacities; the development of disaster risk science; the development of disaster risk reduction thinking; and finally, the transition to resilience thinking.
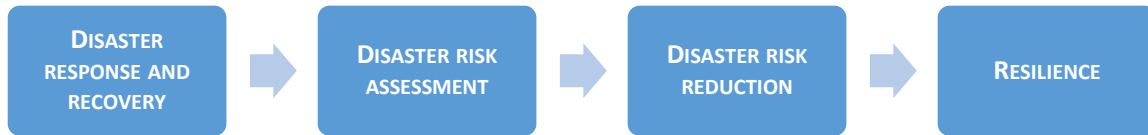
Figure 2.15 Evolution of overarching terminology in disaster management

2.6.2. What is resilience?

As a scientific concept used to represent systems, the term "resilience" owes much of its current use to the work of Holling (1973), where the term was used in relation to descriptions of "ecological resilience" after which its use was then expanded in a range of subjects, from economics, psychology, physical sciences, and environmental studies to the social sciences (de Bruijn *et al*, 2017; Sturgess *et al*, 2016). According to Holling (1973, p.17) "*resilience determines the persistence of relationships within a system and is a measure of the ability of these systems to absorb changes of state variables, driving variables, and parameters, and still persist. In this definition resilience is the property of the system and persistence or probability of extinction is the result.*"

Although various authors credit the origin of the term "resilience" itself to Holling (1973), a study by Alexander (2013) traced the etymology of resilience much further, as seen in **Figure 2.16** below, and noted Holling's probable influence by its use in mechanics. Holling's (1973) paper in fact emphasises heavily on applications of mathematics, physics, and statistics to map ecological behaviour, to describe the stability and state of equilibrium in ecological systems. Nonetheless, Alexander (2013) does attribute the rise in prominence and use of resilience outside of mechanics to Holling (1973) as being a seminal paper, despite indicating its use by others in the field.

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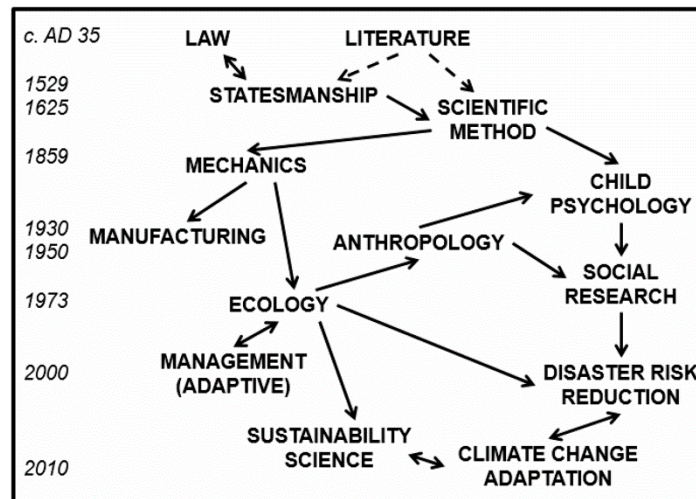
Figure 2.16 Schematic diagram of the evolution of the term "resilience". (Alexander, 2013)

In his study of definitions of resilience, Alexander (2013) summarises key differences in its use in mechanics, ecological systems and social systems as follows:

> *"In mechanics, it is an innate quality of materials, and thus one needs to alter the inherent characteristics of the material if one wants to increase it. Hence, it is a calculable property determined, in the main, experimentally. Resilience in ecological systems is about how they preserve their integrity, while in social systems the concept is more complex and diffuse."*

Alexander, 2013

The statement that the use of resilience in social systems is "more complex and diffuse" is proved readily accurate when considering the use of resilience in disaster management.

2.6.3. Resilience in disaster management

The 2005 Hyogo Framework for Action (UNISDR, 2007) brought resilience to the international agenda by pushing the idea of "resilient communities" as a groundwork for future international development. Yet, much like the review of literature on disaster management showed the lack of universal definitions for disasters, and accompanying terminology such as risk and vulnerability, this is also seen in the use of resilience as well. Comparative tables by Zhou et al. (2009) and Manyena (2006) identify 29 and 12 distinct definitions of the resilience respectively. Looking at these tables however, Alexander (2013) comment that "*it is striking how the term is used in different disciplines without any reference to how it is employed in other fields*" is poignant as neither study includes considerations of resilience outside of ecological and social systems, and show a bias towards studies in disaster management, or those that influenced it (for example, Holling (1973)).

Looking at some notable examples, on the global stage the United Nations International Strategy for Disaster Reduction (UNISDR, 2009, p.24) define resilience as:

> "the ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions".

The Intergovernmental Panel on Climate Change (IPCC, 2012, p.5) definition bears relevance as well, and is given as:

> "The ability of a system and its component parts to anticipate, absorb, accommodate, or recover from the effects of a hazardous event in a timely and efficient manner, including through ensuring the preservation, restoration, or improvement of its essential basic structures and functions".

The UK Lexicon of UK civil protection terminology, from the Civil Contingencies Secretariat (Cabinet Office, 2010a) defines resilience as the

"*Ability of the community, services, area or infrastructure to detect, prevent, and, if necessary to withstand, handle and recover from disruptive challenges*".

On the international stage, the definition for resilience in the UK comes instead from the Department for International Development (Sturgess *et al*, 2016) as

"*The ability of countries, communities and households to manage change by maintaining or transforming living standards in the face of shocks or stresses without compromising their long term prospects*"

Other definitions (particularly on a project by project basis) may emphasise aspects such as resistance, robustness, recovery, adaptive capacity, or further focus resiliency in terms of other subdivisions, such as "community resilience", "social resilience", "organisational resilience", as well as numerous working definitions used by different projects in resilience, using some variation of these characteristics or by focussing on specific hazards in defining resilience (Masys, 2014; Houston *et al*, 2017; de Bruijn *et al*, 2017; Zhou *et al*, 2009; Manyena, 2006). Resilience takes the disaster risk reduction cycle a step further by incorporating all these elements and adding on the need for adaptation and bringing in the concept of a system regaining its basic structure after a disaster incident (de Bruijn *et al*, 2017).

2.6.4. Illustration of global impact of documents in disaster management

In the discussion of the evolution of disaster management towards resilience thinking, the Yokohoma, Hyogo and Sendai Frameworks (IDNDR, 1994; UNISDR 2007; UNISDR, 2015b) were discussed in relation to their significance in bringing forward the field of disaster management to the resilience thinking seen today. These three frameworks are all ultimately documents in the form of high-level policy statements, in this case as resolutions put forward in the General Assembly of the United Nations. As frameworks, they distil within a single document objectives, strategic goals, and priorities for action, outlining as well overall implementation policies and resource mobilisations at the highest level for the organisation, in this instance being carried out operationally by the UNDP (United Nations Development Programme) branch of the UN. These three frameworks consecutively served as policy guidance for many projects in developing countries carried out by the UN, representing a standardised template for global action and a mandate for UN operational presence in countries, driving disaster resilience partnerships between their national government and the UN. Currently, through the Sendai Framework, the UN continues to mobilise discrete funding for a multitude of projects, consultants, and expertise in development with regard to disaster management.

To illustrate therefore the impact that a single piece of work can have on global policy and practice, some figures are noted from Disaster Risk Reduction and Recovery (DRRR) Global Impact study of the Hyogo framework, by the end of 2012 (UNDP, 2013). **Table 2.11** below shows the collated summary of mid-implementation report on the global impact of the Hyogo framework implementation and DRRR efforts of the UNDP give an idea of the impact of an overarching document driving (i.e., the Hyogo Framework for Action) global policy change (UNDP, 2013).

Table 2.11 Collated summary of global impact study of the Hyogo Framework by 2012 (UNDP, 2013)

Region	Africa	Arab States	Asia-Pacific	Europe and CIS	Latin America and Caribbean
% of UNDP programme countries per region with reported results on DRRR	**57%**	**44%**	**70%**	**46%**	**64%**
number of countries assisted with establishing, creating or conducting:					
disaster management programming or disaster risk reduction and recovery	27	8	26	12	23
national disaster management authorities	12	-	18	5	9
early warning systems	6	-	14	-	5
post-disaster needs assessments conducted	9	2	9	-	-
risk assessment and mapping	15	6	17	6	13
legal frameworks to support DRR	18	4	20	7	9
preparedness and contingency plans	8	-	-	4	-
urban risk programmes	-	2	6	2	9
mainstreaming disaster management in development policies	-	2	-	11	11
disaster loss databases	-	4	-	-	-

At the time of this report, the UNDP had operation presence in 177 countries, and 168 countries had endorsed the Hyogo Framework for Action (UNDP, 2013). The material properties of documents that allowed this standardised global initiative are simply underscored here. From 2000-2012, at least 90 countries were impacted by disasters affecting an average of more than 100,000 people in each event. At the

time, the UNDP was actively engaged in 81 of these 90 countries and note that in a typical year, they worked in over 50 countries to help reduce disaster risk**.**

A United Nations resolution can be defined as *a "formal expressions of the opinion or will of United Nations organs" (*UNSC, n.d[3]*)."* The Hyogo Framework is much the same, and very similar in template and was in that sense their "*global blueprint for disaster risk reduction efforts*" (UNDP, 2013). It stated their overarching aim and mission, mobilised resources, and highlighted their priorities for action. The framework itself is not long, being under 25 pages in total. Nevertheless, while it does not give specific project guidance, it has spawned a host of projects and guidance centred around the theme. Each project resulting from it produces opportunity for scrutiny and lessons learned, further affect global policy.

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[3] https://www.un.org/securitycouncil/content/resolutions-0

2.7. Summarising the role of documents in disaster management and the UK IEM

In **Section 2.2** the role of documents in legitimising the actions of stakeholders within disaster management in general and the UK IEM was laid out. In **Section 2.3,** the role of documents in laying out the definitions of emergency or disaster incidents and events, as well as the categorisation of these incidents was discussed. The importance of such definitions and categorisations was considered, and it outlines the involvement of documents in containing these definitions and categorisations. **Section 2.3** also introduced the role of documents in recording the understanding of risk and vulnerability through assessments, and the capacity for response and recovery. **Section 2.4** discussed the role of documents within the collaboration across stages of disaster management, primarily around planning. It should be noted that as discussed in the study scope, the report is less interested in the plans themselves, so much as how the national guidance affects these plans and the resulting collaboration. In **Section 2.5**, the UK IEM model, its phases, guiding principles, the stakeholders identified, and their required duties were presented, which as was seen are laid out across various legislative and guidance documents. The formal arrangements for response in the UK IEM are shown, but as noted they are restricted to the response arrangements. The national documents lay out common terminology and overarching protocol, nevertheless, these are more so in the vein of identifying the types of multi-agency coordinating groups that form from the peacetime LRF. The actual local response arrangements are heavily based on the principle of subsidiarity, which as seen in **Section 2.4** is the purpose of emergency planning documents, which formalise such arrangements. **Section 2.6** introduced the concept of "resilience" and how resilience thinking is linked with collaboration and has prevalently become the overarching aim of disaster management as a field, a theme shared within the UK IEM. The effect of the language of policy documents as such on practice is examined as example of the role of documents, and the global impact a single document can have across its lifetime was illustrated. In the next section, this review will centralise documents and will examine the factors that affect the use of documents.

2.8. Identifying the factors of a document that may aid or abet in collaboration

In **Chapter 1**, within the Aim and Objectives of the research study, **Objective 3** was given to be the development of framework for analysing the properties of a document, individually and as a set, that would facilitate their use in collaborative activities or outcomes. For this, as part of our literature review, the study set out to identify key characteristics of a body of documents that would affect this. This is the start of an iterative, abductive process used in the research study through which the framework was developed. **Chapter 4** expands on the use of Activity theory in as part of the theoretical foundation of this study that. The list below is synthesis of the factors identified in literature that may aid or abet the use of document as an artefact in collaboration. These factors are the basis of the initial documentary assessment framework (DAF), henceforth referred to as the initial DAF and consist of the following seven main themes or factors:

1. Power and authority
2. Language
3. Development cycle
4. Volume and redundancy
5. Design and organisation
6. Clarity of content and purpose
7. Assessing the "base" of the document

The initial DAF is presented at the end of **Chapter 3, Section 3.6**, summarising the main literature that were used in synthesising these factors, and the key points and questions to be posed towards the documentary support structures being assessed, and why.

Part of the literature review was in aiding in examining studies that also centralised the role of documents, both to gain methodological perspectives, but also in synthesising the factors that aid and abet the use of documents in different settings, which were synthesised into the seven factors above.

In terms of methodological perspectives, a study by Barry (1998) aimed to determine the extent to which various document representations (such as titles, abstracts, and indexing terms) provide clues to users about the presence of relevant traits or qualities. 18 university students were presented 15 documents within their study area (examining a total of 242 documents between all 18) represented as four randomly ordered representations of the document: descriptive cataloguing, note, abstract and indexing terms, each on an individual page, along with 3 randomly selected documents in full.

> *"The descriptive cataloguing included as much of the following information as was available: Title; authors and/or editors; author/editor affiliations; the larger source in which the document appeared (i.e., a book, journal, conference proceedings, etc.); publication date; pagination; sponsoring agency; and publisher. The note included as much of the following information about the document as was provided by the retrieved record: The presence of tables, graphs, illustrations, or photographs; the presence of a bibliography, references, or footnotes; the primary sources on which the document was based; the document type; and the target audience. The respondent was also shown the abstract and indexing terms when these were provided by the retrieved record."*

<div align="right">Barry, 1998</div>

Participants were asked to examine these materials in the order presented and circle any portions that prompted them to pursue or not pursue the document. 21 relevance criterion categories were identified by coding interview responses such as for instance the depth or scope of the study, the perceived effectiveness of the techniques or procedures used, the clarity of the content or its presentation, the readers ability to understand the material, the access availability to the documents, such as the absence of paywalls, and the time constraints of the user to name a few. The results suggested that users could utilise virtually every document characteristic presented to them to determine various criterion categories, although this ability may have been dependant on the user's familiarity with the sources within

a field. The results also suggested that the clues contained within document representations may depend less on the representation itself and more on a user's context or the specific qualities being sought from a document. However, the level of confidence users had in their predictions based on document representations was not addressed by this research.

Methodologically, this was an extremely interesting journal for the researcher given their own topic, but it also underscores the significance of "*design and organisation*" as a factor in the utility of documents. Of course, the documents being examined in this context are journal or other academic papers, and the approach of four representations was applicable uniformly across the documents due to the standardised formats.

On the other hand, Duffy *et al* (1983) and Duffy *et al* (1987) examine technical manuals for use by engineers. Duffy *et al* (1983) is interesting in its focus on the "design" of the documents, rather than the procedural or instruction text of the manuals, which they note is generally the focus of studies on technical texts. Both studies note the idea of the intent behind reading the documents, dividing it broadly into two categories of "***reading to do***" and "***reading to learn***", with the conclusion that most technical text is read with the intend "to do" rather than learn. The strategies employed in reading the documents would then change depending on the intent behind reading the text itself. Duffy *et al* (1983) findings indicate that "difficult" texts are not necessarily made more comprehensible by resequencing and reformatting the information as the level of comprehension required in using the manual should first be considered. They note that if a text is redesigned, then the communication objective of the document should be clearly delineated, and multiple objectives should require multiple documents. When testing the effectiveness of a redesign, they recommend sufficient use time should be allowed for the dissipation of any conflict arising from prior use of other manuals. On the other hand, other authors, such Winn (1989) considered the importance of graphics within training documents in improving the communication of information to readers.

Ganier (2004) and (2007) also looked at the effect that the design of documents had on their use, and the importance of *how* a document being used by the users ties into this, dividing this too into a learning and doing paradigm, albeit here the descriptive terms used are "instruction-based" users, who are beginners to the material content, and experience or "task-based" users of the documents. The summary of their findings are shown below in **Table 2.12**.

Table 2.12 Characteristics of document design and their effect on the use of procedural instructions by beginners and experienced users (Ganier, 2004)

| Characteristics of Design | Main Effect on Use of Procedural Instructions | |
	Beginners (or "instructions-based" users)	Experienced users (or "task-based" users)
Structure of Document		
Chronological, linear organisation • From basic uses to more advances functions	• Allows progressive learning	
Modular organisation • One or two-facing pages presenting procedures, recommendations, questions & answers, etc.	• Facilitates the localisation of information	
Use of Headings		
Clear & precise heading • Use headings fitting to goals or sub-goals	• Facilitates the setting of a goal representation • Allows for the monitoring of the activity	• Facilitates the localisation of information • Allows for the monitoring of the activity
Prominent headings • Use fonts in different sizes and colours from the body of the text	• Facilitates the localisation of information	
Design of Instructions		
Use mixed format • Use pictures together with text (design the pictures first, and then write the text).	• Reduces cognitive load ; • Enhances the elaboration of a mental model before switching to the equipment (avoid unnecessary additional macro-switching)	
Surface form of textual instructions • Choose a word-order corresponding to the action plan	• The execution of the action is made easier when the presentation order corresponds to the execution order	
• Use "segmented text" (i.e., lists of instructions) with numbered steps rather than paragraphs	• Allows users to find specific information more quickly when switching from the instructions to the equipment	

Within our interest of determining how the guidance documents within the UK IEM could be improved, the consideration of whether a guidance document *would* be read is also an important consideration determined to be examined. Latour (1984) for instance explores the paradoxical nature of "power", and the way sociologists should approach its analysis. Their paradox states "*when you simply **have** power -*

*in potentia – nothing happens and you are powerless; when you **exert** power - in actu - **others** are performing the action and not you*", and the difference between the two lies in the actions of others. They note political examples where in someone may hold office and thereby be in power in theory, but it is not a tangible concept you can "posses or hoard". In the same way, a document has no "power" if it not read, particularly in the context of the guidance documents, which have no statutory obligations in and of themselves as long as the minimum requirements of the CCA 2004 in the context of the UK IEM are met. Documents are a resource that Latour (1984) advocated be used in studying power dynamics and that *"The sociologist should, accordingly, seek to analyse the way in which people are associated together, and should, in particular, pay attention to the material and extrasomatic resources (including inscriptions) that offer ways of linking people that may last longer than any given interaction."*

Haeder and Yackee (2020) conducted a comprehensive literature review around the use of guidance by federal agencies in the US. They note that the use of agency guidance has grown in importance over time, particularly in areas such as food and drug regulation, cross-examining notice and comment rulemaking and guidance documents. They note that while the two share similarities, such as providing guidance for policy creation, there are differences which are not easy to pick up on. The "confusion is understandable" as they note the distinction between the two can be difficult. Notice and comment rulemaking is legally binding, while guidance documents are not, though they may have a binding effect on regulated entities in practice. Haeder and Yackee (2020) note advantages of using guidance documents in being faster, more flexible, and less procedural than notice and comment rulemaking, but having disadvantages, such as less democratic accountability and predictability. Moreover, guidance documents can be used as a means of encouraging compliance and promoting best practices. They can provide industry-specific advice and technical assistance to regulated entities, helping them to understand and comply with complex regulations. Guidance documents can also be used to provide clarity and consistency in the interpretation of regulations, which can reduce confusion and decrease the likelihood of noncompliance. However, they

note that guidance documents can also be subject to abuse. Agencies may use them as a means of bypassing the notice and comment process, which can limit transparency and public participation in the policymaking process. Additionally, agencies may use guidance documents to establish de facto regulations without undergoing the formal rulemaking process, which can limit the ability of regulated entities to challenge agency actions. As such, guidance documents are an important policy tool that federal government agencies use to make policy statements, provide interpretations of existing policies, and promote compliance with regulations.

Meilvang (2019) examined how engineers use documents "*to shape and maintain professional authority*". It analyses the role of the documents in the context of Danish engineers in urban water management, in much the same way as this study intends to look at the role of documents in UK local disaster management process. Much like the LRF itself (see **Section 2.5.3**), "*the committee has no legal mandate to decide on political issues, but SVK nevertheless exercises enormous impact in and control over the arena of urban water management by issuing certain documents called writings*" which while having no legal status, "*are widely treated as de facto regulatory and normative standards for proper urban water management.*"

While not explicitly looking at documents or professional identity as in the case of Meilvang (2019) above, Shaw and Maythorne (2012), for instance considered the perception of "resilience" from semi-structured interviews of 30 climate change or emergency planning officers within the Northeast of England, and note their findings suggest that documents produced by central government have been "*influential in shaping*" the practitioner perceptions, but note "*clear (and continuing) differences*" between the two groups in their approaches to resilience. In advocating using the term "resilience" as an overarching framework to bring together a range of relevant documents *"(such as Adaptation Plans, Risk Registers, Local Economic Assessments and Public Health Strategies)"* it is interesting that this mechanism is noted as being through the development of "*one, local authority–wide, cross-*

departmental Local Resilience document". Shaw and Maythorne (2012) fall short in examining the documents explicitly, however.

Ntontis *et al* (2019), one of only three journals the researcher was able to find that conduct a document review of UK guidance, studied the use of the term "community resilience" in 28 UK guidance documents. The second such study, sharing one common author and written several years prior by Drury *et al* (2013) studied the language around "panic" or more specifically "mass panic" within 15 UK guidance documents. These were both purely desk-based documentary reviews of the identified documents. From Ntontis *et al* (2019), "*One novel finding from our analysis is the notion of "circularity," in which the concept of resilience is used as an explanatory concept to account for individuals' and communities' resilience*", who attributed this fact to the ambiguity around the definitions of resilience. **Section 2.3.5** briefly discussed why the definitions of concepts are important, and in the implementation of policy by local stakeholders, different interpretations lead to different outcomes. Drury *et al's* (2013) study around the language of "mass panic" was interesting in that they examined the language within their selected documents and found it acted to marginalise the role of crowd behaviour as a basis for resilience, contrary to examined literature on "*collective psychological responses to emergencies*". The concluded that "*Guidance documents on emergency planning operate with psychologies – assumptions about behaviour, cognition and emotion – whether implicit or explicit*" which can be identified by studying the language of the documents themselves to see these either implicitly or explicitly.

Chmutina *et* al (2016) also examined the use of "resilience" through the analysis of 30 policy and guidance documents, however theirs was a multi-method approach, including a review of 20 formal meetings of one LRF, and 11 stakeholder interviews using these documents. They observed the presence of different and often competing understandings of resilience that co-exist: with two major approaches seen in the UK. The first in terms of response to security risks, where they describe a "nanny state" approach by central governmental mechanisms, and the second to

"natural risks", wherein there is a heavy devolvement of these responsibilities to local and other stakeholders as summarised below in **Figure 2.17**.
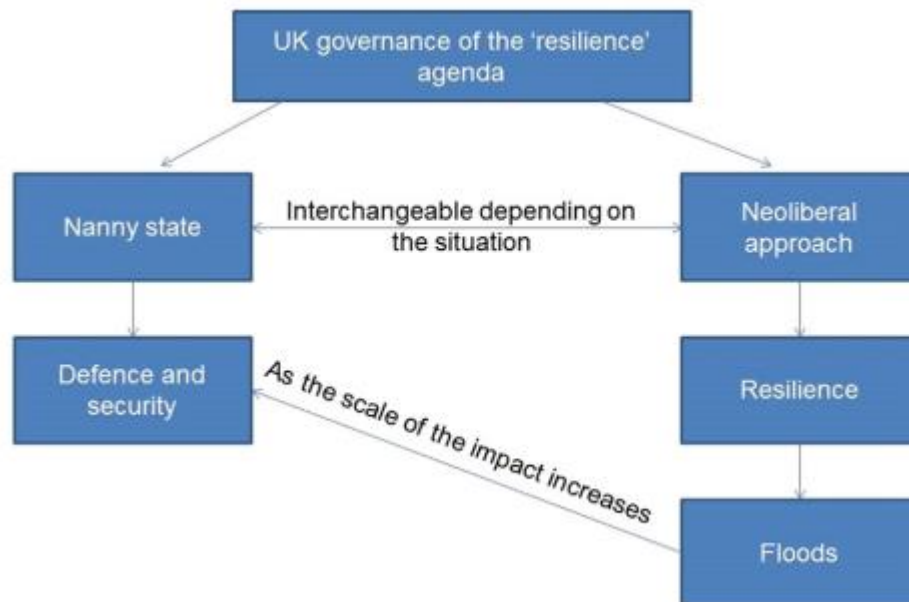
Figure 2.17 An example of interchangeable approaches to governance within the "resilience" agenda (Chmutina et al, 2016)

From our own documentary review of the guidance, when moving on to later guidance however, "resilience" and "collaboration" appear within increasing frequency (detailed further in **Chapter 5**). For instance, looking at three examples, the Resilience Capabilities Programme (2013)[4] was a driving initiative behind increasing the capability to respond and recover from civil emergencies, and in warning and informing the public in the event of disasters specifically, therefore it was surprisingly that it was not present within the Ntontis *et al* (2019) study, however this was found to be attributed to the study solely focussing on stand-alone documents, which excluded many guidance presented within webpages. A recent example is the National Resilience Standards (2020). Within the "Nation Risk Assessment" – a fundamental part of the disaster management process in the UK (see **Section 2.3.8**), which as a document is marked "Official, Confidential" one can

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[4] https://www.gov.uk/guidance/preparation-and-planning-for-emergencies-the-capabilities-programme

see the language revolve around the "National Resilience Planning Assumptions" (Cabinet Office, 2013f). Like other journals using documentary reviews of national guidance, although not in a UK context, the focus has found to be significantly on the "language" of these documents and their "power and authority" as themes, rather than the utility of the documents, which is a concept explored in much greater detail with regards to emergency planning documents.

As in the case of Barry (1998), these journals were of methodological interest to the researcher in their centralisation of documentary review, either as a desk-based assessment or multi-method approach.

Freeman (2011), whose work around the use of documents in policy in general were used extensively by the researcher, first introduced the idea of "versions" of documents in that they considered scientific evidence and policy as being "*produced in writing (and rewriting)*". As they state, *"when evidence informs policy, the findings and conclusions of research and the problems and purposes of policy are distilled into documents"*, capturing the idea of a dynamic interaction between documents and systems. For instance, McEwen and Jone (2012) examined how local knowledge of flood management was incorporated into national policy following the 2007 floods, which was significantly a result of the Pitt (2008) review. With other journals following similar veins, this was synthesised as a consideration of "development cycle" within the literature review of this study, which was heavily influence by an article by Spee and Jarzabkowski (2011), who show novel findings on how the "power and authority" of a document can be tied to its "development cycle". Spee and Jarzabkowski (2011) examined the development of a "strategic plan" as being a product of "iterative and recursive relationship of talk and text", conceptualising the plan development through a communicative process. They demonstrate that "the planning text both shapes planning activities and at the same time is shaped by these very same activities" and that the plan is not a "static document promoting inflexibility" but rather "dynamic" with an "organizing effect" on workplace interactions, an alternating view to position the plan as a purely communicative tool. As they state, "*the communicative process through which it* [the

plan] *was constructed represents agreement and hence gives the plan legitimacy as an organizational document*" and "imbue[s] it with authority", which is summarised in their **Figure 2.18** below. They note though that while many stakeholders may participate in the process, and raise concerns and suggestions to content, only a few "due to hierarchy and position, are actually able to amend a strategic plan's content", therefore the "actual text has been constructed by a few key players" despite many influences. This limit on the actual numbers working directly with the document mirrors the issues of limits to collaboration due to stakeholder numbers introduced in **Section 2.4.6**, where in the overarching section discussed the many stakeholders involved in the UK IEM.
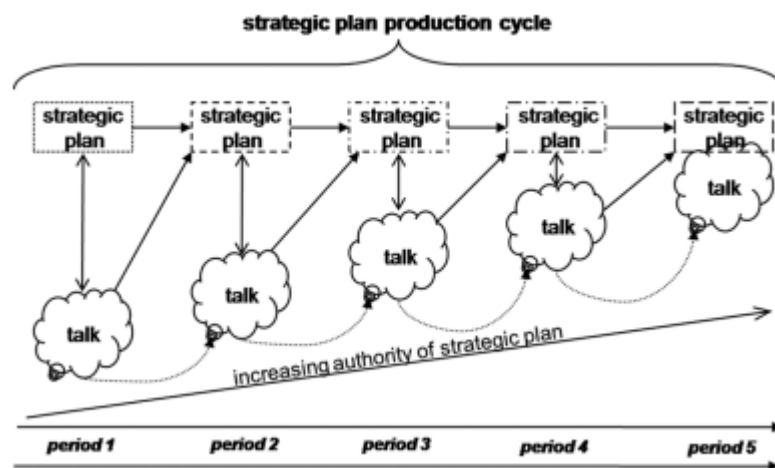
Figure 2.18 Recursive process of re-contextualisation and decontextualization (Spee and Jarzabkowski, 2011)

"Language" and "power and authority" are once again key consideration by Espeland (1993) and their reflection on the power of documents, in examining "language" in terms the variation of official documents with regard to the impact of a dam construction project on marginalized communities (a post-modernist approach to the study) showed the ability to discern the motivations of the authority behind the documents through their analysis. A particularly poignant statement by them states:

"The significance of official documents as a form of power is a neglected feature of political analysis. In a time when "paper work" is often dismissed as mere window dressing, as red tape, or at least as largely unrelated to or decoupled from the real business at hand, I will argue that the formal documents produced by an organization are revealing sources for understanding how power is exerted, legitimated and reproduced. I wish to (re)claim the importance of formal, official representation as a venue of power."

Espeland, 1993

In a similar vein, Turner (2001) examines a range of textual formats used within a land development process to see how it affects the "*organizing and shaping what residents know, orient to, and say in council meetings, in the news media*" and "*thereby playing a part in organizing local politics*". However, theirs is a stark contrast in the power dynamics of the communities, and thus the difference in how they use the documents is interesting to note, wherein the documents instead serve within an overarching consultation process.

McBride *et al* (2021), Mosier and Englebright (2019) and Padden (2019) explore the use of documentation in the health service, with the common theme of the need to reduced documentation. McBride *et al* (2021) was particularly topical at the time with its regard for the need to reduce documentation in the context of the burdens of the ongoing COVID pandemic. These and many other journals within our review resulted in the synthesis of the theme of "volume and redundancy" in text, which is one of the factors within the overall effect of cognitive burden that impacts users of documents.

In this manner, further journals were reviewed in order to synthesise the themes emerging which affect the use of documents in collaborative settings, from which the initial DAF was developed, presented in the subsequent **Chapter 3, Section 3.6**, translating each theme into a series of questions to be posed towards the

documents assessed in an "interview technique" which is detailed further in the methodology **Chapter 4, Section 4.5.3**.

2.9. Summary

This chapter introduced the definitions of a document, and the legislative bases for the UK IEM. It reviewed the various terminology within disaster management systems and considered disaster management cycles in general. The disaster management system of the UK (the Integrated Emergency Management model) was reviewed, alongside the collaborative arrangements within its phases at the local level in England. The need for collaboration between stakeholders was established, and resilience was positioned as the shared vision that underpins the collaborative efforts within the UK IEM. The next chapter discusses the theoretical frameworks or lens through which the researcher regards the object of this study – documents, and the collaborative arrangements they are considered to affect, and goes into a consideration of the characteristics of document that was facilitate better collaboration in order to begin developing a documentary assessment framework.

Chapter 3

3. Theoretical Foundation and the Initial Documentary Assessment Framework (DAF) development

3.1. Introduction

This chapter presents the developed theoretical foundation for the subsequent research design and data analysis within this study and the rationale for the selection of these theories. This is guided by the literature review of organisational and interorganisational field analyses, various collaborative models and discussions on order and structure.

The theories that will be analysed are negotiated order and activity theory and the chapter concludes with the early conceptual framework for the research design, prior to the data analysis process. This chapter analyses how these theories helped guide the researcher in identifying the requirements of supporting structures in collaborative environments for disaster management processes. Starting with the negotiated order, these models will be analysed in turn and the elements that are relevant to this research will be extracted.

Subsequently, the initial Documentary Assessment Framework (DAF) developed by analysing existing literature to collate the characteristics of a document that affect its utility by an end-user, contextualised to the UK IEM is presented.

3.2. The theory development overview

A theory is a well-established principle that has been developed, usually over extended periods of time, to explain some aspect of the natural world. Theories result from repeated observation and testing and incorporate facts, laws, predictions, and tested assumptions that are widely accepted (Reeves *et* al, 2008; Saunders *et al,* 2015; USC Libraries, 2019).

From the introduction, and the direction of the literature review, the area of interest of this thesis was identified as collaboration practices and their supporting structures, setting the scope of the research to collaborative activities within disaster management in the UK. Therefore, being driven by the intent to study the organisations that are responsible for this disaster management, or are stakeholders to potential disasters, and how individuals relate within them, this area of research falls predominantly into social sciences research.

It was noted that the study of human action, interpretation of behaviour and socioeconomic structures requires the use of theories and that a theoretical foundation aids the researcher to interpret the collected data, and importantly helps guide the research design, preventing a haphazard collection of data (Saunders *et al,* 2015; USC Libraries, 2019).

3.3. Negotiated order

Having looked at a range of theories relevant to socioeconomic structures; learning theories; a range of collaborative theories in various contexts; as well as psychological and behavioural theories, it became apparent that as a starting point, it was necessary to define our understanding of order and structure within the organisations themselves. For this purpose, the negotiated order theory was selected.

The theory of negotiated order emerged in the 1960s as a product of the work several graduates from the University of Chicago's sociology department. At its

inception it was used predominantly in a series of "grounded" case studies of occupations, professions, and complex organisations in the health field, until further work by Anselm Strauss in the 1970s towards a more general theory for negotiations (Day and Day, 1977). This decade culminated for Strauss in the publication of his book "Negotiations" (Strauss, 1978), where arguably much of the foundations for what is now accepted to be a theory of negotiated order developed, despite Strauss (1978, p.xi) noting the book fell "short of constituting a theory of negotiation" and being instead his stance on the "the negotiated order approach or perspective". One of his central arguments was that "*social orders are always in some sense negotiated orders*". This tenet is shared by others in field, where Day and Day (1977) note in their review that:

"A central contention is that all social orders are negotiated orders, i.e. negotiations are not just another interesting topic of research but rather essential aspects of social organization."

<div align="right">Day and Day, 1977</div>

Prior to this, explanations of social order within organisations tended to highlight formal structures and rules, neglecting the influence of negotiations at the micro level (Day and Day, 1977; Strauss, 1978). For Strauss and his colleagues, negotiation between individuals create and shape an organisational rules and structures, and the idea that "large structural considerations need to be linked *explicitly* with a more microscopic analysis of negotiations processes" (Strauss, 1978, p.xi). Consequently, micro level negotiation contributes to the development and maintenance of the social order that exists within an organisation. As an approach in sociology, it has a particular focus on human interactions. Various studies have used the idea of negotiated order to distinguish between the 'order' in an organisation against its 'formal structure' (see for example Fine, 1984; Regan, 1984; Nathan & Mitroff, 1991; Anderson, 2006; Nugus, 2019). Negotiated order became, as such, notable at the time for its view on 'order' as a consequence of both formal and informal structures.

"When individuals or groups or organizations of any size work together 'to get things done' then agreement is needed about such matters as what, how, when, where, and how much."

<div align="right">Strauss, 1978, p.ix</div>

Strauss (1978) notes that negotiation is by no means the only method by which a collective or individual goal can be accomplished or worked towards, listing some of the alternatives to negotiation as *"Stealing, cheating, lying, requesting, entreating, manoeuvring, pressuring, threatening, demanding, killing, staying neutral, arguing by the rules, monitoring and exploiting"*. He broadly subdivides these into: persuading, educating, manipulating, appealing to rules or to authority and coercion, which is summarised in **Figure 3.1**.
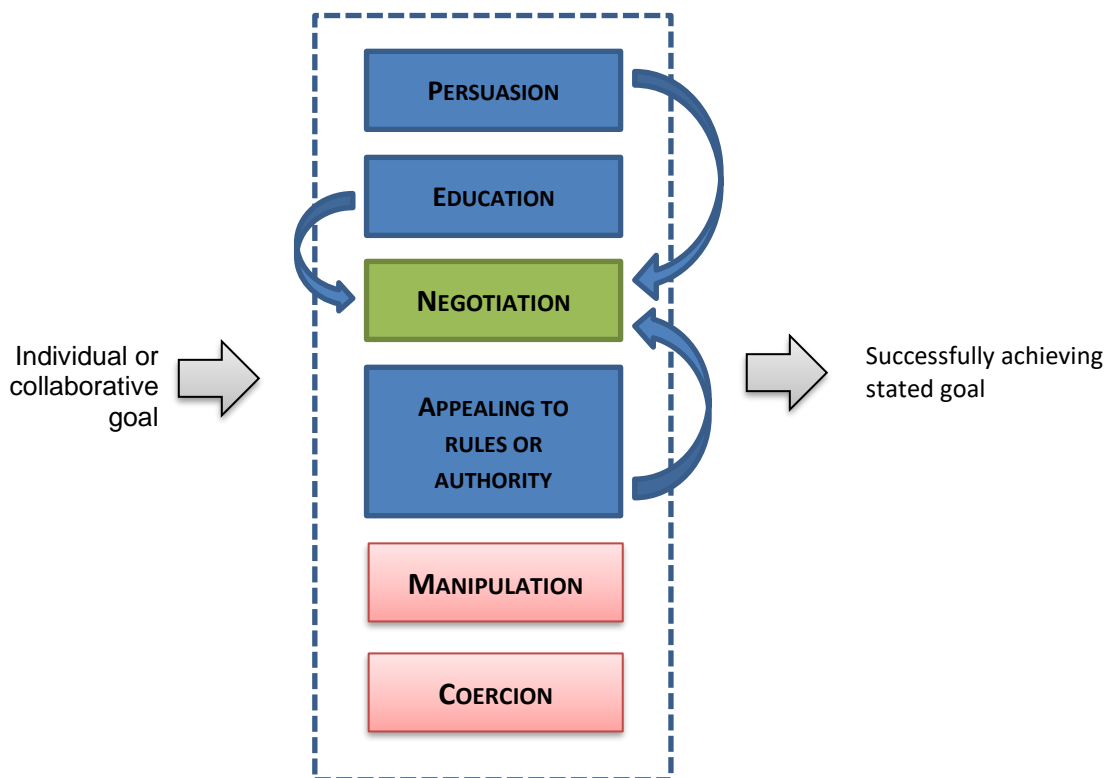
Figure 3.1 Means of accomplishing or working towards collective or individual gaols (adapted from Strauss, 1978)

In the context of this study, this succinct summary of the typology of the options available for collaboration is highly useful. Intrinsically, any use of manipulative or coercive means for achieving collaboration are rejected, both ethically and as a consideration of UK governance. Moreover, despite elements of persuasion and education falling into a negotiation approach, and the study does not set out any goal of persuading or educating participants regarding a pre-determined course of action prior to the study.

Appealing to rules and authority in this context refers to the CCA 2002 arrangements. Crucially, however, even though the mechanisms for collaboration revolve around the CCA (2004), in order to be effective as a mechanism for collaboration between stakeholders, the Local Resilience Forums, _as a non-legal entity with no power to actually direct their members_, requires an active negotiation of pathways through the complex set of orders of the individual organisations represented at the meetings. At a local authority level, emergency planners face a similar issue where outside of the blue light services, the partners that collaborate with the emergency planning committees outside of their legal obligations is a matter of negotiation.

Fundamentally, emergencies put pressure on existing systems and structures. They are permutations outside the norm and their disruptive effect has the potential to break down these structures, orders and arrangements. This is something Strauss (1978) notes as an occurrence, even outside of exceptional circumstances.

> _"Rules and roles are always breaking down – and when they do not, they do not miraculously remain intact without some effort, including negotiation effort, to maintain them."_
>
> Strauss, 1978

Applying negotiated order to a disaster management context, formal structure encompasses the command-and-control arrangements within the disaster management system, as well as the organisational and interorganisational

hierarchies and structure. Informal orders include many considerations, such as peer interaction, organisation culture, reflects the 'order' that exists outside of formal structures, as discussed in **Section 2.4.5**.

There is also the consideration of structures formalised at a national level (as in the case of the multi-agency coordinating groups such as the SCG, TCG, STAC, etc. for response arrangements, discussed in **Section 2.5.7**) and agreed upon structures of response at local levels. Under the principle of subsidiarity (see **Section 2.5**) actual response arrangements are the purview of the local responders, and **Section 2.4.6** discussed how emergency plans formalise these agreements at a local level, which is very much a local *negotiated* outcome.

The use therefore of negotiated order in the field of disaster management as an ontological viewing of the reality or order and structure is to this researcher very important. Viewing the sum of "order" within as system as a combination of both the formal structures at an overarching national level, and intrinsically in the light of subsequent formal and informal structures resulting from negotiations at local levels, shifts one's perspective closer to reality, pragmatically allowing for more practical solutions and orient the examination of the supporting structures to their negotiations.

Within our focus on the documents in supporting collaboration, the type of 'order' these structures support is important. The literature review showed that documents are the standard medium in which formal structures are described, and that formal structures can either aid or inhibit informal structures from emerging.

The view that collaboration is an emergent process by Gray (1989), whose collaboration theory uses negotiated order theory as its base, and that order in collaboration is effectively constantly negotiated and re-negotiated, with existing structures the result of previous negotiations. The study applied this to the IEM context. For the research analysis and discussion purposes, Strauss' (1978) extensive reviews of the use of negotiations in a range of social orders from

organisations to nations with diametrically opposed ideologies, as well as work developed from this theory, show significant merit. Therefore, rather than attempting to modify an existing collaborative framework to fit the context of the study, the study uses negotiated order in essence to guide the research design and questions towards determining how the existing collaboration within a given LRF came to be. The literature review determined that ideas of order within a LRF would not be "command and control" type, or even the same between different counties. Of the 38 LRFs in England many differences are expected by the researcher based off the ambiguity of national guidance, the lack of heavy central oversight, or clearly defined funding arrangements or minimum described support structures. Negotiated order also allows us to focus on the document aspect of the research topic more readily, rather than attempting to reframe an existing framework into the context of documents. It should also be noted this study is not attempting to produce a collaboration framework from this study.

3.4. Activity theory

Following the consideration of order within the examined system, it was useful to identify a theory that provided a framework for that allowed the researcher to centralise their use of documentary supporting structures i.e., how stakeholders interact with each other and the available resources to carry out tasks with intended outcomes.

For this purpose, activity theory was identified as having much utility. Activity theory has been developed since its origins in the 1920's to the current iterations seen today, which is often described as its second generation, by Engeström (2000). In activity theory, the unit of is the activity, which Blackler (1993) notes was based off the origins of the theory from "*Russian theorists, (*who*) interested as they were in the relationship between mind and culture, (*found that*) activity promised the smallest unit of analysis possible which preserves both the link between mind and society and the coherence of different actions and movements*."

Activity theory is used as a theoretical framework for analysing and understanding human interaction through their use of tools and artefacts (Engeström, 1995; Engeström, 2000; Engeström, & Blackler, 2005; Murphy & Rodriguez-Manzanares, 2008; Gonçalves *et al*, 2013). In the case of this thesis, the artefacts that are predominantly considered are documents, although this theory currently sees much use in relation to technology as the instrument in consideration (Kaptelinin *et* al, 1999; Murphy and Rodriguez-Manzanares, 2008). Furthermore, activity theory is discussed as a general discovery method that can be used to support qualitative and interpretative research.

Activity theory is more of a descriptive meta-theory or framework and is not a predictive theory i.e. it cannot be used to predict how people will behave within an organisation (Duignan *et al*, 2006; Blackler, 1993). Therefore, activity theory provides a framework for exploring part of focus of this study: multi-agency collaboration process.

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In Engstrom's (1995 and 2000) model, this activity consists of six **nodes** or components: the subject, the object or motive, artefacts or tools, and the rules, community and division of labour within the organisation. This is shown below in **Figure 3.2**.
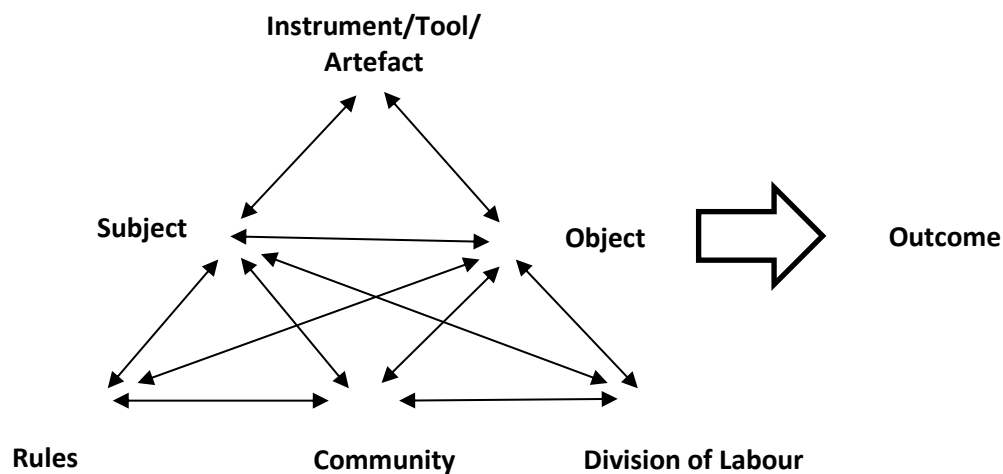
Figure 3.2 Activity theory, Second generation (Engstrom, 2000)

As implied in from the framework diagram, activity theory considers the entire work or activity system (including groups, organisations, etc.) beyond just one actor or user, as well as the environment, history of the person, culture, role of the artefact, existing motivations, complexity of real-life action, etc. The activity system here is the unit of analysis. It is important to remember that while activity theory establishes an underlying framework of interconnected elements for the analysis of an organisation, this is not a pre-defined structure, or a list of criteria or questions associated with the identified elements (Duignan *et al*, 2006). They provide the framework for meta-analysis, but the detail of the line of inquiry is developed by the researcher.

In the third generation of Engeström's Activity theory model (2001), more commonly known as cultural historical activity theory (CHAT), the theory expands from a consideration of a single activity system to multiple systems, with a minimum of two

interacting systems becoming the unit of analysis. This is shown below in **Figure 3.3**
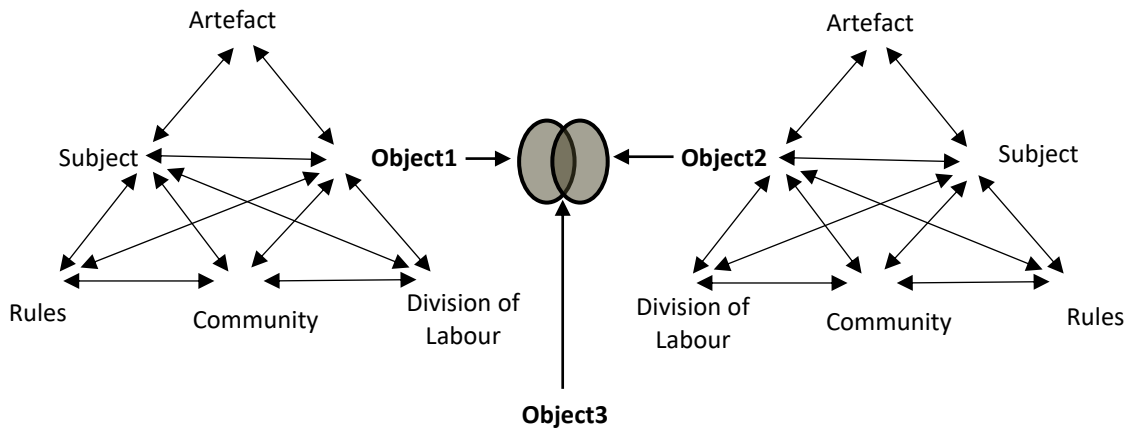
Figure 3.3 Third generation Activity theory or Cultural Historical Activity Theory (CHAT) (Engeström, 2001)

Given the range of stakeholders involved in the UK IEM system, and our intent to centralise the role of documents in our study, activity theory (both in its second and third generation) provide the basis for a strong theoretical lens with which to develop our research design and subsequent analysis. Activity theory is useful for understanding how a wide range factors work together to impact an activity. In order to reach an *outcome,* it is necessary to produce certain *objects* (e.g. experiences, knowledge, and physical products) and that human activity is mediated by artefacts (e.g. tools used, documents, recipes, etc.) This activity is further mediated by an organisation or community which may enforce rules that affect activity. The subject works as part of the community to achieve the object, and activity may typically feature division of labour.

Three levels of activity can be examined from this framework:
- Activity towards an objective (goal) carried out by a community.
- Action towards a specific goal (conscious)
- Operation structure of activity typically automated and not conscious concrete way of executing an action in according with the specific conditions surrounding the goal

Figure 3.4 and **Table 3.1** below shows an adaptation of activity theory for the overarching question of the research study – whether familiarisation of the documents would lead to enhanced collaboration with the UK IEM, more specifically the LRF in question. Here the LRF is considered in its entirety as an activity system in single unit of analysis.

Artefact:
Recommended
reading (documents)

Subject:
Stakeholder

Object:
Familiarisation
of the documents

Outcome:
Enhanced
collaboration?

Rules:
Include the UK IEM
and formal
arrangements
agreed upon by the
LRF

Community:
The respective LRF
consisting of the individual
representative of
stakeholder organisations

Division of Labour:
Task allocation with
the LRF
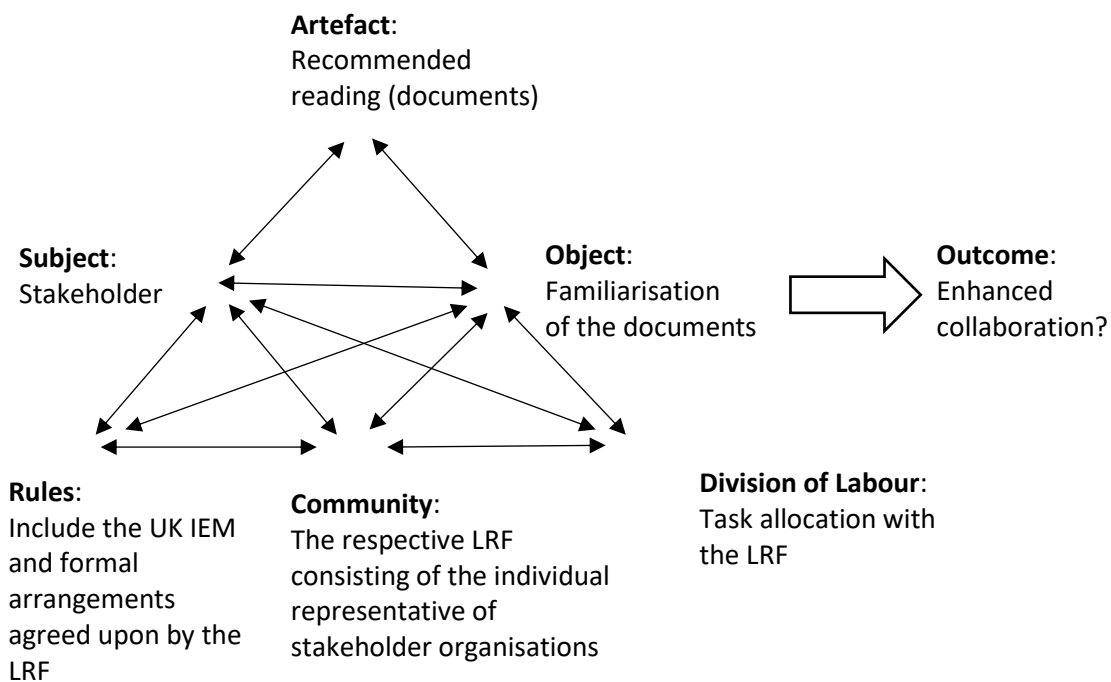
Figure 3.4 Contextualising the research question within activity theory

Table 3.1 Adaptation of activity theory for research (Second generation, single unit of analysis)

Nodes	Description
Subject	Stakeholders of the LRFs, primarily representatives of the Category 1 or 2 responders in LRF such as police, ambulance, NHS, local authority, Environment Agency, fire service and rescue or transport agency.
Object	Familiarisation of the documents
Outcome	Enhanced collaboration within the UK IEM
Artefact	The relevant document or set of documents
Rules	The legal obligations of the stakeholders and the LRF as a whole, as well as comprehensive approaches to disaster management, Integrated Emergency Management (IEM) and risk assessment processes that are carried out by multi-agency teams. (These are laid out in documents)
Division of labour	The task allocation for each individual in the system; how tasks are split horizontally between community members; the clarified responsibilities of each team member. (These are laid out in documents as formal structures or *negotiated* between members within the LRF)
Community	The Local Resilience Forum comprising of Category 1 and 2 responders, and for each representative, their respective organisations.

Research **Objective 3** (**Section 1.2**) stated the development of a documentary assessment framework as a goal of the research study, and in the literature review the researcher initiated this process by identifying characteristics of a document that may aid of abet its role in a collaborative setting. The next chapter, the Research Methodology, explains in detail the iterative and abductive nature of the research design (see **Section 4.9**). This is pertinent here because there are a range of options in adapting activity theory in its second or third generation to the context of

the research study, depending on factors such as the stage of the research (from reflexive documentary review to data analysis of primary data), the outcome being considered by looking at the activity system or systems and the level of detail considered (with higher detail using CHAT). The adaptability of the nodes that form the activity system is yet another reason for the use activity theory in this study. These applications are discussed further in **Chapter 4** the Research Methodology.

3.5. Conceptual framework for research study

In addition to the above established theories, a conceptual framework was developed to aid in the research design. Regoniel (2015) describes a conceptual framework as a representation of the "researcher's synthesis of literature on how to explain a phenomenon", or in other words the variables in their study, and how they connect to each other. As McGaghie *et al.* (2001) frames it "*A description of this framework contributes to a research report in at least two ways because it (1) identifies research variables, and (2) clarifies relationships among the variables. Linked to the problem statement, the conceptual framework "sets the stage" for presentation of the specific research question that drives the investigation being reported.*" Regoniel (2015) place a study conceptual framework within broader framework, called the theoretical framework, although Maxwell (2013) notes that the two terms may be used interchangeably. A theoretical framework however additionally utilises tried-and-tested theories that represent the findings of many researchers on why and how a particular phenomenon occurs. McGaghie et al (2001) note that the majority of research reports place their problem statement within the context of a conceptual or theoretical framework.

> *"A conceptual framework explains, either graphically or in narrative form, the main things to be studied – the key factors, constructs or variables – and the presumed relationships among them".*
>
> Miles and Huberman (1994)

According to Miles and Huberman (1994) a conceptual framework can either be rudimentary or elaborative, theory-driven or common-sense, descriptive or even casual. Yin (2014) mentions that researchers are able to illustrate the main concepts pertaining to the study as well as to illustrate how the concepts are interrelated, and the circumstances within which the concepts and interrelationships are said to be true by conceptualising the phenomenon under study. Furthermore, Miles and Huberman (1994) and Maxwell (2013) describe developing a conceptual framework as an iterative process, which once developed will be revisited and amended as required as the study progresses. Having a conceptual framework in a research

study is important as it provides a sense of direction and focus for the study. Focusing and bounding functions of conceptual frameworks are highlighted by Miles and Huberman (1994).

Figure 3.5 shows the conceptual framework developed for this research to represent the theoretical concepts or variables behind collaboration, shown as layers of documentary structures. This initial conceptual framework divides intro four layers, as shown below. The three outer layers describe the main concepts explored by the study, and concepts identified as having potential to affect the final layer – the individual and group context of collaboration at a local level. The "Policy documents" layer pre-dominantly represents the national legislation in the form of Acts of Parliament or other regulatory requirements, which was discussed further in (**Chapter 2, Section 2.2.3**). The information material encompasses the guidance material subsidiary to the policy documents, including templates, best and good practice guidelines and other published material. The "Local context" include documents, such as the plans published at the local level, but also the local translations and implementation in practice of the national level policies and information material.
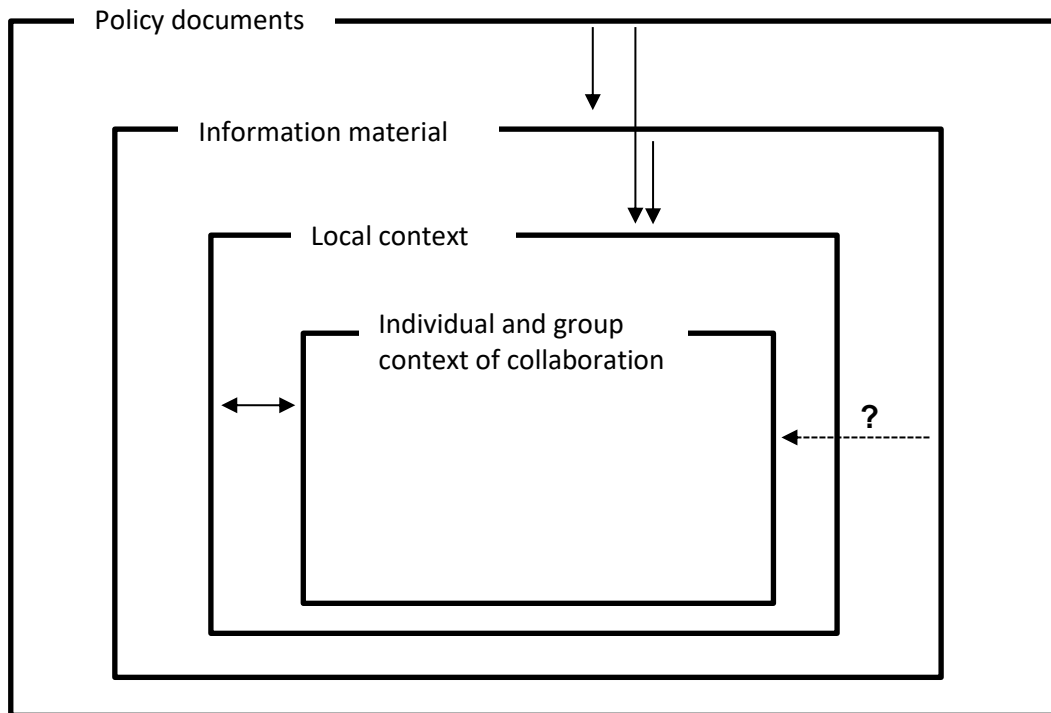
Figure 3.5 Conceptual framework for research

The layers represent the idea of documents having a hierarchical nature to the researcher, as explored within the literature review. Within the context of tiers existing within the stakeholder organisations themselves and the command-and-control structures, the question of the level of interaction with the documents in relation to the respective tier of the stakeholder themselves was a considerable point of interest. Through the emergency planning officers, the author reasons there was a clear link between policy documents and information material. This link does not however, extend both ways given that information material shows very little historical change, and the policy changes are associated with issues such as devolution of authority in the UK, rather than feedback from local levels. From the literature review, the relationship of individuals with the information material was uncertain, and this is represented by the dashed arrow connecting the information material layer to the individual, and this too is given as a unidirectional arrow. There is a two-way interaction at a local level between, for example, the local plans and individuals – describing both the impact of these local policy on the individual context, and the way these policies can be interpret or affected, and eventually impacting on future development.

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This representation of layers is adapted from a contextual framework of collaboration developed by Rose and Norwich (2014) (as shown in **Chapter 2, Section 2.2.1**) in describing national and local policy dimensions, affecting individual and group contexts of collaboration and our overarching literature review, although this study encompassed a broader range of structures at national and local levels and the context of collaboration was more general, and not specific to documents.

This layered approach is how the researcher assumes the information flows down the various levels of document hierarchy to affect an individual's concept of collaboration, one of the first concepts explored in the documentary review, as seen in the results **Chapter 5, Section 5.2**. The conceptual framework is used in combination with the established theories of negotiated order and activity theory. This framework was only the initial representation of our understanding. In addition to being simplistic, this was based on assumptions as to the relationship of these variable prior to the study data collection and analysis, which are incorporated in later iterations. For instance, the research study is ultimately concerned with the resulting overall collaboration within the LRF or the UK IEM model, rather than the individual, so there are further connections that occur, which translate an individual context of collaboration into the resulting order. However, this framework is meant to be used in conjunction with the other two theories identified and focusses on the individual experience with documents. Later interactions with other stakeholders will naturally affect this context, but the researcher is concerned to a great degree by the initial impact that a document has on an individual, which the model tries to explore. The final iteration of this conceptual framework, a model of the interplay between stakeholders and documents, is laid out and examined in **Chapter 7, Section 7.2**).

The next section presents the initial Documentary Assessment Framework (DAF) developed in undertaking the literature review, which forms the basis of the documentary review.

3.6. The initial Documentary Assessment Framework (DAF)

From the literature review, an existing framework for the assessment of documents in the context of the study was not extant, as discussed in **Section 2.8**. In order to achieve the study objectives a framework was developed iteratively, and this development methodology is detailed in **Section 4.9**. Presented below is the developed initial DAF, the associated references used in synthesis the identified themes and the key issues and questions posed towards the documents being assessed. The next chapter details the research methodology, through which the documents to be assessed are identified and the use of this framework within the research design is explained in detail.

Table 3.2 Factors that may aid or abet the collaborative outcomes of document as a set or standalone text

Factor	References	Key points and questions
Power and authority	Espeland (1983), Latour (1984), Anthony (1992), Barry (1998) Cooren (2004), Freeman (2006) Turner (2001), Freeman *et al* (2011), Freeman and Maybin (2011), Spee and Jarzabkowski (2011), Child (2015), Voß, &	• A document that is not read has no power. How likely are the documents assessed likely to be read? • Documents as legislation or regulation empower stakeholder action and serve as "vehicles" of legitimacy. Do the documents do this? • The ownership of the document confers a degree of legitimacy to its content. How do the documents do in this regard?

	Freeman, (2015), Chmutina *et* al (2016), Koschmann and Burk (2016), Woulfin (2016), Freeman (2019), Haeder and Yackee (2020)	• Documents lay out the formal structures within organisational settings. To what extent are the collaborative arrangements formalised and how is authority shared within the formal collaborative arrangements?
Language	Anthony (1992), Espeland (1993) Turner (2001), Freeman *et al* (2011), Freeman and Maybin (2011), Silverstein (2011), Drury *et al* (2013), Chmutina *et* al (2016), Ntontis *et al* (2019) Freeman (2019)	• What is language around the allocation of roles, responsibilities and accountability in vertical authority gradients? • What is the language around stakeholders within the body of text? • What is the language around collaboration? • To what degree to which the language is open to interpretation?
Development cycle	Duffy *et* al (1987), Smith *et al* (1999), Spee and Jarzabkowski (2011), McEwen and Jones	• What evidence can be seen with regard to consultation around the document during it development? • Is there a clear version control seen for the document, and is there access to previous versions of the document?

	(2012), Kim (2014), Pollock (2013), Pollock (2018)	• When looking between documents, is there evidence that the difference between document versions is highlighted to the readers? • Is there a clear period of review for the document? • What can be ascertained with regards to the time for the implementation of the document in practice?
Volume and redundancy	McBride *et al* (2021), Mosier and Englebright (2019), Padden (2019)	• What is the volume of the documents being assessed, individually and in series? • Can this be represented numerically, taking account the density of the text? • What is the degree of internal redundancy within a document? • What is the degree of redundancy between documents, where do the most common redundancies occur, and is the redundancy unnecessary? • Is the volume of the text necessary to communicate the relevant information?

Design and organisation	Duffy *et al* (1983), Duffy *et al* (1987), Winn (1989), Barry (1998), Ganier (2004), Ganier (2007), Huggins *et al* (2015)	- How is the design of the document, including inclusion of diagrams and aids in the understanding of the document? - How is the use titles, abstracts, indexing terms within the text? - How is the structure of the document and the overall organisation of the content? - What is the ease of access and navigation around the document or set of documents?
Clarity of content and purpose	Duffy *et al* (1987), Cooren (2004) Ganier (2004), Ganier (2006) Freeman (2006), Silverstein (2011), Adini *et al* (2017) Adini *et al* (2017), Samuel and Siebeneck (2019)	The clarity of content (including the required familiarity and general readability of the text) and purpose (including intended audience) - Is the document for expert or specialised audience, or for public? - What is the degree of prior familiarity of the UK IEM, including technical jargon, is necessary to make sense of the document or content? - What level of familiarity is required of other related texts, especially those identified using the criteria for the study?

		• What is the clarity with which the need for background knowledge is expressed to the reader, including signposting to the relevant material?
		• Consider also the purpose of the document – is it intended to inform, be a guide, mandate requirements, or be used as a learning tool, thereby linking to the other factors
		• Is the aim of the document clear? Is the title or description an accurate representation of its intent and purpose?
		• Is the intended target, including the targets command level (strategic, tactical or operational) made clear?
		• Is the meaning of any text within the document is unclear or the text vague or ambiguous this leaves action open to interpretation?
Assessing the "base" of the document	Gray (1989), Geisler (2001), Pershing (2002), Cooren (2004) Atkinson (2005), D'Adderio (2011), Patel *et al* (2012), Vaisoradi *et al* (2013), Rose and Norwich (2014), Adini *et al*	A good "base" would include a coherent understanding of • the disaster management process • the individual roles and responsibilities of the individual within their organisation as related to the disaster management process • the duties of the overall collaborative effort • an understanding of best practice

	(2017), Penades *et al* (2017), Samuel and Siebeneck (2019)	• an awareness of the relevant stakeholders and their general functions, • the legal basis for action and the scope of this legislation
Methodological journals for document analysis	Duffy *et al* (1983), Duffy et al (1987), Barry (1998), Salminen *et al* (1997), Pershing (2002), Cooren (2004), Lund (2009), Drury *et al* (2013), Chmutina *et al* (2016), Buckland (2018), Zhang *et al* (2018), Ntontis *et al* (2019)	Journals in particular that aided in identifying and developing the methodology for the documentary analysis techniques used in the study. The overall research design and methodology is considered in the next chapter.

3.7. Summary

The two theories negotiated order and activity theory, together with the developed conceptual framework provide the overarching lens through which the researcher observes and analyses the research problem. This theoretical foundation is used within the initial DAF developed and presented herein to analyse the documentary support structures of the UK IEM, and the next chapter discusses the subsequent research design for the study.

Chapter 4

4. Research methodology

4.1. Introduction

This chapter details the research approach undertaken in carrying out this research study. In **Chapter 1**, the Introduction, study purpose was stated in the research aim as being to investigate how the documentary support structures (DSS) could be improved to increase the effectiveness of the existing collaboration process within the UK Integrated Emergency Management system in planning, preparing and responding to emergencies. This chapter lays out the stages of developing the research design to answer this question, from the selection a philosophical stance, to the research methods used in this study for data collection and finally the data analysis process.

4.2. Research Methodological Design

Several concepts, dimensions and considerations exist within the reflection of research philosophy. Saunders *et al* (2015) describes research as "the systematic collection and interpretation of information with a clear purpose" and represents research as a series of choices, characterised as layers within a "research onion", that lead the researcher towards their research design and ultimately their choice of techniques. This "research onion" was used by the study to aid in the research design, as it provided clarity over the different considerations in determining the research methodology. These "layers" are shown below in **Figure 4.1**. When implementing this approach however, it became quickly clear that the choice within each layer is not remotely a linear approach. Many sources influenced the research

design, from journals and studies similar to the topic or within the field, to authors penning volumes dedicated solely to consideration of research methods.
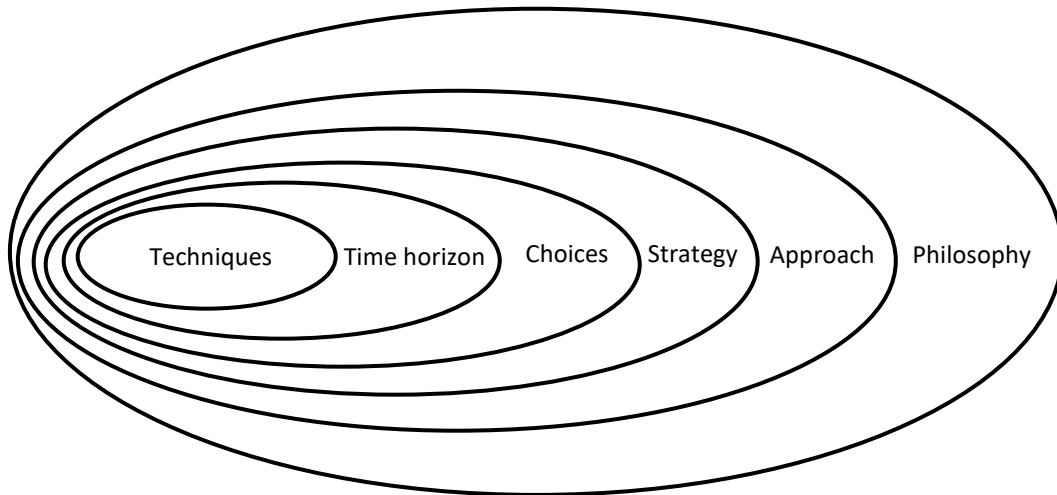
Figure 4.1 The Research Onion (adapted from Saunders et al, 2015, p.164)

4.2.1. Research Philosophy

"*The term **research philosophy** refers to a system of beliefs and assumptions about the development of knowledge.*"

– Saunders et al, 2015

Within a discussion of research philosophy, numerous authors place a starting point as understanding the concepts of ontology, epistemology, axiology, and methodology, which provide insight into how our view of knowledge and the world affects how researchers plan and carry out research (Scotland, 2012; Creswell, 2013; Saunders *et al*, 2015). These three positions are the choices made as a researcher that allow a comprehensive research design to be determined. Understanding these principles additionally gives insight into the rationale of design in related studies examined, allowing for a critique of their validity and rigour in terms of design.

Five principal schools of philosophy are discussed by Saunders et al (2015) as being positivism, critical realism, interpretivism, post modernism and pragmatism. These discussions were used it to explore the research philosophy selection by the researcher. It should be noted that other philosophies also exist (e.g. post-positivism, direct realism).

This study follows a pragmatist philosophy, and the following section discusses the ontological, epistemological, and axiological positions of the researcher within the study that led to this stance.

4.2.1.1. Ontological position

"Ontology refers to assumptions about the nature of reality"

- Saunders et al, 2015

Ontology, as a question of what is "truth" or "reality", in brief, represents the sum of assumptions that affect the way in which a researcher sees and studies their research objects (Saunders et al, 2015). Research objects can include (or conversely reject) organisations, management, events, individuals and their lives, skills, capacities and roles and responsibilities, as well as documents and other artefacts and tools (Boucher, 2014).

Numerous ontological approaches explore how the physical and social world is understood, as well as its nature. Historically, the idea of two different worlds within ontology exist: one where reality is unyielding, objective and external to the researcher; and the second, a subjective reality as a construct of individual thoughts, only understood by examining the perceptions of human actors (Petty et al, 2012a). These two 'worlds' have been coined different names, from '*objectivism*' and '*realism*', for the first ontology; and '*subjectivism*' or '*idealism*' for the second (Maxwell, 2013; Saunders *et al*, 2015). In their 'pure' forms, these two worlds once represented two extremes of perceiving reality, but research philosophy has changed over the decades such that these ontologies are now rarely viewed as rigid

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perspectives in social sciences, but rather the two ends of a continuum in how reality is viewed (Creswell, 2013; Teddlie and Tashakkori, 2012).

This view of ontology as a spectrum is one shared by the researcher – that reality is a complex combination of aspects fixed and external to the researcher, and but also aspects socially constructed through culture and language, with multiple meanings and interpretations. From the study's literature review and theoretical foundation, a view of order as a combination of "formal" and "informal" structures was established, which once again represent a contrast of external independent realities, and one that is socially constructed. The literature review showed that the disaster management field has established that total 'command and control' is not the solution, inherent in the understanding that the response is situational, and 'reality' is uncertain. What is 'true' is only to the best of knowledge and subject to change and decisions must be made, nonetheless.

Ideally, the research objectives would have benefited from an approach from both sides of this spectrum, for example, from an objective ontological positioning to quantitatively assess the local support structures, i.e., the published plans, to the extraction of stakeholder perspectives in their use of both these and the national level documents. Ultimately, however, the research study was not able to adopt a mixed methods approach due to issues of data access, particularly given the study area. This is discussed in greater detail in **Section 4.7**.

This study is interesting in that the "object" being analysed – the documents or the documentary support structure – is arguably a reality that is objective and external to both the researcher and participants as well. The policy and guidance documents are, once published, for the most part unchanging and cannot directly be influenced by the participants at local levels. The literature review, for instance, makes the case that the "immutability" and "mobility" of documents is what gives them their ubiquitous value in governance. While this argument is true to a degree, the literature review goes on to discuss the many ways in which documents are in practice better represented by a subjectivism paradigm, wherein reality is in the eye

of the beholder. For this study, it is heavily apparent because the reality produced by these documents (immutable as they may be) is heavily subjective, and as seen later in the results, the reality is not necessarily shaped directly by the documents either. The study falls then within a qualitative spectrum of ontology, in that it does not subscribe to the idea of "one true reality" (or universalism) but rather a flux of processes, experiences and practices where 'reality' is the practical consequence of ideas.

4.2.1.2. Epistemological position

The second consideration in the development of a philosophical stance is one's epistemology. Ontology and epistemology are often regarded as closely linked, with one's ontological preferences informing epistemological issues, often in a linear manner. Where ontology has been described as the ways that researchers understand the world and the nature of reality or 'truth', epistemology moves into our understanding of 'knowledge' within that 'reality', 'world' or 'truth'. Epistemology, as such, concerns the assumptions about knowledge: what constitutes (to the researcher) acceptable, valid and legitimate knowledge; how this knowledge is communicated to others and how one can assure them of credibility of this knowledge (Creswell, 2013; Saunders et al., 2015).

Again, two dominant philosophical traditions emerge in epistemology that have been classified into '*Positivism*' which follows on from an objectivist ontology of reality, and '*Interpretivism*' which uses a subjectivist ontology. As in the case of ontology, these can be viewed as the extremes of a continua in the possible epistemological positions.

Positivism is a scientific approach that sees knowledge as discoverable through objective measures in order to examine for facts such as cause and effect or the development of general laws and researchers try to measure and then theorise from this. This is because positivism views reality as external to and independent of the researcher. In contrast, in **interpretivist** research, the epistemological assumption adopted is the use of subjective measures in order to examine human action by

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looking for explanations at an individual level, because at its core it follows the idea that 'reality' and 'truth' is dependent on the individual and can only be understood by examining the perceptions of people (Creswell, 2013). For this approach, the researcher needs to acknowledge their own subjectivity and value base.

Although the study assessment includes external observable and measurable information, that cannot be changed by the researcher, and in many cases the stakeholders of the study, the study does not adopt a positivist approach. The documentary support structures, which despite being artefacts that are the external and independent to the researcher, bear significance through their usage and interpretation by stakeholders. Give the study also looks at stakeholders and their interpretation of these documents and use of the supporting structures, their realities are significant and, importantly, subjective. As seen from the literature review, many stakeholders have been identified, each of whom represent (or are meant to represent) expert knowledge in their respective fields, or at the very least, are representations for their organisations, which either has the relevant expertise, capacities, political power, etc., and the need to analyse these perceptions was identified in our objectives, and this need to look for explanations at an individual level is characteristic of interpretivism.

The study diverges from a pure interpretivist epistemology here in that while the researcher agrees that theories and concepts too simplistic, our focus is not solely on narratives or perceptions, but rather focus on problems, but use the narrative to explore practice, determine relevance and attempt to find solutions to the identified problems, and inform practice as contribution, rather than setting the development of new understandings and worldviews as a goal, the result of an overarching pragmatism philosophy.

4.2.1.3. Axiological position

Axiology is the next consideration within the selection of a research philosophy and studies judgments about value, or in other words the assumptions about the nature of values that the researcher places on the study (Creswell, 2013; Saunders et al., 2015).

Taking the idea once again of two extremes within a continuum, in positivist research the goal of using objective measures is the development of 'value-free' knowledge. This follows from the idea that reality is independent to the researcher, and unaffected by their actions as such the researcher must also be detached, neutral and independent of what is researched, maintaining an objective stance throughout the research process. Interpretivist research on the other hand, follows the ontology that reality is dependent on the individual, and as such by using subjective measures 'value' is an integral component of the research, with the researcher acknowledges as being part of what is researched and their interpretation key to the research contribution and developed knowledge, and maintains a reflexive stance in the research process (Creswell, 2013; Saunders et al., 2015). Following therefore the reasoning from the consideration of the ontology and epistemology, this research study is a value laden exercise, not just in the consideration of the individual perceptions of the stakeholders, but also in that the development and use of the Documentary assessment framework (DAF) is itself, both through the iterative and reflexive analysis of the researcher, sustained by the researcher's belief in the need for improving the current context, which Saunders *et al* (2015) describe within a pragmatism philosophy as being **value driven** research, which is now discuss in more detail.

4.2.1.4. The selected research philosophy

Having considered these positions, Saunders *et al* (2015) explains the process of developing a research philosophy as a reflexive process, between three considerations:

- Beliefs and assumptions
- Research philosophies
- Research design

The research ontological, epistemological, and axiological positions show the research as being interpretivist research, and its research objectives, encompassing subjective realities, show the need for qualitative methods to be achieved.

Therefore, of the five main philosophies identified by Saunders *et* al (2015), positivism as a philosophy does not fit this requirement. Similarly, a post-modernist philosophy was not a suitable approach for this research given that it is not the intent of the research rejection or scepticism of the power structures present in current the collaboration process in the UK disaster management system, and neither is the intent to radically alter it. The research instead is towards finding solutions to the research problem of improving the current use of documents in supporting collaboration, which can be described a 'practical solution' aim.

Although interpretivism fits the study's ontological, epistemological and axiological positions, the study opted for a philosophy of pragmatism. Saunders *et* al (2015) describe pragmatism, in terms of ontology, as allowing for the emphasis on practical solutions and outcomes to be maintained in the study, within an overall ontology that believes that reality is constantly renegotiated, debated, interpreted, and therefore the best method to use is the one that solves the problem. Pragmatism is defined as a:

> *"philosophical stance that argues that concepts are only relevant where*
> *they support action. It considers research starts with a problem, and aims*

to contribute practical solutions that inform future practice. Pragmatists research may vary considerably in terms of how objectivist of subjectivist it is."

<div align="right">– Saunders et al, 2015, p.126</div>

Epistemologically, pragmatist research allows centralisation of the practical meaning of knowledge in specific contexts, namely the disaster management field, and as stated by Saunders *et al* (2015) 'true' theories and knowledge are those that enable successful action.

Pragmatism as a philosophy is compatible with both objective and subjective points of view, dependent on the method, and is best described as **value-driven research**, one initiated sustained by the researchers doubts and beliefs (Saunders *et al.*, 2015), and as such values play an important role in the *interpretation* of the results across all the methods, and the researcher is reflexive during the analysis of results. Given the aim of the topic, understanding the values and motivations of the subject is an important part of producing practical solutions or recommendations to a problem.

A pragmatism research philosophy can integrate more than one research approaches and research strategies within the same study. Moreover, studies with pragmatism research philosophy can integrate the use of multiple research methods such as qualitative, quantitative and action research methods, leading to a paradigm of eclecticism (or multi-paradigmatic research), where the perspective of dichotomies was rejected. Therefore, pragmatism was by this process, found to fit the research requirements for this study.

4.2.2. Research Approach

For this study, an abductive research approach was used, which is a mix of deductive and inductive reasoning. Deductive research is a process by which a stated hypothesis or existing theory is tested, whereas inductive research aims to build new knowledge or new theories or expand on existing theories (Saunders *et al.*, 2015). They differ again in that deductive research is typically a top-down approach, while inductive research is bottom-up approach. In abductive research however, facts from a range of sources, such as literature reviews and general observations, are gathered together and only after an assessment of this information is the most likely hypothesis to explain the observations adopted as the starting point for the research (Creswell, 2013; Saunders *et al.*, 2015). This fits with the research journey undertaken given the study research question, and **Section 4.9** discusses the abductive approach in greater detail.

4.2.3. Research Strategy and Choices

Research strategy and research methodology (which in the research onion is termed a "research choice") is often used interchangeably (Saunders *el*, 2015; Creswell, 2013). Saunders *et al* (2015) differentiates the two by outlining a strategy as being a "plan of action to achieve a goal", this being the research question and identifies 8 main strategies, being experiment; survey; archival and documentary research; case study; ethnography; action research; grounded theory and narrative inquiry. Pragmatism as a philosophy allows for the use of multiple strategies, and the research design shows characteristics of a number of strategies.

Nevertheless, by a process of elimination, many of the strategies are not applicable or feasible to the study purpose. For example, the study is not an experiment as it does not contain independent or dependent variables which are examined to study relationships, nor is the research framed as a hypothesis, given that the research aim is in the form of an overarching research question. Action research is not feasible given the limitations to access of the identified stakeholders, and therefore its principle of the development of solutions through participative approaches was

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not possible. Grounded theory was rejected given the development of a theoretical framework for the study purposes, and the use of existing theory. Ethnographic research was not appropriate as it was the interactions of identified stakeholders with the documents, rather than a strict study of their culture or social world, which was the focus of the study. Narrative inquiry was rejected because while the research objectives include the study of stakeholder perceptions, this was not intended to be in the form of complete story, but rather the consideration of specific questions.

The study showed a mix of characteristics of the remaining strategies found in, case-study, survey, and documentary research. The research strategy incorporates heavy use of documentary research (it is not "archival" given the nature of the documents), which is not surprising given the focus of the study on the role of documents in the collaboration process. The survey attempt in this study was in a way an extension of the documentary research, in that it is survey of the documents and their content, although quantitative analysis of the documents could not be done.

The study of the guidance material and stakeholder perceptions shows the characteristics of case study research in that it is an in-depth study of their perceptions, but this does not strictly fall within the classification used by Yin (2014) in defining case studies as single or multiple-cases, with holistic or embedded units of analysis, given that the study covers the guidance for the whole of the UK, and the criteria for stakeholder perception is set at the professional expertise and not based off their geographical jurisdiction, as would be the case for a single or multiple-case study approach, where particular local authorities or LRFs would be chosen. On the other hand, the categorisation of the documents at the local level, and the information contained within them shows a closer link to the characteristics of survey strategies.

Of the different types of documentary support structures (which is presented in the next chapter), the "case" the researcher examines in the greatest detail is the national DSS, particularly in utilising the developing DAF on.

From on the research strategy, choices in the methodology for the study must then be made. Several research choices are available in considering an appropriate methodology and the choice of method(s), which are summarised in **Figure 4.2** below.
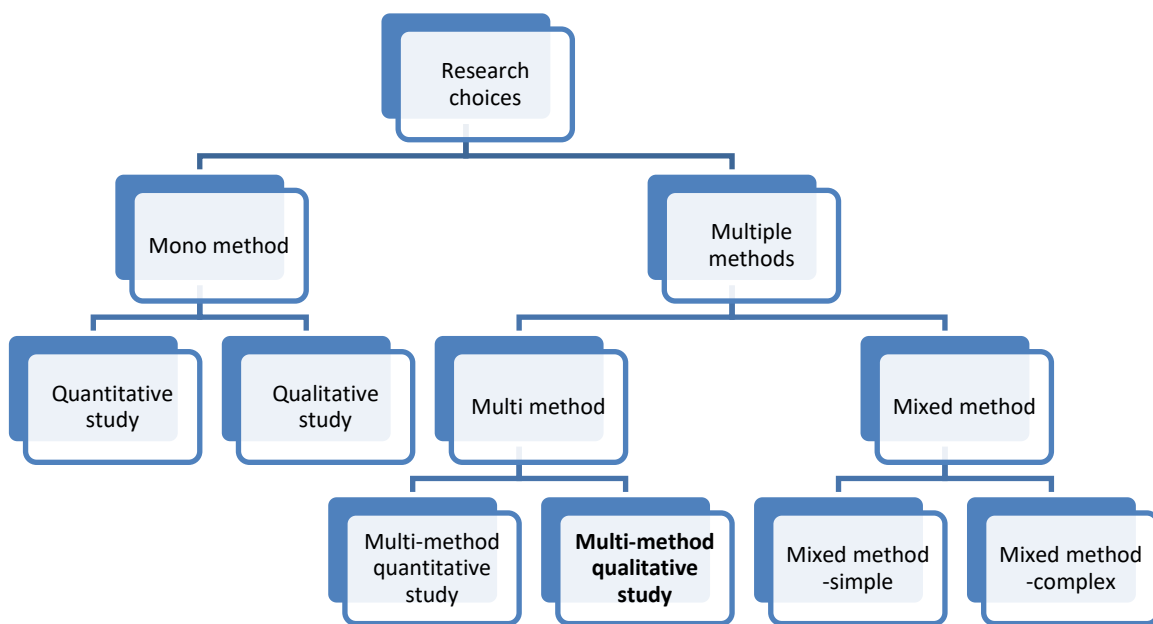
Figure 4.2 Methodological choice (Saunders et al, 2015, p.167)

Three broad types of research choices or methodologies exist – qualitative, quantitative, and mixed method research. A typical method to distinguish between 'qualitative' and 'quantitative' research is by considering what sort of data is analysed. Statistical analysis of numbers signifies quantitative research, while the analysis of 'text' is usually the remit of qualitative research. 'Text' may refer to a broad range of things, from speech, to images, to the observations of actions (Saunders et al., 2015).

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Quantitative research might look for cause and effect, measures outcomes and/or measures the numbers involved in a category of interest, while qualitative research could look for meaning, processes and/or participants' own understandings of a topic (Saunders et al., 2015). The reasons and methods of research in these two different approaches is also characteristic: it can be said that they look for different things, in different ways. While research methods overlap sometimes - for example interviews, questionnaires or content analysis - the way in which they are positioned and carried out depends on the kind of research they take place in. The methodological choice of this study is a multi-method qualitative study, with the selected methods being characteristic of qualitative research, for instance, the use of small samples, and an in-depth understanding of the phenomena.

4.2.4. Time horizons

The time horizon of a study can fall into two categories, cross-sectional or longitudinal. Cross-sectional studies, as in the case of this study, give a 'snapshot' view of a phenomenon at a specific time (Saunders *et al*, 2015). Given the time constraints of the thesis, and other logistical and access restraints, a longitudinal study of primary data sources (one where phenomena are examined over a period of time) was not feasible, and the overall research design is cross-sectional in nature. However, given the extensive use of documentary sources, which is noted to allow for the incorporation of longitudinal data into otherwise cross-sectional studies (Yin, 2014), in the case of this study too, the documents do provide "snapshots" in different moments of time. Nevertheless, the study does not necessarily go into the same level of detail with each documentary source despite examining multiple versions and evolutions of documents in some instances. The study time range pre-dominantly examines the implementation of the CCA from 2004 onwards, and guidance at various stages, but while interviewees relate their experiences with regard to extensive sections of time, many giving recollections of incidents and context across their tenures (which are typically more than 10 years, going up to several decades), the interviews themselves are single instance events. A good number of respondents discuss the time period before the implementation

of the CCA back in 2004 for example, and they all discuss the state of the system pre- and post-COVID, or EU Exit, both long-term stresses on the IEM system that had substantive and noticeable impacts on stakeholder behaviour according to many of the interviewees, but these are more incidental findings rather than deliberate choice of a longitudinal study attempt.

4.2.5. Representing the study in the research onion

Having considered the various layers represented within Saunders *et al* (2015) research onion, the study research design is summarised into **Figure 4.3** below and move forward to a discussion of the selected research methods and their rationale.
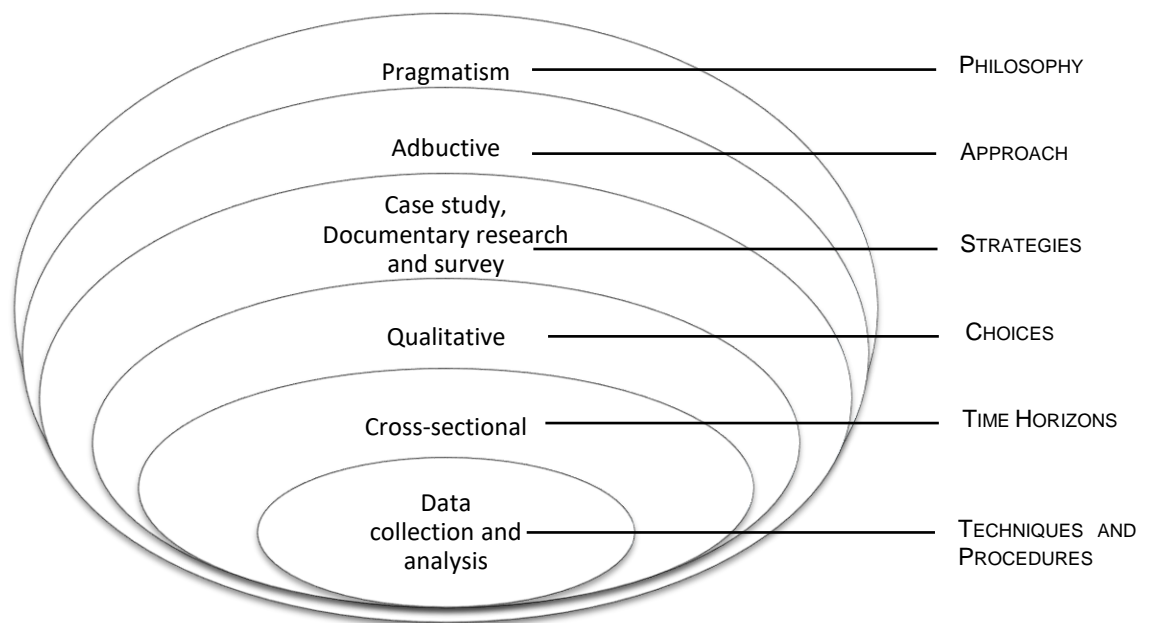
Figure 4.3 The study design as represented by the research onion (adapted from Saunders et al*, 2017)*

4.3. Research methods

The previous sections discussed the researcher's philosophical stance and in the previous chapter, the theory developed for the research design. Following on from this, the following sections go into the specific research methods used by the researcher and their relative merits and limitations, and the justification for their appropriateness for this research undertaking.

To summarise, a research method is a technique or way by in which data is collected and/or subsequently analysed. Data itself can be categorised into two types – primary and secondary. Primary data represents unpublished data or that which did not exist prior to collection (thus being unpublished). Data is usually observed or collected directly from first-hand experience and is typically collected for a specific purpose, such as for critical analysis to answer a research question (Yin, 2014). As Yin (2004) notes, secondary data, on the other hand, refers to a type of data that has been previously published or previously collected: in journals, magazines, newspapers, books, online and a variety of other sources, as in the case of the thematic literature undertaken to explore the extant literature across the three key themes of the study (documents, collaboration and disaster management) which was discussed in Chapter 2.

The investigative techniques used for this study are rooted in social sciences, given the need for information on not only the actions, beliefs and needs of people, specifically in multi-stakeholder collaboration contexts and their use of supporting structures, and the subjective assessment of the existing support structures themselves. As stated, the final study is a multi-method, qualitative study.

To summarise, the following methods, as such, are utilised:
- Documentary review
- Semi-structured interviews

The two main methods, documentary review and semi-structured interviews, are discussed further in the subsequent sections, along with identified merits and issues in their use.

Observation as method was intended to be used extensively by the researcher by attending LRF meetings or workstreams, was however due to COVID restrictions at the time of data collection this was not limited. In addition, the documentary review was initially a mixed-method approach, with a quantitative survey planned for local plan typology mapping, and a quantitative content analysis intended for major incident plans. However, heavy restrictions of data access led to sufficient data for a randomised sample, and this was instead incorporated into the sum of qualitative documentary review. These are also discussed further within the following sections.

4.4. Sampling

There are two main types of sampling: probability sampling and non-probability sampling (Saunders et al., 2015). Within each of these types, there are various further sub-divisions. The choice of appropriate sampling technique used for any given method depends on various factors, including the required output or format of the data analysis; the characteristics of the data itself; access of the researcher to the data; and the research design, to name a few (Saunders et al., 2015).

Broadly speaking, probability sampling is used when statistical inferences about a target population are being made from a sample; with the typical assumption that each 'case' or 'element' within the population has an equal probability of selection. Probability sampling is usually associated with quantitative research and employs measures to ensure that the sample selected is representative of the population under study. This enables the researcher to generalise from the sample to the population it represents and carry out statistical analysis on the data. Identifying an appropriate sampling strategy is important in probability sampling as it has varied implications on generalisability of the data to the population (Saunders et al., 2015; Creswell, 2013). Quantitative methods despite their higher reliability do not usually

go into as much depth for individual cases, given the number of samples necessary for statistical significance to be achieved in the results (Holsti, 1969).

On the other hand, qualitative research methods, typically use non-probability sampling. They do not require the selection of a large sample and random sampling procedures and the type of the sampling technique can vary widely depending on the intent of the data collection (Miles and Huberman, 1994; Saunders *et al*, 2015). As a rule, however, the sampling strategy for qualitative research results in a small number of cases that are analysed to a higher level of detail that in quantitative methods, resulting in a higher degree of validity, but a conversely lower level of reliability. Additionally, increasing the reliability by increasing sample size is a much more time-consuming endeavour than in quantitative methods due to the detail each case goes into (Yin, 2014).

Samples (or individual cases/elements) are selected from within the target population of a study i.e., members of a group that a researcher is interested in who share similar traits or characteristics (Saunders *et al*, 2015). The "sample" itself is a subset of the "target population", which is a subset of the total population.
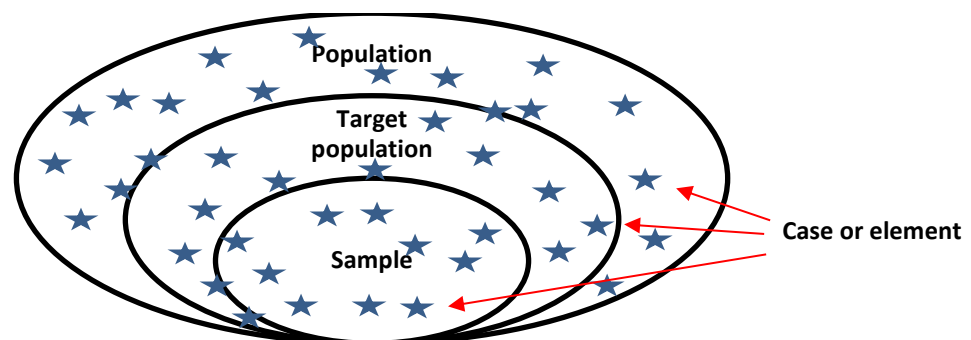
Figure 4.4 Population, target population, sample and individual cases (Saunders et al, 2015, p.275)

Looking further into the sub-divisions within the main two types of sampling, probability and non-probability sampling, the available choices can be illustrated as seen below in **Figure 4.5**.

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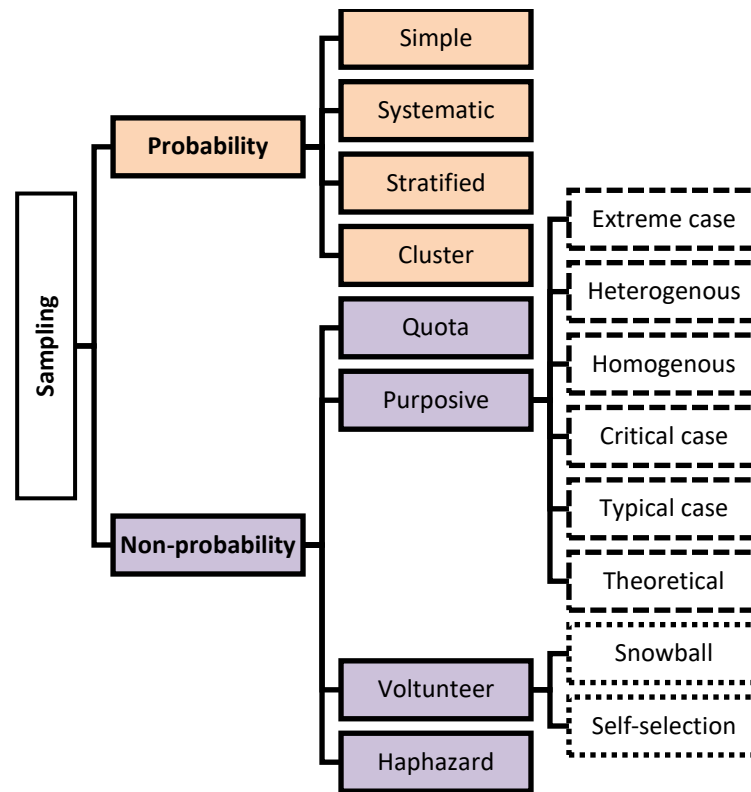
Figure 4.5 Sampling techniques (adapted from Saunders et al, 2015, p.276)

Both the primary research methods, documentary review and semi-structured interviews, use non-probability, purposive sampling, and the different sampling strategies and these are discussed within each method respectively. The documentary review as it progresses through to the use of the developed Documentary assessment framework (DAF) is a critical case selection of documents that fit selected criteria.

4.5. Documentary review

O'Leary (2017, p.272) describes document analysis as "a research tool for collecting, reviewing, interrogating and analysing various forms of 'text' as a primary source of research data" and can be in the form of quantitative or qualitative research. While Bowen (2009) notes that the use of documents is often attributed to the need to improve the credibility of studies by using multiple sources of evidence to triangulate findings and find convergence and corroboration, they describe that its value is not limited to this and discuss the merits of using qualitative document analysis as method in and of itself. Bowen (2009) reflects that a systematic review of documentation could not only provide contextual richness in the study area; but were also useful for pre-and post-interview situations, where documents supply leads for asking additional, probing questions, or provide information on what situations or events need to be observed, therefore serving a useful purpose in augmenting primary data. Freeman and Maybin (2011) reviewed a range of articles that used document analysis, particularly related to those in policy, as is the case in this study, and noted that most articles fell into one of two groups: "*those that focused on the substantive content of the documents; and those that were concerned with the language of the documents as texts.*"

In the document review, the hierarchies of documents in the UK disaster management process were considered and the linkage of the national policy, regulatory and guidance documents, with the resulting local documentary support structures are discussed. This phase is a **systematic review** of these documents. To this end, the documentary review allowed for an exploratory mapping and evaluation of the collaborative arrangements and their supporting structures in the UK disaster management process. However, this falls short of the aim of this study, wherein the role of the document as a tool or artefact is centralised.

The study initially intended to use documents as primary sources to carry out two types of analysis, the first being a qualitative analysis of the key guidance documents recommended by the UK government for the disaster management practitioners and relevant stakeholders to read to become familiar with the process,

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their duties and best/good practice, and in doing so identify the set of documents to be assessed through the documentary assessment framework (DAF) being developed. The second documentary analysis technique was to be a quantitative survey of local plan typologies and a content analysis of major incident plans at a local level. As this method was carried out however, it became apparent that data access was a critical restriction in conducting even a basic survey of emergency related documents of local authorities or LRFs. These findings were instead reviewed qualitatively, and the document population examined was expanded to include these. This is detailed further in **Section 4.7**.

The DAF that is developed through an iterative process of documentary review and the semi-structured interviews is both a product of this research and an integral part of its methodology. This abductive development process is discussed in greater detail in **Section 4.9**, given this uses the other methods utilised in the research design, which are yet to be covered.

4.5.1. The document population

Broadly two categories of documents analysed – those identified to be assessed with the documentary assessment framework (DAF), which is detailed shortly in **Section 4.5.3**, and a range of other documentary data sources, broadly consisting of the subsection of Cabinet Office documents that pertain to emergency or contingency planning, guidance, policy and legal documents in the field, post-incident reports and review of notable disasters in England, post implementation reviews of the CCA, and a range of local documents, particularly planning material.

Documents were located using a number of methods, including systematic internet searches using the Google search engine by stringing words such as "*emergency*" or "*civil contingencies*" with "*planning*", "*preparedness*", "*response*", "*resilience*", "*collaboration*", "*cooperation*", "*guidance*". From this, the GOV.UK webpages pertaining to emergency planning, preparedness, response and recovery, and risk

assessment for instance were identified as the key sources of the documents, and the researcher reviewed the text of these pages, noting links to further documents both from webpages and documents already discovered. Additionally, during the interviews, participants would often prompt the researcher towards other ongoing or previous studies, reports, or suggestions of further relevant guidance, which gave greater context to the participants comments. The DSS for every participant were considered, notably in examining the webpages and available reports, plans and other documentation within the participant organisations, however these are not listed explicitly to preserve anonymity. As such, this included the consideration of 10 Community Risk Registers and other related documents not listed in the references.

Fifty-nine (59) stand-alone documentary sources are listed within the **References** list, within the section "**Documentary review",** which were part of the *general* document review. The search also restricted itself to only a few examples of specific plans (from for example county councils). This number does not include webpages GOV.UK webpages and many of the organisational DSS. LRF documentary sources are as stated not included to preserve anonymity.

Notable reports and reviews, for example, include:
- The Pollock (2013) and (2017) reviews on interoperability and its role in the development of JESIP
- Post implementation reviews (PIR) of the CCA 2012, 2017 and 2022
- Manchester Arena review: Kerslake report (2017) + Saunders report (2022)
- Global Britain in a competitive age: The Integrated Review of Security, Defence, Development and Foreign Policy (Cabinet Office, 2021a)

Of these documents, using the selection criteria detailed next, documents were identified for assessment using the developed Documentary Assessment Frameworks (DAF).

4.5.2. Document selection for assessment using the initial and final DAF

The documents assessed using the initial Documentary Assessment Framework (DAF) were selected using a critical case purposive sampling technique and the selection process used four (4) main criteria.

The documents had to be:

1. Recommended or noted as "key" guidance by government
2. Non-specific to disaster typology
3. Information material for local level arrangements up to Significant Level 1 emergencies
4. Indicative of the collaborative arrangements or expectations of practice during collaborative engagements

The first criteria, that document had to be recommended to be read by emergency responders (Category 1 or 2), planners, etc. *by government* was important as a starting point, in that the DAF is assessing the national documentary support structures. This sum of these documents is intended (and stated) to be representative of the key guidance for the fulfilment of obligations under the Civil Contingencies Act 2004. The second criterion was necessary to make the review of documents manageable. When considering the document population that provides guidance, when going further into subsidiary documents and disaster specific templates and guidance, the volume of material is not possible for a single PhD candidate to manage. Additionally, the specific plans were found to be mostly unavailable publicly at the local level. In **Chapter 1, Figure 1.1** the Introduction set the scope of this study at the local level, and this merely restates this. As such, the documents considered are targeted at those pertaining to the local level arrangements (and therefore not COBR or inter-regional). As stated in the Introduction, recovery mechanisms are not scoped within this research study.

Eleven (11) documents (2 legislative documents, and 8 guidance documents and 1 report) were identified for the initial DAF use, and stakeholder perceptions of these documents were subsequently extracted.

The selection of documents was expanded for the analysis using the final DAF. In addition to the 11 documents identified for the initial DAF use, 3 additional documents were included to this list which was missed in the initial search or unavailable publicly at the time. The scope of the DSS examined was expanded to include webpages, as such a further 4 webpages, for a total of 18 documents, were also identified using these criteria. While the documentary review using the DAF does not look at any previous versions of the documents, where present, these are made of note of and where relevant become part of the overall documentary review. It should be noted however, that since the CCA's adoption, the many of the key guidance identified have only substantially been revised once, during the period of review post-2012. The selection of these documents assessed within the final DAF is further validated through discussing the selection of documents with participants and expanding the document selection for the final assessment by their recommendations.

4.5.3. Data analysis of documents

Documentary analysis can be approached both qualitatively and quantitatively, within each having different methods. O'Leary (2017) identified two main methods of document analysis as being a content analysis of the documents or the use of a "interview technique", where the researcher asks questions of the text, and highlights the answers within it. In the "interview technique", O'Leary (2017) outlays 8 keys steps as:

1. Gathering the relevant texts.
2. Organizing the collected texts.
3. Making copies of the originals for annotation.
4. Confirming the authenticity of the text.
5. Exploring the documents' agenda, biases.
6. Exploring background information (e.g., tone, style, purpose).
7. Asking questions about document (e.g., Who produced it? Why? When? Type of data?).
8. Exploring the content

On the other hand, Holsti (1969) represents a more old-school concept of content analysis being a quantitative documentary analysis method, focussed on coding and assessing the content of texts. Bowen (2009) recommends content analysis of documents to instead "*entails a first-pass document review, in which meaningful and relevant passages of text or other data are identified*", although quantitative content analysis is noted to be useful in providing "*a crude overall picture of the material being reviewed, with indications of the frequency of terms".* Thematic analysis follows content analysis in Bowen's (2009) view, rather than the "interview technique" discussed by O'Leary (2017), with the thematic analysis being a "*careful, more focussed re-reading and reviewing of the data"* in order to identify patterns, "*with emerging themes becoming categories for analysis*".

A combination of content analysis following Bowen's (2009) rationale, and the interview technique of O'Leary (2017) is used within the study. While thematic analysis is used with the study, themes were identified from the interview analysis, and the documentary sources provide in cases greater detail, context and external validation. However, it should be noted that the initial DAF, which is divided into 7 factors is the result of the thematic synthesis of literature surrounding documents and their use.

Given the abductive approach used in the research design, the data analysis within the documentary review varied in different stages of the research. Activity theory, negotiated order and the developed conceptual framework provide theoretical lens through which the researcher initially interprets the data, and here content analysis is the process by which relevant text with each source is identified.

Meanwhile, the DAF is applied to a select list of documents. With the use of the DAF in the study, the "interview technique" application is more structured. The initial DAF developed from the literature review identified 7 factors that will be used in examining the documents selected, and the final DAF presents 15 factors, refined and validated after the analysis of the interviews. The primary purpose of the DAF

can be stated then to be to *assess the national documentary support structures in their effectiveness as artefact in supporting collaboration.*

Both this select set of documents, and the remainder of the document population, particularly reports and planning documents, that did not meet these criteria were part of a more general content analysis. This analysis included aiding in:

- Mapping individual and organisational stakeholder roles and responsibilities
- Mapping the known collaborative arrangements
- Mapping the documentary support structures from national to local levels

And, particularly with incident reports and reviews, aid in:

- Identifying issues, tensions, and pressures within the collaboration system
- Identifying gaps in knowledge

In combination, the this guided the development of the interview protocol.

4.5.4. The merits and limitations in using documents as a data source

Bowen (2009) describes a comprehensive list of advantages apparent in the use of documentary sources and the qualitative document analysis technique. These advantages are listed as being: an efficient method; the availability; cost-effectiveness; lack of obstructively and reactivity stability; exactness; and coverage.

Table 4.1 Advantages of document analysis (Bowen, 2009, p.31)

Advantage	Description
Efficient method	Document analysis is less time-consuming and therefore more efficient than other research methods. It requires data selection, instead of data collection.
Availability	Many documents are in the public domain, especially since the advent of the Internet, and are obtainable without the authors' permission. This makes document analysis an attractive option for qualitative researchers. As Merriam (1988) argued, locating public records is limited only by one's imagination and industriousness. An important maxim to keep in mind is that if a public event happened, some official record of it most likely exists.
Cost-effectiveness	Document analysis is less costly than other research methods and is often the method of choice when the collection of new data is not feasible. The data (contained in documents) have already been gathered; what remains is for the content and quality of the documents to be evaluated.
Lack of obtrusiveness and reactivity	Documents are 'unobtrusive' and 'non-reactive'—that is, they are unaffected by the research process. (Previous studies found in documents are not being considered here.) Therefore, document analysis counters the concerns related to reflexivity (or the lack of it) inherent in other qualitative research methods.

	With regard to observation, for instance, an event may proceed differently because it is being observed.
	Reflexivity—which requires an awareness of the researcher's contribution to the construction of meanings attached to social interactions and acknowledgment of the possibility of the investigator's influence on the research—is usually not an issue in using documents for research purposes.
Stability	As a corollary to being non-reactive, documents are stable. The investigator's presence does not alter what is being studied (Merriam, 1988). Documents, then, are suitable for repeated reviews.
Exactness	The inclusion of exact names, references, and details of events makes documents advantageous in the research process (Yin, 1994).
Coverage	Documents provide broad coverage; they cover a long span of time, many events, and many settings (Yin, 1994).

A typical disadvantage cited in using documentation is that documents may have their own bias, and that this must also be accounted for (Bowen, 2009; O'Leary, 2017). This potential bias leads to suggestions that documents cannot always be counted on as providing objective accounts stating that they need to be interrogated and examined alongside other data. However, this issues of bias and objectivity is less of an issue for the documents studied here than in the typical case, because these documents are the "voice" of the government (local or national), and are rarely the product of single authors, however, the question of document ownership is one that is a point of interest within the study, and it discussed further in subsequent chapters. Besides the issue of bias, Holsti (1969) describes a "Manifest-latent issue", where the degree to which a researcher interprets the meaning of the text plays a role in the findings. The manifest meanings in this sense pertain to the surface or face-value meaning of the text, whereas the latent meaning colloquially describes the process or 'reading between the lines', or research where

interpretation of the implied meanings of a given text plays a role, introducing the subjectivity brought in by the researcher's bias. This too is an important consideration of the study – with "Language" having been identified as a point of interest within the initial DAF itself, and the issue of manifest vs. latent meanings is one actively considered within the study. Nevertheless, despite the examination of latent meanings during the reflexive process, much of the emphasis is on the manifest meaning of the documents, and their scope for interpretation – which is explored predominantly in the semi-structured interviews.

Most of these advantages summarised in **Table 4.1** were found to translate directly into the study, with the notable exception of consideration of time-consumption. Despite requiring "data selection" rather than "data collection", as stated by Bowen (2009), there was an extremely high volume of documentary material the researcher had to familiarise themselves with, including to identify the selection of documents to be assessed using the DAF.

Despite this,

> *"These are really potential flaws rather than major disadvantages. Given its efficiency and cost-effectiveness in particular, document analysis offers advantages that clearly outweigh the limitations."*

<div align="right">Bowen, 2009</div>

4.6. Semi-structured interviews

Objective 4 of the research study outlined the intention to gather data on the perceptions of stakeholders using the documentary support structures. To this end, interviews were selected as a data collection method. There are three types of interviews in qualitative research: unstructured, semi-structured and structured interviews (Saunders *et al,* 2015; Brinkmann and Kvale, 2015).

Interviews, in short, allow for the collection of in-depth data. While the data is value-laden, it also has a high degree of validity. In fully structured interviews, the researcher has a common set of standardised questions that are rigorously adhered to during the interview process. On the other hand, unstructured interviews (or non-directive interviews) do not have a pre-arranged set of questions prior to the interview, however this can vary widely, with either some questions or themes being prepared in advance, but its main characteristic is its intent to leave the questions as open as possible (Yin, 2014; Petty *el al*, 2012b).

In this study semi-structured interviews were used to capture the characteristics of collaborative practices, because this technique produces in-depth data while maintaining a structure within the interview process. During semi-structured interviews questions or topics are planned in advance, but there is flexibility in the discussion and room for improvisation and digression, given the interviewee possesses the expert or practical knowledge guiding the line of inquiry, and can open up new avenues to explore (Saunders *et al,* 2015; Yin, 2014). At the same time, the structure will help ensure that the questions being asked are linked to stakeholder collaboration and follow the general research design and aims of the research.

In the initial research design, these gaps in knowledge were expected to be filled out by the researcher during the extended period of observation and informal conversations with stakeholders and not the focus of the interviews, so as to focus on gaining an in-depth understanding of the factors identified by the literature review in developing the initial documentary assessment framework. However, with the

restrictions during COVID, undertaking observations was not possible. The interview protocol was instead expanded to cover these in addition to the extensive documentary review. A such there was a clear need for expert knowledge, driving the purposive sampling used to select the interview participants, to increase the quality, validity and reliability of the data. Stakeholders were identified across the organisations that comprise the LRF, fall within different hierarchies within and between organisations. As such, the questions had flexibility to examine their perceptions in a more bespoke way.

Appendix A lays out the Interview Protocol, including the Participation Information sheet provided to participants prior to the interview, the Participant Consent Form template, the general structure of the semi-structured interview questioning, including the prompts (or supplementary questions) and style of questioning followed during the interviews, and finally a supplementary document titled "List of Documents" that was provided to each participant to aid in the interview process.

Only Participant A was interviewed in person. Due to the COVID restrictions, the remaining 11 interviews **were conducted remotely** using video conferencing through a combination of either MS Teams, Zoom or Skype. All interviews were recorded, including in most cases video recording, barring connection issues. Transcripts of the full recording produced for subsequent analysis. The participants were contacted through the official email addresses of the 38 LRFs in England, of which 9 unique LRFs participated, with the participants all being senior officers or managers within the LRF secretariats. 2 additional interviews were arranged through one of the LRF participants with the then Ministry of Housing, Communities and Local Government Resilience and Emergencies Division (MHCLG RED), the national liaison for the LRFs in the England. After the data collection, the Ministry rebranded to the Department for Levelling Up, Housing & Communities, and it is not entirely clear what changes to the remit of RED have occurred, although articles on this change, for instance, by Lewis (2021) and Kenyon (2021) do not view this change positively, raising concerns that it sets a de-prioritisation and undervaluing of local government. The two participants from RED are from one of the regional

hubs for LRFs (i.e., North-west, North-East, Midlands, etc.), of which there are 9 in England. The final (or first) interview was from a participant from a Local authority in the Greater Manchester, and unlike the remaining interviews was conducted in person. **Table 4.2 below** shows the distribution of participants**.**

Table 4.2 Distribution of participants by designation

Designation	Number of participants
LRF Overall Coordinators	5
LRF Managerial	2
LRF Senior Emergency Planners	3
LA Emergency Planning Manager	1
National Liaison (Executive)	1
National Liaison (Tactical)	1
Total participants	13
Total interviews	**12**

Given the seniority and the distribution of participants, the study is best described as a case study of LRFs in England. 6 of 9 regions in England and 9 of the 38 LRFs in England are represented in the study, with an additional LRF having been part of the initial observations and having a corresponding LA representative interview. Further LRFs are often referred to indirectly by the participants, and responses on 4 additional LRFs by participants, typically with regard to neighbouring LRFs, are noted. The 10 primary LRFs are each analysed as a "case" and as part of the document review, the researcher assess their available DSS in the form of webpages, published plans, reports, structures, etc. Within each interview, each LRF system becomes the overarching unit of analysis, and as discussed in **Section 3.4** through the use of activity theory becomes a consideration of activity mediated through the use of the documents.

COVID-19 prompted rather dramatic changes in the research strategy and design, particularly in the semi-structured interview process, and delayed the timeline substantially, including a period of interruption of the researcher's part. There is an 8-month gap between the first interview and the remainder, which were conducted between August and October 2020 due to the COVID restrictions at the time, notably in terms of access to the research participants. Most of the interviews were therefore conducted after the COVID impacts had been felt for several months, which notably affected the participants responses (prompting many to discuss typical stakeholder behaviour as distinct pre- and post-covid terms) and also resulted in the remainder of the interviews being conducted remotely via teleconferencing as stated.

This was a cause of concern for the research initially, due to concerns about the resulting quality of the data, and the fear of being unable to develop a rapport or trust with the participant. Vogl (2013) examined the consequences to data richness between telephone interviews and face-to-face interviews and challenged the discounting of telephone-interviews as mode of interview. For a range of reasons, the researcher too posits that the loss of data quality was minimal for the study, and in fact the remote interviews allowed certain clear benefits.

Prior to COVID, remote interviewing would have been a riskier and potentially less data rich method for data collection because of several reasons including participant familiarity with software, the ease of access, the set-up of hardware and other technical difficulties, the human element of the inability to form a connection with a participant without being physically face-to-face which have noted as potential issues of this type of data capture, which however was found not to be the case. In this sense, it is fortunate that the researcher observed little data quality loss, which can be attributed to the familiarisation of participants to this form of communication over the COVID restrictions. Given the COVID had been ongoing for several months at this point, all the participants were familiar with both working from home, or restricted numbers in-office, where they were still carrying out a substantial amount of their day-to-day functions remotely. This had the added benefit of making the

researcher more comfortable as well given the additional stresses and logistical issues of in-person interviews.

As such, the use of remote interviews was overall positive. The familiarity with the participants to remote meetings and working from home meant they were comfortable during the interviews themselves and were well set up to carry out these interviews from the comfort of their homes or having already set up their office spaces at work to allow for remote meetings much easier. This allowed the researcher to interview participants they would normally not have been able to due to the logistics involved. The participants were from LRFs across England, and the distances and associated costs involved would have normally precluded their inclusion into the study, as well as the difficulty of arranging fixed interview times with personnel whose job roles often required their sudden and immediate attention, as seen by the researcher given a number of meetings having to be re-scheduled last-minute.

As an additional note, COVID did entirely eliminate the possibility of attendance in further LRF meetings as an observer, given that LRF meetings would have gone from the mandated bi-annual meetings to Strategic Coordinating Group meetings – both with the same members, but the SCGs would be restricted in that they are the "wartime" meetings, as opposed to the peacetime LRF meetings. The use of observations as a method is discussed further in **Section 4.7**.

4.6.1. Data Analysis of semi-structured interviews

Yin (2014) describes data analysis as "*examining, categorising, tabulating, testing or otherwise recombining evidence, to draw empirical based conclusions*". As seen, within the documentary analysis, different techniques for the data analysis were utilised, such as mind-mapping, the analysis of semi-structured interviews was ultimately a thematic analysis. Initially, however, the techniques for content analysis were extremely beneficial in directing the researcher in planning out the coding process (see Elo and Kyngas, 2008; and Bengtsson, 2016). Indeed, as noted by other authors, for instance, Vaismoradi (2013) there are considerable similarities to thematic analysis with content analysis, although the researcher agrees in their distinction in that the frequency of the themes/categories identified were not used to assign significance, and while cognitive maps were produced to represent the findings, the results make significant use of extracts to support their analysis, as in the case of thematic analysis. The steps for the analysis of the interview data are outlined below.

- All the interviews were transcribed, and recordings were available, including video recordings, that aided in verifying tone and analysing possible inferred meanings of comments.
- The interview transcripts were coded on paper (see **Appendix B: Interview coding example**) searching for meaningful categories and concept to organise the results around. The initial analysis and data coding was heavily towards the identification of factors for the refinement of the DAF and validating the factors from the initial DAF.
- For each new concept identified, codes were assigned until no new concepts and codes emerged (data saturation achieved). These "free nodes" were then transferred into hierarchical "tree nodes".
- Attention was paid in filling out the gaps in knowledge pertaining to the collaborative arrangements and the local documentary support structures, which is not strictly a "code". However, the tensions, pressures, and concerns of participants within these structures were all coded.

- Cognitive maps were used extensively to help with the data analysis, greatly aiding in consolidating codes and in visualising both the results and relationships examined.
- This then was refined into a thematic analysis as the factors and codes were developed and consolidated.
- Relationships between different nodes were identified based on the participant views, as well the researcher's DAF use, and the cross-synthesis was used to model the system.

As part of the interview preparation, prior to every interview, the researcher would scan and attempt to familiarise themselves with the documentary sources available on the main webpages for each organisation. As mentioned previously within **Section 4.5.1**, for every LRF (and LA) interviewed, supporting evidence from documents on the LRF webpages, notably all the relevant Community Risk Registers, as well as any available documents pertaining to LRF standing agendas, training, exercising, and a review of the available content of the roles and responsibilities undertaken by the LRFs were also used to triangulate the findings. Some examples of these documentary sources are presented in the results, but anonymised.

4.7. Other methods

Observation

Observation during the data collection stage was heavily restricted due to COVID in early 2020. The impact of this was discussed in relation to the interviews previously. The researcher was only able to attend one bi-annual LRF meeting at the gold level. During the official meeting, the researcher took on the role of a "complete observer", as discussed by Westbrook (1994) to be one of 4 types of observation (the remainder being a "complete participant", a "participant-as-observer" and "observer-as-participant"), but by engaging in informal discussions with the participants before and after the meeting, become better informed with the relationships between the artefacts and the stakeholders, while filling in a range of contextual gaps about the collaborative arrangements and organisational practices. At the time, this did heavily affect the early research design, as it gave the researcher the first-hand context into the UK IEM. Many authors note the crucial role observation as a data source plays in research, by engaging in a considered mix of observing, participating in the process, and interviewing participants (Westbrook, 1994; Cresswell, 2013; Saunders *et al.,* 2015). The researcher also attended a number of training conferences aimed at practitioners within the UK IEM, but these did not allow for appreciable data collection.

Survey of local documentary support structures and Content Analysis of Local emergency response plans

Initially the study initially intended to use a mixed methods approach and attempted a quantitative survey to categorize the typology of documents that appear at a local government level, related to emergency planning, and subsequently conduct a quantitative content analysis of local disaster management plans. This was not possible however, due to the issue of data access.

The survey was intended to allow the researcher to determine the state of available documents, particularly the resulting plans published by the local authorities. The local authorities were selected using a simple random sampling technique from the

total population for England. For a 90% confidence level, and 10% margin of error, a sample size of 57 was required, for the total population of 353 at the time.

Table 4.3 Initial Survey Outline

Parameter	Description
Council name	Name of the council
Tier	The Tier of the council may have an impact on the type of document produced, and the researcher also wished to see if this affected the likelihood of producing plans that are public facing. For example, because Unitaries will typically be for large cities or towns
Region	The region with the UK the LA is based within (which is also its respective LRF region)
Published document typology	Surveying the published documents, with major document typologies identified in the literature review noted below. ▪ Major incident plan (generic) ▪ Business continuity plans ▪ Recovery Plans ▪ Community risk register ▪ Community resilience documents ▪ Disaster specific plans ▪ Other
Information within LA emergency webpage	Surveying information with the LA emergency related webpages for information types published in accordance with warning and informing, including making note of: ▪ Redirection to LRF ▪ Reference to other sensitive plans ▪ Support structures on LA web pages

However, as the survey was carried out, the scope of the data collected had to continually reduced as for a majority of the LAs surveyed the information was simply not available publicly. This survey had to be switched to instead a scan of the local authority publications and results are presented qualitatively in the next chapter.

The content analysis intended to explore the degree of fulfilment of the minimum requirements for major incident plan (see **Chapter 5, Section 5.3.6, Table 5.6**) by following a quantitative coding of the text. This form of content analysis in social sciences and humanities contexts is extensively seen in literature related to media related fields as a quantitative tool of analysis (see for example Holsti, 1969; Krippendorff, 1980). Holsti (1969) for instance, give many examples of its use in the analysis of transcriptions of speeches, books, documents, newspaper articles, and other forms of 'text' (which can include other media such as film, pictures, etc.) to identify the presence of themes or language or specific content in order for these results to numerically produced such as frequencies, counts, presence in cases, etc. This results in numerous tables of presence and frequency of themes and document typologies.

The survey and subsequent content analysis of published "Generic major incident plans" was assumed to be possible by the researcher given the literature review and review of the CCA was interpreted as requiring non-sensitive versions of such plans to be made available to the public. This was found not the case, and instead entirely up to the interpretation and discretion of the local authority. Although multiple plans of such type were discovered, this was insufficient to make the basis of probability sampling to produce statistically valid data. Even where these plans were available, the documents had to be handled with care, as the researcher had to assume that they only had access to the public facing document, and not the full version. The attempt, which was attempted concurrently with the ongoing qualitative documentary review, was carried out for a substantial period of the research study, and therefore even when the limitations of access necessitated the study switch to a purely qualitative approach, it retained a pragmatist philosophy for instance, and the findings of the attempt were considerable enough to inform and influence the subjective discussions of the researcher. This was done by expanding the scope of the documentary review to include these data sources, albeit restricting the use of the DAF to the document list that satisfied the criteria developed for this.

Review of external training methods – Secondary sources

Following the interviews, a brief survey of national external training and associated costs was carried out by examining the relevant webpages within the Emergency planning College and the College of Policing. These results are presented in Appendix C: Emergency Planning College training courses.

The next section presents a summary of the research design and the research objectives associated with each methodological choice, and the abductive research approach considerations are discussed after this.

4.8. Summary of research design

The research design can be summarised graphically as shown below, relating the selected methods to the objectives stated in the introduction. The Research Objectives are restated below the figure for reference. The abductive research approach is discussed in detail in the next section.
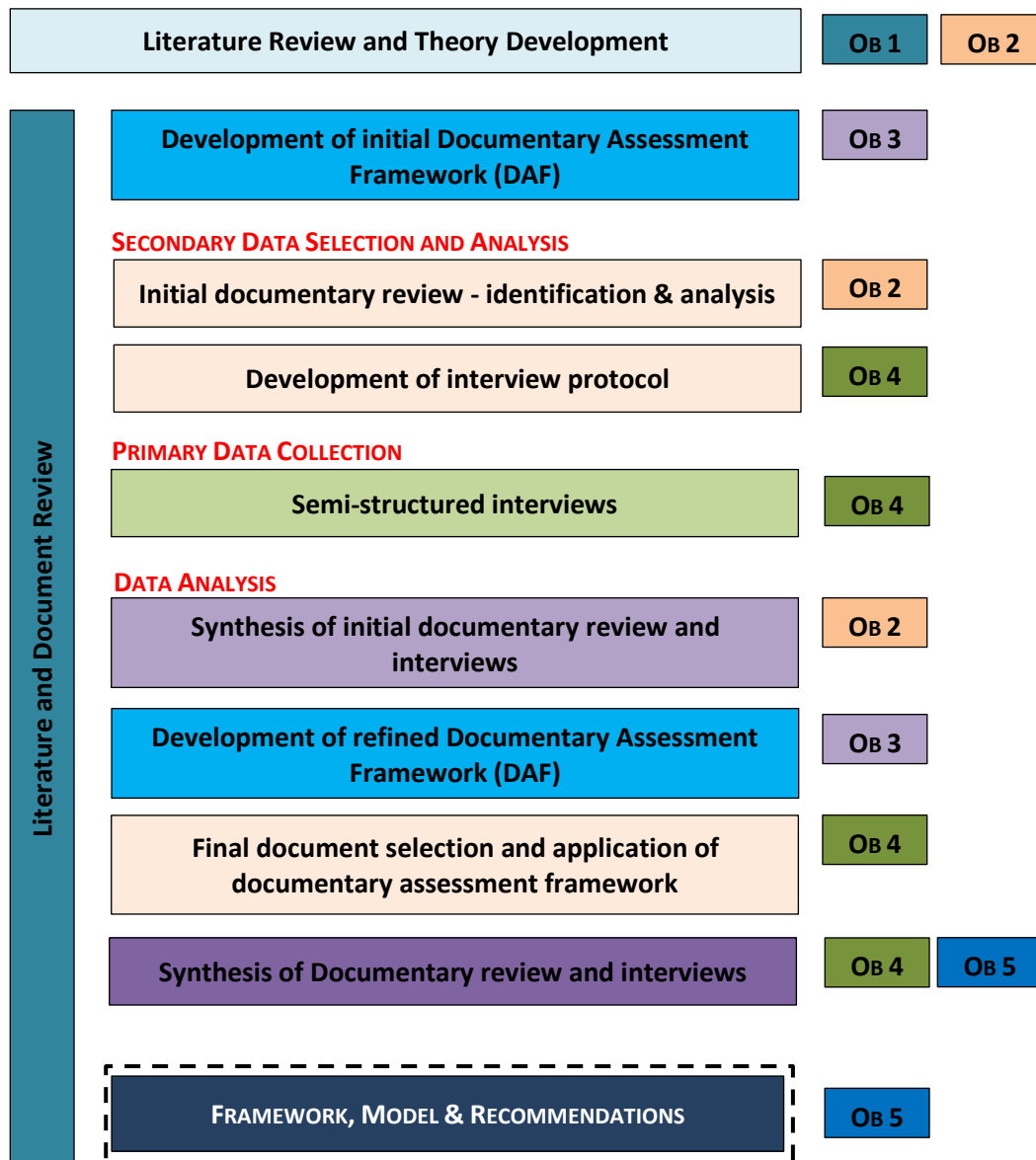
Figure 4.6 The research design: visualising the abductive approach and stated objectives

Research Objectives:

1. Examine collaboration in disaster management and the role of documents in supporting it

2. Identify and explore the documentary support structures and collaborative arrangements within the UK IEM

3. Develop a framework to assess the documentary support structures

4. Evaluate the effectiveness of national and local documentary support structures in supporting collaboration and capture the perceptions of stakeholders using these support structures

5. Develop a framework and/or recommendations to enhance the documentary support structures to collaborative disaster management in the UK

4.9. The abductive research approach and iterative data analysis

4.9.1. The use of Activity theory for initial documentary review

In the early stages of the research journey, prior to the focus on documents as artefacts, the researcher aimed to study collaboration within the UK IEM more generally, but with a focus on extreme weather events. The researcher assumed the mechanics of communication and coordination depended on IT related objects. However, from the initial observations at an LRF meeting and during informal conversations with stakeholders, the researcher observed that while individual stakeholders, particularly expert members providing technical or scientific input, may use specialized tools and software, during collaborative engagements, the medium of collaboration was at a more basic level – of presentations and tabletop discussions, supplemented by documents disbursed prior to the meetings.

Initially activity theory was used extensively by the researcher for stakeholder mapping and the exploratory study of the disaster management process. It was determined to be an appropriate tool to use for the structuring inquiry in data collection during observations and the subsequent analysis of any field notes (prior to restrictions in using observation). Activity theory could also be combined with a

consideration of negotiated order, looking for evidence of negotiations during collaborative activities. The largest draw initially to this theory was its potential to examine the medium of collaboration, i.e., the documents. Geisler (2001), for example, uses activity theory to examine texts as objects within complex organisations, although even they examine texts mediated by information technology. As discussed in **Chapter 3**, activity theory does see much use in IT and human-machine interface studies, either as the activity of users with physical hardware systems or software programs (Blackler, 1993; Alzahmi, 2015). However, activity theory is not limited to this. As discussed in the theoretical framework chapter, activity theory began primarily as a meta-analysis framework for the intersection of behavioural and socioeconomic studies refined in its 3rd evolution by Engstrom (2001). LRFs, the collaborative platform at the centre of the study, are not legal entities. At the regional level, they are the result of a self-organising system of interacting subjects. Exploring this kind of organisation was the tenet of activity theory, in essence finding a bridge between behavioural and social sciences that typically maintained a division between the study of socioeconomic structures and human agency (Engestrom et al, 1999, pg. 19). This is also the core principle of negotiated order, which, as a theoretical lens, provides a relevant mechanism to consider the order and structure within the collaborative arrangements.

The study explored activity theory's potential as the starting point for the development of a framework for the qualitative assessment of the documents related to the disaster management, placing the documents as "artefacts" within the framework. The use of the theory is qualitative in nature and additionally based primarily on the researcher's interpretations. The researcher posited that it was possible to use activity theory to form a framework with which to analyse a set of documents used by practitioners to familiarise themselves with their roles and responsibilities, good practice and the UK disaster management process. In terms of the Activity theory nodes, the researcher took on the position of "subject" as the user or reader of the "object" the document, as shown in **Figure 4.7**.
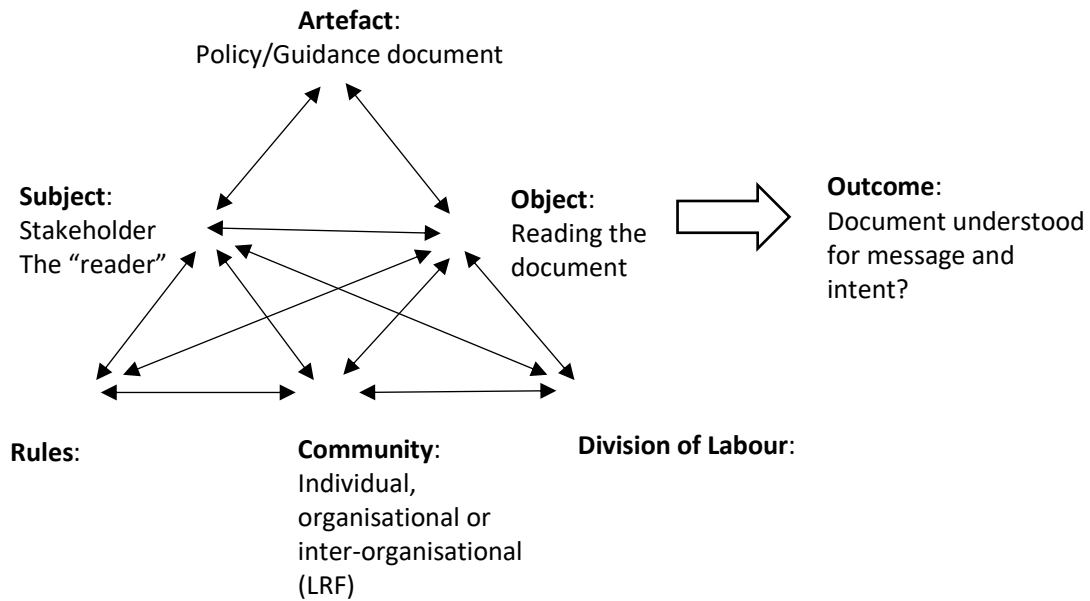
Figure 4.7 Use of activity theory for single document analysis

By looking at the activity theory framework, one could establish the elements of the framework, setting the "outcome" to be whether the document itself had been understood for its message and intent. If one takes the six elements of the activity theory framework, this situation is interesting, because the documents describe the **rules** of the organisation and the government. "Division of labour" is also interesting, because the researcher is viewing the document from a singular stakeholder perspective, but the document itself describes roles and responsibilities, and this is further tiered by the individual roles and responsibilities of the stakeholder (or the reader). The "community" is the organisation the stakeholder is attached to, or it could be the overall LRF group. But by taking a consideration of the "community", one can ask questions as to whether further training, etc is needed to clarify the documents read and follow this up during our observation and interview process to develop validity in the researcher's analytical process.

To justify the use of activity theory in this form, another ideal starting point is a consideration of the motives to do so. For the purposes of this research topic, it was necessary for the researcher to familiarise themselves with a large volume of guidance documents published by the Cabinet Office on the UK disaster management process. These documents are the intended and recommended

reading for the local and national emergency management practitioners. They represent the starting point for developing the base understanding of the disaster management process, not only to effectively work in collaborative setting, but also in identifying the expected duties and best practice. The study's literature review and observations established the range and large number of stakeholders in representative assemblage within the LRF, let alone the overall disaster management process. Because outside of the key responders and members there is no fixed stakeholder list, and additionally no requirement to send the same representative, the collaboration process thereby being potentially very individual dependent. The author posited that determining therefore whether an individual is successful in this environment depends to a degree on their base understanding of the process – which circles back to the guidance documents.

By critically examining these documents, this premise could then be tested in practice, and may allow recommendations to be made on the inclusion of new documents or on how the language or content of the documents could be restructured to better facilitate a comprehensive understanding of this "base" to be developed. A good "base" would include a coherent understanding of

- the disaster management process
- the individual roles and responsibilities of the individual within their organisation as related to the disaster management process
- the duties of the overall collaborative effort
- an understanding of best practice
- an awareness of the relevant stakeholders and their general functions,
- the legal basis for action and the scope of this legislation

The questions formulated to assess the document then incorporated questioning along the lines of "what makes a good document", where the interview technique use in documentary analysis discussed previously questioned the document for:

- readability - is it too technical. What scope of stakeholders could understand this?
- The flow of writing and analyse the flow of information

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- language – it should not be too technical
- clarity of content - is further training/clarification required for it to be well understood?
- volume of material and any internal repetition
- likelihood of completion of the document and an estimate of the time required for both reading and familiarity of the source material
- What is missing in terms of guidance? Are any stakeholders missing?
- clear headings guiding reader to relevant sections, particularly where the reader has a limited role to play in the process
- Make an estimate of the time required for both reading and familiarity of the source material
- would these documents be enough to familiarise a stakeholder with the UK disaster management process?

These questions were guided by the ongoing literature review, prior to the development of the initial DAF. This is because from the outset, there was a level of data analysis ongoing since the documentary review and the literature review were closely linked in terms of common data sources. As discussed in **Chapter 2**, much of the specifics of collaborative arrangements and stakeholder roles and responsibilities were laid out in guidance documents and reports, rather than being more explicitly discussed in journals, which tended to view incidents from an individual organisational basis, and rarely looked at the mechanics of LRFs themselves. However, while the researcher did pose these questions towards the documents being populated, a structured approach to this was highly desirable, and was achieved once the initial DAF was developed from the literature review synthesis.

This initial DAF allowed the questions then to be centred around the 7 factors identified:
- Power and authority
- Language
- Volume and redundancy

- Clarity or content and purpose
- Design and organisation
- Development cycle
- Assessing the "base" of the document

The indicators identified for the idea of a good **"base"** were discussed earlier. The initial DAF was still centred within activity theory: would the "**outcome**" of familiarisation with the sum of these documents be an enhanced collaboration between stakeholders, as shown in **Figure 4.8**.

Artefact:
Recommended
reading (documents)

Subject:
Stakeholder

Object:
Familiarisation
of the documents

Outcome:
Enhanced
collaboration?

Rules:

Community:
LRF or the organisation
stakeholder is
attached to

Division of Labour:
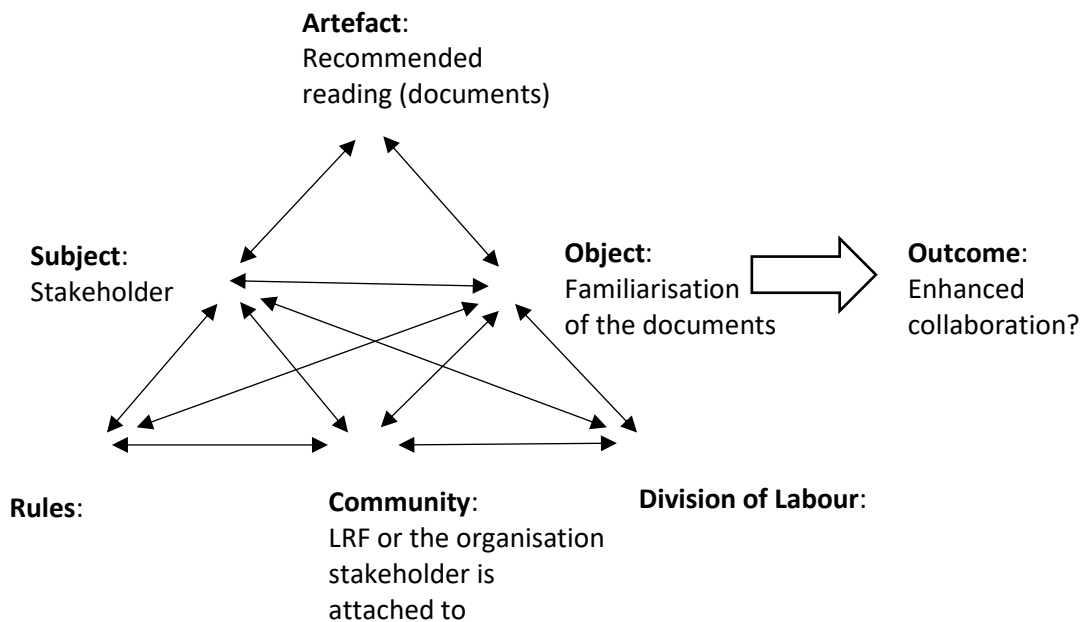
Figure 4.8 Use of activity theory to analyse the sum of documents in emergency planning identified for review

4.9.2. Summarising the development of the documentary assessment framework

The initial DAF from the literature review identified factors that could potentially aid or abet the usage of documents in a collaborative setting and for collaborative out comes. These factors were captured within the interview protocol and explored by

the researcher during the semi-structured interviews. In the initial stages of the document review, the researcher engaged in a lengthy process to identify potential documents using the 4 criteria determined, as well as other guidance that did not fit these criteria specifically. The initial list of documents consisted of 11 documents, presented in **Appendix A**, **"List of documents"**. As previously discussed, in this stage, the researcher extensively used Activity theory to map out the potential inter-connections between the documents as a set, positioning themselves as an end-user of the documents and using an initial set of questions to determine their functionality as a mechanism for collaboration. As the initial DAF was developed from the literature, this analysis became more structured. Issues identified from the initial analysis in the documents as a series were then collated by the researcher (along with the gaps in knowledge) to be explored during the interview process. Once this initial list of 11 documents was populated and the initial documentary assessment was carried out, the researcher carried out the bulk of the interview process. During this process, participants directed the researcher to additional documents that met these criteria, and additionally webpages, previously not scoped in were added, leading to a final selection of 18 documents.

Most the participants gave comments on the documents individually as they went down the list provided, and a discussion was carried out about their utility, individually and as a whole. Using these perceptions, the factors initially identified as potential importance during the literature review were coded into the transcripts and additional factors that emerged from the interviews were also coded. After this factor mapping, the framework for the documentary review was re-worked. The final DAF, refined and validated from the study findings is presented in **Chapter 7**. The final DAF was then re-applied uniformly across the expanded list of documents and webpages, presented in **Chapter 5, Table 5.3**. This then allowed the researcher to produce a cross-synthesis of findings and analysis of the initial factor and reflexive analysis and the interview data.

4.10. Reliability and Validity

The research strategy adopted has been scrutinised to consider the reliability and validity of its results. Saunders *et al* (2015, p.730) defines validity as:

"(1) the extent to which data collection methods accurately measure what they were intended to measure

(2) The extent to which research findings are really what they profess to be about"

Saunders *et al* (2015) describe three measurements for validity as being measurement validity, internal validity and external validity, although Yin (2014) uses "construct validity" instead of "measurement validity". Measurement validity per Saunders *et al* (2015) is achieved by establishing appropriate operational measures for the study, and is further divided into construct, content and criterion validity, relating to concerns such as how well the research covers the research questions or how well the data represent the reality being measured.

An important tactic used to increase the validity of the study was in the use of triangulation. A major rational Yin (2014) identified for triangulation in case study, applicable in this research, relates to the basic motive of the study (and of case studies) – conducting an in-depth study of a phenomenon. The study uses four types of triangulations discussed by Yin (2014) to varying degrees: the use of a multi-method research design is a form of methodological triangulation, the use of different data collection and analysis techniques within these qualitative methodologies allows for data triangulation, the review of literature from multiple disciples is theory triangulation, and investigator triangulation considering the use of data from different sources. These different triangulations allowed for the researcher to attempt to balance between reliability and validity trade-offs in different methods (Creswell, 2013; Saunders *et al*, 2015).

The study achieves measurement validity by using various sources of evidence: the literature review, interviews, and document review in this research, which is one way of ensuring construct validity. Developing an appropriate research methodology

is also noted as a way of enhancing the measurement validity of a research, which has been accomplished and detailed in this chapter.

External validity refers to whether the results of a study are generalisable, while internal validity pertains to the establishment of causal relationships between two variables (Saunders *et al*, 2015). External validity is achieved by reviewing and relating findings to literature, as well as comparing the findings at different stages of data collection, which is enhanced by the use of methods in sequence. Internal validity is important for the study in that the initial conceptual framework was developed to describe the casual relationships extrapolated as existing between hierarchies of documents and the individual and group context of collaboration, and by substantiating the validity of the study, the researcher empirically models these relationships.

Reliability, on the other hand, is a measure of the repeatability and consistency of a study's findings. Saunders *et al* (2015) for example defines reliability as "*the extent to which data collection technique or techniques will yield consistent findings, similar observations would be made or conclusions reached by other researchers or there is transparency in how sense was made from the raw data*".

For the interviews, reliability is primarily achieved in this study in the selection of appropriate participants for the primary data collection. The study achieved this in interviewing 9 senior LRF practitioners, most having managerial roles. Additionally, this is in the context of there being only 38 LRFs in total across England. In considering therefore the reliability and validity of the semi-structured interviews, the subsequent coding of the interview transcripts achieved data saturation in terms of the "free nodes" and subsequent "tree nodes" developed. The data saturation in addition to the selection of participants based off their designation and role resulted in sufficient data to satisfy the researcher of representative findings on the use of documents across LRFs in the UK IEM.

With regards to the assessment of the documentary structures, the iterative process by which the Documentary assessment framework was developed using the multi-methods would enhance its validity as described above. With regards to its reliability, although as discussed by Maxwell (2013) the researcher's bias and worldview would have impacted the results, the clarity of the framework is hoped to minimise the reliability issues of the data analyses. This is a qualitative research study, within a pragmatist's paradigm. As such, the role of researcher is central and it is necessary to understand how our style and biases may interact with the research being undertaken. Qualitative research is intrinsically based on interpretations. The researcher is involved in the data collection from the interviews, observations and documentary review, all of which require a measure of data interpretation. This involvement means that the researcher becomes, to a greater or lesser extent, part of the lives of those individuals or groups they are researching (Saunders *et al*, 2015). Both researcher and participant come to the research with their own bias, perceptions and viewpoints, which cannot be separated (Saunders *et al*, 2015). Researcher bias was also important to consider in designing the interview protocol. By the end of the initial documentary review, the research in the context of being a "user" of the documents, had dedicated a significant portion of time to become familiar with the identified critical case documents. While designing the interviews, it was important to not let the initial results lead the responses of the participants, which would result in introducing confirmation bias to the results. In developing a coherent interview protocol, researcher bias was further mitigated for instance, in avoiding leading questions and generally conducting the interview in a manner that considered both the initial impressions of the participants on the role of documents, and their final position on their role near the end of the interview, as such considering the effects of ordering the questions.

Although the topic itself is not controversial, the researcher was initially concerned that participants would be hesitant to speak critically of government policy. The researcher set out to mitigate participant bias by assuring participants from the outset that their responses would be confidential, anonymising identifying characteristics with particular care given the small population size. Given the

independent nature of the research, a point noted to participants, concerns of sponsorship bias were not applicable. Questions were designed to be open ended so as to avoid yes-no scenarios, and the researcher aimed towards obtaining examples or cases which led to the positions taken by participants on the topic or line of inquiry. By careful consideration of these factors, the reliability and validity of the study has been enhanced.

4.11. Research ethics considerations

The study follows the University of Salford's data protection guidelines, as well as the requirements of the General Data Protection Regulation, 2018. A "*Participant Consent Form*" was drafted using these principles and is shown in **Appendix A: Interview Protocol**. This form was completed by all participants involved in the semi-structured interviews to maintain records of informed consent. The use and storage of the participants' data was made clear verbally and within the forms to each participant, who were informed that they have the right to withdraw at any time. Every effort has been taken to ensure that the data is securely stored, and as much as possible the data was anonymised immediately after transcription, including within the transcript itself where names and other identifying markers were redacted, and Participants are only referred to by an assigned letter from Participant A to Participant L.

4.12. Summary

Within a philosophy of pragmatism, this research has taken a multi-method qualitative approach, consisting primarily of document review and semi-structured interviews, to achieve the stated research aim and objectives. The methods were outlines and the benefits and limitations of each of these methods and the consequent reliability and validity of the study were discussed, and a discussion of the ethical considerations for the primary data collection process was also considered. The next chapter presents the findings and analysis of the study.

Chapter 5

5. Qualitative Findings and Analysis: Documentary review and initial Documentary Assessment

5.1. Introduction

This chapter presents the findings produced from the methods discussed, the initial documentary review and linking these to the findings of the observation conducted. The chapter begins by going over the findings of the initial documentary review, which includes the results of the use of the initial documentary assessment framework (DAF) and the mapping of the collaborative arrangements and documentary support structures. This presents a more detailed understanding of the gaps in knowledge identified by this review that drives the interview design.

5.2. Establishing a hierarchy of documents in the UK IEM

Skimming the available documents pertaining to "emergency planning" in the UK government webpage GOV.UK results in a flood of documents, from guidance to legal cases, to reports and plans from individual ministries and departments, and notable infrastructure, such as for example the Sellafield nuclear site, as seen in **Figure 5.1**.
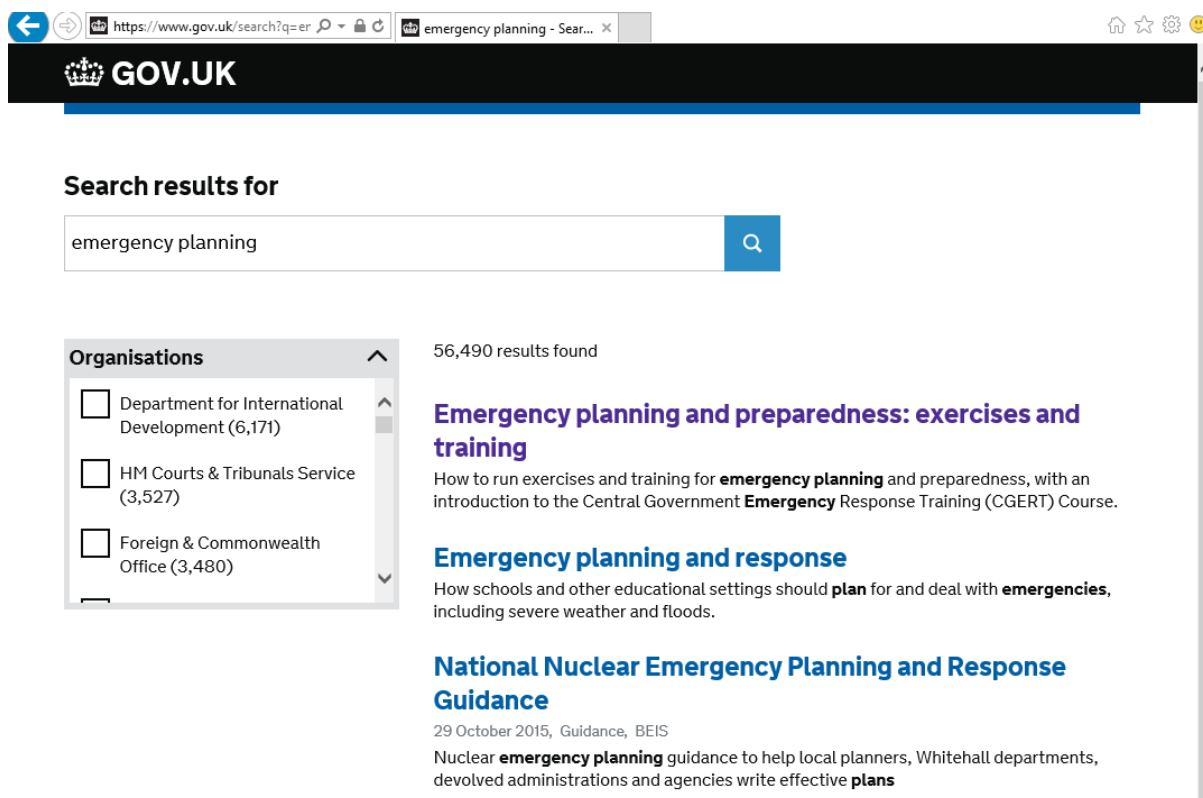
Figure 5.1 Querying "emergency planning" related documents on gov.uk webpage (GOV.UK, Aug 2019)

At the time of this query in August 2019, over 56,000 distinct results were available. The same search query in January 2023 results in over 94,000 results. Determining what documentary sources that the stakeholders within the UK IEM interact with, develop and have the potential to impact their actions is central to this study. The query of "emergency planning" does give an idea of the degree of documentation that exists as a whole within this area, and **Table 5.1** presents a spread of the document types that existed within these search results.

Table 5.1 Document types within query "emergency planning" (GOV.UK, Aug 2019)

Document type		
Case study	Guidance	Open consultation
Closed consultation	Impact assessment	Policy Paper
Document collection	Independent report	Press release
Consultation	International treaty	Promotional material
Consultation Outcome	Map	Regulation
Decision	National statistics	Speech
Detailed guide	New Story	Statement to parliament
FOI release	Notice	Statutory guidance
Form	Official Statistics	Transparency data
Government Response		

Looking at the body of government documents it is possible to categorise these documents and, in a sense, form a hierarchy for the documents. The Joint Emergency Services Interoperability Programme (JESIP, 2016), a framework for interoperability for the UK IEM that has slowly gained prominence, for example represent a hierarchy as such in terms of Law, Guidance, the JESIP framework, and subsidiary documents as shown in **Figure 5.2** below.

Figure 5.2 Emergency response documentation hierarchy (JESIP, 2016)

Naturally, this figure is focussed on stressing the importance of JESIP as a framework, however, the concept of a hierarchy of documents is useful for describing the landscape of documentary support structures within the UK IEM. Loosely based upon this, and in scanning and reviewing documentary sources, the author developed **Table 5.2** of documents found within the UK disaster management system.

Table 5.2 Establishing a hierarchy of documents in the UK IEM system

Tier of document	Some examples
Policy and regulation	• Civil Contingencies Act (2004) • Certain sections within other relevant acts, including the Health and Social Care Act (2012), Climate Change Act (2008), Local Government Act (2000), etc.
Key Guidance **(Or information material)**	• Emergency Preparedness • Emergency Response and Recovery

	• JESIP - Joint Doctrine - The Interoperability Framework
Subsidiary Guidance	• Specialist - for example: CBRN, Humanitarian Assistance & Mass Casualties • Joint Standard Operating Procedures and Aide Members • Single Service Materials (Policies and Procedures)
Local Plans	• Community Risk Register • Local Resilience Forum plans • Generic Emergency Response and Recovery plans • Specific emergency plans
Report and Assessments	• Logs, M/ETHANE, maps, charts, etc.

Prior to the "National Resilience Standards for LRFs" (Cabinet Office, 2020b), non-statutory guidance did not explicitly categorise themselves within any hierarchy as such, however within the "National Resilience Standards for LRFs" identifies "Guidance and supporting documentation" within a range of 7 sub-categories, signposting further sources of guidance and support in order to "*enable the LRF to work towards the desired outcome objective*". The sub-categorises are stated "*to help differentiate the materials on their relative authority and the intended use*". The 7 sub-categories for guidance and supporting documentation are given as:

- ***Statutory and overarching multi-agency guidance and reference from Government***. *The small number of documents that set out over-arching doctrine and guidance for multi-agency working in civil protection.*

- ***Thematic multi-agency guidance from Government***. *A larger number of more specific documents on defined subjects that elaborate and support the statutory and overarching guidance.*

- ***Single-agency guidance from Government and professional authorities*** *Documents that set out expectations and ways of working as they relate to individual sectors or specific organisations.*
- ***Relevant competence statements from professional authorities*** *National Occupational Standards and other authoritative statements of competence relevant to multi-agency civil protection.*
- ***Relevant British, European and International Standards*** *Specification and guidance standards published by British (BSI), European (CEN) and International (ISO) Standards bodies.*
- ***Supporting guidance and statements of good practice from professional authorities*** *Relevant publications from non-governmental organisations that are recognised as authorities in the field.*
- ***Other recommended points of reference*** *Relevant publications from other organisations that support attainment of the expectations set out in the standard.*

<div align="right">Cabinet Office, 2020b, pg.3-4</div>

This document was published after much of this studies data collection had been conducted, and as such was not used within the study, although it is unlikely these 7 categories would have been used regardless.

5.3. What is a documentary support structure (DSS)?

At the start of **Chapter 2** the question of "what is a document?" was discussed and within this chapter a hierarchical consideration of documents was presented, starting with the legislative basis of the UK IEM, through subsidiary guidance to the reports and assessments. This section discusses further what is meant by "documentary support structures" with various examples within the UK IEM. To being with, the term "documentary" follows the Oxford Learner's Dictionary (2022, online) adjective definition as "*consisting of documents*". The terms "support structures" are introduced to capture the idea that the documents were intended to support the actions and duties undertaken by stakeholders within the system, existing not as a standalone document but a series of inter-related documents that formed a "structure" that stakeholder could interact with.

Within the total documentary review, 59 stand-alone guidance documents, reports and plans were assessed (which are presented in the **References** list under the heading "Document review"), alongside a host of GOV.UK webpages and organisational webpages, which are indicated in subsequent sections. In conducting the documentary review, the documentary support structures were broadly categorised into four: *National governmental DSS*, *National organisational DSS*, and *Local DSS (Organisational and Governmental) and Local Resilience Forum DSS*, and this section goes over examples of each and presents an overview of the findings of the initial mapping of documentary support structures within the UK IEM.

5.3.1. National governmental DSS

Even within **Chapter 2**, the Literature review, it was necessary to make extensively use of national guidance documents to map the UK IEM system, its processes, stakeholders, and collaborative arrangements. When comparing the National Governmental DSS to the National Organisational DSS (as seen shortly in the next **section**) there is no easy summary of available guidance as such, being spread instead over a host of webpages within gov.uk, engendering something akin to snowball search of guidance rather than a centralised database or repository. The difficulty in navigating the national DSS was early on identified as a motivating factor in the undertaking of this study. The key national guidance was identified using the described methodology in **Chapter 4, Section 4.5.** Despite systematic searches for guidance within both search engines and across the gov.uk web pages, new guidance was continually being discovered, being only manageable through the application of the 4 criteria (presented in **Chapter 4, Section 4.5.2**). Nevertheless, the identified list of documents increased from 11 to 18 between the initial documentary assessment prior to the interviews to the final list of documents assessed using the refined DAF. These were assessed against the initial DAF, and these findings are discussed in this chapter.

The documentary review process, in the same vein as a Literature review, continued throughout the study process. Evidence of the identified national governmental DSS content is seen across every other DSS type, from national organisational DSS and to every local DSS type, and where relevant make mention of this. It should be noted there are national governmental DSS for England, Wales, Scotland, and Ireland given the devolved arrangements, and the documents scoped within are for England only. As part of the nation governmental DSS review, various standalone guidance documents and webpages within GOV.UK are considered.

5.3.2. List of documents identified for assessment

The documents that fell within the 4 selection criteria detailed in **Section 4.5.2** were noted and a list of documents were populated, shown below in **Table 5.3**. The list of document titles presented to the participants for direct comment is presented in **Appendix A: The Interview Protocol**. The final list of documents and webpages consists of 2 legislative documents, 12 standalone guidance documents, and 4 webpages.

Table 5.3 Document selection assessed using initial and final DAF

Document title	Source	Year	Document type
Civil Contingencies Act 2004	HMSO	2004	Act of Parliament
Civil Contingencies Act Regulations 2005	HMSO	2005	Regulations
Emergency preparedness	Cabinet Office	2012a	Non-statutory Guidance
Emergency response and recovery	Cabinet Office	2013a	Non-statutory Guidance
The role of Local Resilience Forums: A reference document	Cabinet Office	2013b	Non-statutory Guidance
The central government's concept of operations (CONOPs)	Cabinet Office	2010b	Non-statutory Guidance
Expectations and indicators of good practice set for category 1 and 2 responders	Cabinet Office	2013c	Non-statutory Guidance
The Lead Government Department and its role – Guidance and Best Practice	Civil Contingencies Secretariat	2004	Non-statutory Guidance

Provision of scientific and technical advice in the strategic co-ordination centre: guidance to local responders (STAC)	Cabinet Office	2007a	Non-statutory Guidance
Enhanced SAGE guidance: A strategic framework for the Scientific Advisory Group for Emergencies (SAGE)	Cabinet Office and SAGE	2012	Non-statutory Guidance
UK National Risk Register	Cabinet Office	2017a	Report
JESIP Joint doctrine: The interoperability framework Edition 2	JESIP	2016	Non-statutory Guidance
National Resilience Standards for Local Resilience Forums	Cabinet Office	2020b	Non-statutory Guidance
The Exercise Planners Guide	Home Office	1998	Non-statutory Guidance
Webpages relating to Emergency planning, preparation, and response within GOV.UK			
Emergency response and recovery	Cabinet Office	2013d	Non-statutory Guidance
Emergency planning and preparedness: exercises and training	Cabinet Office	2014	Non-statutory Guidance
Preparation and planning for emergencies: responsibilities of responder agencies and others	Cabinet Office	2013e	Non-statutory Guidance
Preparation and planning for emergencies	Cabinet Office	2018	Non-statutory Guidance

5.3.3. The expansion of the assessed document list

The *National Resilience Standards for Local Resilience Forums* (Cabinet Office, 2020b) had not been made publicly available till near the end of the interview stage; however, the researcher had been aware of their rollout for some time prior to this form the observation and informal conversations with partners at the LRF meeting attended and had had access to a number of the resilience standards being trialled. Almost all the participants made heavy reference to this document.

The *Exercise Planners Guide* (Home Office, 1998) document was missed in the initial document search and was therefore not included during the interview stage, therefore explicit participant feedback on this document is unavailable, however one participant made note of this document explicitly, and a few others in passing when speaking more generally of the documents available for training and exercising.

The SAGE guidance was initially taken to be outside the scope of the study in that it primarily advised governmental level response, however due to comment by participant with regard to their role in COVID and more local response, this was included following the interviews.

The inclusion of the 4 webpages is discussed in the next section.

5.3.4. National governmental DSS - Webpages

The webpage "Emergency preparation, response and recovery"[5] (GOV.UK, n.d.) shown below in **Figure 5.3** is a sub-topic within the main government webpage. This sub-topic is extremely difficult to find and navigate to from the main GOV.UK webpage, and in fact does not appear within the first 10 pages of the search engines Google or Bing. However, the lack of easy discoverability of this site is nevertheless a shame, given it is archival nature within the 5 main categories noted below:

- Guidance and regulation
- News and communications
- Research and statistics
- Policy papers and consultations
- Transparency and freedom of information releases

The webpage itself is difficult to use - the site is not intuitive, the documents and guidance contained within are not organised in any order outside these categories, nor is restricted to just national governmental material or document type. It is in short, a repository for every publication generally within the topic, and as seen from **Table 5.1**, this is a broad spectrum. However, this sub-topic is certainly much more manageable in scanning than for instance the example of a basic query on the GOV.UK search page, as shown previously in **Figure 5.1**, which brings up tens of thousands of results. The sub-section of "Guidance and regulation" still brings up over 500 results, which cannot meaningfully be refined any further.

Looking at examples of lists of guidance, as was the case in the "*Public safety and emergencies: Emergencies: preparation, response and recovery: detailed information*" (Cabinet Office *et al*, n.d.) seen below in **Figure 5.4** it was found instead that it contains an eclectic mix of documents, where it is not clear exactly who this list is aimed at, but seems most likely aimed at interested members of the public, rather than being a useful navigational page for professionals in the UK IEM system. This was a trend the researcher continued to observe in other such populated lists.

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[5] See https://www.gov.uk/government/emergency-preparation-reponse-and-recovery

The actual webpage which would give a starting point for understanding the context of the UK IEM is the "*Emergency response and recovery*" webpage (Cabinet Office, 2013d). It is from this page, typically appearing within the first 3 search results on Google and Bing, that the process of untangling and following the web of guidance is best positioned, in addition to the three other webpages noted in **Table 5.3.**

There is nevertheless little ordering to be seen. The webpages go back and forth and are not necessarily even grouped in the same general area. There is a lack of clarity within webpages as to who the document is aimed towards, including the level (gold, silver, bronze). All the webpages examined fall within the category of "*Publication: Non-statutory*" guidance as per the Government Digital Service *et al* (n.d) classifications.

At the time of the initial documentary assessment, the documents identified (see **Table 5.3**) and therefore the "List of documents" presented to the participants for comment (see the **Appendix A: The interview protocol**) did not include webpages as the researcher presumed it would be difficult to actually question the participants on this format of DSS. However, in exploring the National governmental DSS, webpages were a crucial component in identifying the stand-alone guidance documents. In hindsight, the researcher notes the missed opportunity in developing a specific inquiry into the use of webpages themselves. It was only after a number of participants mentioned in passing, particularly in relation to the questions around training material that the LRF carries out, that the inclusion was made for the final document selection (see **Section 5.8, Table 5.8**). As a consequence, 4 webpages were identified that met the 4 criteria.

Webpages are not an ideal form of guidance because they lack permanency of stand-alone documents, wherein version control is vital, and having records of published material is a matter of public accountability. A scan of the National Archives[6] relating to term "Emergency" and "Emergencies" only raises 9 results of which only 2 (GOV.UK – Scientific Advisory Group for Emergencies (SAGE) and

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[6] https://www.nationalarchives.gov.uk/webarchive/find-a-website/atoz/#e

Directgov – Preparing for Emergencies) were webpages relevant to the document review.

The webpages in GOV.UK around the CCA and its Regulations were found to have been made in the early 2010s and are still in force as such, even with many pages contained the disclaimer "*This was published under the 2010 to 2015 Conservative and Liberal Democrat coalition government*". Some also contain links to documents or training schedules or courses which are extremely out of date. The pages, for example, on the Risk assessment processes were found to be out of date in terms of content and process during the interviews, where reference is made to the 5 yearly National Risk Assessment, which is now replaced by the National Security Risk Assessment, intended to be a 2-yearly process.

Content wise, the researcher notes they are essentially summarisations of the actual stand-alone guidance documents, in format that cannot be easily printed or used as reference, better suited for giving over-arching perspectives than detailed information. Unlike the national organisation DSS webpages which is examined in the next section, the national government webpages are less suited for practical use.
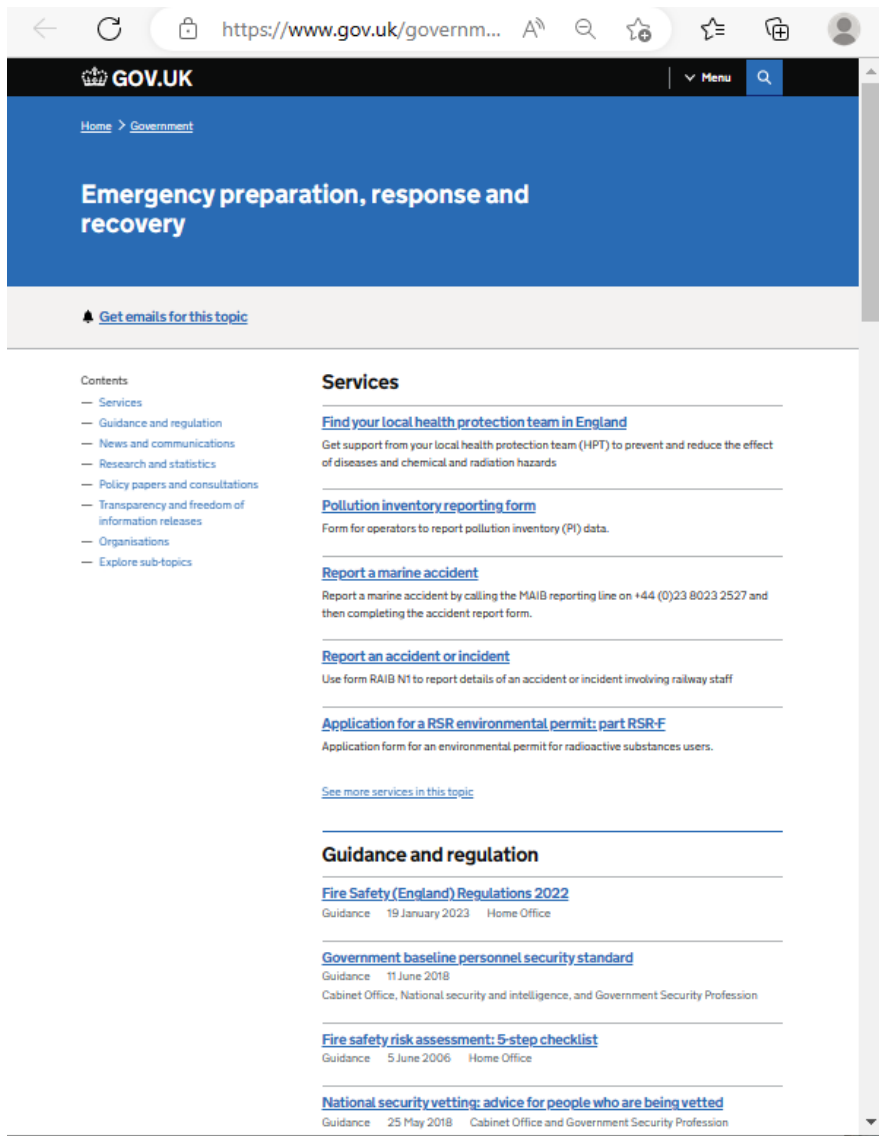
Figure 5.3 National DSS Part 1 (GOV.UK, n.d.)
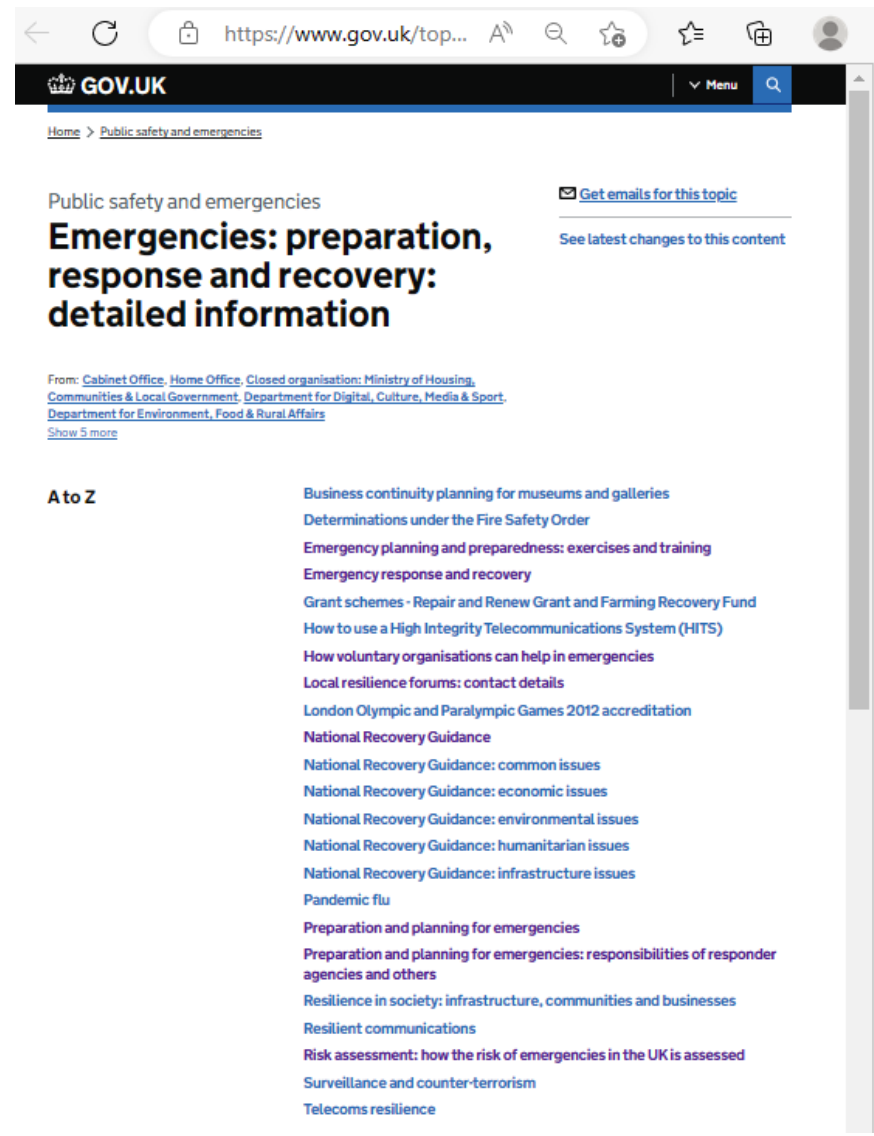
Figure 5.4 National DSS Part 2 (Cabinet Office et al, n.d.)

5.3.5. National organisational DSS

Having looked a National governmental DSS, this section briefly present examples of documentary support structures within key individual organisations: the police, fire and the NHS as Category 1 responders and the Health and Safety Executive, as a Category 2 responder. All four DSS shown are from their national equivalent of responders identified within the CCA. Investigating these organisational webpages, in addition to the main GOV.UK webpages on civil contingencies was part of the process by which the national DSS were identified for assessment.

Examining their DSS show a range of documentary sources within each organisation. The main webpages for each of these organisations is shown in **Figure 5.5 to 5.8** overleaf.

External training courses available in the College of Policing for the MAGIC course (Multi-agency Gold Incident Command) and the Emergency Planning College (EPC) webpages were also assessed after the semi-structured interviews with regard to available external training. The costs and available training at the EPC are summarised in **Appendix C: External Training** and the significance of these figures is discussed with the semi-structured interview findings in **Section 6.15**.
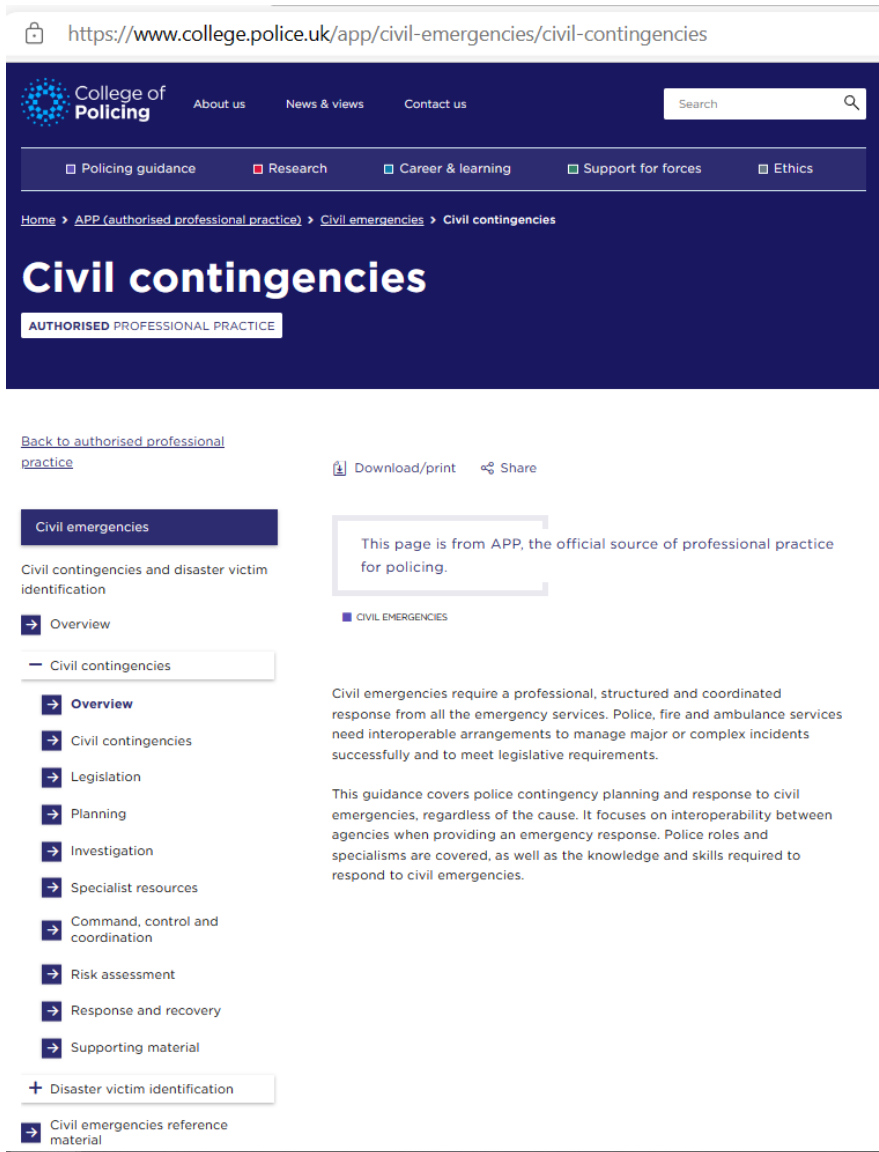
Figure 5.6 College of Policing DSS
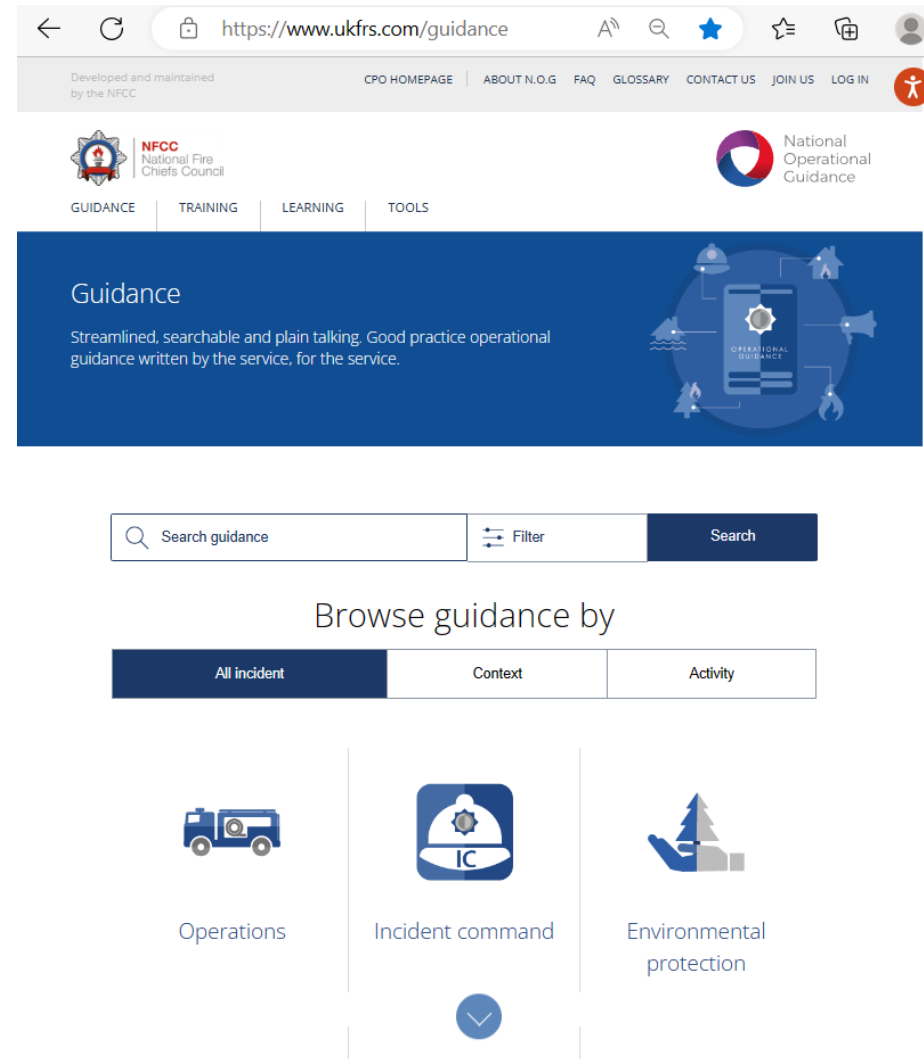
Figure 5.5 National Fire Chiefs Councils DSS
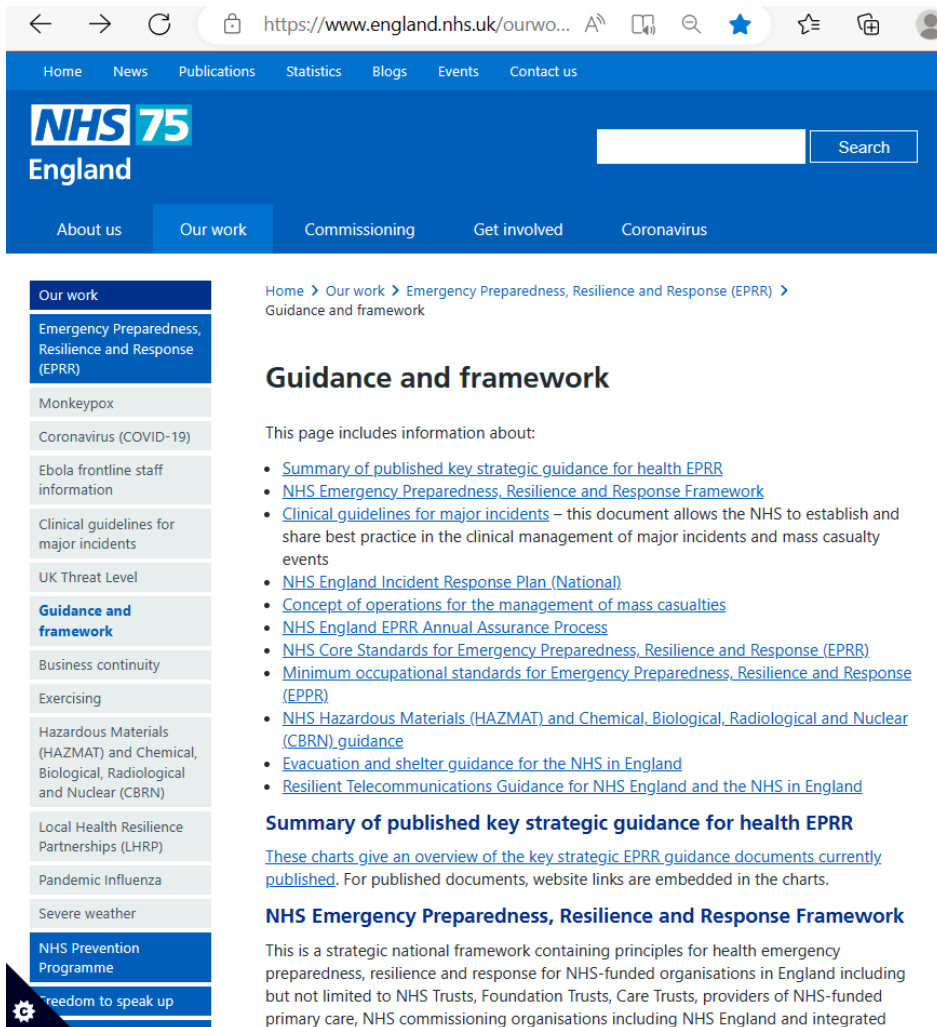
Figure 5.7 NHS England DSS
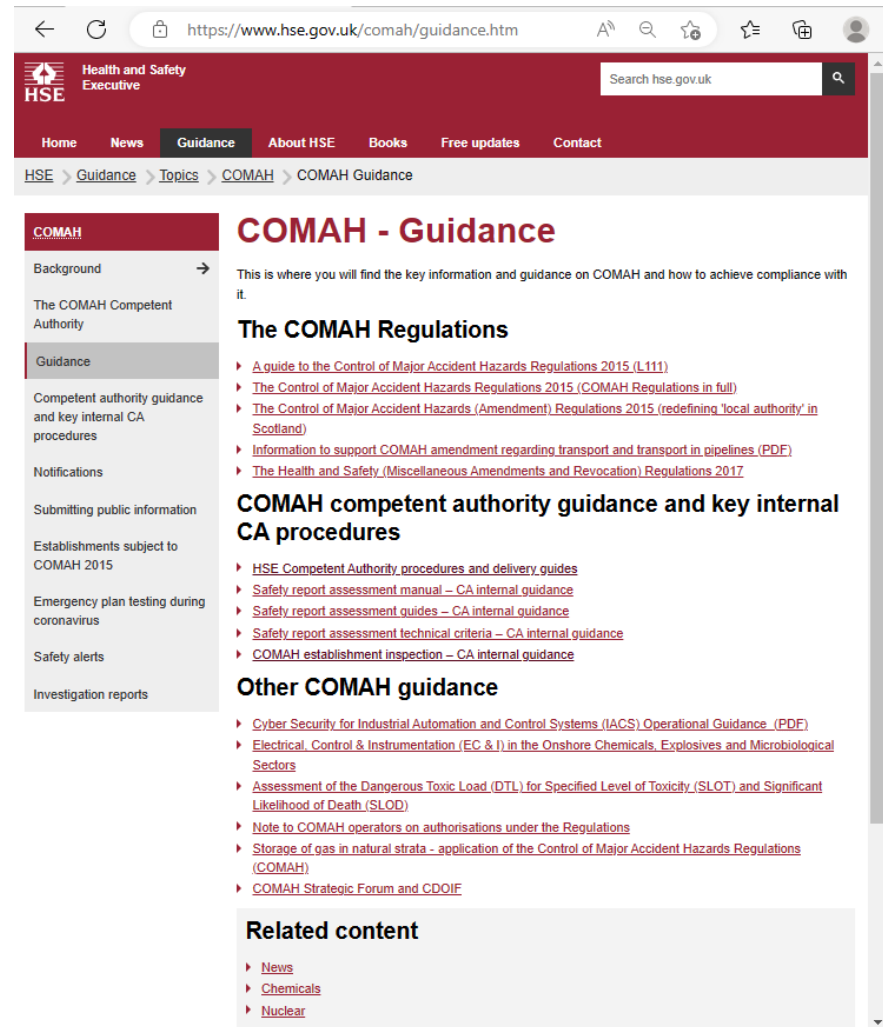
Figure 5.8 Health and Safety Executive (HSE) DSS

However, some differences can be outlined. For example, the material within the College of Policing is predominantly text-based content within the webpage itself, rather than links to pdf documents, which is more generally the norm in the other examined national organisational DSS. Much of this text is summarisations of the national guidance, notably from the "*Emergency preparedness*" and "*Emergency response and recovery*" documents. These two documents are the primary guidance documents in describing the UK IEM across its 6 stages, which appear repeatedly in querying the national DSS through search engines, through the GOV.UK webpages, and also through national organisation DSS and local DSS. The "*Emergency Response and Recovery*" (Cabinet Office, 2013a, Pg. 16) summarised the distribution of guidance by phase within these documents, as shown below in **Table 5.4**.

Table 5.4 Where can the UK IEM guidance be found? (Cabinet Office, 2013a, Pg. 16)

Integrated Emergency Management	Emergency Preparedness	Emergency Response and Recovery
Anticipation	X	
Assessment	X	
Prevention	X	
Preparation	X	
Response		X
Recovery management		X

The influence of the "*Emergency preparedness*" (Cabinet Office, 2012a) and the "*Emergency response and recovery*" (Cabinet Office, 2013a) guidance is heavily apparent within the text of the other organisational DSS, however for instance, the NHS DSS is more heavily based on populating links to NHS England published guidance. The National Fire DSS is closer in format to an interactive app, although much of the content is restricted access.

A primary difference observable in the national organisation DSS is that scope of guidance that encompasses emergency management is not limited to the CCA 2004. For instance, the Health and Safety Executive (HSE) is a Category 2 responder within the CCA, however as a regulator their primary obligations fall under the Health and Safety at Work Act (1974) and it is also the competent authority for the Control of Major Accident Regulations (2015) (see HSE, 2019), therefore much of the guidance documents are produced as amalgamations of the duties imposed by the different legislations. This is considered further by looking at the NHS England publications as an example.

5.3.5.1. The NHS organisational DSS: from national to local

NHS England is a key Category 1 responder within the UK IEM with Schedule 1 of the CCA (2004), in addition to any NHS foundation trust providing ambulance services or hospital accommodation and services in relation to accidents and emergencies, among other bodies including an integrated care board established under the National Health Service Act 2006.

Markin and Groves (2020) provide a succinct summary of the interactions between the local trusts and the national level. They discuss the role of Accountable Emergency Officers (AEOs) wherein "*all NHS and NHS-funded organisations including NHS England have AEOs who are board-level directors appointed by the individual organisation's chief executive with statutory responsibility for EPRR. Together with another board member they ensure the organisation is meeting legal and policy requirements and provide assurance that the organisation has the capacity and capability to fulfil them. This role involves compliance against core standards and providing assurance to the board and liaising with other organisations or working groups such as LRFs or LHRPs*" (Local Health Resilience Partnerships).

This raises the question of how many Accountable Emergency Officers (AEOs) this translates to in England. However, establishing exact figures is difficult for figures

such as the number of hospitals, let alone in terms of the AEOs, as shown by an excerpt from an assessment of the NHS from the King's Fund (2022):

> ***How many NHS hospitals are there in England?***
>
> *Working out the number of hospitals in England is challenging. All NHS hospitals are managed by acute, mental health, specialist or community trusts and as of 2021 there were 219 trusts, including 10 ambulance trusts. However, the number of NHS trusts does not correlate to the number of hospitals as many trusts run more than one hospital, for example, Manchester University NHS Foundation Trust runs nine hospitals.*

The King's Fund, 2022

Contextualising this to the UK IEM, each of the 200+ trusts across England would fall within one the 38 LRF regions, and likely determine within each region a representative to the bi-annual meeting. However, in addition to this, each Trust is required to develop organisation business continuity for services during emergencies and play a part in the development of emergency plans.

Considering once more the report by Markin and Groves (2020), looking at the Health system's EPRR operating models in **Figure 5.9** a complicated web of stakeholders, from local to regional to national levels, working across various collaborative groups or platforms to delivery emergency planning and response can be seen.

NHS England as the national equivalent of the Category 1 responder produces a range of guidance and supporting material for use by the individual Trusts or hospitals, as shown in **Figure 5.10**. The documents contextualise similar national guidance specifically in terms of the NHS, and incorporates the requirements placed by the National Health Service Act 2006, the Health and Social Care Act 2012 and the Health and Social Care Act 2022 on top of the CCA 2004. This contextualisation of guidance for the organisational needs is seen in the other

examples considered too, which does beg the question of which DSS stakeholders ultimately interact with.
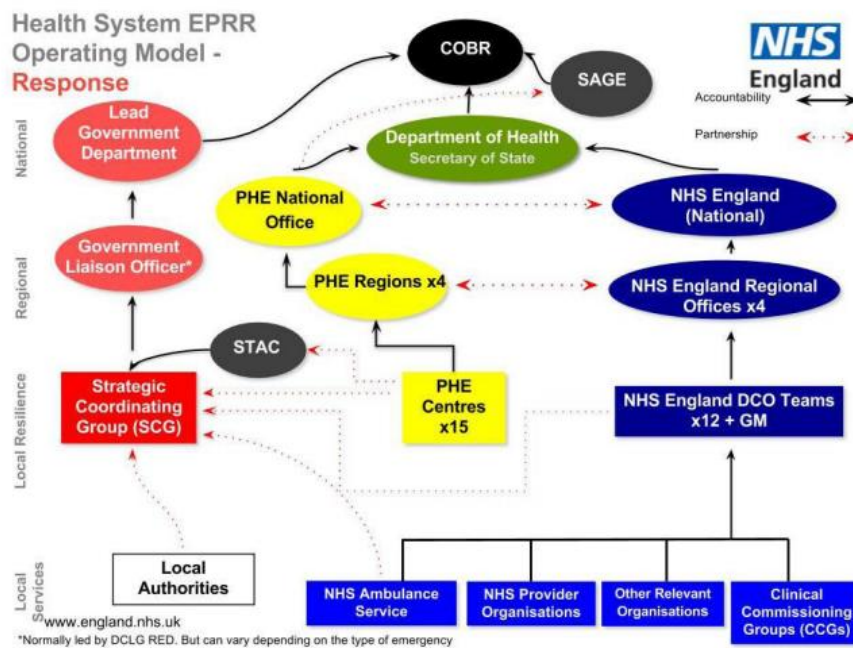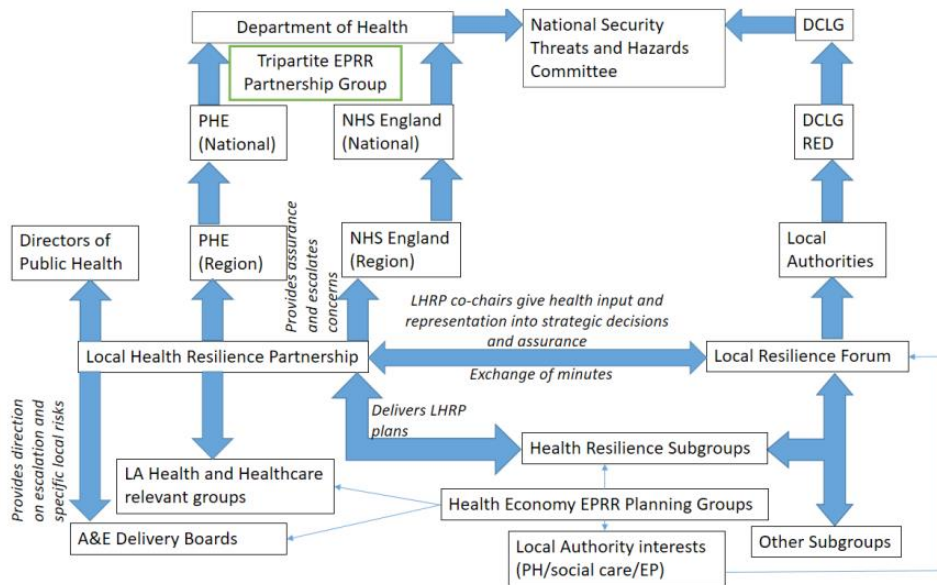
Figure 5.9 NHS England planning and response EPRR structure (Markin and Groves, 2020)[7]

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[7] **Acronyms: A&E**: Accident and Emergency; **COBR**: Cabinet Office Briefing Room; **DCLG RED**: Department of Communities and Local Government Resilience and Emergencies Division; **DCO**: Director of Commissioning Operations; **DCLG**: Department of Communities and Local Government; **EP**: Environmental Protection; **EPRR**: Emergency Preparedness, Resilience and Response; **GM**: General Manager; **LHRP**: Local Health Resilience Partnership; **NHS**, National Health Service; **PHE**, Public Health England; **LA**: Local Authority; **PH**: Public Heth; **SAGE**: Scientific Advice Group forEmergencies; **STAC**: Scientific & Technical Advice Cell.
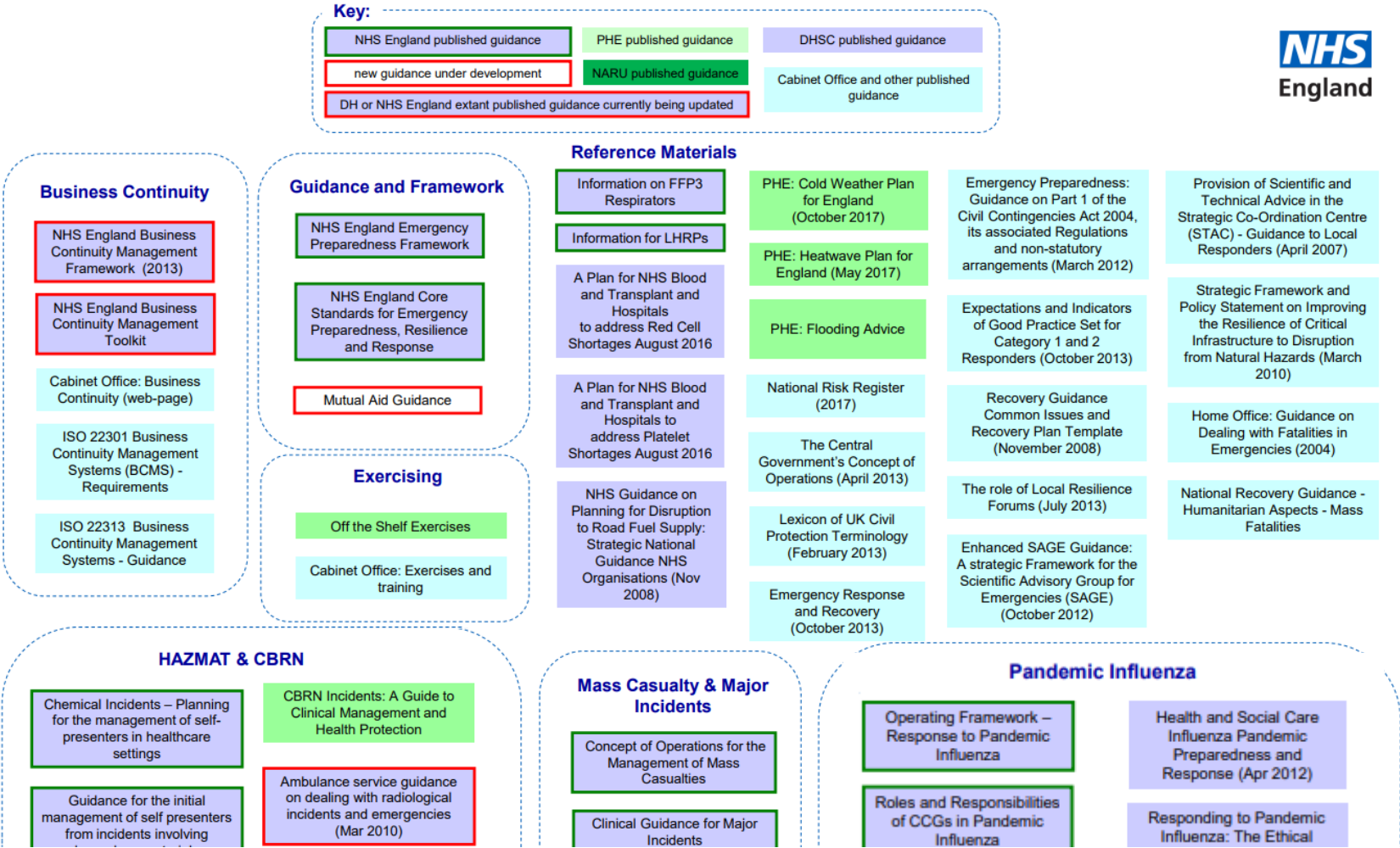
Figure 5.10 DSS for emergency response and recovery within the NHS (adapted from NHS England EPRR, 2019)

5.3.6. Local DSS

In terms of the Local DSS this was broadly sub-divided into Organisational and Governmental DSS. However, at the local level, organisational DSS while this primarily refers to the Category 1 and 2 responder organisations, as per the requirements of considering business continuity, private businesses may produce their own emergency plans. Many of these plans are inaccessible, however the document review considered a spread of such documents. In the literature review, **Section 2.4.6** looked at the role of emergency plans in formalising collaborative arrangements for local response.

There are a range of plan types present in UK emergency planning, and this is summarised in **Table 5.5** from the "*Emergency Preparedness*" guidance as shown below. The guidance also notes that many specific plans are likely to be multi-agency plans (Cabinet Office, 2012a, pg.13).

Table 5.5 Examples of generic and specific plans (Cabinet office, 2012a, Chapter 5, p.69-70)

Plan category	Type of plan or planning procedure
Generic	Emergency or major incident
Generic capability or procedure	Access to resources
	Control centre operating procedures
	Determination of an emergency
	Disaster appeal fund
	Emergency interpretation service
	Emergency press and media team
	Emergency radio and mobile communications
	Evacuation: minor, major, mass
	Expenditure procedures during an emergency
	External disasters (outside Local Resilience Forum boundary Mass fatalities
	Recovery Rest centres
	Secondary control centre
	Site clearance
	Emergency mortuary and body holding areas
	Use of voluntary organisations by different Category 1 responders

	Warning, informing and advising the public, including public information team
	Crisis support team
Specific hazard or contingency	Aircraft accident
	Chemical, biological, radiological or nuclear
	Chemical hazards
	Coastal pollution
	Dam or reservoir failure
	Downstream oil
	Environmental health emergencies
	Failure of major utilities: electricity, gas, telephone, water
	Foot-and-mouth disease
	Influenza pandemic
	Prolonged freezing weather Rabies
	Rail crash
	Refugees
	River and coastal flooding (general)
	Schools emergencies
	Severe weather
	Smallpox
Specific site or location	Airport City or town centre evacuation
	City or town centre severe weather disruption
	Methane migration
	Multi-storey block
	Non-COMAH industrial sites
	Nuclear power station
	Public event temporary venue
	Road tunnel Shopping centre
	Specific flooding sites
	Sports ground

Of the range of emergency plans above, most are restricted to public access given their sensitivity, as such it is difficult to ascertain which types of plan development a local authority or local resilience forum may have undertaken, and there were no reviews on the typology of documents published at the local level available in current literature. The "*Emergency Preparedness*" guidance outlines the minimum level of information such generic plans must contain, summarised in **Table 5.6** below.

Table 5.6 The minimum level of information to be contained in a generic plan

(Cabinet Office, 2012a, Chapter 5, p.71)

Generic plan[1]
Aim of the plan, including links with plans of other responders
Trigger for activation of the plan, including alert and standby procedures
Activation procedures[2]
Identification and generic roles of emergency management team
Identification and generic roles of emergency support staff
Location of emergency control centre from which emergency will be managed
Generic roles of all parts of the organisation in relation to responding to emergencies
Complementary generic arrangements of other responders
Stand-down procedures
Annex: contact details of key personnel
Annex: reference to Community Risk Register and other relevant information
Plan maintenance procedures
Plan validation (exercises) schedule[3]
Training schedule[4]
1. regulation 21(b)   2. regulation 24   3. regulation 25(a)   4. regulation 25(b)

In the methodology, an attempted survey was outlined in which hoped to categorise and quantify the local authority plans as a first step in a content analysis of emergency planning documentation. As discussed in the methodology, this proved to be infeasible given the data access restrictions, however, in the next few sections this attempt will be discussed briefly, starting with an overview of the local government structure in England.

5.3.6.1. Local authority

The study intended to conduct an extensive exploratory survey of the publicly available documents/support structures in each of the Local authority webpages. This instead became a scan of the available document typologies. Data access was a considerable barrier in this endeavour and this avenue of data inquiry was deemed to be unviable, particularly as this survey was the first step of obtaining a random sample of emergency plans to carry out a content analysis of. While the full range of plan typologies (about 50 identified by the "*Emergency preparedness*" guidelines, presented earlier in **Table 5.5**) was not expected to be available given many specific plans are typically considered sensitive and not published publicly, the researcher interpreted the requirement of responders to "*arrange for the publication of all or part*" (CCA, 2004, Part 1, Section 2, (2.f)) of their assessments and plans as being in relation to a generic non-sensitive version of major incident response and recovery plan. While some local authorities and responders do so, the actual requirement (CCA, 2004, Part 1, Section 2, (2.g)) to "*maintain arrangements to warn the public, and to provide information and advice to the public, if an emergency is likely to occur or has occurred*", does not in fact require this to be through the publication of any plans to the public, highlighting the dangers of interpreting legal texts.

However, from the scan of the local authority emergency relation publications, the list the variety of types of disaster management plans some local authorities have published include:

- Emergency response plans or major incident plans
- Emergency recovery plan
- Combined emergency response and recovery plans
- Business continuity plans
- Evacuation plan
- Specific disaster plans
    - Flooding
    - Nuclear accident

Some local authorities had the methodology of emergency response as separate document. Many local authority webpages redirected the public to their respective LRF websites, which showed much variation in their quality as well, not just for general emergency related information but also business continuity, as required by Part 1, Section 4, (1) "*shall provide advice and assistance to the public*" in relation to business continuity arrangements by the CCA.

Considering this survey of local authority plans was intended to be the first step towards gathering a sample of emergency plans to carry out a content analysis on, the general lack of availability of such plans led to dropping this line of inquiry.

Based off the scan of the local authorities, the researcher posits that some reasons why the LA may not have a public facing plan include the size of the LA, where in larger town or cities were more likely to have a public facing document, that would have prompted them to produce a public facing disaster management plan as a measure of public reassurance and confidence building. The LA may have ceded the majority of the planning responsibilities to their LRF, or it may not have faced significant disaster event that would have led to the strategic interest for such plan development and publication. These were questions that were posed towards the participants for clarification, and broad differences were observed in the relationship between LRFs and their constituent local authorities, which is discussed in the next chapter.

Figures 5.11 and 5.12 show two examples of LA emergency planning webpages, and in the first, there is a single page dedicated to this, with re-direction instead towards the associated LRF and additionally GOV.UK webpages, showing a lack of local translations by this LA. Meanwhile, the second example in **Figure 5.12** multiple pages are dedicated to the topic of emergency planning within the local authority, with access to the generic major incident plan.
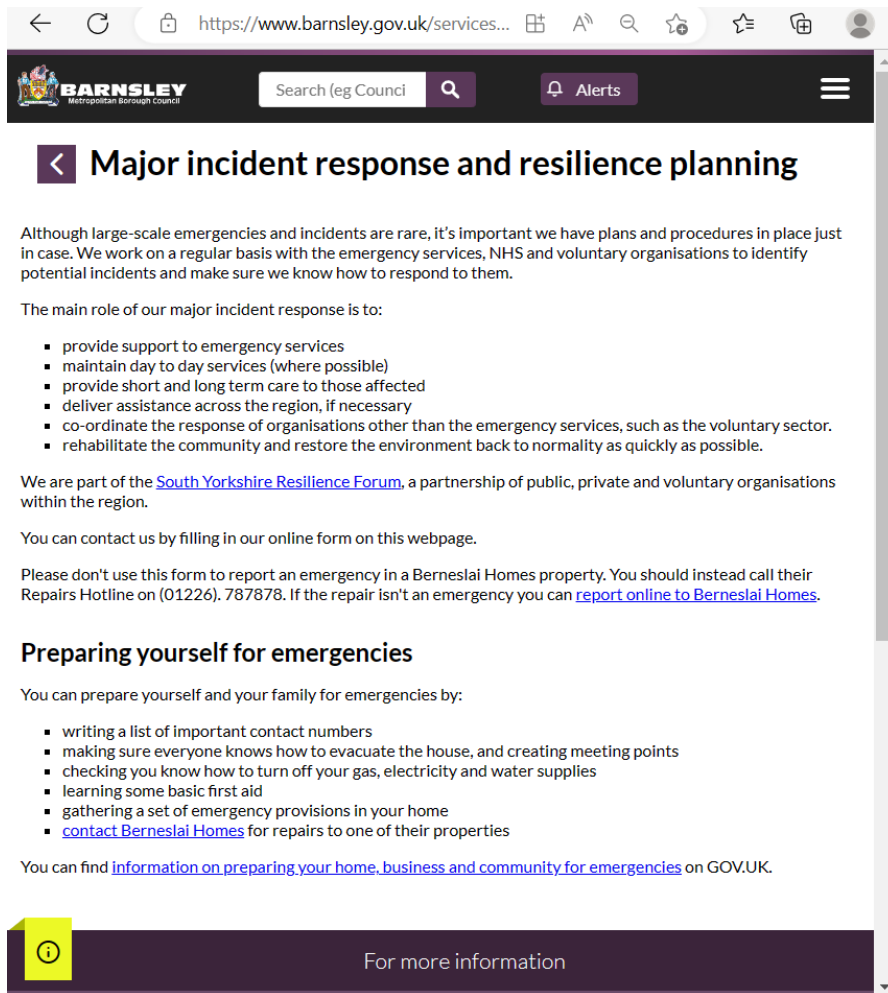
Figure 5.12 Local authority webpage Example 1

Figure 5.11 Local authority webpage Example 2

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5.3.7. Local resilience forum DSS

Of the 38 LRFs, the 10 LRFs that participated in the study (1 of which was through observation and interview with a local authority representative) were reviewed in detail in order to triangulate findings or find supplementary information. As in the case of the local authorities, there was considerable difference in the content of the LRF webpages, with some showing evidence of multiple public-facing documents to various disaster typologies, primarily as warning and informing materials. Additionally, the range of material for business continuity also differed between the LRFs. Only a single instance[8] of an LRF webpage was found with access to any plans produced, within which of the 27 plans shown, 18 were available to view publicly, although it is unlikely in looking at the version control that these are the most recent version of the plans in question.

5.3.8. Relating National governmental DSS to other DSS

As can be seen from this consideration of the DSS within the UK IEM, there exists a wide spectrum of material from a range of sources that may affect the stakeholders within the UK IEM and their context of collaboration.

The different DSS have varying authors and potential interconnections between them. **Figure 5.13** below shows an attempt to map the likely connections of the different DSS with the national governmental DSS, which is the primary focus of the study, in that the study examines how their use affects stakeholders, both directly and indirectly.

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[8] https://www.dcisprepared.org.uk/what-we-do/emergency-plans/
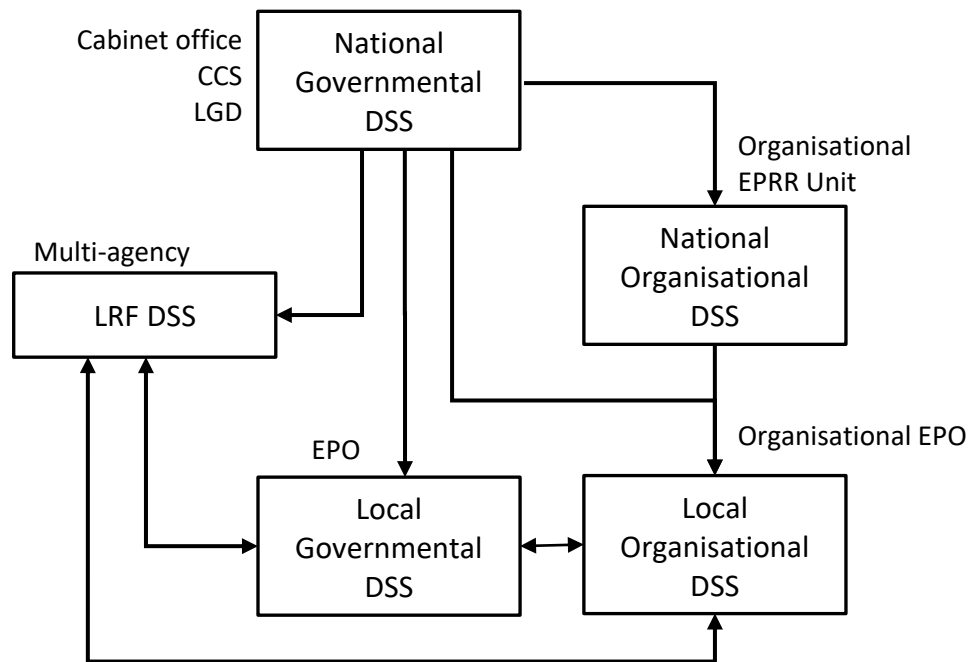
Key
CCS: Civil Contingencies Secretariat
DSS: Documentary Support Structure
EPO: Emergency Planning Office
EPRR: Emergency Preparedness, Response and Recovery
LGD: Lead Government Department

Figure 5.13 Relating the national governmental DSS to other DSS

In carrying out this overarching review of the DSS, resulting in the mapping of the 4 types of DSS as national governmental, national organisation, local governmental and organisational and LRF, accomplishes a part of the second research objective to "*Identify and explore the documentary support structures and collaborative arrangements within the UK IEM*". The mapping of the collaborative arrangements that could be identified by the documentary review was presented in the Literature review **Section 2.5.4-2.5.6** in providing the context for the UK IEM. Tthe collaborative arrangements of LRFs are discussed further in the next chapter as this is a specific line of inquiry the interviews follow. The next section presents the findings of the initial DAF use on the identified national government DSS.

5.4. Findings of the Initial Documentary Assessment

The initial DAF consisted of 7 factors, and was presented in **Chapter 3, Section 3.6.** As stated in the methodology chapter, these documents were selected using a critical case purposive sampling technique. The "critical cases" as such were identified by using a combination of factors, however what was paramount was the selection of documents that were determined as recommended documents to be read by emergency responders (Cat 1 or Cat 2), planners, and other stakeholders in the disaster management process by government. The sum of these documents is intended to represent the key guidance for the fulfilment of obligations under the Civil Contingencies Act 2004. These documents are a source of tangible empirical data the researcher has continuous access to. During the literature and document review process, it became evident that the process by which external stakeholders, barring those solely providing specialist expertise, would gain familiarity with the UK IEM system was a long and involved process. From the interviews it was found that there isn't an additional repository of information or training material that is only accessible to stakeholders within the LRF or emergency response stakeholder group, in the form of Resilience Direct or any other database system.

The findings under each of the seven factors of the initial DAF are a summarisation of the key notes the researcher had going into the interviews. They are indicative findings only, which the researcher sought to validate in the interviews.

5.4.1. Power and authority

In **Section 2.4.4** general issues around the "command and control" within disaster management were reviewed. "*The role of LRFs – a reference document*" (Cabinet Office, 2013b) does generally account for many of these concerns.

> ***Command and Control***
>
> *106. It is accepted that the police usually co-ordinate the response phase of an emergency or major incident. However, it should be recognised that there are some emergencies (such as pandemic influenza and animal diseases) that will be led by other responders or central government departments. A senior police officer will often chair the SCG, but **it must be noted that a commander from one organisation has no jurisdiction over the resources of another**.*
>
> *107. The command structure of strategic/tactical/operational (Gold/Silver/Bronze) groups is well recognised among all emergency services and most responders. **It is role specific rather than rank specific. Clarity around the span of command and control is essential and should be clearly articulated at the beginning of any emergency or major incident**. The overriding principle should be to establish clarity on who is in charge, and to decide how this is communicated to all responders.*
>
> *108. Emergencies and major incidents often need command and control structures for extended periods of time. LRF plans must therefore take account of command resilience. While each case should be considered on its own merit, **any handover of command must be formally documented and communicated accordingly**.*
>
> Cabinet Office, 2013b, pg. 49-50

However, this is very much in the context of formalisation of command and control at the local level. The researcher notes some key issues as being:

- The documents as a set showed a very bottom-heavy delegation of roles and responsibilities in terms of the national-to-local division of civil contingencies.

- However, the national leaves itself much room in the wording of both guidance and legislation to step in at any point, with their position in the command structure Gold-Silver-Bronze unclear, as seen from the CONOPs document

- The LRFs themselves have very little in terms of power or authority. While many of the documents refer to the LRFs as a given entity, when looking at "*The Role of LRFs: A reference document*", there is much side-stepping around what constitutes an LRF in and of itself, with language rather around Category 1 responders R&R instead of the LRF as an entity.

- This side-stepping is best described as "circular" definition use, a finding that was seen by Drury *et al* (2013) in how "resilience" is defined in guidance in the UK IEM

- Issues such as funding or expected capacities with regard to the LRF are sparse, and no national funding is a part of this

- Often times the author of a documents is solely the organisation or agency that produced the document, which the researcher considers a detriment in terms of the reader being able to relate with the document, and affecting the perspective of it as a nameless artefact with which there cannot be easy interaction, despite the legitimacy of the document tying to the organisation

- There is very little functionality of the identified documents in legitimising stakeholder action

An extract from the "Expectations and indicators of good practice set for category 1 and 2 responders" guidance document as below:

Attending LRF meetings or ensuring that you are effectively represented.
To be effectively represented:

- *Not every Category 1 organisation needs to be represented directly at every meeting unless their work is to be discussed.*

- *Representatives should be senior and experienced enough to be able to speak with authority.*

- *If representing more than one Category 1 responder, representatives should represent all organisations that they are representing. All responders should have authorised this representative. The representative should be able to explain current structures, policies, priorities and events in the area covered by the responders they are representing, be willing to take forward their issues and provide feedback on the meetings to those whom they represent.*
- *Representatives should be aware of the proceedings of LRF subgroups (if they exist) and 2.58 Emergency Preparedness).*

Cabinet Office, 2013c, pg.35

In brief, there is no prescribed collaboration arrangement for the LRFs, and this is seen in the documentation. The guidance is bottom heavy, in that it places most of the responsibilities on the local level. Where national level LGDs is shown, the mechanisms for this involvement are not well described. There is very much a sense of "this has to been done collectively, so you may as well work together from the outset, and it's up to you how this happens." Given that response at least would bring the agencies together, and the official platform for this is through the LRF, eventually SCGs triggered from incidents would lead to an LRF coalescing into a coherent structure.

5.4.2. Language

- Initially the researcher found that the pertinent Acts of Parliament were not coherently summarised and the Acts themselves being difficult to work with, as the available document download only contained the original version, sans the many amendments the Act has had over time. The relevant policies and legal framework that set up the organisations with overlapping authorities was obscure, and the researcher had much difficulty navigating the inter-related legislation.

- While the language of the policy itself is vague, this was also true for the guidance, with it being necessary to qualitative distinguish between requirements and recommendations, with a high level of ambiguity or openness to interpretation

- As mentioned within the "Power and authority", the language side stepped the LRF existence in a circular attempt at definition

- "*The role of LRFs - reference document*" is a stark example of ambiguity. It does not explicitly describe what the LRF is or who is needed for it. It uses Category 1 responder obligations while ironically not appealing to rules or authority, to implicitly persuade, manipulate, and coerce the formation of the LRF. The legislative minimum meeting at a bi-annual requirement is a fundamentally outlandish frequency of meeting if the roles and responsibilities are to be carried, and so by putting the accountability of failure to the highest tier of command of the Category 1, it ensures that they (with their authority) delegate these tasks to the Silver-Tactical tier, allowing them to meet these obligations, however this distinction of gold and silver is never explicitly referred to by the document.

- The government idea of collaboration was restricted to existing defined stakeholders only, which may leave mechanisms restricted for growth of the collaboration system

- There was difficulty in establishing the role of partners not in the Category 1 and 2 criteria, for example the Met Office is in theory a key stakeholder for flooding or other hydro-meteorological related incidents, but was not mentioned anywhere within the guidance or Regulations

- The use of collaboration as a word is minimal with much of the language instead around "cooperation" and "information sharing" predominantly. However, the entire context of the LRF itself is its existence as a collaborative platform for preparation, and the basis for the multi-agency coordinating groups at the response level, where collaboration is a necessary part of the shared response. Unlike the studies by Chmutina *et al* (2016) and Ntotnis *et al* (2018), looking at the use of "resilience" in UK guidance documents, the documentary assessment opted not to use a quantitative content analysis of the guidance documents, although this had been planned, and failed as a method due to data access, for local planning documents. A content analysis of guidance would be best suited for a distinct longitudinal study, where multiple editions of guidance exist. This is not the case here, and the lack of versions between documents makes a longitudinal quantitative content analysis of the documents that would indicate the presence of any change in policy towards collaborative arrangements over time infeasible. Additionally, the researcher did not see merit in simply cataloguing the "count" of key terms such as "collaboration", "cooperation", "coordination", to base assumptions on changes to the prioritisation of collaboration within the UK IEM, and the guidance itself does not necessarily indicate practice. The study would have had to expand to include a much wider range of national policy statements overtime, including media statements, to do this which was not feasible with the time constraints.

- When looking at Cabinet Office documents surrounding the Civil Contingencies Act (2004), the idea of "resilience" is a recurring theme. Interestingly, however, "resilience" does not appear as word within the CCA (2004) itself. It should be noted that at this time, resilience within the field was not a well-established terminology, only truly beginning to be pervasive after the Hyogo framework brought to the fore the concept of "resilient cites", as discussed earlier. The language in the Act additionally does not make mention of collaboration in the sense discussed above – with 3 of its 5 mentions pertaining to cross-border collaboration between countries, rather than between agencies. The other two mentions being reference to the ability of a Minister of the Crown to "permit,

require or prohibit collaboration" under duties within the act. "Co-operation" is instead the language used in the Act, appearing 17 times (CCA, 2004).

5.4.3. Development cycle

- The guidance is fairly old, where barring the NRR of 2017 (which must be updated at a minimum every 5 years with to the National Risk Assessment (Cabinet Office, 2013f) and JESIP (2016), all other guidance was published predominantly in 2012-2013 or prior to this.

- The majority of the changes happened during the 2012, which was found to be a period of review and overhaul that took several years

- The documents prior to this were scanned, and consultancy documents reviewed – all notably in the 2012 period of review, associated with the PIR of 2012 as shown below in **Figure 5.14**.
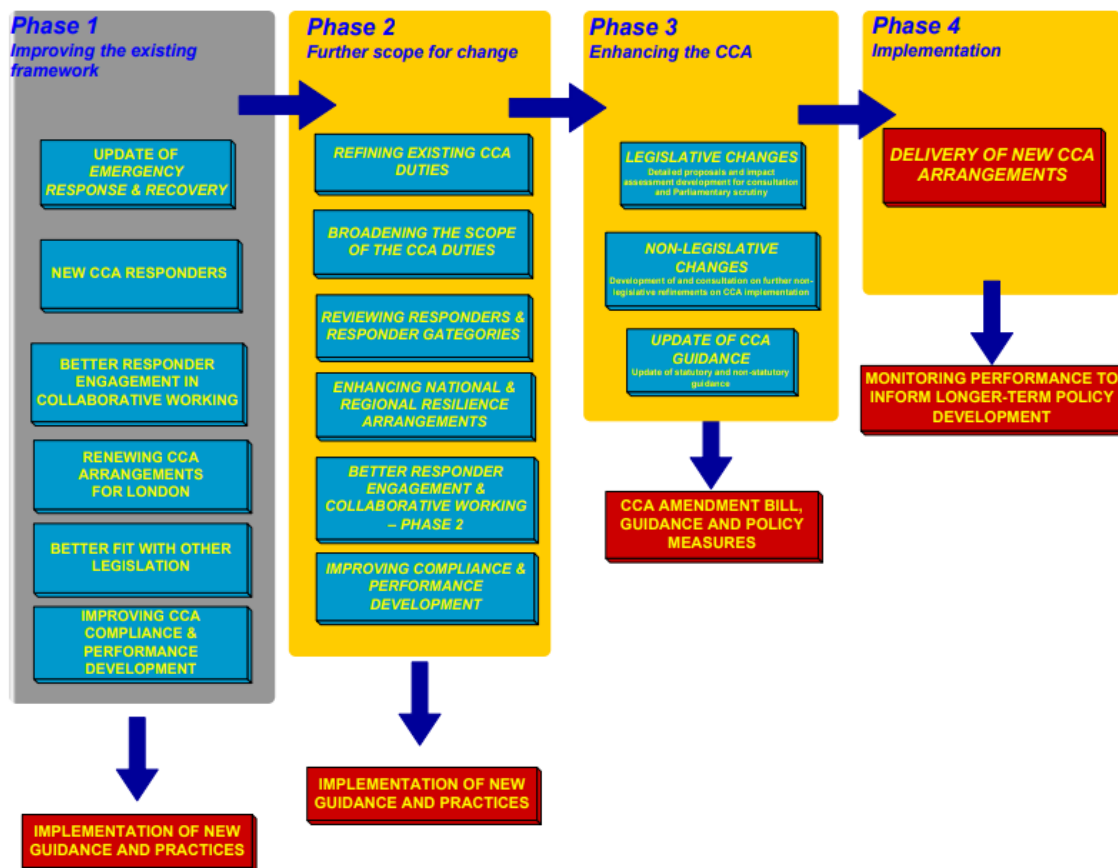
Figure 5.14 Civil Contingencies Act Enhancement Programme: Schematic showing phased-project delivery and associated outputs (CCS, 2010)

- As noted within the section on duties laid out within the CCA (2004) is the obligation to carry out a review of the regulations. Three Post-implementation reviews of the CCA (2012, 2017 and 2022) were considered within the document review in order to map the development cycle of the guidance, in addition to the Civil Contingencies Act Enhancement Programme (CCS, 2010) reports as the assessed document themselves contained little to no record of their development

- The overall life cycle of each document is very long. The process by which new guidance is produced, rolled out, tested, review, consulted and implemented may take years, as can be seen in **Figure 5.15**, in which the major overhaul of the guidance took 4 years, not including the time for implementation at the local level.
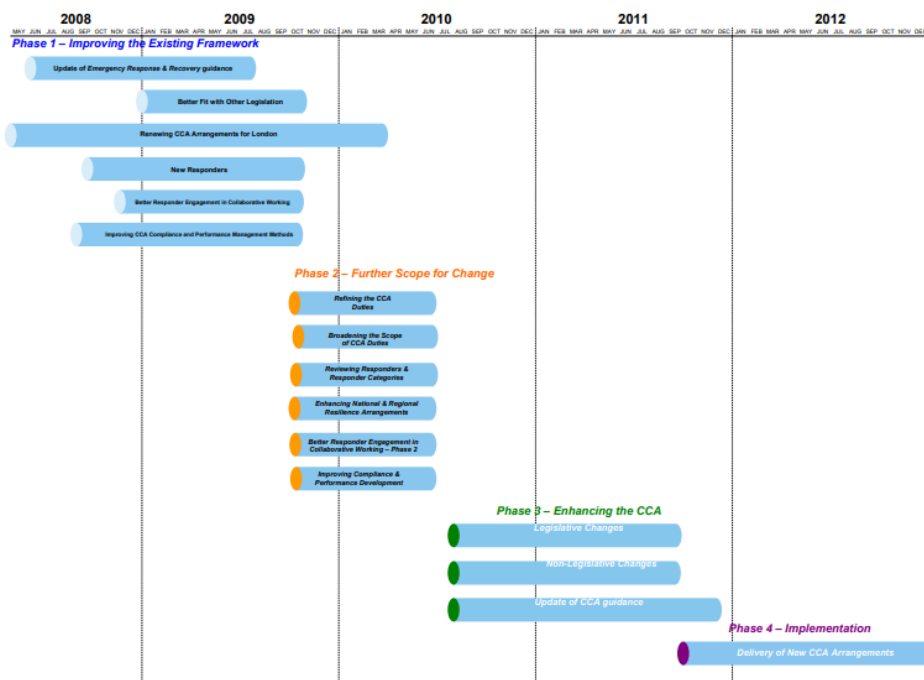
Figure 5.15 Revised timeline for delivery of CCAEP projects (CCS, 2010)

- The National Resilience standards were also years in the making, but ultimately not well timed, as the "Integrated review: call for evidence" and its associated report "*Global Britain in a competitive age: The Integrated Review of Security,*

Defence, Development and Foreign Policy" came out in 2021 and 2022 respectively, thus being unable to influence to the National Resilience Standards.

- The "*Further reading*" chapter of the "Emergency preparedness" was last updated in 2011. Most of the documents in the List above are identified there.

5.4.4. Volume and redundancy

- The 11 documents assessed using the initial DAF represented an extremely high volume of material – in total over 1200 pages of text, going up to over 1350 pages with the inclusion of the additional documents, the two largest being the "Emergency response and recovery" guidance at 233 pages, and the "Emergency Preparedness" guidance, which is not available as a single document, but divided into chapters totalling 580 pages.

- To give an idea of this, when the researcher was conducting the initial documentary review, the sum of the printed documents needed to be carried about in a small suitcase.

- There is a very high degree of redundancy between documents, particularly with regard to repetitions in setting the context or interpretation of the CCA. These were seen notably in re-phrasing content in the "Emergency preparedness" and "Emergency response and recovery" documents

- These two documents were also the basis of much of the organisation DSS presented previously

- Based on this assessment of volume, the researcher deems it was unlikely that stakeholders (aside from emergency planners) have the time to read all the documents produced (to be tested in primary data collection) given the sheer **volume** of material that formed just the "core" guidance

5.4.5. Design and organisation

- Pertinent documents are not highlighted well. The signposting between guidance was quite poor. The mapping of the available documents and guidance itself was an unnecessarily long and involved process.

- For example, the primary gov.uk website relating to emergency response and recovery, functioned as a repository for all related material, without any meaningful sort or search mechanisms. The issues with national governmental DSS webpages were discussed in greater detail in **Section 5.3.4.**

- Within the UK guidance for publications (Government Digital Service *et al*, n.d) on the gov.uk webpage, there over 40 content types identified. This webpage provides the guidance for publishing with the UK gov.uk, the overarching platform for national documentary support structures, not just within the UK IEM, but as a whole. It provides guidance on:
    - Content design: planning, writing and managing content
    - Eligibility for publication with GOV.UK
    - How to publish on GOV.UK
    - Style guidance
    - Support for government publishers

- This guidance for publications did not focus on considerations noted in our initial DAF, which is unsurprising given it is general advice on publications across the whole of GOV.UK

- The documentary support structures of the UK IEM consist almost entirely of the type "Publications: Guidance". Exceptions to this are the Civil Contingencies Act itself, its Regulations, the occasional "Publication: Policy paper". Surprisingly, within the classifications the researcher found none labelled as "Publication: statutory guidance".

- Generally, the researcher found the design between documents to be fairly poor in terms of structure and organisation, and the use of diagrams or aids within the body of the document, being predominantly dense blocks of dry text.

- The individual chapter format of the "*Emergency preparedness*" is particularly cumbersome, and this may have been something intended to be revisited after the CCA Enhance Programme in 2012, although throughout the webpage

guidance the individual chapters can be seen referenced as almost standalone or individual documents in their own right.

- However, in this metric, JESIP was an outlier in terms of its design, being well organised and clearly designed with the intent to be used by a range of stakeholders, clear and engaging diagrams, and a host of supplementary material

5.4.6. Clarity of content and purpose

- To develop an understanding of the national expectations of the UK IEM did require reading the full scope of identified document, as such the necessary familiarity to make use of the documents is quite **high**.

- The intended audience is not explicitly noted in the documents, with the general expression that it is intended for stakeholders within the UK IEM, but even where the responder is more generally identified, no distinction is made by tier or roles and responsibilities.

- For instance**,** Chmutina *et al* (2016) identified the intended audience as "national government", "local government", "private sector", "community" and "individual", however, their approach to document selection (of which 30 were reviewed) was a generic search of guidance pertaining to "resilience" of over 400 results, 30 policy documents relevant to the built environment and *in which the term resilience is explicitly stated*, were contextually analysed. On the other hand, this study had more criteria and the list populated was designed to explicitly identify "core" documents that would give stakeholders a good base of the UK IEM. A range of stakeholders across Category 1 and 2 responders within various tiers of command were identified, and these documents do not explicitly have intended audience within these tiers or responders.

5.4.7. Assessing the "base" of the document

- During the initial documentary review process, it became evident that the process by which an external stakeholder would gain familiarity with the system was a long and involved process.

- With regard to the collaboration arrangement being mapped, the structure of the LRF itself was highly unclear. The sum of the knowable collaborative arrangements was solely in the response phase of the UK IEM, and the **sole** requirement for a gold-level meeting to occur twice a year

- Determining the bare minimum of guidance needed to be familiarised to understand the context of collaboration and the LRF, showed that this is not possible using just guidance. This becomes very clear when speaking to participants. The multi-agency cells were mapped in the literature review, but how this was carried out at a local level cannot be inferred, therefore the use of negotiated order in designing the questions to pose to participants in mapping the LRF structure was quickly justified.

5.5. Summary

Four levels of documentary support structures were identified in exploring the DSS within the UK IEM – *National governmental DSS*, *National organisational DSS Local DSS (Organisational and Governmental)*, and LRF DSS. These DSS were explored within this chapter, and a list of documents to be assessed was populated. The identified documents faired poorly against the initial DAF. The next chapter presents the findings of the semi-structured interviews.

Chapter 6

6. Qualitative Findings and Analysis: Semi-structured interviews

6.1. Introduction

This chapter presents the findings of the semi-structured interviews, notably the themes and sub-themes extracted from the 12 in-depth semi-structured interviews. The data was analysed using thematic analysis, the themes and sub-themes identified are presented within.

6.2. The interviews: Participant profiles

12 participants were interviewed during the primary data collection of the study. The participants were as detailed in Research Methodology selected purposively, with 9 distinct LRFs out 38 in England represented, with 7 in executive positions within the LRF secretariat and 2 at senior officer level. The remaining 3 interviews were from an emergency planning manager at a Local authority, and 2 national liaisons – one tactical officer and one strategic manager within a regional hub (I.e., which is to say the regions within the UK, such as the Northeast, Northwest London, etc., representing multiple LRFs/counties within that region). To preserve anonymity given the small overall sample size of the LRFs in England and given the distinctive nature of some naming conventions of job roles, the profiles err on the side of caution and limit the number of identifying factors within the profiles, including the time in each post, but many of the participants by virtue of being senior or managerial positions have been in place for over 10 years. Typically, prior to this they were typically in related positions within for example the police or fire but may

also have been explicitly taken on for emergency planning capacities or alternatively for administrative proficiency, gaining the necessary emergency planning background on-the-job. This is discussed in the consideration of the LRF structures within the results. These profiles are presented in **Table 6.1** below.

Table 6.1 Profiles of participants within the semi-structured interviews

Participant Identifier	Organisation	Job role
Participant A	Local Authority	Emergency Planning Manager
Participant B	LRF	LRF Overall Coordinator
Participant C	LRF	LRF Managerial
Participant D1 & D2	LRF	LRF Managerial + Resilience Officer
Participant E	LRF	LRF Overall Coordinator
Participant F	LRF	LRF Overall Coordinator
Participant G	LRF	Senior Resilience and Emergencies Officer
Participant H	LRF	LRF Overall Coordinator
Participant I	LRF	LRF Overall Coordinator
Participant J	RED, MHCLG	Tactical Resilience Advisor [National Liaison]
Participant K	RED, MHCLG	Strategic Resilience Advisor / Gold Regional Manager [National Liaison – Executive]
Participant L	LRF	Senior Resilience Officer

The interviews lasted on average for 68 minutes, between a range of 40-117 minutes. This does not include the time taken to go over details such as the Participant Information sheet and Consent forms as recording did not begin till this was undertaken.

6.3. Overview of thematic findings from the interviews

As can be from **Figure 6.1**, in thematically analysing the findings of the semi-structured interviews, the concept of "Utility" of the DSS is centralised.
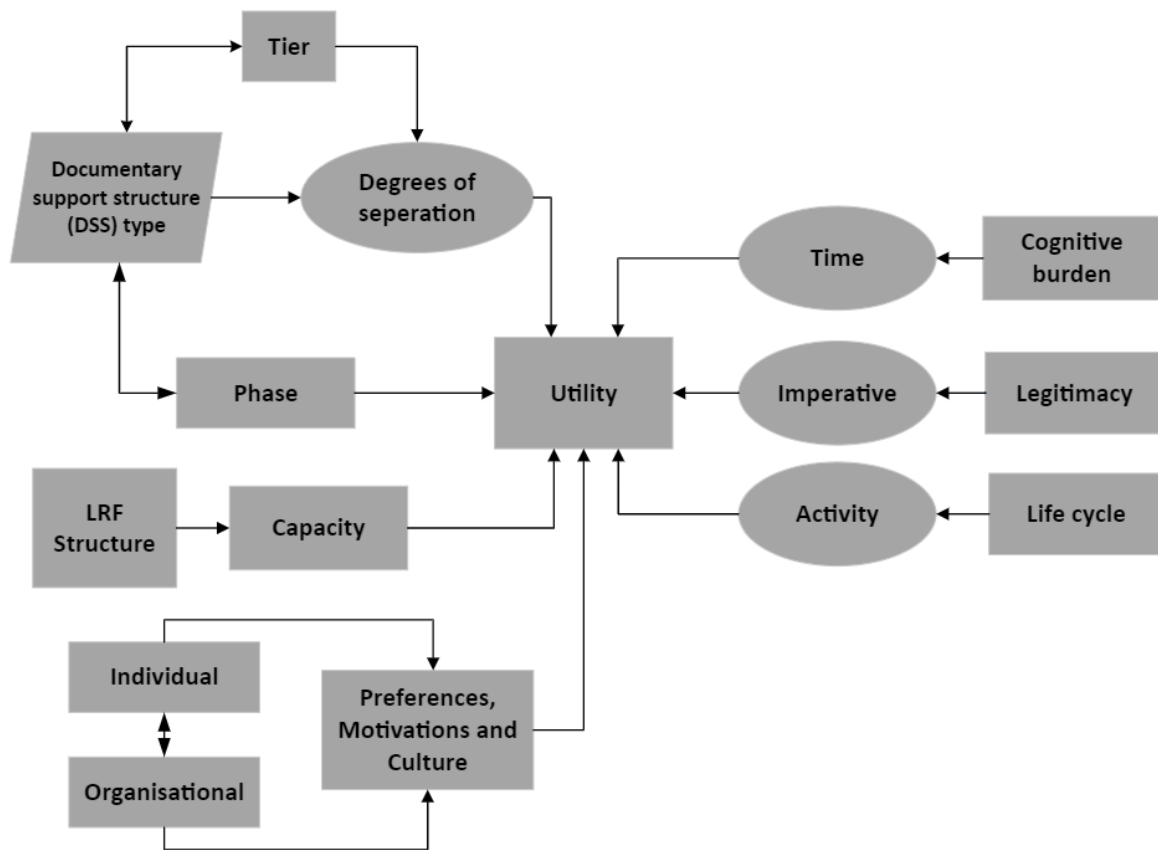
Figure 6.1 Cognitive map of the overarching themes affecting the utility of DSS

There is substantial degree of linkage between the themes and sub-themes, not just through "Utility" however. As the findings are explored in detail, some of these linkages are considered further. These themes were consolidated within the data analysis process, wherein relevant quotes by participants were coded into free nodes, from which the tree nodes or factors were refined, ending in the consolidation of these nodes into the themes and sub-themes discussed within this chapter.

6.4. Interview findings: the LRF collaborative arrangements

The interview findings are initiated with a consideration of the collaborative arrangements within LRFs. This section details the results of the data collection and analysis results with regard to determining the collaboration within the UK IEM, and the difference between the collaborative arrangements stated in the national policy and guidance (examined using content analysis of the document review) and thematic analysis of the interview transcripts. It is an overarching policy vs. practice consideration. In considering the role of documents in collaboration within the UK IEM, the findings here answer the gaps in knowledge regarding the collaboration with LRFs in practice, which was laid out within the underlying study *Research Question (3): How clearly do the national guidance and documents on the UK disaster management describe the collaboration seen in practice?*

In the literature review, the importance of documents in laying out formal structures and legitimising stakeholder action was established, however the context of disaster management was discussed as not being conducive to rigid command and control structures, particularly outside of response, given the multi-agency nature of the setting, where organisations have little to no authority over each other or their resources. To this end, in our theoretical foundation, negotiated order as a theory was put forward as the lens with which to explore the order within the LRFs.

From the findings, it is evident that the documents assessed both within the overarching documentary review and the select documents assessed within the initial DAF, that the national DSS were by themselves are wholly insufficient to give an idea of what the LRF looks like on the ground. Significant variations in the LRF structures were observed, with the major reasons for these variations noted. These are shown below in **Table 6.2**.

Table 6.2 Variations in LRF structure and major identified reasons for variations

Variations in LRF structures	Major reasons for variations in structure
• Day-to-day function	• Limits to collaborative activity by size and setting
• Types of meetings	
• Frequency of meetings	• LRF risk profile
• Host organisation	• Regional geography and demographics
• Size of secretariat	• Funding
• Stakeholder distribution – total size and representation	• Security concerns
	• Ambiguity of membership
• Roles and responsibilities	• Organisational culture
• Permanency of role	• Individual personality
	• Strategic interest

The legitimacy of the LRF was found to result not from the national DSS, but rather the local DSS, which is discussed in **Section 6.13.2**.

For the purposes of this study, mapping the variation in LRF structure gives the researcher an understanding of their resulting **capacities** (or capability), which is illustrated below in **Figure 6.2**.
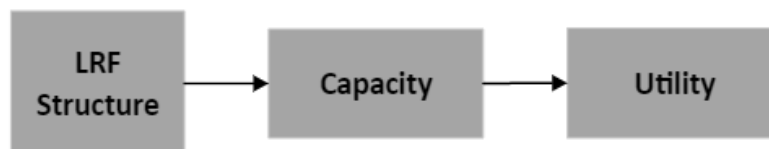
Figure 6.2 Capacity of LRFs to use DSS effectively

The participant interviews show examples of how the LRF structure affects **when, how,** and **who** interacts with DSS, and **to what degree**. It directly affects their **capacity** to **utilise** a document, which is most notable during response. The finding also allows for us to explore the degree of negotiation behind each process.

6.4.1. Variation in LRF structure

As put [P_D1] "*you will find that no LRF is the same. We're all different. One size doesn't fit all.*" One key difference that participants note, for example by P_F: "*So, I think the key thing for us is LRFs are described as being the kind of forums for preparing for emergencies. But actually, **we are also the teams that actually go into emergencies to do the response** … moving across from preparedness into a response mode*", which as [P_K] puts: "*As soon as you get to an emergency … what LRFs call the battle rhythm will be determined by the emergency.*" This idea of peacetime LRF activity and "battle" modes or rhythms is one that the LRF participants use frequently.

In technicality, the LRF coordinators or managers are managers of the **secretariat** of the LRF, whereas the LRF secretariat is generally described in guidance as serving a more administerial function. Within the non-mandatory requirements of a LRF, under "**Issues to consider**", which are labelled in yellow, and are "*recommended elements of the CCA regime (i.e., where guidance suggests that the LRF 'should' do something rather than 'must')*" the functions and membership of the secretariat are given as:

Effective performance by the LRF requires secretariat support to fulfil key tasks. The choice of personnel for the secretariat is a matter for local determination but those taking up the task should:

- *be able to take on the job on a permanent basis;*
- *be of a level of **seniority or competence to be able to support the chair** in managing the business of strategic-level forum meetings;*
- *consider the impact of other legislation, such as the Radiation (Emergency Preparedness and Public Information) Regulations 2001, on its work programme;*
- *have the back-up of an administration team which can, as necessary, produce and circulate documents quickly; and*

- *be competent in organising or supporting officers from their own or other organisations in administering the work of sub-groups.*

<div align="right">Cabinet Office, 2013b, pg. 13</div>

Even the indications here with regard to "seniority or competence" are restricted to the support at the strategic level meetings. The secretariat function is further expanded on in "**Indicators of good practice in the LRF**", labelled in green, which are "*sections [that] describe expected outcomes in order to provide a picture of what compliance with statutory obligations based on recommended **good practice might look like***".

The LRF's secretariat services are appropriately resourced and provide effective support in:
- *fixing dates of meetings;*
- *agreeing agenda items and attendance with members;*
- *organising the production of discussion papers and presentations;*
- *briefing the chair; taking minutes;*
- *following up matters arising and action points;*
- *disseminating papers;*
- *ensuring that sub-group meetings are effectively scheduled and organised and that minutes are recorded; and*
- *ensuring that relevant matters arising from sub-group meetings are brought to the attention of the LRF.*

<div align="right">Cabinet Office, 2013b, pg. 14</div>

And as can be seen these describe mostly administrative functions. However, through the interview process, it is clearly evident across all the LRFs considered that the bulk of the work and duties associated with the LRF are facilitated, and to varying degrees, conducted through the LRF secretariat, and not the "LRF" in terms of its strategic meetings.

Neither the LRF secretariat nor its functions are referred to within its mandatory (red) requirements. There are 7 mentions of "secretariat" in the *National Resilience Standards* (Cabinet Office, 2020b), which add nothing meaningful to the scope, remit, or capacity of the secretariat itself, as these are all instead positioned as functions of the LRF, which as was discussed in **Section 5.4** is loosely defined.

6.4.1.1. Types and frequencies of meetings

The LRFs typically describe 3 tiers of meetings, with differing naming conventions, frequencies of meetings, stakeholder distributions and leads.

At the Gold level are the mandatory meetings required by the CCA for strategic levels, which is what constitutes the "LRF" by definition, if not function. They are alternatively called the "chief officer group", the "executive group", the "strategic group" or "gold". Here, most of the LRFs described the frequency as being the required twice yearly requirement, and the meetings have neither the frequency not time necessary to carry out the duties of the "LRF" itself. As put by one participant,

> *[P_B]: The twice yearly LRF meetings, they're more business like, you know, "What's the update from central government? What's the funding? What's the--?" That's really what they're about. "What's the community risk register? What's our highest risks?" I tend to bring in a guest speaker to talk to them about cyber or whatever the flavour of the month is at that particular time. It normally lasts for a* **maximum of sort of 90 minutes**. *And to be absolutely honest, you know,* **we try and do it so there's nothing particularly contentious**, *if we can, so that we've tried to square up all the things"*

> *[P_D1]: Their job is to set strategy and to consider resourcing. And they operate at a high level. They don't get involved in plans, either the production or the review of those plans, unless there is a case by exception.*

This is a recurring theme in terms of the function prescribed to the official "LRF" meetings attended by the strategic level. The longest LRF meeting noted by a participant is a full day meeting, although a few participants generally describe half-day arrangements. Nevertheless, these meetings are critical for the function of the LRF in that it legitimises every other action and agenda taking place across the year, on the basis of the membership at the meetings alone. It is perhaps ironic though that when referring to this, for instance by *[P_B]: "we all **very well supported LRF wise** in so much as the two LRF meetings in a year are attended by chief execs. So very high senior management, which is - which is fantastic"* in that the LRF meetings discussed in terms of the "supporting" the secretariat and other operation layers, than the reverse. This is seen further in **Section 6.8.2** in considering the expectation of familiarity of different tiers of command and operation with the CCA and its guidance (i.e., the National governmental DSS identified in **Chapter 5, Section 5.3.1**.

Below the official "gold" level LRF meetings are typically two additional layers, although these show differences in their naming, given that based solely off membership, it isn't possible to simply divide these layers as "silver" and "bronze", given that most often emergency planners, even when outside of the technical command structure of gold-silver-bronze within their respective organisations, still occupy the adjacent "tactical advisory" capacity in their function, which corresponds to the silver layer of command. As put by the national liaison [P_J]: "*everybody has their own name for it [for the business management group] … managerial type people coming together … to kind of talk about the detail of particular issues*". [P_C] for instance describe this layer simple as the tactical group, whereas [P_D1] refers to them as the "*business management group*" and [P_H] uses the term "*general working group*" and [P_I] the "*delivery group*".

The third layer, which put by [P_E] as "*the real heartbeat of the LRF*" is the third "operational" tier of the LRF, although some LRFs call these the "sub-groups" or "work streams", and these meetings have the highest frequency of occurrence and "*it's where the major incident planning practitioners*" meet to "*look at risk and plan*

accordingly". Participants use acronyms in many of the LRFs, such WOW – working on weekdays (monthly meetings); MOT – Monthly on Thursday; WOT – working on Tuesday (every two weeks) to describe these meetings and discuss this as the arena in which much of the work is done. Some LRFs so have a less clear delineation between the "tactical" and "operational" delivery groups, and participants mention different arrangements being present historically, however as put by [P_D1]:

[P_D1]: what we found on analysis was that because public service has just gone through 10 years of austerity, the people that were involved in that group and virtually every other themed group on every other topic were mostly the same people. So, we had a business model whereby people were following each other around to meetings and it was a complete and utter waste of time. There's so much opportunity-time lost … it was a model that couldn't be sustained any further … [in] our new model … what we'll do now is we'll get together at a set period, on one day and all of these people will spend the whole day together, working on plans and delivery plans; and we'll meet at a frequency that services up requirement … [presently] the actual planning activity … takes place to the frequency of a monthly meeting. But of course, there's background activity going on all the way throughout that month. And people are talking to people, having conversations and developing stuff in the background to take forward to the meeting and the operational working group, at that once-a-month frequency, it is managing its production of documents. It is checking on the production of documents and it is quality assuring, in those documents in that once-a-month process.

And this once a month-frequency for the operational type meetings was found to be the standard for most LRFs.

6.4.1.2. Variations in LRF secretariat

As the intermediary to all these layers is the LRF secretariat, and they will either be present across all the different meeting types discussed, or in the case of sub-group or working groups on specific plans, at least play a role in facilitating the multi-agency aspect of the plan production. However, many differences between secretariat teams of different LRFs were observed. For instance, one participant as an LRF coordinator noted that he was "*probably unique in the country in so much as I'm not necessarily full time. I'm a **zero-hours contractor**. I work when the works there, I don't when the work's not there; **and there is just me**.*" Though the absence of any other supporting members within the secretariat is not unique, the nature of their contract certainly is. On the other hand, the largest secretariat seen in the study, [P_C] describes a much larger, centralised specific unit consisting of "*a team of 13 people, two managers*", themselves being one of the managers. Other described different arrangements are quoted below:

> [P_D1]: *we have an LRF secretariat office, that comprises, at the moment, four (4) people.*
>
> [P_F]: *By partners, I get funding contributions. **Voluntary**, from the partners paid into the police to ensure that my job stays safe as it can be. I have one other person working for me on a temporary basis. That goes on for another year. And that was actually put in place just after EU exit, because of the amount of work that not just the partners were pushing this way, but actually government - government agencies.*
>
> [P_H]: *I'm what we call the LRF secretariat … **it's not a paid role or anything** … Our **secretarial role, it's quite new, actually** … we've had some new place for the last year, and he works 17 and a half hours (17.5) a week on Local resilience forum work and that's--- **that's the only paid resource that we have as a Local resilience forum** - 17 1/2 hours a week, a mid-level officer for us. And his role is to very much facilitate meetings and to do basic plan reviews, etc., etc. And then we rely on partners, the emergency planners from the responding organisations also to contribute their own time in order to run exercise exercises, deliver training, write plans and things*

[P_I]: I do have a member of staff, but only because the members of staff I've got isn't part of the partnership usually. She's in post for the minute … for a year … we were given additional funding for Brexit. Ultimately, the model we use is there's just me. And plus, [XXX], when she's there …

Funding as a restriction to the capacity of the LRF secretariat is a prevalent theme, as seen from these quotes on the secretariat size, which is discussed further in the next section. The classification of these roles as a "secretariat" is however a misnomer. While there is no common naming convention in the roles, all the participant job designations are variations of executive nomenclature, from LRF Coordinator, Principal CCU Officer, Tactical Coordinator, LRF Programme Manager, Emergency Planning Manager, to Partnership Manager. In both cases of the LRF Managerial role, the participants are second in command structure of the LRF secretariat, with their direct superior coordinating "Strategic" stakeholders and they themselves coordinating the "Tactical" level. Other LRFs here do not make this distinction in gold-silver hierarchy within the secretariat since much of the delivery is conducted at the tactical level, given most emergency planners are classed as "silver" or "tactical advisors".

[P_F]: I'm qualified in emergency planning. So, I came into the role as a project manager.
[P_I]: So, I'm XXX LRF Partnership Manager, **which just means I'm not technically a member of the partnership,** *which is nice, sometimes*
[P_E]: And next month I'll have been in the role for ten years. Part of that I did [30+] *years … as a police officer and retired at the rank of Chief superintendent with XXX* [however within their discussion of their current role they note] *not being a Category 1 or 2 responder myself*

6.4.1.3. Funding

Funding is perhaps the most prevalent limitation on LRF capacity, which affects not just the LRF structure, but through knock effects of the impact of austerity and economic pressures on partner organisations. The impact of funding restrictions is interesting in that it also has consequent effects such as on matters such as printing copies of plans or guidance material for meetings even, and in the training and exercising of stakeholders, which is discussed in **Sections 6.14**. Some quotes relevant to the effects of funding on the LRF structure are presented below.

> *[P_B]: So, we have been in a bit of an odd position, in so much as the county council were the lead agency - were the lead in the LRF. They have to go through - they went bankrupt, so they went through some major financial hurdles. So consequently, emergency planning team was cut by two thirds, which then meant I ended up picking up some of the work that they would have done.*
>
> *[P_B]: And to be perfectly honest, there was never a LRF budget other than to pay me.*
>
> *[P_C]: very few of those organisations, employ anybody as an emergency planner and it's cheaper and more efficient for them and more effective for them to pay us for say two days a week or one day or something like that.*
>
> *[P_I]: technically I'm employed by XXX County Council. But effectively all the partners who pay have got a fairly much equal stake in me*
>
> *P_C: with the exception of the unitary authority … none of those local authorities have a full-time emergency planner. They just don't have the funds to do that. So, it tends to be a bolt-on to somebody else's day job.*

Only a *single* mention of funding in the entirety of the document "*National Resilience Standards*", pg. 6 Standard #1

> *"d) A secretariat function that is appropriately funded through an agreed resourcing model, which enables it to support the strategy, work programme and wider organisation of the LRF"*

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Similar to the "*The role of LRF: a reference document*" pg. 13, single mention of funding as an "Issue for the LRF to consider"

"In order to prevent undue pressure on a small number of individual members' resources, the LRF should consider the need to fund a central secretariat through, for example, a subscription scheme or levy. The LRF should manage its financial operations effectively and could consider sharing information with other LRFs about costs associated with secretariat functions as best practice."

6.4.1.4. Differences in host organisation

The host organisation for the LRF secretariat may also vary, which may affect their capacities. For instance [P_F] who is based with their regional police headquarters notes that as a result they have "*got access to lots more information than I would normally have. Particularly … if there's an incident declared. I'm here with the police team, so I get to hear about it fairly quickly. I'm on the cascade list for it. So, I'm able to update, bring the partners in, make sure things like Resilience Direct ... is used; and also act as kind of a liaison to keep everybody aware of what is going on in the situation*" On the other hand, [P_I] is based within their county council, which is one of two Unitaries, and therefore not as central as would be ideal, however they note "*everyone's agreed that … In fact, in that "good practice for LRFs", it does suggest that it shouldn't be police who host. But I would say that my experience of most my colleagues is, it is still the policing who host … it's not like we've picked the easiest thing, but it's a marriage of convenience and I think being in the council does help. But we still obviously have the chief constable chairing the partnership and the assistant chief constable chairing the delivery group aspect*". They also discuss instance where "*XXX emergency planning used to be based in Fire because that was part of the local authority a lot more than other places ... in fact, that's the way it works in Sussex too.*" Other participants also make mention of their host organisation, which often has consequent impacts on their capacity for action, and in a number of participants, the host organisation was simply on the basis that their

role was a separate position so much as an add-on to their day job, typically as emergency planners for their organisation in either police or their local authority. A few participants were not hosted by partners at all, rather having their own dedicated resources and spaces, as in the case of [P_E], which is very much a result of their funding mechanisms through partners, having consequently the largest team as well within the participants interviewed.

6.4.1.5. Stakeholder distribution at meetings

The stakeholder distributions at the LRF meetings where the work around planning was done, i.e., the operational working groups, was of particular interest to the researcher, and a number of specific questions were asked around this, from determining numbers and participation at the meetings, to determining if participants felt there was a limit to collaborative activity based off the size of the group (which was a potential limitation identified in the literature review, **Section 2.4.2** raised given the number of stakeholders in the LRFs). Finally, participants were asked how they determined if a meeting had been a successful collaborative activity.

It was found that there was a noticeable spread in the number of stakeholders that attended the meetings, for a number of reasons. For instance, [P_A] notes that they, themselves, do not attend because their "*XXX Civil Contingencies Unit is a collaboration of the XX local authorities in XXX, so one of us attends on behalf of all XX of us, because otherwise you get too many authorities.*" Meanwhile [P_F] has a regular attendance of "*35-40 different people*" because he has "*13 different local authority organisations*" who all attend. [P_J] who attends a number of different LRF meetings within their national liaison role notes "*if I had to give an average sort of number, I'd say there's probably about 30 people, normally. About 30 different organisations at an LRF meeting.*" A few other responses are quotes below:

> *[P_B]: So, I'll end up with twelve or 14 agencies around the table; some county based, like the local authorities, and then some wider like XXX Water and Environment agency and so on*

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[P_D1]: there are 25 Category 1 responder organisations that we interact with on a regular basis, and there are any number of Cat 2s because of course there are many of them out there, and we interact with them as well. We have some ad hoc membership that includes the likes of military, for example, and we work with them closely on major incidents.

[P_I]: the WOTs are open to everybody. As in absolutely everybody … So, five years of records. I would say on average, we say about 250 to 300 people a year in the two-weekly meetings … of those 26 meetings in the year, they'll all have a theme … people will pick and choose [which to attend] … it's a fairly inclusive approach … you're talking about 50 organisations that you probably want to be involved with … at least enough to know their name [or] enough to know who to talk to

[P_I]'s discussion on the attendance based off the theme of the particular meeting is one repeated by many participants, in that they note that typically stakeholders especially the Category 2 responders who are invited, show up for the work streams or sub-groups that are relevant to them, which helps to manage numbers. As put by [P_E] "*They're not all active at the same time … if there's an agenda item that's to do with flooding, then a different set of us - 20 to 25 people will have an interest. So, we've never had to say it's too full, because the meetings have always been fine because of that. The practical issue is … if we've got a meeting agenda item like COVID or Brexit, probably when it started, or Brexit, then we usually see that we have a better--- higher turnout. And sometimes, we just struggle with really practically about physically-- physically fitting people in the room. Teams has changed all that, of course. That was before Teams.*"

A range of different reasons will affect the stakeholder distribution at meetings and examples of these are noted in **Table 6.3** below.

Table 6.3 Supporting quotes for identified reasons behind variations in LRF structure and stakeholder distribution at meetings

Reason	Supporting quotes
LRF risk profile	[P_B]: we haven't got COMAH sites, we haven't got that threat in the county, we're very low risk
Regional geography and demographics	[P_B]: We are a small county, very small county, small LRF. I think we're probably in the bottom three size wise.
	[P_E]: But XXX LRF is very small. We're a very small rural area in the main.
	[P_F]: geographically being the largest LRF in the country … The districts tend not to be as well represented. Of the seven or eight that I've got, probably two I see on a regular basis. But the local authorities have their own emergency kind of planning for in XXX that comes together. YYY remains separate. ZZZ, a part of that - that -- that emergency planning system. And then XXX have their own. They've got no districts, it's just XYZ. So, very large area but they do within their -- their whole team and manage on a county basis. So, they only have one plan, whereas in XWW, what you might find is they've got numerous plans because of the district level as well.
	[P_H]: we're a coastal area, so we work with ports and port ferry operators
Security concerns	[P_I]: Police took offense to that … And most of those issues come from the police being worried about stuff .... People not wanting to talk about threats … again, I possibly have a more liberal attitude on this
Ambiguity of membership	[P_I]: actually, the Cat 2s as being somebody who might be very involved in response is a much, more difficult

	criteria … But it's hard sometimes within the current framework to gauge where they should be
Organisational culture	[P_I]: I facilitate them to undertake their CCA duties collectively. And as you know, that will be slightly different depending on the organisation, the culture of the organisation and which-- whether they are Cat 1 or Cat 2s or health, which is a whole other ball game, really
Strategic interest	[P_B]: The new option they're looking at is, it's 2 Unitaries and each unitary wants their own emergency planning, where this would have been an ideal opportunity because XXX is pretty small to have one unit covering both, but at the moment the politicians don't like that so there will be an LRF coordinator and two I think in the middle. [P_C]: Now, some organisations, like the County Council, are very much engaged with this. They don't employ emergency planners, but they pay for one full time equivalent officer as 'time'.

The LRF risk profile particularly affects the presence of stakeholders by expertise. For instance, [P_E] describes that there "*is a core membership, but is extended to, if you'd like, specialists and experts as and when that's required at that particular meeting.*" [P_D1] gives an example of this in their review of their "*Exotic Animal Diseases Plan*", which required them to "*draw into the process some-- some of our professional partners who are embedded within local authority trading standards departments, and they are the people get involved in the development of this sort of work by way of a specialism*".

In comparing the different "models" of the LRF stakeholder distribution, [P_I] compares their more open and larger model to another more "*compact*" due it being just two councils, and as result have only 10-12 people at their delivery group meetings, which they note that "*in fact, sometimes that works a lot better because*

they've got one person who is doing quite a lot of work and is quite engaged, but they probably don't have the breadth we're doing." Comparing once more to an LRF with a "*model of a CCU. So, a civil contingencies unit, where everyone chucks in the cash, and they've got a team of about nine*" they note the different principally "*because there's this balance of who's doing the work. And what tends to happen is that the Cat 1s think that the team does all the work*", which they state they are "*not going to argue for that option happening, because I don't really want nine people. It's a bit annoying.*"

Despite their open model, [P_I] notes the difficulties of Category 2 responder involvement, with two particularly issues, the ambiguity of documentation on what constitutes a Cat 2, and the security concerns of partner organisations around the information discussed at meetings (which is discussed in further detail in **Section 6.6**).

6.4.1.6. Variation in expressed consideration of limits to collaborative activity due to size of participants

Participants were asked to discuss their perspective on limits to collaborative activity due to the size of participants which in the literature was noted as a potential issue within collaborative settings. Some additional responses to those above are noted below:

P_A: "you can kind of have 50 people in the room, but then we are doing the actual tabletop exercises, we'll break those down and generally, yes, I find that 6 to 8 people on a table is the maximum you can do."

P_F: "when people talk and actually say, you know, to others, more successful meetings, you probably need about six to eight people. I can manage a successful meeting with 30 or 40 people. I've run very large meetings with-- in excess of that."

P_H: "it's easier to have a conversation clearly with four or five people than it is with 20-25...usually stick to like ten to twelve people...They're not all active at the same time...The practical issue is sometimes we have people-- if we've got a meeting agenda item like COVID or Brexit, probably when it started, or Brexit, then we usually see that we have a better--- higher turnout. Teams has changed all that, of course … When you get more than what-- however many people, nine people, however many think people you can see on your screen, you lose the interactivity, don't you? … it's quite tricky … before you could see who was interested

P_I: I think about 35 is the limit of a decent WOT in the room that we use. I get, you know, 30, 40 people on a Teams meeting, is okay. I mean, it's not great. We encourage everyone to call in and do the link. We use their hands. Everyone does the chat. We still-- we still have breaks. So, I think engagement's okay.

Based on the responses, there was no clear consensus on the ideal number of participants in the LRF meetings. Some respondents suggest that a smaller group of key decision-makers is more effective, while others argued that including a larger

group with diverse perspectives can lead to better decision-making. Overall, the responses suggest that there is no set limit for the size of a meeting, and that it depends on factors such as the purpose of the meeting (whether it be output or delivery focussed, training oriented, focussed on networking, or around informing only), the specific context, and the ability of the facilitator to manage the meeting effectively and also the location of meeting, with varying restrictions of co-location within physical venues and limits in engagement especially in virtual conferencing.

6.4.1.7. Indicators of successful collaborative output per participants

Participants were asked what they considered to be indicators of having conducted a successful collaborative output from meetings. Based on the responses, several indicators of successful collaborative output were identified as:

1. Building relationships
2. Engagement
3. Criticism and debate
4. Commitment
5. Inclusivity

The first 4 of these indicators appear generally across all the participants, however inclusivity is not a universal indicator across the participants, as noted in LRFs which lean towards representation by the "core" members primarily. Examples of responses are presented below.

> *[P_A]: And build those relationships primarily. That's what they are about a lot of the time … Where we are…. not only consulting each other about plans, but taking on-board each other's ideas, umm, real engagement. So, you know, allowing them to re-write a different section of the plan if it doesn't make sense to them. The level playing field that I talked about when you're in joint incidents. That's what I mean by collaboration. True collaboration in terms of generally having respect for each other and recognising different roles and responsibilities and expertise and differing to them and we don't always agree*

but coming to a compromise position, which is in the best interest of the residents at the end of the day.

[P_B]: So, the collaboration is - is good at that level because we're - A: we've known each other for many years probably. And B, we're quite happy to criticize others.

[P_C]: it's probably engagement by the right people at the right level. Delivering on what they say they will do.

[P_E]: Well, you need commitment, obviously, and that comes from the top and all agencies signed up to do their part. I mean, the LRF is merely a sum of its constituent parts. It's made up of those agencies. So, those agencies being present is really critical.

[P_F]: Well, on the agenda, we might have certain things where we've got to approve certain risks. And actually, if we have a good conversation about that and we approve it or we have to change it or adjust it, then for me it means we've done that engagement properly. And that for me would be a successful outcome. Whether it - whether it's approved as a risk or whether they'll be able to change it, it's still, for me, a successful outcome because we've had that engagement. The alternative would be just to have a group of us in a room. And I don't think that's really very inclusive. So, when you're talking about 30 or 40 people, they're there, then, you know, you've got full engagement.

[P_H]: our rough rule of thumb indicator is how many people have got something to say on the stuff that we're taking to the table. And sometimes that can be a little bit tricky. It can be--- it can feel like pulling teeth sometimes. But sometimes there's a really good discussion and really good debate. And not everyone is going to join in with all the time. But it's just--- it's that debate, really … It's just when people have got something to say. It just gives an indication that they've-- that they're prepared for it. That they've thought about it and that they're interested in what we're saying. So, I was only roughly--- its not very scientific indicator really, but it's just when people contribute to the conversation. You always come away thinking "That was a good meeting" if we've had-- if there's enough to have a good debate about something

Overall, these and other participant responses suggest that successful collaborative output per participants depends on building strong relationships, engaging in real dialogue and debate, being committed to the goals of the collaboration, and ensuring that all participants are included and engaged in the conversation. None of these indicators consider the productions of a document as a being an indicator of success. In fact, it was found there is very little document writing in the meetings themselves, with meetings themselves typically recorded as minutes, particularly the gold level meetings. The operational meetings are more for debating and deciding on the contents of already written documents, than sitting down and writing it from scratch or overhauling its contents as the documents are given in advance to participants for comment and discussion, which of course changes the process. The discussion around plan development instead was a case of plan lead negotiations, consultancy and review, preferences for length of plans and reasons why, variations in plan validation and approval, standardisation, and templates, which is discussed further in **Section 6.10.**

6.4.2. Summary and significance of findings on collaborative arrangements of LRFs

As such, there are broad difference in LRF structure across the country. **Figure 6.3** below shows a cognitive mapping of the variations in the LRF structure extracted from the participant interviews.
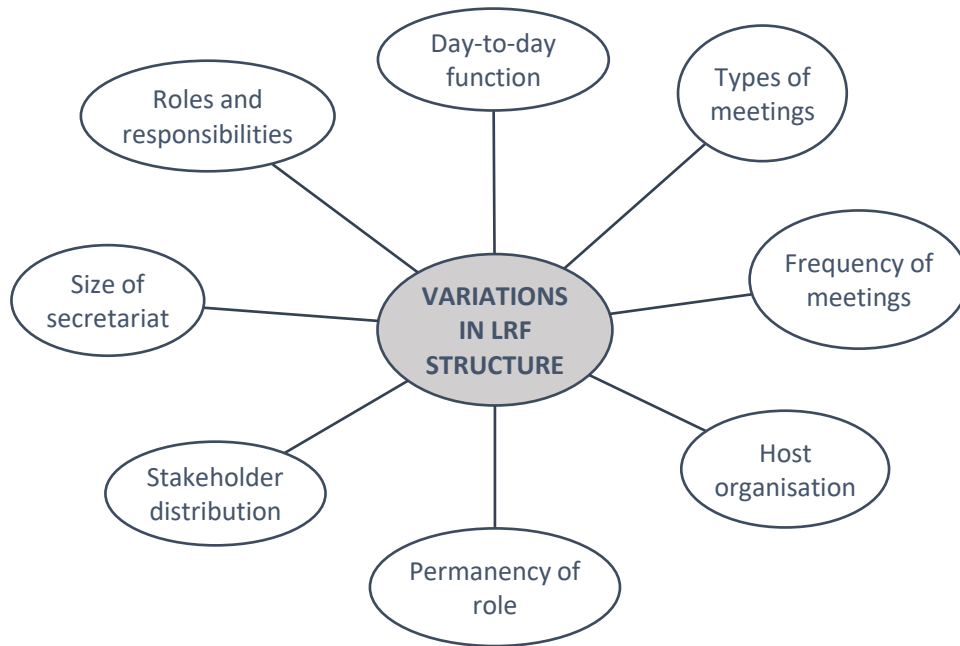
Figure 6.3 Cognitive map of variations in the LRF structure

Within these variations of LRF structure, the following 9 main reasons were identified as causes behind these differences, which are shown in **Figure 6.4**.
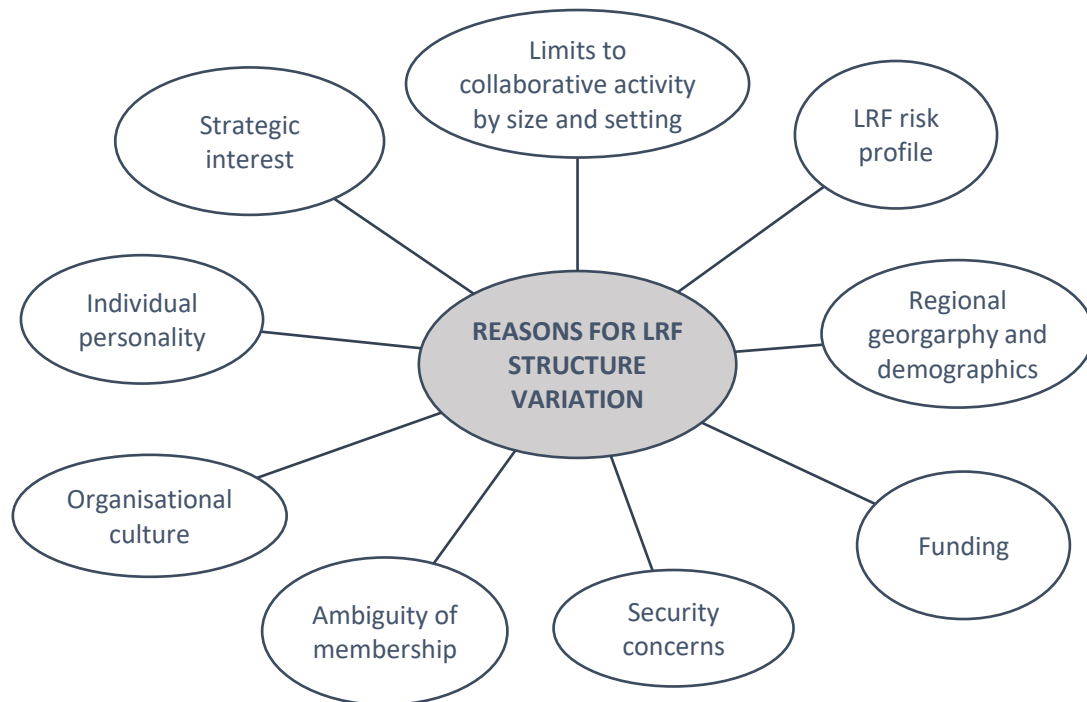
Figure 6.4 Cognitive mapping of major reasons coded for variations in LRF structure

Walker and Broderick (2006), in their study of the CCA, distil under the heading of societal protection, three concept, "civil protection", "public protection" and "community safety".

- Civil protection being about "*planning against, response to, or mitigating the effects on society (the public as a whole or a section of the public) of disaster and emergencies*"

- Public protections being "*based around actions to protect individuals from harm, such as child protection, and health and safety at work*"

- Community safety to "*collective resilience and protection against non-exceptional harms such as crime, disorder, or public health problems*".

Walker and Broderick, 2006, pg. 25

They note that at the time of the drafting of the CCA, Cabinet Office at the time sought to differentiate 'civil' from 'public' protection. Due to austerity, often emergency planner roles are an amalgamation of all three. As put by [P_L]:

[P_L]: And what is really thrown up is the fact that we do not have enough resources and we end up with a dilution of control because the wrong people and I don't mean wrong because they're incompetent or anything like that, but because they're wrong level. You're ending up with what operational people going to meetings and therefore ... what tends to happen then is that the decision making gets focused in fewer and fewer hands, that turns its focus into the hands of those who turn out rather than those who perhaps have been either have information or should be about having a part in that decision making. It's inevitable. I think, you know, when I first joined the emergency planning group back in 2012, we had 18 roles here dedicated. We're now seven.

Throughout this chapter, there will be evidence of the impact of capacity in for instance, the ability to implement new guidance, and the pace at which this implementation occurs; the ability to take part in consultancy around guidance and national projects or initiatives; the ability to review their own local documents within their pre-determined agendas.

The variation in LRF structures and capacity is also often immediate. For instance, [P_F] discussed the "*pressure that government put on LRFs to run things like PPE logistics centres. But PPE, … what on earth has that got to do with us? … they said, "Oh well, you can do it because you're resilience" … and there was me on my own. And then I ended up getting 100 calls a day from care homes, dentists, GP centres saying we need PPE. So, we're just not set up for this*".

That more of the UK IEM system is not formalised is of concern, as is the level of negotiation that exists with the structures that result in the final LRF. Negotiated order helped frame the expectations of the kind of order the researcher expected to

see within the LRF based on the literature review, and our assumptions that the order resulting within them were the result of negotiations that continued as a process were proved correct, which allowed the perspective of approaching them as a process that could continually be refined. In fact, as seen from **Figure 6.5** the LRF structure is extensively the result of active negotiation process, with the only real exception being the multi-agency coordinating response groups (see **Section 2.5.7**), although even this is debatable as seen by [P_B] who states "*I mean, we're running at the moment with two SCGs, the strategic coordinating groups. That's an absolute no, no ... But we are. And they are very happy with that … they're saying, 'I don't care. We're doing it this way because this is what we've decided' [making you wonder] 'Well, why can't you have two SCGs?'*"

The degree of negotiation is concerning because the result therefore depends on the skill of the negotiator, their intentions, and their interest in the success of the result. There is also the time factor consideration – that if every process continues to be a negotiation, then activity comes to a halt till an agreement is reached, for example, deciding budgets for staff and training. There is, however, much evidence of formalisation of agreements and arrangements into for instance agendas for plan review, which may be made up to 3 years in advance, and pre-agreed policy for local response, which gets embedded into practice, discussed in subsequent sections within this chapter. Participants overall, while being open about the need for funding and resources, do not indicate the need for a standardised approach to the LRF structures. In fact, they tend to lay towards preferring localised arrangements. P_I for instance states:

> *P_I: "But I suspect - and depressingly, you know, you see reorganisation, I think that what they will try and do is standardize LRFs over that. But--- it sort of misses the point. You do want things to be locally determined and locally pushed through. And if they standardise it, I think they would all probably take the Dorset model and just chuck a load of cash, because they're going to anticipate that all emergencies will be huge."*
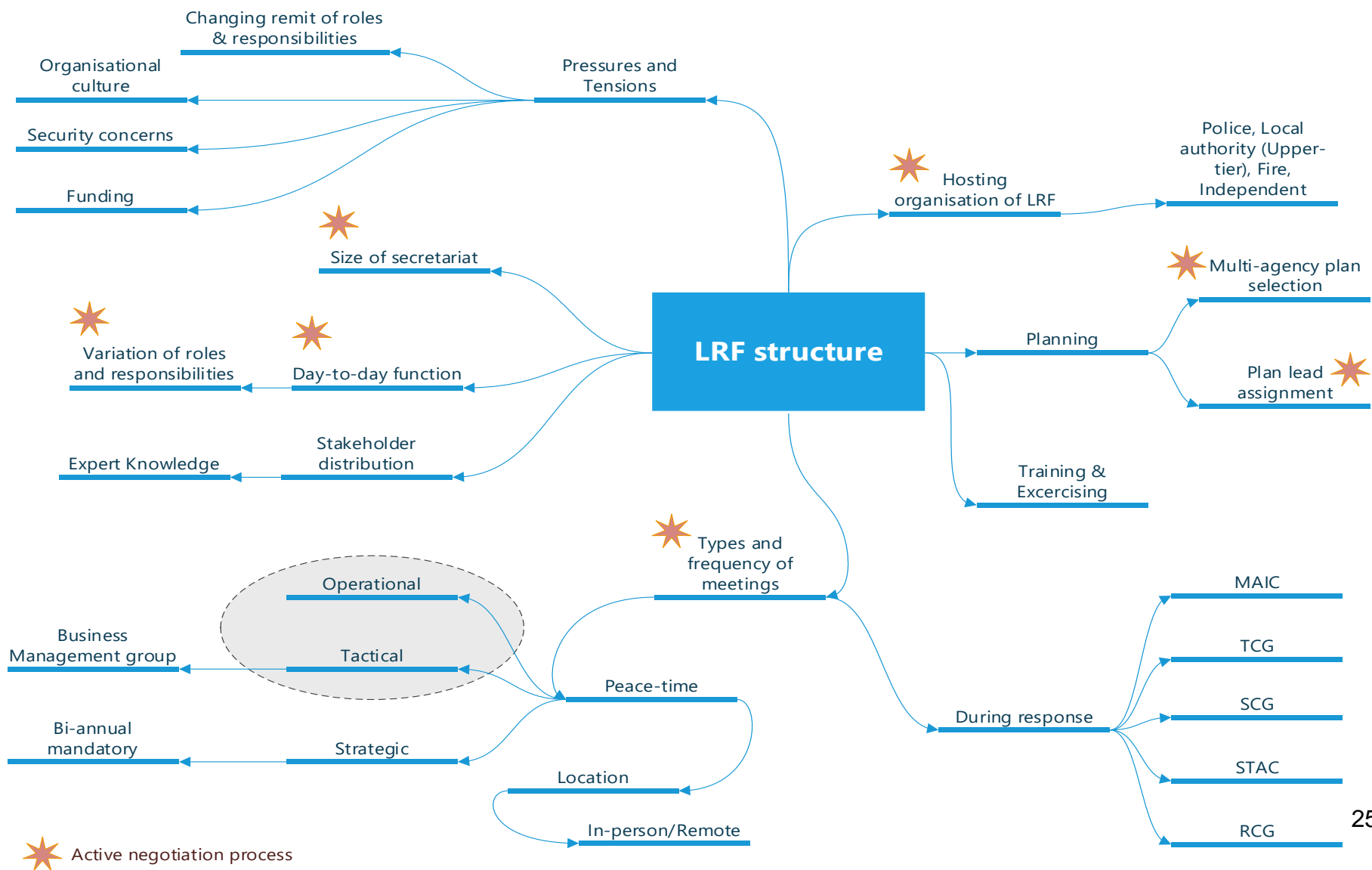
Figure 6.5 Mapping the active negotiation within variations in LRF structures

6.5. Linking the documentary review to the interview design

Under the overarching aim of the research study, in the Introduction **Chapter 1, Section 1.1.1** put forward 6 research questions within the background and motivation to the study, which are re-stated here.

1. What is the role of documents in supporting an environment for effective collaboration in the disaster management process?
2. What are the characteristics of a body of documents that would enhance the collaboration in?
3. How clearly do the national guidance and documents on the UK disaster management describe the collaboration seen in practice?
4. How do the documents affect the stakeholder's collaboration context?
5. Would reading the current guidance allow for stakeholders to participate more effectively as a collaborative participant during an incident?
6. Could a framework be developed to enhance the collaboration in the disaster management process through their use of documents?

Answering these research question cannot be done solely within the literature or documentary review, although they were the starting point for this. The interview questions are listed in **Appendix A: The Interview Protocol** and the initial DAF in **Chapter 3, Section 3.8**. Many of the questions in the initial DAF also required participant feedback to be assessed meaningfully. Given the semi-structured nature of the interviews, these questions were more prompts than a rigid structure, however once the interviews were all completed the national guidance could be centralised in the data analysis, and in the analysis of the interview data extracts answers to questions along the lines of:

- How well does national guidance describe the collaborative arrangements within LRFs in practice?
- How is national guidance used?
- What is the familiarity of participants with the national guidance?
- How frequently are guidance documents used?
- What is the expectation of familiarity with guidance documents across the wise LRF?

- What are the types of DSS describe by participants and how do national guidance affect their development?
- How well are the guidance documents reflected in the local DSS?
- How is the language within guidance documents described?
- What is the opinion of the role of national guidance documents?
- What is the opinion of the role of documents in general?
- What is the difference in the use of national guidance between phases and tiers?
- What are the characteristics of the national guidance as documents that affect their use?
- What are therefore the factors that affect the use of national guidance documents?
- Is the legislation (CCA 2004) fit for purpose?

The questions are not presented specifically in order. The next section considers the issue of document access and sensitivity.

6.6. Document access and sensitivity

Within the documentary review, our assessment of the DSS was restricted to publicly available documents. In this instance however, much of the national guidance is publicly available. During the interviews, participants were asked about document sensitivity and access, and some of their comments are discussed here.

The most common document pertaining to restricted access the participants discussed was the "National Resilience Standards" (Cabinet Office, 2020b), which at the time of many of the interviews was not publicly available, however was released to the public near the end August 2020. According to [P_D1] the "*the government first produced a version of that document as an online version of that document*" however, not in the public domain, but "*privately available to emergency planning professionals*". They discuss the "*the way it works in terms of getting access to it is*" the LRF secretariat "*operate as the gatekeepers of that process*", and have "*to authorize individual planners, people that we know and that we work with professionally*" to give them assess as the document was marked at "official-sensitive". However, they note that "*don't think there's anything in that, personally, that needs to be restricted*".

[P_I] for instance notes that "*this government is more sensitive than previous governments*" when it comes to data and information, carrying on from a conversation on the inclusion of stakeholders into LRF meetings based on the sensitivity of content, particularly given the ambiguity around what constitutes a Category 2 responder, and they describe "*a slightly adversarial relationship about whether they're* [the national] *giving us information and then whether they feel free to share that information*". They state, "*my theory is you give us the information the way that you can share it at Official sensitive with Cat 2s*". Referring to other guidance that is restricted, [P_I] notes, "*It's just bollocks that they won't give--- like the "Local risk management guidance". There is no danger of that being on gov.uk. No one cares. And it's not-- it's not technically telling you anything. It doesn't tell you the risk. It just says you should go through it. And same for the resilience standards.*" In their view, unnecessary restriction on data access act to decrease the participation of stakeholders who would otherwise add to the process, describing this as "*lost opportunities*".

[P_K], a national liaison, gives further detail into the "Local Risk Management Guidance", as a "*a specific piece of guidance that kind of tells LRFs how to translate national risk into local risk*", which is in actuality an Annex from one of the national risk assessment documents. Whether this is from the previous National Risk Assessment (NRA), or the new National Security Risk Assessment (NSRA) was unclear, nevertheless both these documents are also restricted access, and in fact have levels of security within them, which various participants make mention of, that mean that not even many of the LRF members will have access to the whole of the document, with police more often than not having the highest level of access at higher command levels or security clearances.

One interesting case, which is now discussed in detail was put forward by [P_F] regarding the issue around data access. They note the case in a neighbouring LRF, during an incident involving a "*chemical, biological attack there, when the kind of teams came together there, particularly the STAC, they realized they weren't vetted to … the higher level of SC [security clearance]. So, **government walked in and threw them out**.*" And to them what this did was it "*made a kind of almost an announcement*". On hearing this occurrence, within their own LRF they discussed that they too "*don't expect people to be at that level. But is government saying that actually if we're not at that level, then they shouldn't be in there and they're not going to share information because of the need to know and whatever?*" If this were to be the case, they position that "*if these guys don't know what is going on, they're not going to be able to plan efficiently and do that*".

> [P_F]: [There were] *lots of conversations about what level should our people have and do it. Because obviously if everybody has to be SC level, **then you've got to pay for that. And that's several hundred pounds per person**, which is okay with an organisation with one of two, but when … you've got organisations that are much bigger ... The health service in particular. We're talking about **several hundred** who could be on call … what it [the guidance] says is you need to be vetted to a certain level to … look at certain elements. What it doesn't say is you need to be vetted specifically to move into a major incident and to respond and to be part of the SCG and TCG. It doesn't say that. But actually, what governments said is, "Ah but you're going to be dealing with this particular*

material. So, there is an expectation." And we said, well, "it's a need to know". These people have been vetted. They're just not at that level. But … they need to know, to do their job. But government argued otherwise. Yet the legislation doesn't--- So, again interpretations quite… a challenge … in our job, in certain aspects and certain elements … so, we use the guidance to help us get where we need to get. And **we produce more guidance and more operating procedures in our plans to help us locally do what we want**. *So, we've made decisions here around aspects to clear certain aspects up that might have been debated in the past."*

In this one case, the intersection of multiple themes- and sub-themes discussed within this chapter can be seen, starting with the central issue of the document (or data) sensitivity and access, however also seen is how the difference in **interpretation** (discussed in **Section 6.13.2**) of the guidance affects the expectations of the local policy, however this interpretation falls apart given the **power** imbalance between the two levels of national and local, allowing the national to enforce their interpretation, despite the lack of clarity within the text itself. This is an example of the disconnect between the national and local levels, which is discussed in greater detail in **Section 6.12**. There is also the issue raised about the **capacity** of the LRFs (**Section 6.4**) to actually bear the costs of bringing a wide range of stakeholders to the level of security clearance being asked for here. This has also led to the interesting culmination of the LRF developing local translations and policy around this to **legitimise** their own action in the event this were to happen to them.

With regard to making the accessibility of plans produced by LRFs, as put by [P_D1] "*Broadly speaking, LRFs make their own policy decisions on that*", with their own position being that they "*don't seek to make [their] detailed plans public facing, either in the full version or in some sort of a diluted version*" because they do not "*see a value in that.*" They explain that "*The reason for that is that plans are written by professionals and for professionals. They are not written for general consumption. And to produce what I will call a diluted version of that - I don't personally think that's a good use of the limited resource that we've actually got available.*" The documentary review found clearly that data access was a significant restriction in assessing plans or documents produced at a local level. As put by [P_H] "*I think most organisations have got to a*

point now, 12 years in, 15 years in, what it is that's the CCA, that they've got decent emergency plans [However]. I think there's still work to do to make them more accessible", and this in terms of not just the public, but stakeholders in the wider UK IEM system.

Due in part to this, all the participants were asked about their interactions with public, and inquiries from them regarding the local plans, policy or guidance, and universally there has been very little interest seen by participants from the public, giving responses like "*actually zero*", "*most infrequent*", "*never*".

> *[P_A]: Never… outside of emergencies, no, rarely I get called about things like that.*
>
> *[P_B]: We don't actually have an LRF website. We stopped doing that. The number of times I was contacted for the Community Risk Register was probably two in 10 years.*
>
> *[P_C]: Very seldom. Very seldom. I don't think the public are that interested until something happens.*
>
> *[P_D1]: Sometimes, we get members of the public asking us about our plans and arrangements ... [we] don't disclose the plans … But we would try … and reassure members of the public that we do have plans in place to tackle emergencies on their behalf. And we try to express that through our community risk register.*
>
> *[P_F]: So, we have freedom of information requests … sometimes … we've had a lot of those or more than usual in the - in the current climate … but generally, … I guess infrequent contact through the LRF National Public Facing website. And people might ask about certain plans or might ask about-- about this and that. And I just answer them and just let them know what I can let them know. But most of what we're trying to do is make sure that it is out in the public so the community can see actually what we're doing for them*

The consideration of whether the documents assessed with in the literature review was the sum of the guidance available to stakeholders to form the basis of their understanding of the UK IEM was an important undertaking. From our results, aside from the few cases discussed, it is relieving to note that there is no "secret" stash of

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documents available to only planners that inform their actions, although the NSRA (and previously the NRA) are critical documents in that by informing risk, the inform every other document that follows on from this. However, the guidance associated with these follow-on plans are not hidden. The case of the "*National Resilience Standards*" having been kept official-sensitive however is most baffling, given their final content. The researcher was aware of the development of this document and was allowed to look at (but not take) a small number of them which were being trialled by the LRF at the request of the national, that was part of their initial observations, but even in this instance the LRF did not feel the material had any content that could compromise security. More about the **Life cycle** of documents is discussed in **Section 6.13.3** however the result of the restrictions is more profound in that the standards were built-up over the course of 4 or so years, during which little academic input could take place, outside of any directly consulted, which would have been the same for more peripheral stakeholders in the LRFs as well.

The results highlight the importance of publicly available documents as the basis for the support structures of LRFs. The participants identify multiple guidance documents that are or were inaccessible to the public (the "Local plan guidance and the "National resilience standards"), which they felt was unnecessary. Other documents restricted due to security reasons, such as the NSRA and also many of the local plans themselves. Where documents are classified as "official-sensitive", this also potentially makes them inaccessible to stakeholders not part of the "core" LRF, but nevertheless involved in multi-agency response, which can limit collaboration. Moreover, if training documents are made secret, it may make them difficult to access, which can reduce their usefulness.

Due to the obligations towards public accountability, and the need to maintain a degree of transparency and openness in their operations, at a national level, much of the guidance documents, unless demonstrably a concern for security is published. Documents that are classified as secret or only internal may lose their legitimacy given that at local levels, this is not guidance but rather "policy" as discussed in **Section 6.9** and "secret policy" is hardly legally binding, and would surely affect the trust in the process, although this is not something examined in this study.

Regardless, with this line of enquiry, the researcher was satisfied that the national governmental DSS assessed within their documentary assessment, from the initial assessments through to the development and use of the final framework, were the sum of documents used by stakeholders in the UK IEM, although the actual familiarity with these documents within participants, and their expectation of familiarity with these documents by other stakeholders in the UK IEM varied, which is explored in **Section 6.8**.

6.7. Interview findings: The use of national DSS

To begin with, it should be noted that analysing the participants responses to this question took place across their interview, however much of the responses were within the discuss around the "List of documents", containing 11 identified documents (as seen in **Appendix A: The Interview Protocol**).

Despite some initial reactions, such as [P_B] "*I probably never heard of them*" and [P_E] "*Right. Gosh, that's a lot of documents there.*", almost all the participants were familiar with the documents within the list, however with varying degrees of frequency in their use, both generally and with specific documents within the list.

One interesting interview was the juxtaposition between [P_D1] and [P_D2], the only one-to-many interviews the researcher conducted, in that [P_D1] had been in his post for a much longer period than [P_D2], who came in after the CCA had already been well established, whereas [P_D1] had worked in the UK IEM prior to its development. [P_D1] initially placed a heavier significance on the documents, before turning round to the position put forward by [P_D2]. After going through the list, [P_D2] noted:

> *[P_D2]: Well, I'd say... all of these documents here, when they first come out, it's the sort of thing that we would take to our operational working group. We'd review them. We'd try and understand which plans and processes that they impact on and amend those documents accordingly. And then they--- then they just become sort of **peripheral** to everything that we do, because we've **embedded** it in our processes. So, they are not documents that we would pull out regularly and read, because we considered them at the time - when they were published.*

In the process, they discuss a long involved process through which the content of the guidance is embedded in practice. On reflection, [P_D1] agrees, comparing this to the state of their use *[P_D1]: "In the early days, if you went back 10 and more years ago, you probably find that people carry those documents around in their briefcases and they refer to them very, very often. But over time, because that level of knowledge is become embedded as normality, you don't see people pick the documents up very*

often now. Occasionally when you need to refer to them, you have a look online to the mind yourself. But it's pretty much embedded. It's business-as-usual."

The actual content isn't something the participants aim to memorise. For instance, taking the example of the "*National Resilience standards*", which almost every participant brought up to the researcher despite not being on the list, given that it was the most recent guidance document being worked on and published by Cabinet Office involving the running of LRFs, [P_C] in discussing how the language of the document itself was too "woolly" to be able to move LRFs towards standardisation (see **Section 6.13**) tries to recall the specific contents to give as examples, "*I'm trying to think of an example and I can't, cause it's a while since I've looked at them*". However, some participants show very high degrees of familiarity of the content of certain documents or sections, for instance in statements like [P_I] in saying, "*But, like actual... familiarity with the CCA, I would say that all they need is like page 11, Chapter one, isn't it*".

Even in cases where the participants use examples of the documents frequently, the documents are not prescriptive to their actions. For instance, [P_F] on "Emergency preparedness" guidance, notes his copy is quite "*tatty*" and "*grim*" because "*it is one of the original books*", the same being for the "Emergency response and recovery" guidance, which they note their counterparts have "*all got the book. And I was looking at it the other day. It was on my desk here somewhere*" but both are only "*read as reference. Constantly, I would go into that. But a lot of the time it's base material and I-- and I understand the generic element of it. I understand how we do it. So, it's reference really only*".

[P_H], for example, notes that because they follow a "*set pattern*" within their LRF, they "*tend not to refer back to the planning and the policy in the guidance so often, because it's been condensed into the structures and arrangements that we have*". They also note that the guidance itself is quite old, a common refrain by many participants – [P_H] *"Emergency response and recovery" now seven years old, "Emergency preparedness"- Eight years old"* – which is a factor discussed in further detail in analysing the characteristics of the documents that affect their use in **Section 6.13.3**.

The manner in which these documents are "embedded" into the practice of the LRFs is in the creation of a local DSS, and at the local level, these documents were found to no longer be "guidance" in nature. The national legislation and guidance set the minimum, mandatory requirements and through the guidance give recommendations on what should and could be done, while attempting to lay out an interpretation of "leading" practice, whereas at the local level authority is more direct and immediate, and as such the local DSS were found to be of three major types: policy, plans and procedure. The use of the national DSS in developing local DSS is discussed in **Section 6.9** and **6.10**.

[P_D1] for instance describes the new "National Resilience Standards" as a form of "*gap analysis*", which however they can only undertake in their "*downtime for COVID related activity*", describing a timescale of *"several weeks"* over which they were in the process of assessing their own LRF against these standards, still ongoing at the time of the interviews. The guidance essential to them states, *""An LRF should have one of these". And we look at it and then we say, "Well, have we got one of those? Yes, or no?" And then the question is, "Do we feel that we need one of those, yes or no?""* and during the assessment "*if we haven't got one and we feel that we should have one*" this effectively sets of a "*tranche*" of work within the LRF and particularly the emergency planning professional.

[P_F] describes the use of the "National Resilience Standards" in "*a peer review with XXX LRF, that has the same risk profile*" which "*links in with the "Expectation and indicators of good practice" set for Cat 1 and 2 responders. And actually, I've just been looking at that, which you might be able to see [holds up document] or might not because of what I've got on there*".

In speaking of the documents, [P_F]: notes they "*don't just have a working knowledge of some of these*", referring to the JESIP document, but as being "*actually involved in … the workings, kind of government level to keep them current*", which they however attribute to "*probably because of my interest, but obviously because of the experience that we [the LRF] have down here",* due to which they are "*part of the project board for Edition 3 at the moment*" as such having "*an intimate knowledge of that*" and "*helping to write --- rewrite that and particularly elements like the XXX, which I wrote down here*

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for us". Overall, however, [P_F] refers to the document as still guidance. For instance, while [P_F] describe the "The role of LRFs – a reference documents", the precursor to the "National Resilience Standards", as a "*baseline*", it is still "*optional across all LRFs*".

On the other hand, given the spread of documents within the list, there was variation in the use of certain documents. For instance, [P_E] states that the "Expectations and indicators of good practice set for category 1 and 2 responders" is "*not one I would expect to see on a regular basis, not being a Category 1 or 2 responder myself*" and in terms of their partner organisations, *"I should think it's something they were aware of, but not one they would look at regularly".* [P_I] comparing two key documents, ""*Emergency response recovery" --- I'm quite poor at even reading that, to be honest …"Emergency preparedness" I've read a lot more"*.

The question of the degree of "power and authority" stakeholders feel the guidance itself hold over them is perhaps put by [P_E] who states "*I think it's too **clinical** to look at it in terms of documents … the business of resilience is a sort of everyday activity. And those documents are sort of supporting of it … we're not held to **ransom** by the documents. The documents hopefully support the business that we're undertaking. I fully recognize that we need a sort of framework to support us in what we do. But almost it's -- I guess to finish, it's you know, the tail shouldn't be wagging the dog."*

A common point that participants raise is regarding the role of the guidance across the different phases of the UK IEM system. [P_H] notes "*it's not commonplace for big guidance documents or things like that to really need to be analysed or interpreted during the response to an emergency … The rest of the work that we do, all the guidance, we generally have had in advance, and we base our emergency plans around them"*.

So far, the researcher has noted the national guidance shows wider differences in the frequency of use between participants, with some referring to them more infrequently, and other having them "*sat on the desk*" with them, and in a few occasions holding up the a copy of the relevant document when speaking of them. There are also difference

in familiarity and use between the full set of documents identified; however, there are broad commonalities in the use of guidance as a reference material in establishing a "baseline", its use in developing local DSS, and its use as a form of "gap analysis", with a generally high level of familiarity of these documents within the LRF participants. Additionally, the guidance is not viewed as prescriptive, nor is it read with the intent to memorise the material, but more in a general sense. Another key use of the national guidance shared across participants is in the development of training and exercising, which is discussed within in **Section 6.14**. Typically, the guidance documents were not suitable for use by participants directly for training, and these reasons are discussed in subsequent sections, however there was one notable exception to this, which was the JESIP guidance document, considered in **Section 6.14.1**.

6.8. Expectation of familiarity with national guidance

The next consideration was one in which the participants were asked to discuss their expectation of the familiarity with this sub-set of documents within the wider LRF, and those results are discussed here.

6.8.1. Emergency planners

[P_D1] who was previously discussed as "embedding" the content of the guidance in such a way that it becomes part of their "business-as-usual processing", still expect a high degree of familiarity of the documents from their counterparts within the silver-tactical level, because they too are emergency planners. Part of the dialogue is noted here:

> [P_D1]: the people we interact with on a daily basis are professional emergency planners, and we would have an expectation that they would have this level of guidance on the detail of it, embedded in what they do. If somebody new comes in, to be honest, the sort of people that are stepping in new these days, tend to be people that have got university degrees, whereby they're as familiar with this guidance as any of the professionals in the real world … I don't personally find a difficulty in the expectation that our colleagues, our professional colleagues will know of that guidance. And yes, they are documents that are hundreds of pages long.
>
> [P_D2]: The only exception would be if you got subject matter experts coming in. They wouldn't necessarily know all these background documents. They would just know their--- the ones that specific to their various.
>
> [P_D1]: No, it's never has been an issue. But I think if it was-- if it was an issue, then we'd very simply have to say to whoever that person was. Pause. It would appear that you don't understand this particular area. What you need to do is to go away and become familiar with this document or this section of this document and then re-join the conversation at a later date. We would have an expectation that they would bring themselves up to a knowledge level that would enable them to function with their partners.

This position is taken on generally when it comes to the expectation of the familiarity with the national guidance across stakeholders in similar roles as the participants, i.e., the emergency planners. However, [P_F] offers further nuances to this expectation within their LRF. Within the interview, the interviewer posed the question: "*So, my sense was that a lot of these documents you take on board the role of being familiar with the actual content of it and then people come to you with any questions…?*" and their response is discussed here.

To begin with, they agree that this impression was generally correct, in that [P_F]: *There's a ton of that, but arguably, they're employed by their organisation as a civil protection practitioner, an officer or a manager. So, there's an expectation that they also are very familiar with those documents.*" They present that position, which many other participants share, that within these stakeholders' roles profiles itself "*it will say that they have to be familiar with the Civil Contingencies Act, which in itself is suggesting they should also be familiar with all of the associated documentation*". However, they opine that "*some obviously are better at it than others.*" During meetings, they note that they refer to documents explicitly, and "*almost pause and kind of wait to see if a question comes up. So, I'll say, "Don't forget, that's in 'The role of the LRFs reference document'. And if you want to know more, it's a chapter wherever"* … But they should know that … So, what I won't do is then get it out and talk through it and you know ...*"

Nevertheless, [P_F] notes "*it's a very wide and expansive world in terms of what we're working in hazards and threat*" and as such "*you can't expect individuals to know the whole thing*" and as in the exception presented by [P_D2] they discuss their varied expectations with "*subject matter experts in specific areas*", although these which allows them to "*go to them and focus on that*".

[P_F]: I think from my point of view, my job is to know where everything is. I don't necessarily know the ins and outs, but there is an expectation that I should know where things are, as part my role, so, that … at least I can find it, … if we don't … know where it is [whereas] *their job, is obviously to deliver, and make sure we have everything in place in terms of the planning. So, I would leave them to go away, and I would be part of that consultative process* [emphasising once more that their] *job really is to-- is to*

make sure that they do that delivery and make sure that we have a more current--- current information, current documentation to support all of our eventual response."

As such if something does come up, the "tendency is that they ask [P_F], during the LRF secretariat to check the rules, the legislation". As such, "*arguably, quite a few of our colleagues don't know the ins and outs. They they've been working for years around this, but they generally wait for me to kind of give them the guidance on that.*"

Additionally, [P_F] notes that this "*doesn't happen a lot of the time*" because they have "*some very experienced individuals … [who] know where we are [and] what we should be doing*" and that actually "*in terms of best practice … regard ourselves as being part of that*" on a national level "*as one of the leaders in work*" around the UK IEM, which we attributed to having "*good relationships*" where they "*understand each other and we test and exercise quite a lot*".

[P_I] puts that "*they should all vaguely know what those duties are, and that diagram in "Emergency preparedness" … But most of this, I would say, is distilled by emergency planners and put into training and plans for people locally to understand*" and that, for instance, if an organisation didn't have a recovery plan, they could go the relevant chapter of the "Emergency Response and Recovery", however most commonly they would only be referred to when writing specific plans by plan authors to "*go back and double check*" but "*wouldn't expect anyone to plough through it*". For the "Emergency preparedness", they note that they have interns at the moment that they ask to read through the document and give partners briefings on and have even produced a "*summary document*" of it (given the "Emergency Preparedness is over 500 pages long as discussed in **Chapter 5, Section 6.4**) and the summary document is still described by their members as too long an "essay".

[P_C] in a similar vein state "*you won't see much evidence from partners reading or referring to that documentation because you've got a civil contingencies unit that does that for them … it's professionals in the emergency planning world ... you would expect people like me, people like the team I work with. You would expect us to know or have sight or use or reference these documents. Like our training officer, for example*". However, [P_C] also discussed the familiarity of the non-emergency planner

stakeholders pre- and post-COVID, describing clear difference in the familiarity with the UK IEM between the two, albeit not through the use of the guidance directly. This method of familiarity is discussed in **Section 6.15** (on Tactics to increase familiarity) and also within **Section 6.13.3** where the **Life cycle** of documents as a characteristic in their use is explored.

[P_J], as a national liaison notes that "*the thing particularly with LRFs, … I think they know their role very well. I think they're very aware of the guidance and I think they're very clear on what their expectations are of them. And also, you know, what they are there for and what they are not there to do. I think LRFs sometimes have a clearer idea than … some, you know, colleagues in central government*".

It is an interesting note that all the LRF secretariat participants interviewed possessed such a high level of familiarity with these documents, and indeed the emergency planning process in general, given that their scope, according to the guidance is very much administerial focussed on bringing the partners together and organising the overall agendas and making sure that the different types of meetings, with different outputs and deliverables, all continue working, discussed previously in **Section 6.4.1.2**. When initially carrying out the interviews, the researcher expected an awareness of the guidance in a generic sense of knowing what is in them to carry out their tasks, rather than in being the "go to" for questions on the content of the material, which could instead be delegated into different planning leads or workstreams, depending on how that LRF was organised.

6.8.2. Expectation of familiarity with national guidance: Wider LRF

Having considered the expectation of familiarity with the documents amongst fellow emergency planning professionals, the expectation of familiarity with the guidance, and in cases the general response arrangements of the individual LRFs by stakeholders in the wider LRF across various tiers is looked at.

Starting with the Gold or Strategic tiers of the LRF constituent organisations, the expectation of familiarity was uniform across all the participants, and *uniformly low*. The participants do not expect the Gold responders to be familiar with the primary

material at all, and are in fact responsible in almost all instances for their training in the first instance. The Gold members, being as discussed within **Section 6.4.1.1** the chief officers for instance the various emergency services, or chief executive officers of local authorities and so forth are extremely senior level, with a host of duties outside of emergency planning. As put by [P_B] "*99.9 percent of their day work is council or police specific. So, the fact that we still get senior management at that level coming to the LRF shows that they are very much engaged … but … in-depth knowledge of any of those documents, I wouldn't expect to be there because it's like 0.1 percent of their day job … And I think to be absolutely honest, that is exactly what strategic is about. That's what the gold - a gold manager is about - that we don't want to present them with a flood plan and tell them where all the reception centres are because they don't want to get into that level of detail. They want to be satisfied that all the agencies around the table in the LRF can't find any problems with the plan. And then we present it as a completed plan. And then they can ask questions. Of course, they can, but they seldom did.*" They summarise that they "*used to get frustrated, I don't so much now, in so much as my world is emergency planning. Their world - their world of emergency planning is only for two meetings a year.*"

As [P_E] notes, "*you couldn't expect, particularly people working at a strategic level to have the in-depth knowledge of some of these documents. That's why they have tactical advisors, to be able to sort of translate, if you like, for them, "What are the key issues to bring to bear?"*" [P_D2] states that for the gold level, they provide instead "*a two, three-page briefing paper for the chief officers to give them the headline points. They don't know the inside out. And they don't need to know it inside-out, because that's what the professionals are there for.*" As [P_C] puts "*they don't do detail, do they, at their level. They just want to know, give me **assurance** that we've got a flood plan, for example.*"

This is as stated shared across all the participants interviewed, simply because the Gold-level do not have the time for the familiarisation of these documents, which as discussed in **Section 6.13** are not ideal material to be used directly for learning regardless, and in **Section 6.15** the difficulty of training gold both locally, and especially through external trainings due to these same reasons is examined. The frequency of the gold-level members meeting outside of emergencies is twice a year,

as discussed previously in **Section 6.4.1.1.** The gold-level still plays a large part in the coordination of multi-agency response during actual incidents however, through the SCG (Strategic Coordinating Group), and as such familiarising these stakeholders with their roles and responsibilities and the UK IEM system is a crucial undertaking – it is just not done directly through the national guidance.

While the gold-level comprises the SCG that forms during response, the silver and bronze responders carry out the tactical and operational work during an emergency. [P_B], who describes the context of the gold and silver level familiarity with responding to emergencies in general describes the situation as "*very difficult because we had seven districts and boroughs in each district borough was, what ... a 130-140 people? And out of that, they've got to find a gold, at least three golds and probably six silvers to cover them for 365 days a year*" and of these "*Then the chances are you're going to get a silver who is new to the organisation and he's heading something that's got nothing to with emergency planner, but for one week in six ends up being carrying the suitcase*". He notes therefore that "*I wouldn't expect them to have read many of those documents. And if they have, they probably read them some time ago because it's not high on their agenda. But then they realize how they should have read them when obviously we call them to an SCG, and they are like a fish out of water*", however their LRF gets round these issues because he notes they are a "small" LRF and are therefore able to get to know the people well and know when there is a new face and "*recognize they might be limited in their experience*".

As such, understanding the role documents have on the context of collaboration of the stakeholders within the wider LRF needs be considered through **degrees of separation** – through the development of the local DSS which they do in fact interact with, or through the use of national guidance in the development of training and exercising, or the training and exercising of local DSS, which are developed through this guidance.

6.8.3. National participant familiarity with list of national DSS

In some instances, the lack of familiarity with the guidance was very surprising, particularly in both the national liaisons interviewed, there were some surprising gaps in the familiarity with the documents themselves, however, this is due to the availability of external training to the national stakeholders, through the Emergency Planning College (EPC) and College of Policing for instance, that isn't necessarily available as readily to local practitioners. This is discussed in detail in **Section 6.16**, however this section discusses some of these discrepancies in familiarity with the primary material. For instance, [P_J] a national tactical advisor to LRFs describes a "*probably a mixed bag really of things that I have definitely read, things that I'm familiar with, and then things that I'm not totally sure that I've seen*".

[P_K], who was also a nation advisor but at a higher level and in the role for longer, notes that they are "*familiar with most of these documents and I would expect that local partners and to some extent, national partners working in resilience to be familiar with these documents. I wouldn't expect, if you gave this list of documents to my team, for example, RED, I probably would have thought less than half of them would be aware of these documents, because they're not necessarily... that relevant to us anymore.*" One very surprising note however, was [P_K]'s observations that "jumps out to them" is that they haven't seen "The role of LRFs - a reference document"

> *[P_K]: I haven't come across that one, which is surprising given RED is responsible for LRFs. But I mean, this shows that quite often this guidance is perhaps a bit about outdated in terms of the current thinking. So, the current thinking will be led by CCS and MHCLG. And we don't necessarily, I mean, I haven't read that document and I doubt the people I work with in CCS have read it either. So, we'll probably work more from our understanding of LRFs that isn't necessarily published.*

[P_K] notes "*the main thing is obviously when you come into the resilience field, you are told what the key documents are. But in fact, the key documents that we're told about, there's probably only the Civil Contingencies Act, CONOPs, Emergency preparedness. Actually, the Lead government department stuff for specific people in the team, the National Risk Register. Actually, quite a lot of them, we will be told, about*

and are expected to-- if it's relevant for our role, read up on. So, you'll find the guidance, read up on it. You'll probably go to an EPC training session and EPC gives free training to-- to RED and CCS."

This potential disconnect between the local and national levels in their use of the guidance is something explored in greater detail in **Section 6.11.** Nevertheless, both the national liaisons note the importance of documents overall.

[P_K] notes that given their role, they and their colleagues are "*a bit more flexible about how we go about our work and as quite a lot of our work is coming up with new guidance and policies, we're not always constrained by these types of documents".* [P_K] concludes that the documents are a "key part" of the field, and they are a "*pointer for what mechanisms and tools you have to disposal when an emergency happens*" and "*provide the lexicon and an understanding of the systems and processes and the mechanisms at your disposal; and enables people to collaborate, obviously between different agencies … speak the same language, which is obviously a basis of good communication and collaboration",* however they do not "*tell you how to act necessarily in given situations. So, whilst it provides a basis for collaboration, it doesn't give you the actions you need to undertake in X-instant*". They position that response "*needs to be a bit more dynamic than that at the level of actually responding to an emergency"* and this is the same "*even planning and preparing for an emergency*". They express the limitation that "*at a national level, you can't write guidance for every single local area or every single partner … you can provide the framework, but you can't--- **you can't manage it all from the centre***".

6.8.4. The role of the RED MHCLG as an intermediary for national guidance

[P_K] describes the national liaisons role in having "*a central function which is disseminating to all LRFs, all relevant policy updates and legislation updates and advice*" which they note is conveyed to the LRFs using multiple mechanisms to "*build a resilience into the system*" wherein they use the national liaisons, Resilience Direct, and other comm channels, such as meetings, both local and national, "*and that might be a meeting where we give a verbal update and then follow it up with a Resilience direct publication. Or it could be an email. We've got email lists of all of the LRF chairs, all of the local authority, chief execs, and obviously the LRF secretariats, etc. So, we can target the communications depending on whether it's a strategic steer we're giving or more of a tactical operational point*".

They note that when new documents or guidance is published, giving the example of the NSRA, they would "*communicate very clearly to LRFs*", noting that in the last year they "*ran workshops, presentations, we published advice and guidance online, and XXX and myself were constantly available to answer questions, as was CCS*". They observe that with regard to questions, there is "*less so on the pre-existing guidance and documents*", but a lot of queries from LRFs across England on the NSRA – "*Probably get those daily if I'm honest*".

Replying to if LRF members had difficulty finding specific guidance [P_J] discusses it's raised at the LRF and "*it might actually be a really specific thing that we don't lead on … I was asked some very specific questions about national [policy]… it was kind of my role really to kind of take that away and find the right person in government who would be able to provide me with the advice and then, … do a bit of reading myself as well to … get a better understanding of it [to be able to] advise them on what the national kind of policy is*", describing that this is how "*two-way flow of information happens*". They note that the frequency of contact from the local partners and LRFs has been **"***a bit of a strange couple of years, for RED* [because of COVID] *which has led to many, many policy questions across areas that, you know, you've never even thought existed*" in addition to "*dealing with is a EU Exit transition, which again, was kind of this really big national policy. I think, at the time, I can't remember who it was in the civil service- It said, you know, this is the biggest challenge civil servants have faced since World War Two. Only to quickly be dwarfed by COVID-19. But, you know,*

that-- that at the time it felt very intense and very live. And a lot of the questions were coming in about very specific policy areas that, you know, you wouldn't necessarily have built up expertise in". Outside of these two contexts and response, [P_J] notes the frequency of queries was "*a bit more relaxed … if I had to say about five or six questions a month … normally following meetings … that were kind of like really policy based and kind of required a bit of a thinking response, other than just, you know, answering a question that you know the answer to really quickly*". They note that "*once you built up relationships with people and they know you*" they are more prone to directly engaging with them for answers rather than waiting for the next LRF meeting.

[P_K] breaks down the way the RED "*structure, the national liaison structure works is you'll have the more senior people in the hub, such as myself, engaging at the strategic level. So, I'll engage with the local authority chief execs, the chief constable, the LRF chair, at a strategic level … what we call Exec-level groups … I will give an update to those senior partners on a monthly or quarterly basis, and [P_J] will attend the tactical level meetings*". They note their overall team is quite large, with over 100 people following expansions during COVID "*from a reasonably small division of about 50 to 60 people*" as out by [P_J]. Much like LRFs have plan leads, [P_J] notes RED has "*capability leads who look at natural hazards. And then within that you'll have named individuals versus specific areas … part of my role and responsibility [is] to upskill the whole team on those things. And it's expected that all of the other capabilities will do the same*".

[P_K] notes that "*if we don't know the answer, then that's a red flag that "OK, there is a piece of guidance or advice that's missing here" - LRFs or local authorities want to know how to behave in this situation*" and it may be a case of this incident not necessarily having happened before, as such requiring them to "*to come up with a policy advice and get ministers to sign off on it*". They describe their role as "*champion(ing) … the LRF perspective ... and bring it into central government*". They describe "*probably one of the only times I've seen a kind of template released for local resilience forums in terms of helping them translate policy*" as being the development of the "Local risk management guidance", which was previously introduced and discussed as being Official-sensitive, which their team helped develop by "*look(ing) at those documents and we're checking to make sure they're readable, that they make*

sense, that, you know, that they're going to land well with local partners, that they're covering things that … they've said in the past" because "*one of the things that LRFs really wanted was a kind of a standardised template that they could use, if they wanted to, to do their risk assessments. And I think Cabinet Office worked with-- I think it was XXX LRF to produce a Risk assessment template that would allow LRFs to input the risks from the national risk assessment. I guess in a way that was kind of consistent with the methodology set out by Cabinet Office in the main National risk assessment*". The opinions of the participants on this particular document is discussed further in **Section 6.11**.

[P_J] describes the way in which they approach producing summary documents from local partners and colleagues, referring to the Coronavirus Act or Bill, they discuss "*it fell to me to kind of read the document and write lines or write a short one-page sort of briefing for our resilience advisers … my approach, because it was it was quite a hefty document by the end*" they discuss their approach as reading it alongside a separate word document on which they make notes while keeping in mind what was relevant in terms of civil contingencies "*You know, what will my local partners need to know?".* They feel that their role, however, is not "*not necessarily to be able to explain the whole document and its intricacies*" because they can "*of course go off and they can read the document themselves.*" Instead, it was more about producing headlines to the line of "*if you're going to focus on 10 things in this document, here are the ten things*", condensing several pages of notes in a "*single page briefing* [which was] *laser focussed*" on issues important to LRFs.

There is therefore a robust relationship between the LRFs and nations level when it comes to getting information on available guidance, however the motive behind this is can be attributed to the limitations of the national DSS, in that navigating the existing guidance is a difficult time-consuming affair, with a lack of a definitive source where available guidance is populated in addition to the short-comings of the document themselves, which is explored in **Section 6.13**. There is also a tension between central government and LRFs, which in some instances includes the RED and CCS divisions which is explored in **Section 6.11.**

6.9. Local translation and use of national DSS

[P_F] described his role in providing such local translations, which might involve "*to actually take excerpts out of that and just say, this is what we would do in terms of*" particular issues, and "*always base that originally on the original kind of legislation*" however as noted before, despite almost "*constantly*" going into particular guidance, most of it is "*base material*" which they already "*understand the generic element of*", as such the guidance itself is really reference only.

[P_A] describes a process through which they have "*created a handbook for each of them*" being the significant points of learning "*reminds them about the terminology, and individual responsibility*", alongside their plans, wherein they work to the same templates created by the CCU of their LRF because the CCU "*work for all of us*" (i.e., the local authorities within the LRF).

[P_C] discusses that "*one of the documents we produce, which is reviewed on an annual basis, is the "Multi Agency Incident Handbook". And it's based on all the national guidance. And it's based on the concept of operations and the response and recovery guidance and the emergency preparedness and all that sort of thing. So, it's based on those. So, if you were to interview somebody not from the Civil Contingencies Unit in XXX, they probably wouldn't know too much about those documents. But I would hope that if they were engaged in some respect with this agenda, that they would know about our own local translation, if you like, for want of a better way of putting it … because its localized as well, because it's one thing to give somebody a national document, but it's something else to say "Well, in XXX, this is how we do it".*

For [P_H], the local translation is a combination of a handbook and their generic major incident plan, and they note that all their emergency plans "*are based on the requirements of "Emergency preparedness" and the-- and the guidance in "Emergency response and recovery". We write that up about what it says in there, and how we're going to respond to an emergency. And we call that our "Emergency procedures manual". And that's like our overarching plan about how we respond to emergency. And we do all of our training and exercising around that document. And*

when partners are writing their own organisation or emergency plans, they're base it on the "Emergency procedures manual". So, because we've written the "Emergency procedures manual" based on "Response and recovery", "Emergency preparedness" and also the government's "Concept of operations", we tend not to look at those documents very much because we've pulled the key stuff out and whacked it into "Emergency procedures manual".

This is a pattern repeated across all the participants in their discussion of the use of national guidance to produce their own "local translation". However, after producing these local translations, for the majority of the stakeholders, the reference to the primary material becomes much more infrequent. In asking [P_C] whether they or their LRF may refer back to the national guidance after having produced the *"Multi Agency Incident Handbook",* they reply "*Possibly so. I mean - as - as new documentation comes out, then yes, we do. But it depends on what it is. If it's to do with communications, for example, media and comms, then the officer who writes the emergency plan for that would take that into account. Pandemic flu plan, for example, the officer who writes that would take into account all the guidance that comes out, that's specific to pan flu, would incorporate that. What we don't really want to do is duplicate that guidance. But if we can summarize it in a light touch sort of way, with, you know, and then reference, you know, "if you want to know more, follow this link. Click on the link".*"

It is interesting they note that they do not wish to "duplicate" the guidance however, because so few of the wider LRF stakeholders actually read the primary material, but the primary implication they and other participants make is the level of detail and **volume** of material in the guidance itself is too much for the wider LRF to interact with, in addition to the **cognitive burden** of familiarising themselves with these documents and the time considerations of doing so (the characteristics of the documents is discussed further in **Section 6.13.1**).

Other characteristics of the guidance within their use, for instance regarding process when participant guidance came out initially [P_H] notes "*I went through the documents, and we did a self-assessment on the documents. And then we took it to a general working group meeting … But, in essence, it was already what was in things*

like the CCA regs and "Emergency preparedness"" which is an issue of **redundancy** also discussed in **Section 6.13.2**.

[P_I] describe "*our ERA the "Emergency response arrangements" … that's what we do for everything [and] tends to be our fallback plan … [because] you've got to pick one plan. That's the one that we use for everything. So, that's how we respond to everything … saying, "this is why we do stuff and here's everyone's roles and responsibilities." … And then we have handbooks for each part [for example] an SCG handbook … So, for example, our influenza pandemic plan - we will say, yes, we do these bits, but we follow our normal arrangements in the ERA … And our multi-agency flood plan will say, "These are the triggers for it. But then we follow the arrangements in the ERA*".

At the local level therefore, the idea of document hierarchy deviates from the levels identified in our literature review. At the local level, the documents produced no longer discuss the context of the application of the UK IEM as this broad spectrum. The LRF documents, which inherently are all multi-agency, become expressions of what the stakeholders within the LRF **will** do, as such becoming at a base level "policy-document" in nature, which further diversify into plans of approach and procedures for action. Aside from all this are of course the many reports, assessments and records of capacity and resources. As such, there is no "guidance" tier in reality - guidance becomes a refining of "this is what you could do", to "this is what we (as an LRF) *will* do" or "these are our preferred options for action". The "guidance" to stakeholders is instead through the training and exercising which stakeholders within the LRF undergo or the development of local translations of policy (discussed further in **Section 6.15 and 6.10**).

The policy, plans, and procedures however are also discussed by participants in terms of their implementation in practice, which can of course vary widely in terms of its implementation in practice. *This variation of implementation in practice of local policy is a very different context to the variation of the implementation of the national guidance,* which is **inherently ambiguous** (discussed further in **Section 6.13.3**). This exploration of the DSS is one that is continued from **Chapter 5**'s documentary review and mapping of the DSS in the UK IEM, within which the likely interaction of national

governmental DSS with other DSS was summarised within **Section 5.3.8**. As noted then, the local DSS is difficult to gauge without primary data through the participants due to the issues of do document access. Participants were asked a range of questions about the type of documents that were produced at the local level, however this level of detail is perhaps beyond the scope of the research study, as such the knowledge extracted from these discussions were centralised into the role that the national DSS played in the creation of the local DSS.

For instance, every participant notes the significance of the "*National Security Risk Assessment*", which is the current iteration of what used to be the "National Risk Assessment" discussed in **Chapter 2, Section 2.3.8.1**, because as [P_E] puts "*obviously risk drives the business of LRFs and determine what we do plan for and what we don't plan for*". The translation of national risk profiles into local risk profiles could therefore be argued to be the first and most fundamental step in the process. In fact, every participant makes mention of the NSRA as the relevant document in this, which contains the detail the "National Risk Register", which is instead a public facing document, does not have. The NSRA was one of the few "Official-Sensitive" documents discussed in **Section 6.6** and is a step above the NRR therefore. Nevertheless, the NSRA is not a document the wider LRF would have access to either due to its sensitivity, and as [P_B] speaking of the wider LRF stakeholders notes on the NRR, they still *"wouldn't see sight of"* that either, but "*they will be aware of the community risk register from which it comes*", which as a long interplay of documents, wherein the national guidance has a higher version classified for security, but once the risk is translated into the local context, the "*Community Risk Register*" published from this is almost universally made publicly available, at least in a sanitised version.

In summary, the local context does not have "guidance" – national guidance is just that – guidance. It is what the local "could" do, as well outlines of what "should" be done. When it gets to the local level, the authority is more direct and immediate. Guidance is refined into policy, plans or procedure. The question then becomes what the difference between these and practice is. The importance in bringing the difference between policy and practice to a minimum to develop a common operating mechanism. As [P_L] states, "*we need to move at the speed of the slowest*" and "*it is better to simplify policy, than chase the latest fad*". In the Literature review, **Section**

2.4.6 discussed the importance of plans in formalising the collaboration between stakeholders in the event of an emergency, and in **Section 6.10** the researcher looks at further some considerations around **plans** developed by the LRF which participants were questioned on including their use, typical content, preference for length, the availability of templates, in addition to the decision making process behind selecting which plans to develop, selecting plan leads and how the plans are approved.
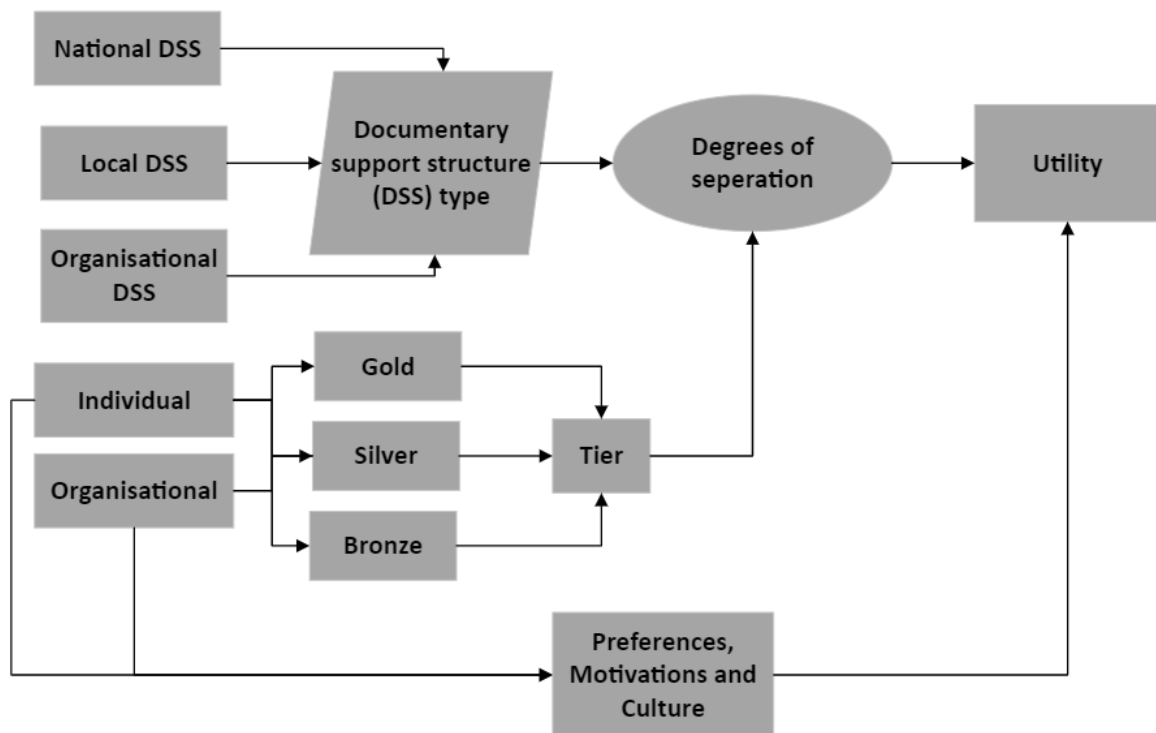
Figure 6.6 Utility: Degrees of separation, Phase, Tier and Preferences, Motivations, and Culture

6.10. Local Documentary support structures

The decision of which multi-agency plans to make is up to each LRF, and participants note that is often done within the tactical or silver tier of meeting types within the LRF, following the national to local risk translation during which the operational agenda of the LRF is decided and the various sub-groups or work streams around plan development are put together. They note that the recent NSRA document now drives this process, and for instance [P_D1] notes that it "*lists, in detail, every risk that LRFs will face in the forthcoming future. And it breaks them down into, I think it's 12, what they now call "families of risk", which enables us to conduct detailed risk assessments in our LRFs*". In addition, "*The role of LRFs – a reference document*" (Cabinet Office, 2013b, pg.34) gives the details of 22 workstreams within the Resilience Capabilities Programme, which also influence which plans the LRFs produce. The participants made no reference however to the 45 plans in the "*Examples of generic and specific plans*" (Cabinet office, 2012, Chapter 5, p.69-70), which was part of the Interview Protocol. The development of these plans also varies between LRFs. As put by [P_I], where their LRF has presently 22 plans, they state "*I kill them sometimes or we merge them, or we do things because I don't like to have too many. It becomes unmanageable, doesn't it, if you got 50 plans?*"

For instance, [P_F] notes that they "*don't deliver the specific work there*. [The plan lead does that]. *My job, with any of that, where the documentation planning is to ensure that standards are kept or met … But of course, I'm also able to check the content because of my expertise … I'm expected to know a lot of what is going on - in terms of the risks, but also about all the other planning that the LRF is doing. Whereas the individual might be just focused specifically on their area*".

The process of determining a plan lead is not formalised through national guidance. [P_D1] describes that the leads for their plans and also business areas are essentially "*volunteer planners from our planning community*", who may come from any of the partner organisations such as police, fire, health, etc., and "*they lead and they use the operational working group to actually deliver those plans*". [P_E] when asked if there was any guide used in determining the plan leads stated "*No. Nope. Professional judgment, common sense, you know, specialisms that people bring to the table*".

Sometimes these leads are negotiated within the operation level or tactical level itself, but sometimes these may be assigned from the strategic level, as formalised specific groups, such as in the case of [P_F] where the "*Fire and Rescue Service chair the interoperability group, the police chair the communications group, Local authorities chair the flood group*" which is different from for example tactical group breaking out into working groups, but rather sub-groups appointed from the strategic level.

However, because this process of plan leads is not a formalised process, sometimes there are issues. For instance, [P_I] notes that "*people will be allocated the role. Mostly, they take it willingly [but] occasionally we have to arbitrate about who's going to do stuff.*" In their LRF, the work streams are agreed through the gold and silver levels – "*the exec-group and through the business plan*", and they list a number of such work streams, which are once more variations of the ones within other LRFs, and note they have "*got a load of work streams and those people take on board that as an individual role, but usually with collective partnership responsibility. And we manage that by talking to each other.*" They and other participants also discuss that they sometimes have to take ownership of or take on board the review/development of plans which other partners do not wish to, however the capacity of the LRF secretariat, and its partner organisations, plays a heavy role in this.

Due to the large number of individual plans that can therefore be developed within an individual LRF, many of the participants describe mechanisms by which they try to interrelate plans to reduce the volume. As [P_B] notes "*What... what we've tended to do is, is do a- a larger generic based emergency plan and then you link that to specific plans, where appropriate, because the gold, silver, bronze process is exactly the same, whether you're dealing with a fire or nuclear attack. So, you know, we want them to primarily look at the generic plan with all the appendices and then write simpler plans for subject specific areas.*"

Figure 6.7 below shows an interplay of multi-agency plans (on the right) verses hazard that would trigger its use, alongside the multi-agency response frameworks or plans, which is the initial go to document of that particularly LRF.
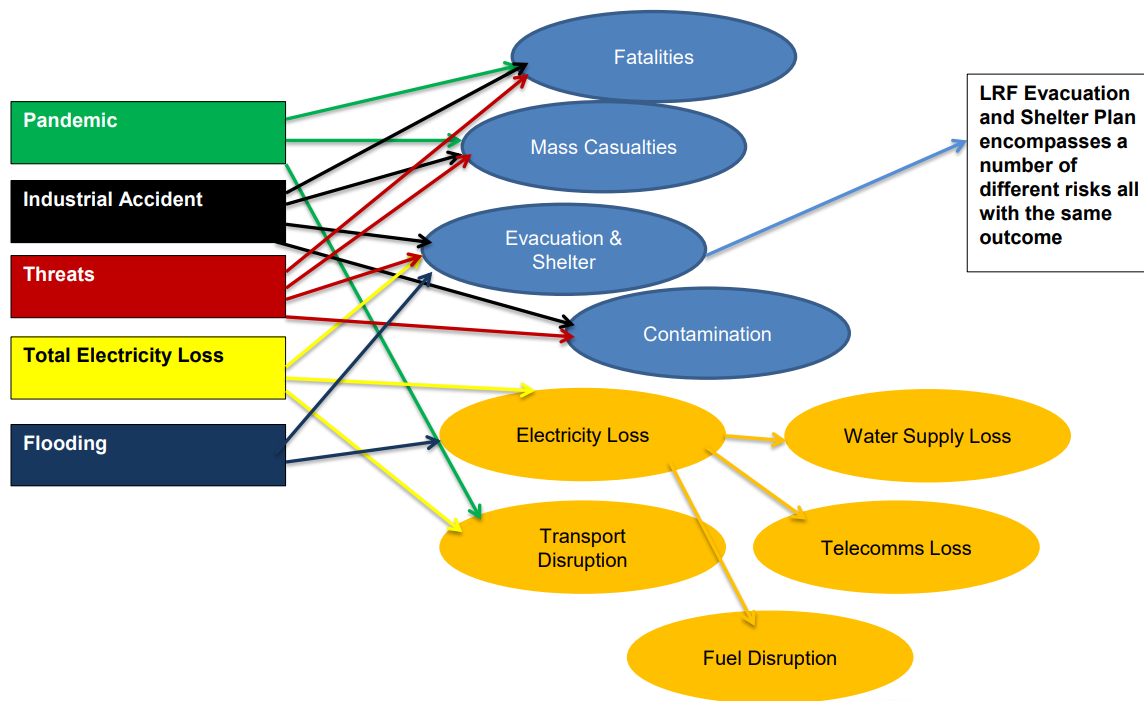
Figure 6.7 Inter-relation of LRF multi-agency plans (anonymised)

The previous section discussed the local translations of national guidance into singular documents, which were essentially variations of a generic multi-agency incident response plan that would typically sit in the centre of all the other multi-agency plans, whose interplay is shown above in **Figure 6.7.**

As [P_H] notes "*We'll always use a standard agenda. We will always use the same aim and objectives. We will always use our information sharing protocol and things*" and these are withing their version of this document, they still "tend not to refer back" to this beyond this, because it is still a "*big document*" and "*because people are used to responding and … they've had training on it and so on. So, we'll use key bits of the plans, I think. But we are always-- always having to produce the full document, because it provides the **audit trail**. It provides a bit more **training aid**.*"

During the participant interviews, the researcher also examined the process through which the documents produced, particularly the emergency plans, were approved or validated. There were a few exceptions, however in general it was found that LRFs do

not approve, audit, or validate individual organisational DSS, and the same is true between the national level and LRFs (which is examined in greater detail in **Section 6.11**).

[P_A], a local authority participant, was the only example where in "*all plans have to be signed off through the Local Resilience Forum*". As a rule, this was not the case for the other participants, and [P_C] makes the case that "*the planning assumption is - when you're doing multiagency plans, and you have to make this as an assumption - is that all the organisations have robust and capable business continuity plans. They test them often. Their own plans and their own emergency response arrangements are in place and that they're competent and they know what to do … you'd never get anywhere with your planning … if you had to forever go back and check. Apart from anything else, they probably won't be too happy if we suddenly made ourselves sort of auditors of their arrangements.*"

[P_F] notes that "*some of the local authorities have agreed to upload onto Resilience direct and give us access*" however the tendency is to use their own generic plans, and the "*LRF multi-agency plan that brings everybody together. But they would still have below that a single agency plan, not signed off through the LRF though.*"

Where scrutiny did take place was often where two distinct layers of the silver level "business management group" type meetings and the "operational working group" meetings were present, wherein the plans produced by the operation groups were reviewed by the silver group. [P_F] was an interesting example in this regard, in that they gave a greater emphasis on the validation of plans through an approach of inclusivity, which was initially discussed in **Section 6.4.1**. Their approval process begins at the operational level, where "*initially they approve and sign plans. So, they feel very, very attached to the process. [So there is] a much better understanding of risk, and a much better understanding of a plan, if we are asking them to approve a plan. They take that responsibility. And when we record it and say the MOT, the LRF has done that we're talking about those 30 odd people, not just six in a room*". [P_I] notes there is also period of consultation, which for their LRF "*you always have three weeks consultation and we always formally have it as the final consulta[tion]-- final*

document for agreement three weeks before the delivery group. So, you've got a
period of six weeks and then it gets signed off at delivery group".

Common across all the participants was that the plans produced by the working groups the LRFs are not scrutinised within the official gold-level LRF meetings. As put by [P_B] "*Basically, they're offered to the LRF for comment. … But they relied on the fact that if we were presenting the plan to them, then it was for information only. They wouldn't scrutinize that plan because they felt that was our job to do and not the Chief execs job*", which is a position shared across all the participant LRFs.

The plan content is also something that is not prescriptive within national guidance. In fact, [P_H] notes, "*we don't write all that many new emergency plans anymore. It tends to be reviewing and adapting. And if we do write a new emergency plan, what we do is, we take the format of the pre-existing ones and we just adapt it and change the content*", and the influence of national guidance during these review periods is examined in subsequent sections.

In the same vein as the DSS within the UK IEM were mapped in **Chapter 5**, the researcher took this opportunity to engage with the participants about the different DSS they interact with, and it was in this process that the determination of the local DSS resulting in policy, plans and procedures, rather than "guidance", which was discussed previously in **Section 6.9.** The other support structures, including Resilience Direct, JOL and GOV.UK in general were also discussed in this setting, although some participants noted a preference for hard copies of documents, and in fact noted that for planning around for example, electricity loss, is one where the method and storage of documents is a consideration within the planning process itself.

Figure 6.8 below presents a cognitive map of these considerations around DSS which were examined in this line of questioning, which informed the understanding of the utility of these DSS and in how they were related to the national guidance in **Figure 6.6**.
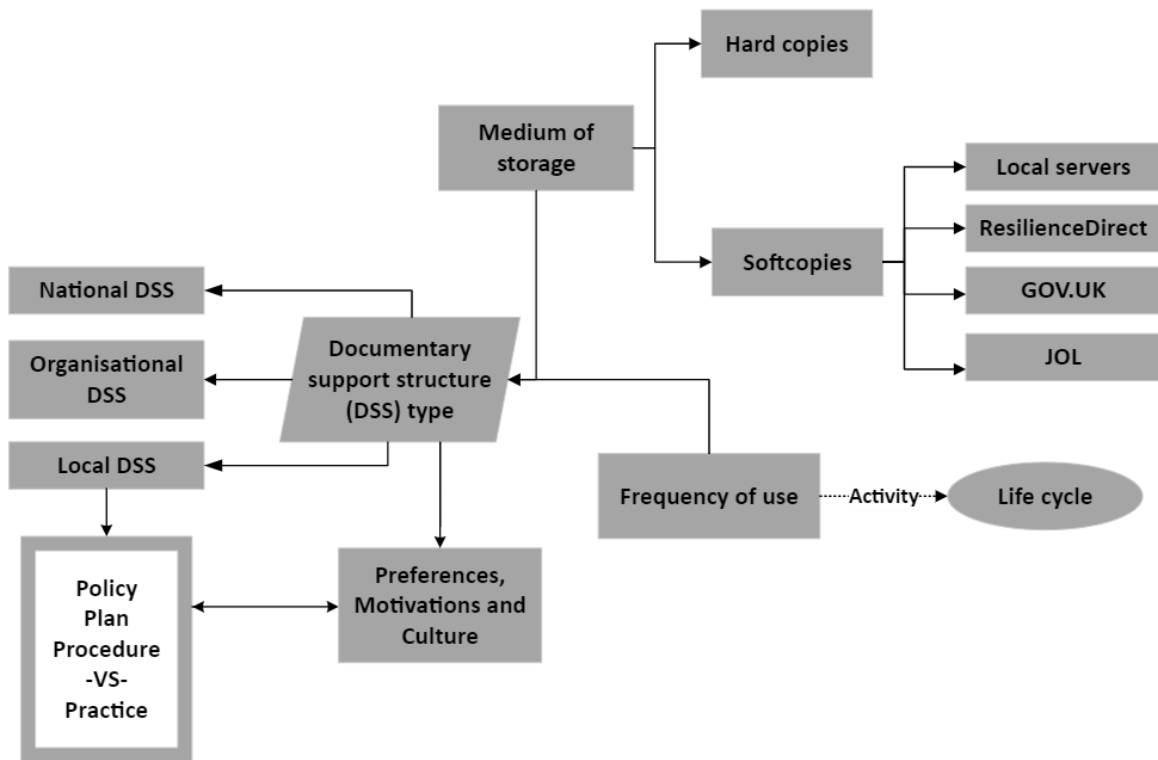
Figure 6.8 Cognitive map of the considerations around DSS types at the local level

The frequency of use of the DSS outside of response was found to relate directly to their life cycles, both of local DSS and national guidance, discussed further in **Section 6.13.3.** In addition, most participants expressed the position that it was rare for plans to be used during an incident (let alone guidance, as discussed in **Section 6.7**)

The local DSS were as such found to be a highly devolved product, with little oversight from central government, and high degree of variability in the decision of which plans to produce, in the assignment of plan leads, in their internal validation and approval process (albeit with the commonality that these are not assessed through the official gold level LRF, nor from central government), and that plan content is also highly variable.

6.11. Content of guidance and the relationship of LRFs with the national level

The content of the guidance itself is a more contentious issues, despite examples within this section of participants noting that the guidance is [P_F] "*It's very thin. There's not a lot to it*" or [P_H]] "*very superficial and came with no practical examples about how it might be implemented*" there was overall very little desire by participants for guidance itself to become more prescriptive. This is best examined in the consideration of the relationship between the LRFs and the national level, which is done in the next section.

For instance, [P_H] discusses the difficult where guidance becomes both specific and prescriptive, stating "*in terms of what actually can be achieved, because sometimes what's said in the guidance documents, and I think it something particularly in the national resilience standards we have looked at locally and we think between ourselves … there's no way that we can achieve what they are saying is good or best practice*". As such, it is a matter of "*collectively*" attempting to "*make what they say is good practice fit with what exists within the XXX area*". They note that "*some of it* [the guidance] *is so vague*" whereas others like "*the aim of the plan, triggers, or activation of the plan. That's fine because you can make sure you get those covered*", but that in some plans, guidance and standards there wording is more prescriptive "*You must have this in place. You must have this particular system … you must do it in this way*", and as such "*it can be much more difficult to adapt and to adopt those.*"

They present the example that over time they find instances of prescriptive requirements to not be feasible or useful. For instance, following the Pitt review of the 2007 floods, a host of guidance was produced with regard to the development of flood plans, and they recall that the "Environment Agency and DEFRA produced a checklist" and that in this instance "*they went through and actually checked to make sure that we got everything in there ... they said we should*". However, when the LRF came to review it the next time, within the discussion "*we said, well, we've not used it like this in terms of response. It's too thick, we're not referring to a lot of the maps in the documents. It'd make much more sense to streamline it*" which they did, however there is "*always that balance between streamlining something and making sure you can*

demonstrate that you're meeting all the requirements of the Civil Contingencies Act, and the very specific guidance". Within their own LRF, they note that they "*keep on going backwards and forwards over*" they issue of plan content even where the guidance is non-prescriptive, which was discussed in **Section 6.10** across a number of LRFs in their deliberations over plan development with local DSS.

[P_B] positions that "*if you give somebody quite a thin document with just their bits in, they work a lot better than if you give somebody a great big wad*", however within the example of COMAH sites, they note that because these plans have a competent authority, which is the Health and Safety Executive (HSE) and the Environment Agency (EA) "*they expect certain things to be within that plan. And as a result, you do get a big wodge. But what we try and do is have a little bit of a plan, then a massive - an* **annex** *on the back with all that data that has to be in*".

> *[P_F]: having gone through the last couple of years and what we've done with EU exit and COVID, it really has pushed us to the limit … [there is an] aspect here about concurrent events … going into a winter season where we're now expecting pandemic flu to hit us. We have winter pressures. So, the health system will be on its knees, as it always is during the winter. And then we move into severe weather ... And in terms of the plans, they* [central government] *were asking us, "Have you got a plan for EU exit?" And it's like, well, how can we have a plan EU exit when … we spent 18 months trying to plan and put together something to help support this … So, we were asking for like planning assumptions, which is what you would base you plan on. **But government were not giving us the right, specific planning assumptions**, … there has got to be a complete shake up of this based on what we've done … there's got to be a real drive here to change how we operate, and we work … quite a lot of the national guidance is **outdated** anyway, as we've seen and discussed. I absolutely believe that they should now be moving in a direction of consultation and change around how we operate resilience in the United Kingdom, particularly how we plan. The risk process is getting much better. But in terms of things like trying to get your teams to look at local risk planning assumptions, all they have is a manual - that says in the "National Security Risk Assessment", and part of it says, "this is how you should do it". **It's very thin**. There's not a lot to it. So, you're*

*left to make up your own mind as to do certain things. I think there should be more emphasis on a structure around a process that nationally that is driven nationally, rather than it just be guidance … my neighbouring LRF, may do it in a slightly different way than I do it. And then if we have an incident that kind of goes cross-border, regional, as quite a number of things do, we might have responders that are work off slightly different methodology and plans because we've **interpreted** information from government differently … the response is … all about **subsidiarity**. Is down to us locally to decide how we want to deliver that and how we want to do that. But I think … **more of it should be more mandated**. They should be obligatory. But of course, then that means they have to **support us** in a better way than leaving us to do what we do at the moment. And of course, they've also got to **look at how we operate**. The tendency is that we're left (to) to our own devices. But then we've had two kind of national events, one that we're currently ongoing, that actually has - government have used us for a lot of other stuff that we wouldn't normally do and is not written anywhere into our planning … I think all of that needs to be rediscovered … we need to align ourselves now to a proper 21st century resilience, United Kingdom. And part of that as well is not just about government doing this on their own. It's about including us. And a good example here would be SAGE … SAGE is all about scientific advice, but actually quite a bit of the work and some of the advice that they probably need was about how to do emergency planning - civil contingencies. [But] **there was only one person we recognized that was part of SAGE who had any background in civil protection** [even though] … they need to understand how we do this and how we plan. And it was quite obvious, because what they did is they brought a lot of people in to support the response in government who had no idea. And these people were the ones who were supposed to be coming to our meetings and they didn't know what we were doing. They were learning on the* [job]*– But, actually, they should--- that-- all of that (that) side of thing needs to change. It's almost having something along the lines of FEMA in the United States. There's a national response agency under the government. I'm not sure how that would really work. But there's an element there about actually them- the provision of kind of national resources is part of an emergency. And of course, all they do is they pick on MOD, and the military come out. And, of course, we give them the training. They're very good. And I'm*

ex-military anyway, but-- so I know what they're capable of. But that's the government's answer to everything. So first us, the other LRF, and then when we need assistance, they'll throw in the military. And then what you hear through the media, and that, is the government have sent the military in to save us. And yet we are the ones who are doing all the damn work and then training the military to do what they need to do … I think there is some things about perception and the way government operate the- and how they work the resilience community, it needs to change. And in terms of documentation and planning, that will all have to be realigned. That's my feeling anyway."

While raising a lot of pertinent issues with regard to the content of the national guidance, sharing many parallels with regard to the characteristics of national guidance as documents that make them difficult to interact with other participants, and also acknowledging and agreeing with the tensions with central government, their desire to see greater standardisation is not one that other participants expressed, with the majority position being that the existing tensions with central government mean that they would not prefer a shift towards greater standardisation than what exists presently. For instance, presented below is an extract from the comments made by one participant with regard to a shift to greater standardisation, who is anonymised within this text.

*[P_X]: <u>There is no way I want government to give me a template to do my risks</u>. I want them to give me guidance. And their "guidance" is debatable. I do not want a template. I do not want a template for plans. And I don't probably want a template for lots of other things that people sometimes go, "Well government should just give us a template for this!" And do you know why? Because **I don't trust government**. Because they're civil servants and not clever. And they're not very good at doing things and they're--- yeah, really very poor. So mostly, though I think that there should be **clarity**, <u>I would prefer that clarity came from locally based procedural decisions that were made</u>, rather than us waiting for a--- and see, I can be glib, because you're not gonna say who it is on your thing, like 23 year olds in cabinet office telling me what to do with no background? And yeah, I find that very---. Like they're not good at stuff like that. They're really not. They come in. They do whatever civil servants do, they go into RED or Cabinet office*

because emergency sounds exciting. That is, generally, every time I meet them, I say, "Oh, what's your background?" "Oh, I wanted to come into emergencies because it's exciting." So, you have got no academic qualifications in it. You've never been involved in it. And yet you just-- They must have--- they are like fire. They just rotate people around and then they get an 18 month project to look at capabilities, look at risk, rewrite the guidance on something. And they do not listen to local. They just chuck it out.

In previous sections, as seen for instance in [P_E]'s language in referring to the guidance as not being held "ransom" to the documents, with a greater emphasis on local stakeholder empowerment as the way forward. [P_E] notes "*Whereas, of course, a lot of this stuff is created by bureaucrats and civil servants in London who have never, ever had to deal in practice with resilience. So, you know, there's a little bit of perhaps a -- a disconnect between the thinking. Don't get me wrong, of course we need governance, and we need these documents. But there tend --- you need to dip in and out of them and they can't be seen as a whole.*"

At a local authority level, [P_A] expressed this disconnect as "*if I was to say my only frustration around emergency management sometimes is, we're just little old XXX. And some of those big national organisations, actually it's really hard to speak to them sometimes. You know, Public Health England, Environment agency, not- not the [LRF] ones, but the big national organisations. And a way in which they make sure they collaborate just as much on an individual city basis as they do on a regional basis would be helpful.*"

[P_F] expressed frustrations particularly around planning and how the government has treated LRFs during the pandemic, "*the pressure that government put on LRFs to run things like PPE* [Personal Protective Equipment] *logistics centres*", which they ask "*PPE, what--- what on earth has that got to do with us?*".

This tension is one that is noted by national liaisons as well, which [P_K] discussed in that "*you'll notice that there are no legal responsibilities for national partners, which is which is an interesting point to note*" which leaves them "*a lot of flexibility from the national point of view. And I guess, less so from the local point of view, whose roles*

and responsibilities are more defined in law" and in continuing their reference to the NSRA, discuss that "*when we publish it, local areas are responsible for localizing it. We won't have any say in that ... We work in in London. We don't have any real clue about the local risk landscape".* They note however that this "*is going to change. We are going to try and generate a better understanding of the local risk landscapes. So, how national risk is localized"* although how this will be implemented remains to be seen, referring to "*a piece of work coming up that will involve collaboration between local and national".* At present though, while they have national risk ratings for disaster typologies, how the LRFs determine their local risk is locally determined, and they "*don't need to check up on that or evaluate it. It's not our responsibility either".*

Other participants make similar comments, and some of these tensions are explored now, alongside the question of whether the participants believe the CCA 2004 remains fit for purpose.

Another example of the disconnect between local and national tiers of governance is perhaps in the Integrated Review – Call for evidence (Cabinet Office, 2020c) undertaken by government. This review was mentioned almost uniformly by the participants, with a fair degree of expectation assigned to its work. The integrated review resulted in the document "*Global Britain in a competitive age: The Integrated Review of Security, Defence, Development and Foreign Policy*" (Cabinet Office, 2021a), which was reviewed by the researcher upon its release during their literature review. In **Chapter 5, Section 6.4** noted that the National Resilience Standards, while being years in the making was ultimately not well timed because of the Integrated review. However, neither the integrated review, nor the CCA Post Implementation Review of 2022 brought about the level of change participants seemed to expect.

[P_K] for instance described the Integrated Review being "*billed as one of the biggest opportunities to change the way resilience works at a local and national level in decades …* [and] *expect(ed) that the integrated review will probably lead to changes in some of these documents that you're-- you're looking at and in fact, many of them to become probably not relevant anymore.*" At present, this has not been the case.

Regarding the Integrated Review, [P_L] discusses the many disconnects between national and LRFs, finding themselves and others in their LRF more "*bitter*" about the process, given their continued work with government during Brexit working "*more closely probably than anyone else has in the country, because of Brexit … with ministers, and COBRA and- and various ministers now, like department for transport, cabinet office, et cetera*", yet in the review they were asked "*Can you tell us what you think about the way things are run?*" they were only given **"four days' notice of that, of course, whereas everywhere else, and government, had seen it for about four or five months, which to me is fairly telling about how they view us."** In discussing the Gold-Silver-Bronze command structures, [P_L] make the point that "*actually government won't play in that*", instead "*they think of themselves as some kind of **diamond** or **platinum** level, **but won't articulate that**" which they found to be "*characteristic*" of their interactions with where in other projects with government they note that they want "*to dictate without taking any responsibility for their decisions*" and that "*this government [2020] in particular, does love to tell you what to do without taking by holding themselves accountable or taking responsibility for it. And this is particularly telling in terms of how they fit into our command-and-control structure, because themselves as part of it, but above it.*" They note that leading up to "*the last Brexit debacle last autumn [2019]*" they "*were becoming gradually four levels of command across government that we were unaware of*".

[P_L] put this is a "*mishmash of expectations and respect, which is actually difficult to articulate because everyone will tell you it's not there. But it is. There's a culture there which is not helpful in terms of national events and… a structure which is unhelpful because you have a national, regional and then a local structure and they are so diverse in their capabilities*" that in order to have a common command structure, "*a common way of working, that buried within that a common minimum set of standards*" so that LRFs can be compared and "*actually be jointly assessed and judged*", irrespective of how the LRF runs beyond this minimum as either a "*fixed*" or "*flexible*" base, then there is a need to join the command structure, despite the lack of "*trust*" in the local perceived by these interactions, and the "*obsession with retaining control*", because when there is a national intervention, there is a knock on effect across the entire Gold-Silver-Bronze structure, because Gold is now no-longer setting the strategy - "*if the ministers are going to say, "This is what I want you to do." Then XXX*

*has to say, "This is how we're going to do it", not "This is what we're going to do",
because … either you're just repeating what the minister says or you're in danger of
setting up … a very long chain of command"* ending up with no control and *"three tiers
of government"* when it is *"difficult enough with two tiers of government"*.

6.11.1. The Civil Contingencies Act – Fit for purpose?

In asking participants their position on the fitness of the CCA for purpose, a range of
responses were noted.

For instance, as put by [P_A] *"I don't have a problem with the Civil Contingencies Act.
I think it's pretty clear. I think pre-Civil Contingencies Act it wasn't very clear and there
was a mass of plans and vague around responsibilities"*, and in addition to them
*"legislation, and any government documentation, is only the starting point", because
but actually, what's really important for us is what it looks like out there, on the streets
to residents."* However, the do note that for LRFs, they could understand the desire
for changes to the CCA, because *"it's a collaboration. It doesn't have lots of "oommpf".
And I bet probably that – yeah-- some organisations are struggling to get their voice
heard."* They also note, like several other participants that there is a need to *"look at
the role of the voluntary sector a bit more, cause that's not mentioned."*

Meanwhile [P_B] positions that the CCA *"was a great starter for 10, but it really does
need a kick up the backside"*, however they consider there to be an absence of any
national desire to see these changes, instead using thing such as the "National
Resilience Standards" (Cabinet Office, 2020b) *"because they didn't want to replace
the Act."* In their view, *"to rewrite the civil contingencies act now, I think will be very
difficult because I think the police would have one view and the local authority would
have a totally different view"*, which was a follow on from earlier comments with regard
to difference in organisational culture in plan writing and behaviour during meetings.

For [P_F], the government has *"got to look and see how we can do this in future"* and
they refer to government *"obviously starting an integrated review around how we work
in resilience"* because *"there's so many gaps and holes"* in the way things are

presently, and that despite being able to "*work locally and do what we need to do. But when it comes to something like a regional, national emergency, like this [COVID and Brexit], we've been really challenged.*"

[P_L] for instance reflects that there were issues in the CCA from its onset, "***I wrote part of the Civil Contingency Act, tiny bits of it, because the police were allowed access to it***. *And we were allowed to sit in a room and not take it--- or not take anything away with us and so on and so forth.* ***And then they ignored it. But there's been no policing of it. And that's the problem***. *And now we've got these Resilience standards which are guidance ... they will only be invoked when something goes really badly wrong - and not when government's been involved in the process at all. You can bet your bottom dollar because actually very little in those guidance relates to government. Government aren't even governed by the Civil Contingencies Act, which is a significant thing. They don't conform to what goes on there yet. They are key players and have made themselves … more and more key ... They're not part of it. So why aren't they part of national resilience standards?*" They present that position that what is needed is "*a fixed budget [nationally] to research. And we don't. And in the absence of that, no one ever has time … because we are useless at learning lessons across the country, across organisations top to bottom*".

> *[P_I]: So, I think your balance of, yes, you want clarity. And I think the legislations out today and we all know it's gonna get a big old shake up, isn't it? Sooner or later, they'll just go, "Well Labor put that in 2004. It was never fit for purpose". And all good by me, eventually. And LRFs will be called as a dirty word because of PPEs being fundamentally linked to them in care homes … ultimately, I wouldn't say-- I'd say it's not bad doctrine. I would say again, that the CCA, you know, --- I reckon by 2025, don't you, we will have a new civil contingencies act of some sort that will change things … And, you know, you've got to argue 16 years on the CCA might need reviewing. And it was a big legislative change at the time … I'm pretty confident that some of our government would want it to be a local problem, rather than the national problem anyway. So, there's lots of things ripe for review … we might get a new government, mightn't we. I mean, if I do have to remind myself, it's four years off. But if they don't do anything in these four years, someone else will do it, won't they.*

[P_K]: What I would say is the Civil Contingencies Act, as a framework, is constantly being tested and stretched by emergencies. So, I mean, the coronavirus, for example, has the stretched that legislation to its absolute limits. And you find that the demands on the local tier have been beyond what you-- what you'd expect, given the Civil Contingencies Act. So, I expect that piece of legislation will be updated and renewed in light of the coronavirus situation. But to get around that, the national level does recognize that--- recognize when it's stretching the legislation, and provided additional funding and resources to local areas to offset that, but that's obviously not a sustainable, you know, position

The participants as seen were generally of the position that the CCA 2004 did need to be amended to better fit the current context of disasters within the UK, however, aside for addressing the clear funding needs of the LRFs, the secretariats and emergency planning across partner organisations in general, there were very few clear avenues imagined for such change, with those presenting opinions for change with regard to further standardisation, and the need for monitoring and auditing (which is discussed in **Section 6.13.2)** being a contentious issue.

6.12. An examination of specific guidance usage

During the interviews, the participants were asked their experience with the use of other guidance, outside of the list populated by the researchers, for example, specific plan templates and guidance on more niche disaster typologies.

This section examines the experience of one of the participants, [P_A], in their interaction with a specific guidance document on the safe disposal of asbestos, published by Public Health England (PHE). During the incident, a building fire had ensuing effects in given the "*roof of the building that was on fire had asbestos in it … And the asbestos dissipated … to a primary school, and around a hundred houses in the area*". The primary school was "littered with it" to the extent it had to be closed, but the houses were in different states, with "*little bits of it in the gardens, some of it on their cars*". As a result, the local authority needed to work with PHE guidance on it, and they found that the "*collaboration wasn't necessarily easy or agreeable as you might expect it to be*". They found that they "*key issue"* was that PHE was "*very much speaking to a worst-case scenario*".

The first issue, however, was that "*they sent us a 100-page guidance document at 3 o'clock in the morning*". Following this, there was consequent issues in how their interpretation of this guidance was contrary to the expectation of PHE. As they discuss, apparently "*the key to it, within it was, "unless absolutely necessary, don't clear away the asbestos yourself. But if you do, here's how to do it"*, which the local authority interpreted as a go ahead to put that guidance out. However, *"in the debriefing it transpired that "unless absolutely necessary", meant life or death"*, which [P_A] unequivocally states is *"not the way the documentation was written*." As a result, PHE was not happy with the guidance being released. On the other hand, the local authority issues was summarised within the context that *"it was going to take 3-4 days for a contractor to come out and clean that whole area of asbestos, and in the meantime, you've got a hundred residents who are stuck in the house, asbestos on their cars, and they just want to go to school and work. And we were getting bogged down with phone calls from members of the public, of just "I want to go to work, so what guidance can you give me to get rid of it."*"

They note that *"in summary, our positions were from different starting points. We were trying to recover the incident much more quickly that Public Health England"*, which they do note as arising from the PHE missing several initial multi-agency set-ups, which would naturally have included a major incident declaration with the police and fire and rescue service included. Local authorities, being the lead for recovery within the UK IEM would therefore take command once the fire itself had been dealt with, and so shifted towards a recovery arrangement. This itself is a confusing area of the UK IEM itself, as this showcases an example of incidents where there is not a clear delineation between response and recovery. Regardless, the two organisations, the local authority and PHE, working to assumptions of two entirely different stages is of concern.

Part of the issue, which they address in the debrief where they convey to PHE that *"you really can't be sending out a 100-page document in the middle of an incident. It needs to be a bit simpler than that"*, yet this difficulty in interpretation still took place over the course of the working day, once regular hours began. [P_A] notes that due to the document itself being *"quite a crucial document because it was asbestos related"*, there was *"probably around 6 to 10 of us kind of pouring over that document"*, which was *"quite a lot of"* them given that the document itself was *"directing our response in terms of what we had to do out there on-scene. It was also affecting our communications as well, in terms of what we were putting out to people"*.

This particular case highlights some key issues with it. The **capacity** of the organisation to work with the document in the immediate aftermath is particularly interesting to the researcher. The time scales are very different from the usual **activity** around "guidance" documents when developing plans or policy, yet clearly being a guidance document in nature. The failure of the document itself being too large to use in an ongoing incident is a typical result observed within discussion on the plan length, which was coded within our analysis under the theme "**cognitive burden**", because this is not just a case of "volume and redundancy", but a failure in design and understanding of the target audience among other factors. The **ambiguity** of the **language** within the text, and the consequent failure of **interpretation** resulting in incorrect response measure being taken, compounded by the national PHE not getting involved till much further along in the incident. This is an interesting situation, which

mirrors incidents discussed by participants on the **LRF-national government relationship**, however in this instance, the PHE is technically a member at LRFs, however their representation in this instance at the incident was from the national level. That the organisations were operating with assumptions of entirely different phases highlights the miscommunications within the process itself.

6.13. Interview findings: characteristics of the DSS that affect their use

In the previous sections, the researcher discussed the use of the national guidance by the participants and the wider stakeholders in the LRFs and UK IEM system. The results showed that the use of guidance varied between participants, with different degrees of familiarity with the documents themselves, and differing frequencies of use. However, the "**how**" of the question "how are the documents used by the participants?" showed very similar results between participants, in that the guidance was used to primarily to develop local translations and for use in training of stakeholders by the participants, as opposed to an approach of "reading to learn" or "reading to do", which was an approach towards the use of documents that was found to be predominantly used in the use of technical manuals and texts within the literature review (**Section 6.8**).

The results of discussing with participants their expectation of the familiarity of the documents from other stakeholders showed very similar results for certain tiers of command. The expectation of use of the documents by stakeholders in the Gold-Strategic level was extremely low across all the participants, who were not expected to work at that level of detail by any of the participants. The same was found for Bronze-Operational level stakeholders, as well as silver responders. These stakeholders were instead found to interact with the primary material through **degrees of separation**, often through training and exercising and local translations of the national guidance. These local translations are essentially local policy statements because at this level the documents are no longer "guidance" in that of the range of considerations put forward by guidance, the local DSS become statements of how particular issues will be dealt within their own context.

In **Section 6.11**, the **content** of guidance was looked into, which was found to be a contentious issue in terms of avenues for change. A review of a case of usage of specific guidance during an ongoing incident was also presented in **Section 6.12**, noting the factors that affected its use in this context. In this section, the characteristics of the documents themselves which affect their use are discussed, which was also undertaken in the literature review, from which the initial DAF was synthesised into 7

factors. Within the stakeholder responses, three overarching themes emerge when considering the characteristics of the document as an artefact that affect their use by stakeholder: **cognitive burden**, **legitimacy,** and **life cycle**.

Considering this was a central line of inquiry within the research study, a large volume of responses were coded in relation to this section, and as stated in **Section 6.7** many of the responses were within the discussion around the 11 documents within the "List of documents" given to the participants.

An example of a summary of the national guidance as whole within which the participant touched on many of the issues within the guidance as it stands is presented below, with certain sections highlighted.

*[P_H]: Guidance for identifying vulnerable people, guidance on communities, identifying communities, guidance on family assistance and there's guidance on data protection in an emergency. **There are a lot of guidance documents**. I mentioned the recovery one. There's loads of others. And I guess, just on the guidance documents, **it's quite tricky to find a definitive list of all the guidance documents which are out there, and I've been doing the role for 18 years**. At some point, I've read some of them. Reservoir guidance documents, how to write a flood plan. And what you find is --- I'm sure you found it when you're doing the literature review --- you can do a search for them, and you'll find them as something that's available on Internet. But it's been archived within the asset section. It's real tricky to know what's out there. So, if … I'm talking to a new emergency planner, how relevant is this guidance that's been issued on how to identify vulnerable people, which came out, and I don't know the year, which came out 10 years ago? **Is it still relevant? Does that still hold water?** Because I remember after the Grenfell Tower fire, there was -- the chair of the Emergency Planning Society at the time was very critical of the Local authorities and the LRF in that area for not identifying vulnerable people in accordance with the guidance document that had been issued. And I thought that was quite an interesting stance to take at the time, because guidance document was **very old**, and **very superficial**, and **came with no practical examples** about how it might be **implemented**. So, the ones that you've got there, they are key documents.*

*There's lots of other ones which have been written along the way and **haven't really been updated** or haven't really had closure one way or another.*

This conversation with [P_H] highlights many issues within national guidance that many participants reported. This particular section of the participants response was following the discussion of the "List of documents", after which the participant summarised their experience with these and other national guidance in general.

6.13.1. Cognitive burden

Cognitive burden in the study codes the factors that affect the mental effort in utilising the documents and was thematically used to represent the time for familiarisation of the texts, the time locate information and therefore effectively use the documents during active response and the time available for stakeholders to work with documents within their day-jobs. A range of factors that emerged in analysing the participant responses for factors that

As a whole, the series of documents identified represent a substantial volume of text, which was discussed previously in **Chapter 5, Section 5.4.4.** This is a sentiment shared across all the participants with regard to the not just the guidance identified, but across the broader national guidance documents. As [P_C] puts "*if we had to read all those documents, we wouldn't do anything else*".

As [P_E] opines "*documents have got to be simple. Else nobody would read them*" and discussed they should be such that "*if you pick them up*" the "*headline issues*" *should be readily apparent, because they believe "the days of the chunky plans are probably past, because people have got no time to read them. Information overload and what have you*".

[P_I] raises a number of factors within the guidance, from the volume of the guidance to the "lack of process" behind the content with the guidance

[P_I]: that's the other thing is "Emergency preparedness" is bloody long … reams and reams and reams of guidance … the volume of it and the lack of process behind what you actually should do with the that, does leave us exposed, I suppose? … they reviewed in 2012-2013 almost everything, didn't they? But they didn't take the opportunity at that point to consolidate, which would've made a big difference, I think. And to have supporting information, training packages, PowerPoints, films, whatever the hell they want, that, you know, at least as the national risk register, they've managed to at least put pictures in it for the first time in 2017

They infer here to the redundancy between documents which they expand on later.

[P_I]: But again, I don't see why we would have "Emergency preparedness", "The local good practice indicators" and "Resilience standards" all effectively covering the same things, but just each one is more detail than the last. So, if you took a Risk assessment on chapter four [Emergency Preparedness], yeah? I know what to do with risk assessment on Chapter 4. I know what to do with the assessment on my good practice indicators. And then I've got two resilience standards on risk-- risk assessment. Yeah. And risk communication, in fairness. Well, where is... that's stupid, isn't it? Somebody--- it's just because nobody went back to "Emergency preparedness" and did it properly and did a bloody annex at the end, which is the resilience standard. So, I've become quite frustrated that what they've done is - they want us to do things differently and stretch ourselves, which I'm -- I'm happy about. But at no point did they have the balls to go back to the original guidance and just redo the risk assessment guidance. You know, there is no point in having good practice indicators in LRFs and a resilience standard on risk communication. But at no point just go back and rewrite bloody Chapter 4. It's a stupid-- it's stupid thing … So, we use that guidance all the time and we do do it, but it's not.... What's the point in having like five documents to look at which are essentially saying the same thing?"

[P_D1] for instance states that *"The role of LRFs: a reference document"* and the *"Expectations of good practice for Category 1 and 2 responders"* has been superseded by the *"National Resilience Standards""*, however officially this is not the case as none

of the documents have been repealed or superseded as such, and the concerns of the highly redundant nature of the material is one that was explored in our documentary review. This position by the participant here, however, can be concerning because this is determination made by this particular LRF, and it should be noted that content-wise, the researcher would in their assessment not classify any subsequent guidance as having replaced the "*The role of LRFs – a reference document*" because it is perhaps the most detailed guidance for the LRFs themselves, and in terms of redundancy, are more accurately redundancies of the "Emergency Preparedness" and "Emergency Response and Recovery" guidance.

[P_H] notes this in their discussion of the "*National resilience standards*" when they state that "*it summarizes what's in "Emergency preparedness" … There's nothing particularly, I guess you would say, new and exceptional in that because it captions what's in the "Emergency preparedness". But it's being prepared by resilience colleagues in various different fields, and it's added in what people feel to be good practice. And so, that-- that's helpful*" which is much the case for many of the other guidance documents (and other DSS assessed in **Chapter 5**) that were predominantly content based on the "Emergency Preparedness" and "Emergency Response and Recovery" guidance.

As noted by [P_H], they describe the lack of a definitive list of available guidance, and multiple participants note they rely on the national liaisons to point them in the right direction, which is discussed further in **Section 6.11.**

From **Section 6.8.2** in looking at the expectation of familiarity with the documents across the wider LRF, and indeed the emergency planners of partner organisations, it is evident that participants view the documents are intended for specialist audience, usually positioning themselves fulfilling the role of the "tactical advisor" and that familiarity of the documents was their function or contribution during collaborative meetings. From our document review, the researcher positions that this is however not made clear from documents themselves. The level of expertise necessary for reading and implementing these documents is extremely high and interconnected.

Despite the IEM system involving a host of stakeholders at different command levels, the documents lack clarity on who they are intended for.

As such, 7 key issues were identified with regard to **cognitive burden**, which are presented below in **Figure 6.9**.
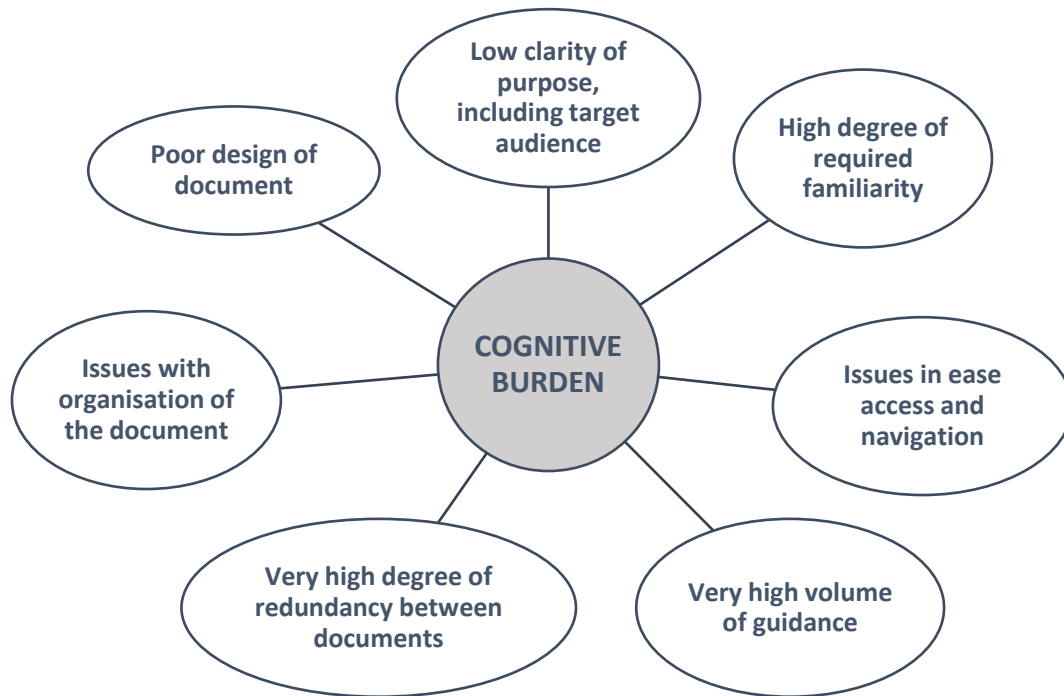
Figure 6.9 Cognitive map of issues within the sub-themes around the theme of "Cognitive burden"

6.13.2. Legitimacy

Legitimacy as an overarching theme encompasses a number of factors which was discussed in the literature review, and within the initial DAF, although primarily it reflects the "Power and authority" of a document, however the legitimacy of the document once it is discussed within the context of its usage by the stakeholders raises different issues. Broadly however, the legitimacy of the LRF itself is provisional, let alone their documents. As [P_C] notes "*at the end of the day, it's a partnership. There is no executive authority at stake. Whoever chairs the meeting, in any resilience meeting, there is no executive authority. So, it has to be by consent.*"

To begin with, the "legitimacy" of the document through the lens of the **imperative** to read these documents was considered, which in our consideration of "Power and authority" of a document was a consideration of the degree of not just the prescriptive degree of the text, but also the willingness of those that are ostensibly within its remit to follow these directives.

However, throughout our discussion of the guidance, the researcher clearly notes that the guidance itself is not prescriptive. Several participants make comments to the effect of its "*just*" guidance. For instance, another example given here by [P_A] referring to the largest overhaul of the guidance during the 2012-2013 period

> *[P_A]: So, when the guidance was first issued, the revised guidance … we obviously review all our plans in relation to the new guidance and made sure that they were updated accordingly. I wouldn't--- we have kind of a document version control for all of our plans. So, I wouldn't say that the guidance sparked me doing a wholesale review of everything there and then. But the time when it was now needed for to update our "Emergency response and recovery plan", we would also update it in relation to the revised guidance. Cause it's just guidance.*

And this has been the opinion across the participants. It was seen that it is not the imperative of the documents itself that lead to subsequent changes in local DSS, but part of its more general **life cycle**, which is discussed in **Section 6.13.3.**

[P_A] also makes comments on the **content** of the guidance changing in only minor ways, which would also have an effect on the imperative to change their own documentations. For instance, they discuss that:

*[P_A]: They changed around kind of command and control, and similar to what our experience here has been around making sure that everyone does the same kind of command and control and that we talk to each other in similar ways. And then there was **some very minutiae** stuff around having a PEP plan was one of the revised guidance notes, which we have, and we had anyway. So yeah, it was more—it was more changes for specific things. Making sure you had specific plans around specific things, and again, I guess they're just doing what we are doing, which is learning from incidents that have occurred.*

Of course, the researcher also previously discussed the cases where guidance did become pseudo-prescriptive, as in the case of the updates to flood guidance by the EA and DEFRA following the 2007 flood, where they developed checklists and checked to see if LRFs followed this, and discussed lessons learned from this approach that in participants finding the extraneous requirements to plans, not just here but also by other competent authorities, such as the COMAH plans, often ending up in the Annex because they make the plan use during response inviable if they become too long.

The NSRA, which has been discussed repeatedly, is a document which carries more "weight" than the "National Resilience Standards" as well, however even in this [P_K] notes that its implementation is not direct.

[P_K]: the idea is that LRFs, although it's not mandated in law that they follow the National security risk assessment, it is mandated that they conduct a risk assessment. But our advice and recommendation is that they follow the latest evidence in the risk assessment … it's interesting because there's a difference between legal expectations... And guidance. So, when we published the resilient standards, for example. There's no legal mandate to actually implement them, but it is expected that LRFs will implement them because it's cutting-edge best practice to do so. So, if they're not implementing it, you know red--- red lights are

going off and you're thinking, why is this LRF not taking onboard best practice. So, I mean, LRFs are obviously aware of that as well, because I can't think of an occasion where national guidance has been published, for example, the NSRA is national guidance. It's not a legal mandate. The resilience standards are the same. I can't think of a time when we published something like that, and the local tier has said, wait a second, we don't--- you know, we're not going to do that. So, they will implement guidance, but we say do it--- our expectation is that LRFs will do it in a proportionate way.

However, of their comments, the researcher notes that while it may be true that the LRFs do not reject the content of the guidance outright, the lack of imperative means that there is no particular need for such a confrontational discussion, and **Section 6.13.3** discussed how the life cycle of local DSS means that the process of implementing new guidance is a lengthy process regardless, and if there is contention with regards to the content of the guidance, this would be reflected in the time for its implementation. Much evidence has also been seen of the role local interpretation of the documents play in their implementation, which is exacerbated by the inherent ambiguity of the language of the documents, which was noted in the documentary review, and by participant comments.

For instance, with regards to the **ambiguity** of the text, [P_C] notes "*the whole idea of the LRF standards is to try and move towards standardization. But … one of the bits of feedback that they've had - and I could see this point - is that a lot of the standards, because they're trying to make them generic for everybody, to meet: the standards are incredibly woolly … And vague.*" [P_H] refers to the minimum requirements of a generic incident plans within "*Chapter 5, of "Emergency preparedness" does list the 14 or 15 bullets. It's quite **high-level stuff** anyway, to be honest*".

This ambiguity leaves the legitimacy of stakeholders, particularly the Category 2's in doubt, which means that the interpretation of who is a Category 2 affects their involvement in the LRF. [P_I] for instance, who leans heavily towards greater inclusivity in LRFs discusses instances where they debate "*You're not really Cat 2, but Cat 2 are not hugely well described in the act*", but the ambiguity of the text allows

their inclusion and state "*I'm not gonna lie. I like a little bit of ambiguity now and then*" because of this.

And this **interpretation** of the text is not just a consequence of its **ambiguity**, but also the **absence of monitoring and auditing**, which participants note repeatedly, although their positions of whether they would like to have more of a monitoring and audit process vary. This is a different context to one discussed previously the difference in plan content between those that have a competent authority, such as the COMAH plans and the HSE, who as [P_C] noted "*expect certain things to be within that plan*".

The document language itself sometimes acknowledges the ambiguity of its content. For instance, "National Resilience Standards" (2020, pg.2) state they intend to be a means to "**self-assure** their capabilities and overall level of readiness" but "*precisely how, and how far this is achieved is for individual LRFs to determine under the principles of subsidiarity and local accountability*", presenting itself instead as:

1. A guide for continuous improvement
2. A yardstick for assessment and a basis for assurance

As [P_D2] notes "*there is no audit process for resilience forums or the work of the forums. So, it's all done on your interpretation, an assessment of yourself against those standards … So, there might be some people who say, actually, no, that's enough. That meets it. Whereas someone else might say, well, actually no, I think there's still gaps*", which [P_D1] refers to as an "*element of subjectivity*" leading to "*a bit of variation of views on that, as you'd expect*". [P_E] discusses that this high need for interpretation particularly internally and within "*some of the documents as appropriate*" is normal and in fact the "*role of a tactical advisor*" because this is inherently the nature of most official documents.

[P_F] discusses the interpretation could fundamentally alter the way an LRF is structured because when asked if there is a lot of debate around interpretation they respond:

> *[P_F]: Oh, yes! Yeah … it can be fairly regular in that. The guidance is just guidance … if you look at the legislation, we should just meet twice a year …*

That wouldn't be a proper role for any LRF if you had two meetings a year and nothing else… if you read between the lines … you'd have a tick in the box there … seven duties that we have about needing to plan, needing to make sure we have risk assessments, we can carry out all of that. But you don't necessarily have to do it in meetings. You know, you could do it all virtually. So, it's about interpretation.

[P_C] discussed one of the standards was that "*you've got to have a fallback arrangement, but it doesn't tell you what a fallback arrangement is or what's suitable. So, - that - the partners decided that a fallback arrangement would just be a cheap and cheerful military base, that the military would allow us to use if we needed to fall back. But we all knew that - it wasn't a great solution. But that was -- it ticks the box for the - for the standard. But it doesn't really take us any further forward because if you understand anything, that's involved around a strategic coordination centre, it's a complex arrangement with a number of organisations, all of whom you need to be co-located.*"

Referring to older documents, [P_D1] notes that when the "The role of LRFs - a reference document" (2013) was released, "*it was seen as an important document because it effectively told us what an LRF should be, how it perhaps ought to be structured or what it might aspire to. I personally thought it was a good document and it gave us a lot of good material that we could use to shape the way we conducted our business. But what I found over time is that it seemed to lose its traction. Nothing ever seemed to be put in place behind that guidance document, that, if you like, cause practitioners to sort of take it seriously*".

The researcher discussed earlier how their position that this document has now been superseded by the "National Resilience Standards" as concerning due to the difference in content, despite the redundancy, and this practice of not consolidating guidance as new ones are produced acts to decrease the legitimacy of previous guidance in the minds of stakeholders.

[P_B] also bring up that it is a problem that they are not assessed, however also states "*like any national standards, you look at it and say, yeah, we can do that. Yeah, we*

can do that. No, we can't do that. So, it's ... it's good guidance. I just hope they don't turn around and start assessing us against that because" having a mix of feelings around the issue of monitoring and auditing standardisation, on one hand not really wanting to see it implemented, but also feeling that the LRFs in general "*are an insurance policy in the hopes that when it goes wrong, their reputation doesn't go down the pan*" because of the lack of oversight from the central government.

[P_D1] who was generally positive to the introduction of a monitoring and auditing program, stating "*I personally think that the way that these guidance documents could be made more important and could rightly take their place, is if government put some sort of proper audit process in place, whereby it checked to see if we were taking cognizance of that guidance*", but they state that while guidance is being produced at a national level, the best practices laid out are not ones they are funded to truly carry out, and until such a program is initiated and they get the needed funding they "*will still carry on doing what we can with the limited resources we've got*".

[P_E] discusses that it is not about documents becoming more prescriptive and placing them in "*straitjacket jacket that you don't want*", but more about needing to "*empower people … because if you rely so heavily on plans when it comes to something you've never planned for, people will scratch their heads and say, "what do we do?"*". This lack of empowerment of the stakeholders through the national DSS is one [P_B] also makes mention of in how it affects the organisation culture and the resultant preference for plan content.

> *[P_B]: "And I think that is where you've got the crossover of the fact the emergency services tend to work off a skeleton and fill the bits in during the event **because they have the power - the mechanism to make officers do things**. The county council in particular, local authority and health would prefer to have a huge, great document. **And that then means they've got a good plan**."*

Section 6.11 also discussed the issue of trust regarding the document authors of the guidance, and the overall concerns of the guidance content. In the document review, the researcher also noted the "black box" nature of document ownership when it comes to guidance.

When speaking of one of the guidance documents they were responsible for developing, [P_J] describes *"it's not an MHCLG owned policy area … it's a Cabinet Office owned document. So, they're responsible for updating it. And they-- generally and definitely in the past, they-- they update it in terms of what's best for central government. Because it's not-- it's not a product for just local resilience forums. It's-- it's a product for every single government department and, you know, every department is expected to be able to plan for and respond to the kind of the risk scenarios that are set out in the risk assessment",* nevertheless their team was responsible for much of its content.

As such, 5 key issues in the legitimacy of the documents were noted, summarised below in **Figure 6.10.**
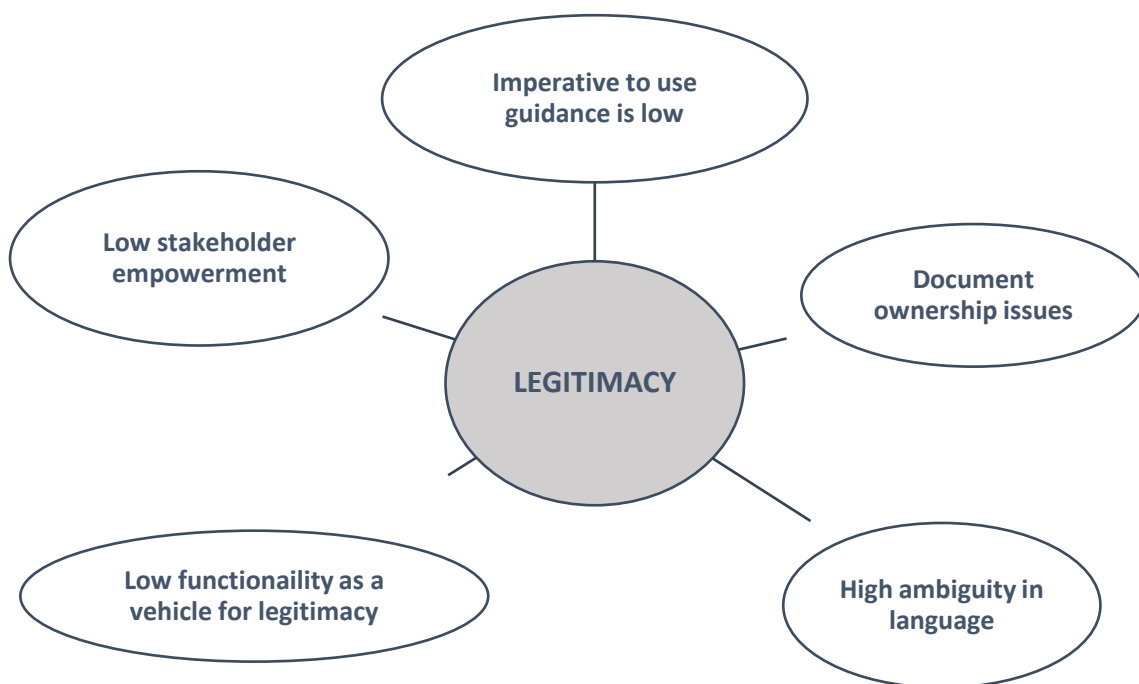
Figure 6.10 Cognitive map of issues around the sub-themes of legitimacy

6.13.3. Life cycle

In the case of "cognitive burden", the resultant consideration was the effect on the **time** taken for familiarisation with the documents. In the case of "legitimacy", the **imperative** to read the documents. For "life cycle", it is the **activity** generated around each phase that affects the utility of the document and its consequent role in affecting stakeholder behaviour.

6.13.3.1. The life cycle of local DSS

For instance, [P_A] notes "*we will change plans as a result of the **debriefing** process*", which is one of the key ways in which a plan is most likely to change across all the participants, because this is where the plan has been tested as a result of a live event, and any shortcomings are highlighted more clearly than during desktop reviews.

Besides the debriefing process, participants discuss their standard agendas. For instance [P_C] discussed "*a three-year work program, divided into annual chunks*", which is to say that a majority of their documents are reviewed on a three-year basis, except for their response documentations, for example the SCG and TCG ones, which are reviewed annually.

Other participants describe similar arrangements. As [P_E] notes that "*risk drives the business of LRFs and determine what we do plan for and what we don't plan for*", wherein risks determined to be "Very high" or "High" are looked at once a year, "Medium" every two years, and "Low" every 3 to 4 years. These are done within their operational group meetings, which they discuss, "*the way [the meeting] works out is that we have a number of subgroups and each month one of those subgroups will have prominence at the [operational] meeting. So, the main ones are training and exercising, warning and informing, severe weather and voluntary sector. But throughout every [meeting], there will be a session on risk*". [P_D1] describes similar arrangements, however, notes that "*we would also look to do a light touch review of that plan aspirationally every twelve months. A light tough. I mean, that would be just to check that the names are still correct, and the phone numbers are still correct. And that it doesn't need any sort of tidying up*".

Within this frequency of review, [P_I] expanded on the difficulty of maintaining this pace, saying "*we have LRF plans … I think there's 22. I constantly spend … my life trying to make sure they only review so many per year … we do it on a three- year cycle. 22 should have seven, shouldn't we? But no, we bloody don't. We want 15 in one year because of the stupid* [XXX international event]". Their discussion highlights the fact that most operational groups only meet a fixed number of times a year, and as discussed this in **Section 6.4.1.1**, this was typically a once a month frequency, with some operational groups meeting twice a month, and this becomes an issue of capacity which can restrict the number of plans being reviewed, particularly with all the other work that needs to be undertaken during these meetings. [P_I] also brings up the issue of sudden events placing stresses on standard review process, from reviewing 22 plans over 3 years, to reviewing 15 in under a year.

This issue of the LRF capacity is one [P_F] also make mention of. They discuss their process in assigning capability leads so as give the partners "*authorship*" of a document, despite it being an LRF plan so that these leads then "*manage it and make sure the consultation happens, so that its current and up to date.*" However, they reflect that "*these last 11 years have just passed so quickly. There's been an aspect here where we've looked at some plans and they're out of date. They're quite well out of date. And you'd kind of look at it and think, well we should be on top of this. We should do this. But what happens is, you review it, and go, actually, it's fine. It'll stand up. So, you tick it off and say it's been reviewed, but there's been no change, like for seven, eight years. And it's like, well, the legislation hasn't changed … So, it still stands up*".

This reflection highlights keenly the issue of the long-life cycle of national guidance, and as a result the stagnation of plans developed at the local level. Particularly in the context where incident occurrence for disasters is low, plans may not be tested for long periods in a local context, despite this knowledge likely being present somewhere else within the country. Despite the existence of databases such as the JOL (Joint Operational Learning) by JESIP, several participants noted that they themselves do not upload their debriefs onto the system, and JOL and Resilience Direct was noted by participants as not an easy system to navigate or find relevant material, unless they knew what to look for in advance.

The impact of the consecutive long-term impacts of EU Exit and COVID is something noted by all the participants as affecting their standing agendas. As [P_D1] reflect, "*because of the real-world events that have happened in recent months, the work of that operation working group slowed to a stop very quickly, or particularly because of Brexit*". They expand on this situation, one mirrored across other LRFs, which is presented here.

> *[P_D1]: until probably the end of, what, midway through 2019, we carried on with what we might call our normal business, which we often refer to as our normal peacetime business - as in: not in major incident mode. But things started to change in 2019. And you'll probably sort of know the background to it, because since that time we've been through a period where we had the build up to Brexit. Our normal operating was reset because we had the build to Brexit in three phases. And then in our local area we had two occasions of serious wide area flooding that were declared major incidents, one in the autumn of 2019, one in the early spring of this year [2020]. And then, of course, we went headlong into COVID related activity from March of this year. And we've been doing that ever since. The reason I mention those things is that we sort of transitioned from a business unit that was dealing with routine peacetime LRF based activity. And now, we've become almost like a response element reporting to the Ministry for Houses and Local government*

As a result, many LRFs note being a number of years behind on their standard review process, but also in the implementation of "new" guidance, such as the consideration and implementation of the "National Resilience Standards" within their LRFs.

However, such impacts also affect the implementation of documents that carry more "weight". For instance, the NSRA, despite technically not being mandatory, is the standard by which LRFs are expected to carry out their local risk assessments. During its introduction, [P_F] noted the struggle with implementing it within their LRF "*because when that came in, it came in almost the same time as we were starting the planning or worked around of [EU] exit in terms of 2018, 2019*".

On the other hand, [P_I] states that this process of review "*isn't quick time*" for most of the plans. *[P_I]: So, if like there's like reservoir guidance, we'll just wait for three years till it comes up for that plan to be reviewed. Unless someone says, "Oh my God, this is urgent. You better do it now." And when we review that plan, we'll do a trawl, and we'll probably ask MHCLG and they'll probably have a list of it. So, it's not--- it's not a hugely dynamic field, I wouldn't say. I mean it's annoying that it's not clear and pretty and all the rest of it and colour coded -that's how I like things. But-- the amount of guidance is probably appropriate and does link*.

Ultimately, [P_F] notes that the frequency of review may ultimately not aid in the usefulness of the plan, noting their flu-pandemic plan, which is reviewed every other year, and was described as "*quite comprehensive, but there's one sentence about "you may require to lockdown part of the community'"*", which meant that "*straight away … you couldn't operate correctly with it*".

6.13.3.2. The life cycle of nation national DSS

The majority of the participants noted that the guidance was out of date. From instance, [P_B] states "*But if you look at the dates on all these documents you got on here, they are so dated that actually, you know, a lot of those you'll say, well, they're irrelevant now.*" [P_D1] notes less critically, "*they are a little bit dated now. And the world has moved on. So, they remain relevant to what we do, but they don't always catch up with reality.*"

When looking through the list, several times, participants expressed surprise regarding the actual year a document was published. For instance, on the STAC guidance, [P_C] remarked "*I mean, I thought there was something more recent than 2007*" and on the CONOPs, [P_F] notes "*2010 seems quite old. I thought I had one more-- more current than that, I have to say*".

[P_H] reflected on the national guidance life cycle, alongside their content and notes:

[P_H]: There used to be the National recovery guidance, which has been archived. When we're all looking to try and understand how to set up recovery during COVID19, we were looking at guidance documents which hadn't really been reviewed, or they're all based around the Buncefield explosion [note: 11 Dec 2005] back when-- whenever that was. But I can't remember when that was. But they're based on key historical dates and a lot of these guidance documents aren't updated-- aren't regularly updated. And sometimes that's a policy decision because certainly the Labour government were very in favour of producing guide--- guidance documents, the Conservative government weren't. The guidance documents are really of the time, and they're helpful in a way because they cover--- they cover the essentials. But when you look at the minimum level of information to be contained in a generic emergency plan, you might as well not look at it because there's--- there's nothing in there that's helpful or new … [design] I think we need to find a way of bringing them up to date and amending them and adapting them with key good practice in a more effective way than we do at the minute. A Wikipedia style thing …

From this the effect for instance, that particular incidents have on driving the content of guidance can be seen, and also the policy decisions that lead to the development of guidance, comparing the difference in emphasis placed on them between the Labour and Conservative governments.

[P_I] notes that "*10 years feels like the right time to do anything. It feels a bit long. You know, if we left anything 10 years, government would probably-- if they were bothered in monitoring us-- they would be like, "How come your plans out date for 10 years? And you've never exercised it."* They reflect on the issue of national guidance being driven by these one-off events, "*And, you know, there is a huge danger now that what will happen is 21, 22, 23, we will review everything, but it will all be through the lens of COVID19 … And that gives us a huge danger about, well, the last thing that happened is not necessarily, or in fact, probability wise, necessarily the next thing that's going to happen*".

The overall life cycle of documents occurs at a speed that may lead to contradictory documents as well, for instance in the move from the "National Risk Assessment" format to the NSRA, where [P_D1] stated that in attending a conference around it "*the discussion was around the newly emerging NSRA, and I remember the question being asked at the time on that day, "Well what about the UK risk register?" Because that needs to be updated because those two documents need to work hand in glove, and they don't at this moment in time.*"

6.13.3.3. Version control

Another aspect when peaking of their own local DSS is that participants refer to the use of version control on their documents. While these systems are known to the participants, [P_C] for example describes the situation where for clarity they had to do a version control of national guidance themselves, for instance in the case of COVID, where they have "*got so many documents that have been issued by the government that's guidance*", and as a result within their Resilience Direct pages "*there's a response section. And in the response section, we run a blog and we just keep putting in "new guidance issued on such and such. Click on this link". A lot of it's all in the gov.UK, but it means that partners who've perhaps been off a couple of days or whatever might have a director from a local authority or something, they can click on that and see, "oh yeah, there's new guidance on housing" or something, and they click on that."*".

In the documentary review of the development cycle of national guidance, the researcher noted the difficultly of ascertaining if a particular document was the most recent version, and this has been reflected in the responses by participants, as seen within this and other sections.

For instance, the start of this section presented [P_H]'s reflection on the guidance where they note the difficulty of knowing if particular guidance is still relevant, and the absence of a definitive list of current guidance.

6.13.3.4. Consultancy between national and local levels

Section 6.11 discussed in detail the disconnect between the national and local levels, which highlighted many issues on the consultancy process between the levels as well. These include rather substantial changes, which participants note occurred without much consultation, for example the NSRA, which [P_I] noted changes the previous "National Risk Assessment" "*fundamentally, so we're all a bit narked about that*", and many instances were noted where implementing this has been an issue for LRFs.

[P_E] however felt that "*I do think in fairness, you know, we do have an opportunity to feed in and have our views listened to. Now, some of the outcomes - sometimes we suggest, well "hmmm", they didn't really take on board what we said, but certainly 'have we had an opportunity to feed in?' Yeah, definitely. I think that is actually quite good. And I give credit to our MHCLG advisors who, you know, are a very good interface with central government.*"

For instance, regarding the consultancy around the "National Resilience Standards" [P_D1] noted "*I remember when the work was taking place, and I know personally the lady that led it from government and LRFs were invited to join the process. We didn't, in actual fact of it in this LRF, because we didn't feel we had the capacity to do so at the time. But my understanding is that 17 … of the LRFs in the country did take part in the development of those standards*", highlighting the issue of capacity to take part in consultancy even when engaged to do so. The "National Resilience Standards" has been a document the study has discussed numerous times, and certainly for instance, **Section 6.6** discussed how the classification of the document as "Official-Sensitive" greatly reduced its scope for external consultation during its 4 year development, prior to its de-classification and publication.

6.13.3.5. Summary

As such, the researcher notes a highly variable life cycle in local DSS. Participants describe a cyclic iterative process wherein national DSS and local DSS interplay within a complicated process. Within this life cycle, they identify different phases including:

- The time to develop the national policy and guidance
- The time for any consultation pre- and post- implementation
- The time to amend and produce any amended guidance
- The time to implement amendments
- The deliberation process in translating national policy to local
- The time to develop local documentation
- The time to implement new local policy in practice
- Local post-implementation deliberations – consultation and review of policy change

As such, 4 major sub-themes emerge in the interview findings on the life cycle of the documents as shown below in **Figure 6.11**.
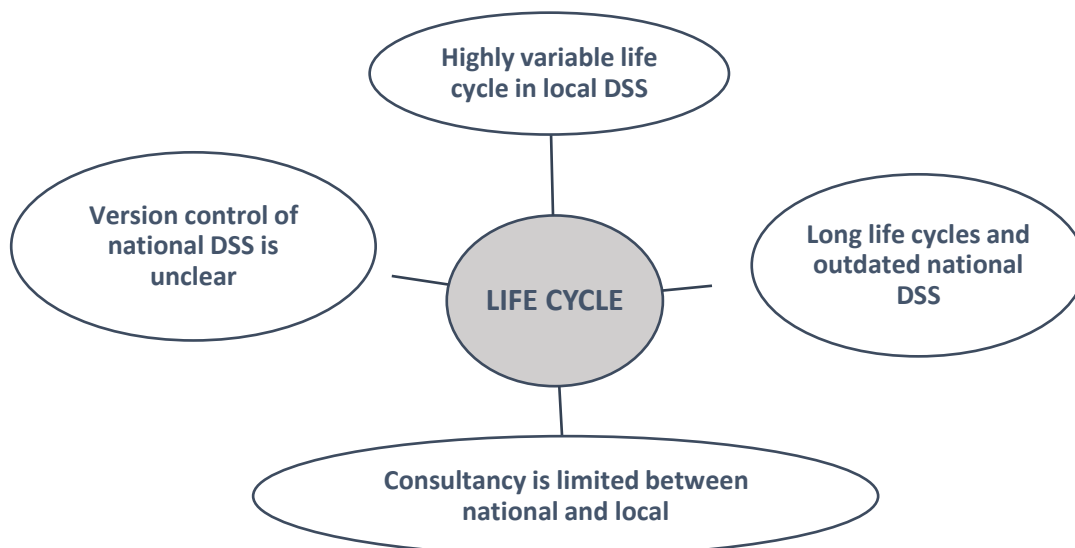
Figure 6.11 Cognitive map of issues around the sub-themes within life cycle

6.13.4. Summary of findings of factors affecting the use of DSS

Table 6.4 below summarises the factors affecting the use of DSS examined within this section. These factors were synthesised with the initial DAF in the subsequent chapter, along with the findings to develop the final framework of this study.

Table 6.4 Themes and sub-themes of factors affecting the use of documents in DSS

Theme	Issue withing sub-theme
Cognitive burden	• Very high volume of guidance • Very high degree of redundancy • Ease of access and navigation poor • Low clarity of purpose, including target audience • High degree of familiarity required • Poor organisation of documents • Poor document design
Legitimacy	• Imperative to use guidance is low • Lack of functionality as a vehicle of legitimacy • Systemic issues with ambiguity • Low stakeholder empowerment • Low trust in document authors • Little in way of document ownership
Life cycle	• Highly variable life cycle in local DSS • Long life cycles and outdated national DSS • Version control of national DSS is unclear • Consultancy is limited between national and local

6.14. Tactics to increase stakeholder familiarity with the UK IEM

From the results, it can be seen that national guidance as it is currently not suitable for use in direct training, with numerous degrees of separation between most stakeholders and the primary text, a high degree of familiarity with the content as a pre-requisite, heavy volumes of guidance and difficulty in both finding and navigating the documents directly. Even within the participants who were all emergency planning officers, even the two national liaisons and the local authority respondent, there were marked differences in the familiarity with the identified document list and the frequency of their use of guidance. However, there is a shared approach in **how** all the participants used the documents, which was is not based on an approach towards "reading to learn" or "reading to do", which was discussed in **Section 2.8** with a consideration of studies by Duffy *et al* (1983) or Ganier (2004), but an approach focussed on producing local translations of the guidance content, changing from a "guidance"-type document into a local policy document instead. The second approach to using the national guidance is in adapting the content for training.

The tactics expressed by participants as options to gain familiarity with the UK IEM and stakeholder R&R were all activity based (e.g., shadowing, debriefing, training and exercising) rather than more "passive" learning based methods. However, as put by [P_I] "*there's a lot of documentation. I suppose the thing that you'd need to look at is - and I guess that's what we do locally - is it's how it's interpreted into training".* [P_H] shares this sentiment, stating that "*I think the guidance documents are helpful, but it's really through a lot of shared experience that we've developed our contingency plans and our arrangements. And so, we put a lot of value on shared experience … there is an expectation that people get an understanding of the list of documents you have there, but it's more about how we--- what's helpful for us is that people learn how we were--- how we've translated that and how we work in the event of emergency in our patch*".

The relevant guidance on training and exercising is within the "*Emergency Preparedness*", Chapter 5, pp.50-63 (Cabinet Office, 2012a), "*The Exercise Planners Guide*" (Home Office, 1998), "*Emergency planning and preparedness: exercises and training*" (Cabinet Office, 2014) and JESIP (2016). Of these, the latter two had not

been initially listed in the document list provided to participants for comment, however "*The Exercise Planners Guide*" had been discovered through the mention of one participant, who did not hold it in much regard. JESIP is discussed as a separate consideration in **Section 6.14.1**.

As put by [P_J] "There are different approaches, obviously across LRFs as some LRFs take quite a light approach, I would say, to the training and exercising" whereas others have a "dedicated role is simply to manage the training".

For [P_B] the determination of which plans to exercise is posed to the LRF bi-annual meeting and run "*three exercises a year*" as "*probably maximum*". Saying this, they not "*I did Brexit for November last year and we did tabletop over five half-day sessions, and I put through 186 gold and silver managers across the county*" being pleased with the attendance itself and feeling "*very, very well-supported in these types of situations … which to me is very pleasing. A, they support us; and B, the fact that those managers have obviously got an interest in knowing what a gold and silver role is within the local authority because they do duty cover. Therefore, they put themselves on the exercises*". In terms of general training, they "*tend to tell them when the exercise is or when the training's taking place, rather than have a schedule for them to come to us … because we don't have the numbers to make it viable*", waiting for "*people to say, "I've got three waiting" and then we trawl around seeing if we can make a full course from that*", which is an approach a number of the participants indicated being theirs as well, as opposed to fixed agendas in terms of training and exercising.

Despite this training schedule, [P_B] positions "**shadowing**" as the most important way that stakeholders have to gain familiarity with their LRF process, because the difficulty they have is that they "*just don't have the jobs [and the] incidences [and the] incidents we have never tend to last that long.*" As such, they push for other duty responders to make themselves available "*even if somebody else is covering that weekend or whenever, if an incident comes in, then-- then just shadow it, come along on it, observe it, or at the end if you weren't available, come and talk to us when we start doing the debrief and the debriefing process*", which they fell is best that can be done.

In cases such as [P_H], much of the training is undertaken by the individual organisations rather than the LRF, which is likely due to its secretariat being just one person [the participant themselves] and additionally a voluntary, however every representative at the working group meetings are themselves emergency planners, which is not the case in every LRF, allowing them to manage their own internal training. *[P_H]: one thing that we don't do very well in our area is … around training, is doing the training needs assessments and keeping really good records of that from a multiagency perspective. So, well really, everybody's fine with doing that individually from an organisation, but not from a multiagency perspective"*, however they do note that they "*do a lot of training for people that are going to come in… the event of an emergency and take on the emergency roles. Because a [LRF] will deliver training to be a tactical commander, say, in the event of an emergency.*"

[P_H] also note the divide or "split" however between training **responders** and training **planners:** "*the people that participate in the actual work of LRF, around writing the plans and training and exercising, we don't provide that training … we do training and exercise for people who are going to respond in the event of an emergency. They are not the same people as the people who sit on the group's often and write the plans and the procedures*".

Where the participant are themselves qualified as trainers, there is a much more coherent and structured approach within the LRF itself to training. For instance, [P_F] developed a "*training pathway*" that "*says that when you join there are certain things you need to do and one of the first things they [should] do is speak with me*". This approach allows them to individually introduce each new member to their operating procedures, assess their existing knowledge, set up access to accounts for Resilience Direct for instance, ang then depending on their "*mostly either tactical or strategic … guide them to what courses we have available that they should attend*". This is because what their LRF is looking for is "*value for money, in all of this*" because it too has no particular budget for training, but being a qualified trainer themselves, along with a few others, they can "*supplement*" their normal budget by getting partners "*to pay a certain amount to cover costs like refreshments and those kind of elements*" and particularly "*a venue that is provided by one of the partners for free*", negotiating free training for that organisation in lieu. Examples of internal training conducted include

tactical training for silver commanders or loggist training among others, but they note that this is "*more resource intensive in terms of how we operate*".

The issue of convincing the wider LRF on what training and exercising to conduct, and their actual retention of learning is also a point raised. For instance, [P_I] notes that "*no one would have believed*" them if they had asked for a longer period of training over pandemic, and said, "*What we need to do is play it for six months*" despite pandemic being classed as "*very high risk*", whereas the exercise actually conducted, "*We ran that for six weeks, which meant we sent out information six weeks prior. Had the day and did stuff*", leading them feel frustrated when people say, "*"We never knew this was [XXX]". Well, I do remember, there was a whole six weeks we played over having a pandemic, which you all played and said it would be fine.*"

[P_C] for example in responding the observed familiarity of stakeholders with the UK IEM process, terminologies and concepts, presented two distinct observations of the state of things pre-COVIC and post-COVID. They note that normally they "do all our own training and exercising" and have a dedicated training officer, but have not been able to run trainings for several months during COVID "*but that's offset*" as a result of the LRF "*pretty much all been in this response mode … there's a lot more understanding and knowledge of what's going on and the arrangements … because we've been running weekly SCGs and we still are …* [in addition to] *a number of tactical groups setting up and running* [as a result] *when you get a lot going on, people start to absorb that and it starts to become part of the day job*" and that despite the lack of ongoing training and "*some of our subgroups have been put into hibernation, the people who are involved, are still there. **The knowledge is there**. We haven't lost that.*"

Participants also discussed the use of debriefing and sharing of lessons both within their respective LRFs and others. As [P_I] summarises, "*we've got a debrief process. So, if something happens in XXX, and we have a debrief - and we've got triggers for why we debrief. We create a list - a big, bloody long list of things that need to change, or lessons identified*". They note however that they "*don't put it on the JOL one [JESIP database], but evidently you can see that those debrief reports will come from other places and we need to reflect on them. So, there is information coming in from lots*

different places. But the joy of a partnership is you can usually find somebody whose - it's their specialism and their job. And you direct it to that".

6.14.1. JESIP as an outlier within the guidance

Thus far, it has been seen that many of the guidance documents within the list have been unsuitable for use directly for learning or training. The JESIP guidance document was an outlier within the assessed documents, and in fact fared fairly well in the indicators for the documentary assessment in **Chapter 5,** and within the developed framework as well. This was the document that participants made direct use of and noted a broader familiarity with its contents across the wider LRF. For example, [P_B] notes "*the only one that we--- we train into the gold and silver is the JESIP principles. So, we follow the JESIP principles and the natural decision-making model, irrespective whether it's an emergency services led incident, or a local authority led incident. But the rest is a sort of background*" when referring to familiarity of the document list across the wider LRF. [P_D1] refers to this as "*a very important document. It's still in place and it's a document that does influence what we do. Caused a tranche of work to take place in this LRF*" and they attribute this to its influence in changing "*the format of our plans to make sure that we did follow that doctrine*". Prior to JESIP, they note a number of ways in which the initial assessment of an incident was made, wherein M/ETHANE was used primarily by Ambulance, and "*the other two blue light services used a system that went by the acronym that was known as SADCHALETS*", but "*JESIP sort of standardized that process and it standardized the use of M/ETAHNE that we all now use*".

As [P_I] notes, "*If you look at the JESIP website, it's a lot better on that basis of, you know, having printable documents, having, you know, even videos you can go through and tests and stuff like that*".

[P_C] notes that all their training related to JESIP, and from the dialogue, much of this is due to the ease with which the document can be worked into training, and they note the "*JESIP team have given us a load of these little - hand-out little cards. Laminated cards with two folds in, and we hand those out to people*", and it is interesting here

that the JESIP team is not an ownerless document to the extent that much of the guidance within the list is, and an entity that can be interacted with on a better footing, than attempting to interface with Cabinet Office and central government, regardless of the RED and CCS departments.

[P_A] for instance describes the roll out of JESIP has been an informal process over the last 18 months in their local authority, "*a concept that's come into us. And again, bearing in mind, 45 on-call officers, including the chief exec, who are a bit busy, try and make training as succinct as it can be*" but have now reached a stage where "*they've got enough awareness of JESIP to know what it means when someone from another organisation is talking to them about JESIP*". This slow roll out of JESIP is once more indicative of the long periods for implementation of guidance, even when they are noticeably better developed, given that JESIP had at the time of the interview already been fully developed by 2014, and its initial program began in 2012.

6.15. The use of external training

With regard to external training, participants were asked about their use of the Emergency Planning College (EPC) courses and the MAGIC training available through the College of Policing, and the participants expressed broad limitations and unsuitability in using external training.

The two national liaisons had a different interaction with the courses that the LRF and LA participants, primarily because as given by [P_K] the *"EPC gives free training to RED and CCS",* as such they do not need to *"pay for our training in these things",* referring to the ongoing conversation with researcher on how the external training is used to gain familiarity with the national guidance documents.

[P_J] notes that the courses covered by the EPC, "*which is run by the Cabinet Office, do kind of introduction to civil protection training. And as part of that, they kind of they go over the kind of key elements, probably of most of these documents, to kind of give you a broad sense of what, you know, what civil protection is and how it works from, you know, from certain standpoints"* and that there is an "*expectation that if you're a member of RED, at some point you will do-- the kind of the training at the emergency planning college, or that you would go to the gold training … I think they're the kind of standard trainings … obviously as well we have internal training as well that we deliver to our resilience advisers".* [P_K] who had been in the national liaison position longer noted this too in that "*at the start of my role in RED, I went to the EPC and took courses that outlined all of these documents for me".*

Unfortunately, this ready access to these external trainings does not hold for any of the other participants. [P_F], who was discussed above as managing much of the training in-house and themselves being a qualified trainer, noted that "*if we pay someone to do it*" they don't need to worry about all the work behind the scenes, they would still only pay for external trainers "*come and deliver on site*", which still costs more than arranging it in house but also " *saves our responders from actually travelling*".

As put by *[P_A]: Well, there's two issues in reality, actually. So yes, it is cost prohibitive in terms of very expensive to get anybody on"* but also for example in the case of MAGIC *"a 3-to-4-day course, all day, out somewhere. And I just could never ask my Chief Executive to give up his day job for 3 days and go and do that. Cause you got to balance both the cost and the time commitment versus … the amount of time they would spend on a potential emergency, given that there's 8 of them on-call, and how long it would last"* as such *"generally what we do is, through the LRF, put our own training courses on."*

[P_B] who shared similar sentiments expressed that *"Any gold or silver who really wants to get an understanding … they have to fund it"* because there is no "*pot of money*" for such training externally. They also note being a *"trainer up there"* themselves previously, thus being able to do the training themselves instead, carrying out "*a one-day training course here for golds and silvers. And the whole idea is to have them both on the same course so that I can sort of tease out between them what's actually gold and what's silver. So, they get an understanding of what their role would be."* He notes that with the lack of a budget for training, "*other than to pay me … it's down to individual organisations. If they want to spend the Easingwold prices to send someone there -and they do! I don't want to say, you know -- they've sent a few, but not many."*

[P_C] noted a *"lack of availability of the College of Policing",* but they too were restricted predominantly by the challenge of funding, with individual organisation unlikely to use external training due to the local availability through their unit. in addition to the funding challenge. In addition, they also note issues with the quality of the teaching itself, not being *"overly impressed with it - with the quality of the teaching",* and their biggest concern was the ultimate usefulness of the courses in allowing the stakeholders to know their R&R in their own LRFs, given that if you use the EPC course *"they can't tell you what you do in your own LRF because the class could be - the group could be from lots of - multiple LRFs. So, they don't know. They might say, "Well, do you know what happens in your LRF?" and in some cases - many cases, people won't really know."*

[P_E] found their uptake of the EPC and MAGIC courses "*a mix and match*", with the EPC courses up to the individual organisations, but MAGIC a "*collective*" engagement of bringing down someone. They note that "*run quite a comprehensive tactical and operational training ourselves, but it tends to be the strategic training where perhaps we look for outside help more.*"

Following the interviews, the researcher reviewed the available Emergency Planning College courses, finding 43 unique courses available, with 15 available both online and in-person, 12 available only online and 16 available only in person. The collated list of training courses, their costs and durations are summarised in **Appendix C**. It was found that the minimum cost of undertaking all this training (with as many online as possible) would per person be £26,750, going up to a maximum cost of £30,435 (exc. VAT) if all training was carried out in person, the average cost of a days' training in person being around £450 (£300 online) and £850 (£600 online) for a two day course. These 43 courses would require at least 73 days (where half days are considered as 1) to complete, and it should be noted that the timetable for these courses is not strict, varying (and being greatly dependent) on the uptake by participants. It is therefore wholly possible these courses may not even fall within the same calendar year. The MAGIC course, only available to Gold/Strategic Category 1 responders' costs £2,786.50 if taken individually and runs over 3.5 days. The costs and logistics for either would also have to account for travel and accommodation, for most participants as they both only have a single training centre location.

This is practically speaking completely infeasible for individual organisations, as seen from participant comments. The participants who indicated they did make use of the external training got around these issues by hiring training from the two colleges to be brought to their home organisation, needing to look further to reduce costs by finding free venues, volunteers and so on. Participants universally agree they are unlikely to use these training with any regularity, except for the national liaisons, for whom the costs of training at the EPC, for MAGIC and a number of other courses were waived. Other external trainings discussed included some mentions of projects, such as the HYDRA Project, conferences, or workshops for practitioners, and on occasion academic seminars and conferences.

The results strongly indicate a definite need for external trainings to be wholly reconsidered and restructured, both in terms of their availability, affordability, and durations. They also present a context wherein the national guidance was found to be inherently ambiguous, with no mechanisms for their monitoring or auditing and wide ranging interpretations and implementations of not just LRF structures, and thereby their capacity, but also collaborative arrangements outside of the overarching multi-agency coordinating groups that form in during response. Additionally, the local DSS produced, and as a result the formalisation of collaborative arrangements at local levels was also non-standardised. The content of guidance becoming more prescriptive was not one that was appealing to any of the participants, despite this, as discussed in **Section 6.11**.

6.16. The significance of the findings on the use of the guidance

From the examination of the use of the nation guidance DSS, it can be seen that their use is restricted to a small subset of the UK IEM stakeholders, particularly by tier of command or operational level, with very little interaction with the primary material by the Gold-Strategic and Bronze-Operational levels, and with the silver responders also having minimal interaction with the documents. It is instead the emergency planners, who generally occupy a tactical advisory role that interact with the primary documents. However, the emergency planners are ill-defined within the Gold-Silver-Bronze arrangement as during response, depending on the nature of the incident, they may occupy any of the levels, dependent on authorisation.

For this research study, this means therefore that the framework built to assess and develop future and existing guidance can be contextualised to this **target audience**. **Section 6.11** found that attempting to develop guidance by targeting its current content is a contentious issue, given the current disconnect between the local and national levels, and that while participants generally felt that the CCA was in need of review, there was no clear avenue for this. Rather, in **Section 6.13** three primary themes, cognitive burden, legitimacy and life cycle, were identified, through which to address key issues within the current guidance, summarised in **Section 6.13.4**, which is utilise in the next chapter and cross-synthesise this with our initial DAF to develop a framework for the assessment and development of national guidance. In addressing the factors that affect the use of the guidance documents directly, the range of stakeholders using the guidance directly has the potential to increase, which would be a net benefit in working towards greater standardisation within the UK IEM.

In **Section 6.14** the process of stakeholders gaining familiarity with the UK IEM system was discussed, and their roles and responsibilities were generally found to be using techniques in lieu of familiarisation with the primary national documents, by using of local translations which "embedded" the national guidance into practice to varying degrees, and more generally by "active" processes, such as work shadowing, training sessions, exercising of plans, and in debriefing, or simply gained due to the permanency of the representatives at the meetings, thereby gaining familiarity over time. The use of external training was found to be low amongst LRFs, as discussed in

Section 6.15. Together, this context of internalised learning within the LRFs means that there on the scale of standardisation vs. subsidiarity, the resulting context of collaboration amongst stakeholders is primarily through their local context. This is reflected on in the next Chapter, where these results are discussed further in terms of the interplay of documents and stakeholders in the UK IEM.

6.17. Summary

This chapter presented the findings of the semi-structured interviews. The national government DSS were found not to describe the collaborative arrangements seen within LRFs in practice, with their formalisation of collaboration restricted to command structures during response only, however even within this the role of the national level within this command structure is absent. The factors that affect the use of national guidance were identified through the analysis, and discussed, with no uniformity in the familiarity of these documents between the participants or in their expectation of familiarity with these documents of stakeholders in the same tier or role as themselves, i.e., the emergency planners and managers. However, the expectation of familiarity with the guidance for the strategic (gold) level was uniformly low, as well as for the incident responders at Silver or Bronze, with their familiarity of the guidance content instead having degrees of separation from the primary material. As such, the subset of stakeholders who interact with the documents themselves was found to be highly restricted. The use of the guidance itself by the planners was found to be for the purposes of developing them into local translations of policy and in adapting them for training, rather than a "reading to do" or "reading to learn" approach. In the next section, these findings are synthesise with the results of our documentary review, and initial DAF to achieve the overarching aim of the research study.

Chapter 7

7. Cross-synthesis of findings and the Documentary Assessment Framework (DAF) development

7.1. Introduction

In the previous chapter, the research findings were presented, and in this chapter, the major themes and findings are synthesised in order to answer the research questions posed at the start of the study. It discusses how the theories used affected the study and contextualise our understanding of the results based on this and present a model of the relationship between the document hierarchy and the individual and collective context of collaboration that the conceptual model set out to do. The development of the final Documentary Assessment Framework from the cross-synthesis of the findings of the initial DAF based off the literature review, and the findings of the semi-structured interviews.

7.2. From conceptual framework to system model

The initial conceptual framework to understand the relationship between the tiers of documents, from national to local level, and the interaction of stakeholders with these layers is shown once again in **Figure 7.1** below. From the study, an iterative examination of this framework as the research progressed showed many areas for improvement in our initial conceptual representation of the system.
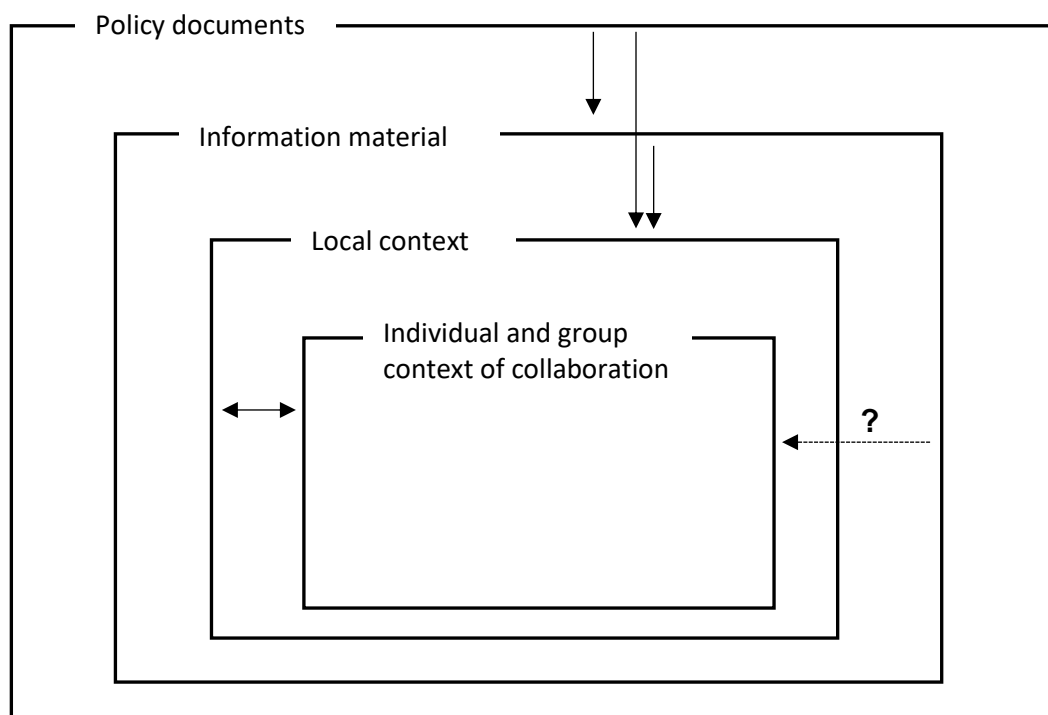
Figure 7.1 The initial conceptual framework for research

The refined conceptual framework is presented below in **Figure 7.2.** As can be seen there are broad differences between the two frameworks. This model aims to answer the research question (4) "*How do the documents affect the stakeholder's collaboration context*?"

7.2.1. Model of the interplay of documents and stakeholders in the UK IEM
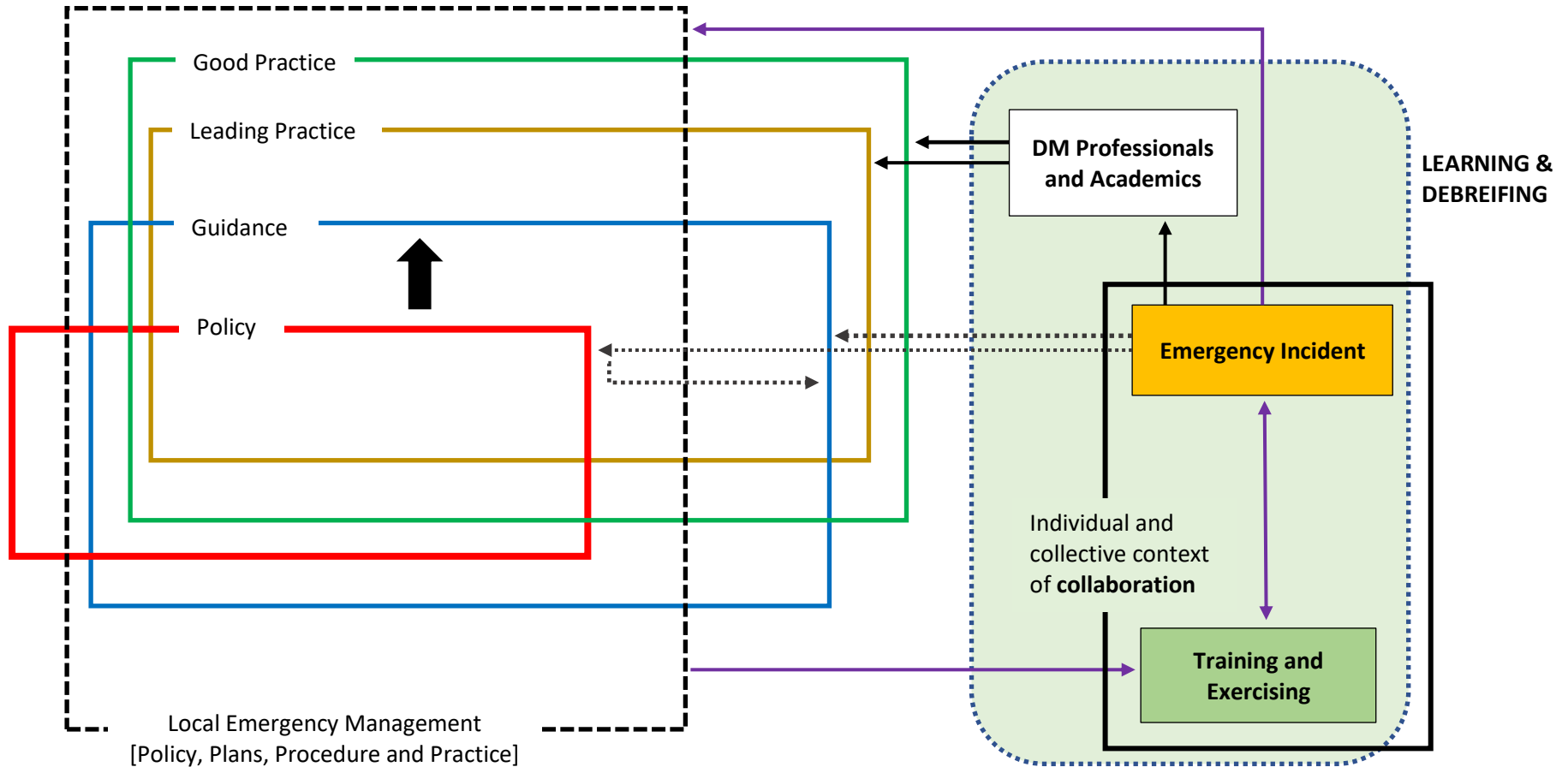
Figure 7.2 Model of the interplay of documents and stakeholders in the UK IEM

To begin with, the model developed has inverted the order of the hierarchies from the initial conceptual framework, placing the "Policy" layer from its position at the outermost layer in the conceptual framework to the inner-most layer within the model. The individual and collective context of collaboration meanwhile moves out from the layered structure, to be shown instead as an adjacent component, connecting indirectly to the nation and local policy, practice and DSS. The framework also centralises the importance of emergency incidents as the key impetus for change within the system.

From the model the researcher represents considerations of:

- The variation of local emergency management policy, practice and procedure, both between separate LRFs and within individual LRFs (**Figure 7.3**)
- The gap between the local context and national policy (**Figure 7.4**)
- Missing guidance (**Figure 7.5**)
- The gap between policy and leading and good practice (**Figure 7.6**)
- The gap between local practice, national guidance, good and leading practice (**Figure 7.7**)
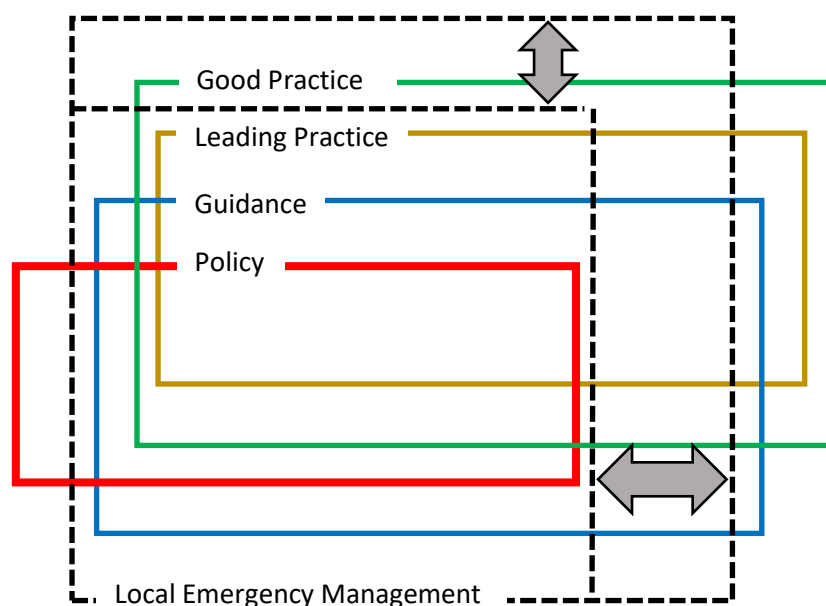
Figure 7.3 Variation of Local Emergency Management (Policy and Practice)
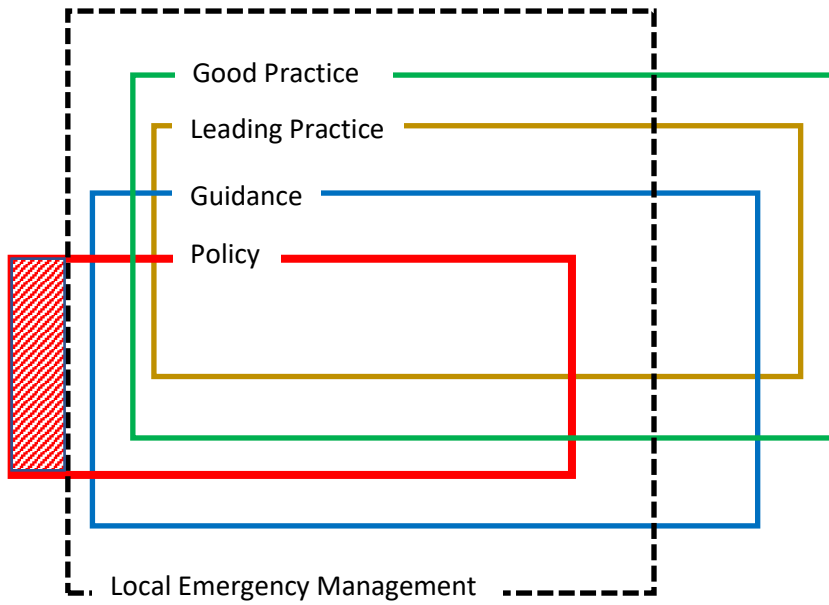
Figure 7.4 Gap between local context and national policy
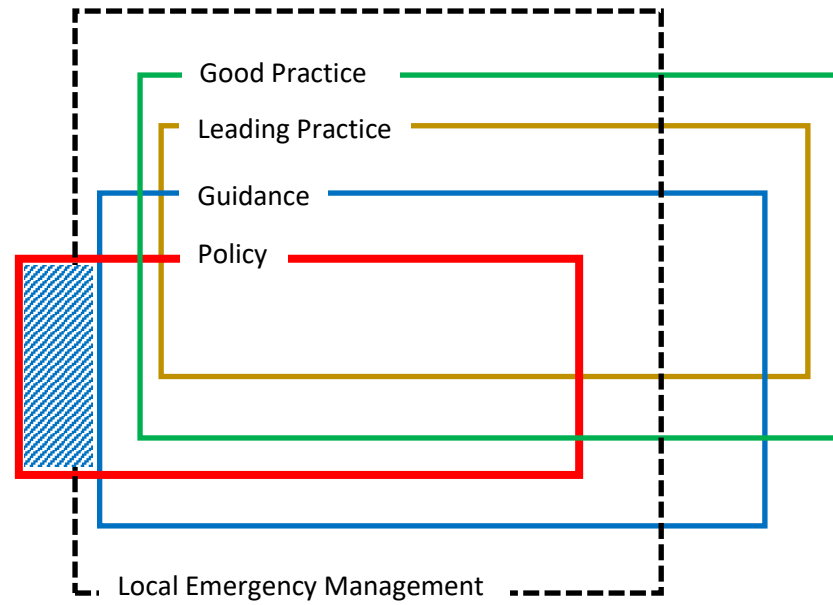
Figure 7.5 Missing guidance

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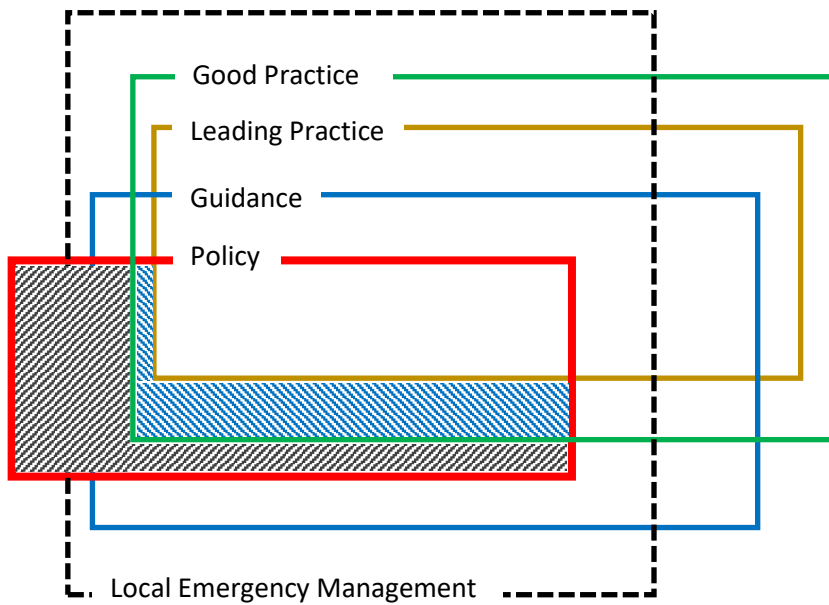
Figure 7.6 Gap between Policy and Leading and Good practice
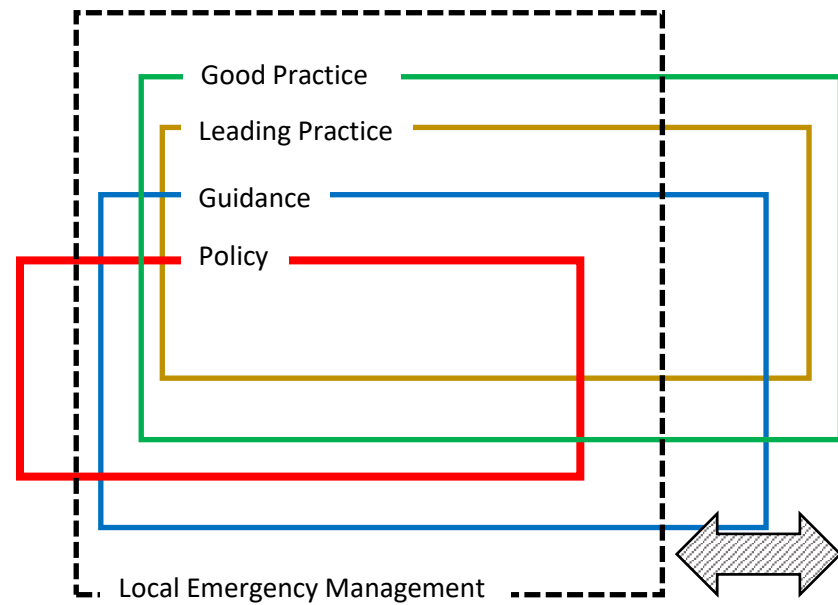
Figure 7.7 Gap between local practice, national guidance, good and leading practice

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The reversal of the direction of the tiers of documents was a result of the primary data analysis. Within the interviews, there was a varying degree of familiarity with the national guidance, and differences in how and how frequently the guidance is used between participants carrying out the same roles. The decision to follow the guidance is a up to the individual LRFs and the issue of interpretation of the texts is pervasive. When factoring in the range of disaster typologies local DSS are made to account for, there are wide variations in the local emergency management context within just individual LRFs, let alone the variations between LRFs, which is demonstrated within **Figure 7.3** and is the reason the Local Emergency management context is presented as a dotted line.

The gap between local context and national policy shown in **Figure 7.4** is also a consequence of ambiguity within the guidance, and interpretation, but also constraints due to funding and capacities of the LRFs, and the pressure due to expanding roles and remits. There are also more temporary gaps due to the time for implementation of changes to policy. The majority of the participants spoke of the impact of consecutive long term impacts of EU exit and the COVID, which disrupted the usual agenda of the LRFs for extensive periods, particularly with regard to the roll out of the "National resilience standards".

Figure 7.5 represents the issue of missing guidance, which also plays a part in the gap between the local context and national. It is possible for guidance to wholly be absent for some policy concerns, for instance multiple participants noted the absence of guidance regarding volunteers during an emergency. It could be argued there is more missing guidance than this. Looking at the available guidance, compared to broad reaching statements that policy in the form of Acts of Parliament can make, there is a large degree of interpretation as to its implementation, regardless of whether guidance exists or not. By looking at what area the national has published more guidance on, it is possible to see where prioritised areas exist, which is indicative of the decision process between subsidiarity and standardisation of local policy by the national level. The long life cycles of the nation guidance also

plays a role in this, and missing guidance may also be indicative of the lack of impetus due to few emergency incidents in this area.

The revised model has also added two additional concepts as layers: "good practice" and "leading practice" within the framework. **Figure 7.6** represents this as a gap between policy and leading and good practice. During the interviews, when speaking about the guidance documents, the question of what constitutes actual leading practice is not well answered. This is a position taken by the national resilience advisors interviewed as well, in that both participants made comments to the effect that they cannot advise the LRF on what constitutes "leading practice", although if requested they may direct them to examples of plans from other LRFs, or simply the latest guidance available on that topic. Participants also make specific examples on for instance changes to guidance and regulation following notable reports, for example the Pitt review, as being infeasible in practice, with the extensive requirements for flood planning resulting in plans to unwieldly to use during actual events, and as such much of the add-ons from these updates end up in Annexes. One participant also raised the point that there is no national "pot" or allocated funding for developing leading practice or consolidating lessons learned, which in the current context the local government would definitely not have the funding capacity to undertake. Having conducted a document review of the guidance, comparing the state of the art of the literature to the generic, ambiguous nature of guidance documents, the guidance is far from "leading practice" in terms of what is possible. Many participants refer to studies they are aware of being undertaken within their region, or reference to various conferences attended in keeping up to date with good and leading practice, which have no relation to actual guidance published nationally. These do influence the participants and the resulting context of the local policy, plans and procedures. The researcher presents within their model therefore the "good practice" and "leading practice" as layers unrelated to the minimalistic nature of national policy and guidance and instead theoretical thresholds to reach for. However, as seen from **Figure 7.7** the gap between local practice, guidance, good and leading practice exists and is very much an issue of the capacity of the LRF.

The individual and collective context of collaboration was found to be shaped for the majority of stakeholders by emergency incidents and subsequent debriefing, and training and exercising. During the data analysis, the interaction of stakeholders with documentary support structures was found to be governed by *the degrees of separation from the source material.* That is to say that within the tiers of command (namely the Gold-Silver-Bronze or Strategic-Tactical-Operational separation), there is a clear and evident difference in the interaction with the material. As such, "Learning and debriefing" as a unit was positioned outside of the documentary support structures, with the individual and collective context to collaboration being. This is a substantial change from the initial conceptual framework, wherein the researcher positioned the individual and collective context of collaboration as being the inner most layer with the three levels of document hierarchy. While from the outset, the uncertainty in the relationship between "information material", which was intended to represent the guidance (both key and subsidiary) in our preliminary representations, and the individual and group context of collaboration was noted, the degree of separation between the majority of stakeholders and the guidance was still surprising.

In addition, the overall life cycle of the policy and guidance, and procedure and practice, was found to be governed heavily by emergency incidents, which is encompassed within the consideration of "Learning and debriefing" within the conceptual framework. These are represented within the dotted arrows connecting the "Emergency incident" to the "Policy" and "Guidance" layers, and the purple arrow connecting the "Emergency incident" to the "Local Emergency Management" context. In these instances, the nature of emergency incident plays a significant role, driven by public interest at either the local or national level respectively. However, the concerns raised by multiple participants as to the life cycle of guidance being driven by "the next big disaster", which sets the tone for the guidance that follows for years afterwards, regardless of the actual probability of it doing so, notably, security related incidents, such as the London attacks, the Manchester Arena, Salisbury and presently the consequences of COVID and continued impacts

of EU Exit. Issues such as limited consultancy and the long period between reviews means that the "Local Emergency Management" context has shown limited impact on the national guidance over time.

Having modelled the interplay of documents and stakeholders in the UK IEM, the researcher now presents the result of the cross-synthesis of the documentary review, the initial DAF findings and the interview findings, in order to achieve the overarching research aim to investigate how the documentary support structures could be improved to increase the effectiveness of the existing collaboration process within the UK disaster management system in planning, preparing and responding to emergencies, by meeting the final objective of the thesis in developing "*a framework and/or recommendations to enhance the documentary support structures to collaborative disaster management in the UK*".

7.3. Refining the identified factors affecting the use of documents in the UK IEM into the DAF

From the findings of the study, a range of factors that affected the utility of documents in the UK IEM were identified. In terms of the documentation itself, the cognitive burden, legitimacy and life cycle were the major three themes identified. Cognitive burden corresponded directly to the time take to utilise a document, in whichever setting, whereas legitimacy represents the imperative to read the documents, and also the authority granted by the documents themselves to empower stakeholder action. The life cycle is directly connected to the activity around the document, both in peacetime and in response, wherein the involved use of documents in settings was identified as a significant component to engender familiarity with it. The results also identified differences in the utility of different documentary support structures (DSS) types (national, organisation and local) by the phase within the UK IEM cycle and by command tier, with degrees of separation between the stakeholders and the document they interact with, often showing little direct contact outside of EPOs. The effect of individual and organisational preferences, motivations and culture in affecting document use, and the overall effect of varying LRF structures in their capacity to use DSS. These themes are presented again below in **Figure 7.8,** and the process by which these themes were cross synthesised with the initial DAF developed through the literature review is examined.
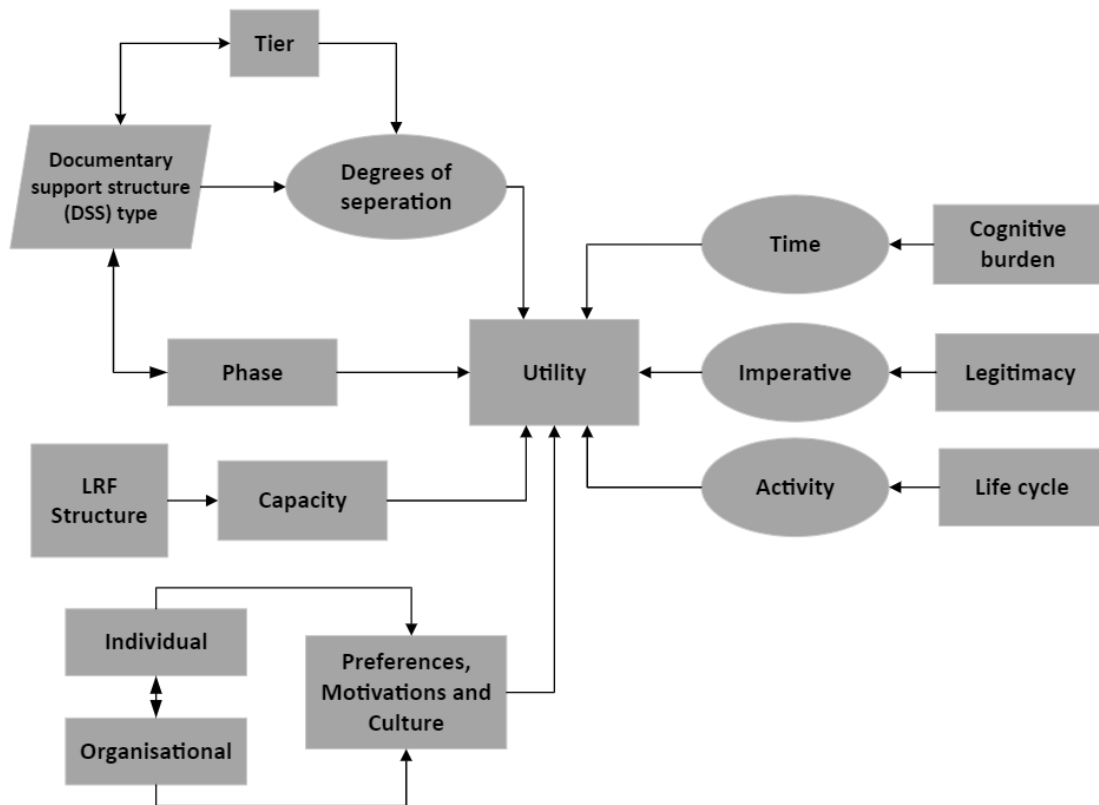
Figure 7.8 Cognitive map of the overarching themes affecting the utility of DSS

The initial DAF, consisting of the 7 factors laid out in **Chapter 3, Section 3.6**, was used on the initial 11 documents identified and later to the 7 additional documents identified and as seen from the results shown in **Chapter 5, Section 5.4**, the documents assessed fared poorly against the indicators. The interview protocol developed contained a range of questions around the role of documents within the UK IEM, which were posed towards the participants, as shown in **Appendix A: The Interview Protocol**. From the participant interviews, the transcripts of each were coded and analysed as seen in the previous chapter, and from the free nodes of the data coding, tree nodes were synthesised into several inter-related major themes were identified that directly affected the utility of DSS, seen above in **Figure 7.8**, along with numerous sub-themes within each major theme. These themes were cross synthesised with the factors within the initial DAF and in **Figure 7.9** below presents a cognitive map of this cross synthesis process.
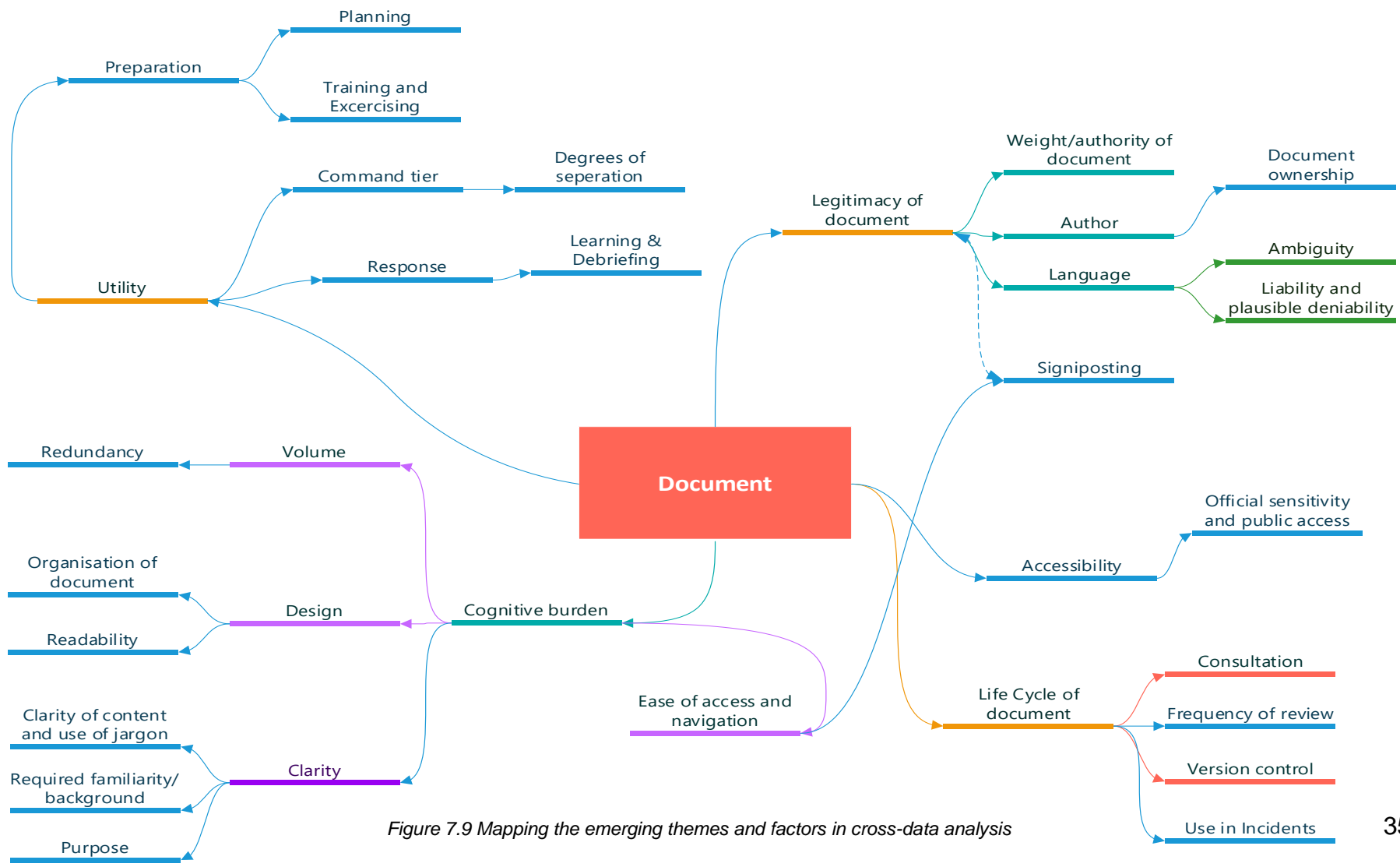
Figure 7.9 Mapping the emerging themes and factors in cross-data analysis

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The factors within the initial documentary assessment framework, "*Volume and redundancy*"; "*Clarity of content and purpose*"; and "*Design and organisation*" were validated by the findings of the semi-structure interview data analysis, and thematically synthesised under the concept of cognitive burden, and based off the empirical data the factors were amended and re-arranged to better fit the context of the study. As a result, the three factors were re-arranged into 5 factors (or indicators) within the refined framework. These factors are namely: "Clarity of purpose, including target audience"; "Clarity of text and required familiarity of context"; "Ease of access and navigation"; "Volume and redundancy" and "Design and organisation of the document". It is telling that of the 15 factors within the framework, 6 relate to the theme of cognitive burden.

The factors of "*Power and authority*" from the initial documentary assessment framework as represented within the factors "Document author", "Functionality as vehicle of legitimacy", "Expectation of familiarity with document". "*Language*" from the initial DAF is specified into "Language: Ambiguity and interpretation" in the refined documentary assessment framework. "*Development cycle*" was changed to more generally "Life cycle of the document", with a specific consideration of "Version control".

Additionally, the factor "*Assessing the 'base' of the document*" was divided into the factors "Target audience, purpose, and hierarchy", and two overall considerations "Documentary support as training tool" and "Impact on collaboration context".

The final DAF is presented next in **Table 7.1.** Within each synthesised factor the key questions and points in using of factor in relation to the identified documents are outlined, and a brief summary of findings and reasoning for factor choice, with associated recommendations in developing better guidance material.

7.4. Framework for the assessment and development of national guidance and associated documents

Table 7.1 below presents the final framework developed by synthesising the findings of the initial DAF (**Chapter 3, Section 3.6**) and the empirical findings of the interviews. Unlike **Section 5.4** showing the findings of the initial DAF, the researcher does not go into as much detail with the findings in this Table, showing only the summary of findings.

Table 7.1 Framework for the assessment and development of national guidance and associated documents

Factor	Key points and questions in use of factor in relation to identified documents and summary of findings and reasoning for factor choice, with associated Recommendations
Target audience, purpose, and hierarchy	• Who is the target audience for the document? Make note of the tier (Gold - Strategic, Silver - Tactical, Bronze - Operational OR Emergency Planner); the target organisation (LRF, LA, Cat 1, Cat 2, Blue Light, Lead governmental.) Of the tiers (Gold-Strategic, Silver-Tactical, Bronze-Operational) most of the documents were found to be targeted towards the tactical-silver level. In terms of the target organisation (e.g., LRF, LA, Cat 1, Cat 2, Blue Light only, LDG), many can only really be expected to be known to the LRF secretariat emergency planning officers, not even the LRF tactical unit as whole, i.e., the Cat 1 and 2 responders involved with drafting the LRF or Local level plans. In this sense, it is entirely wasted that these documents have not been consolidated and had work done to improve their clarity and quality. When considering the gold and bronze level, most of

these documents would never be read. Even guidance pertaining to exercising and training would be utilised through intermediaries at the tactical level and by producing local translations to conduct the training only.

From the results, the guidance shows neither a "read to learn" or a "read to do" approach by participants which we discussed in the Literature review **Section 2.8** and **Section 6.9**, but rather something akin to a "*read to use*" or "*read to train*" approach, in that the documents are approached in a manner from outset to develop local translations and approaches, with a need to produce material to train stakeholders who will likely not interact with the primary material at all.

- **From the outset, documents needed to be developed with an understanding of whom the document is aimed at, how it will be used, and the subsequent documents that will be developed from it.**
- **Consider holistically the cognitive burden of the documents, which directly affects the time for familiarisation of the document**
- **Consider holistically the legitimacy the documents confer to stakeholders and the imperative to read the documents as a consequence of their perceived "weight"**
- **Consider holistically the general life cycle of the documents, which will affect the activity around the document, which translates directly to their use**

	These are overarching considerations a guidance author should consider, which we revisit in greater detail in the subsequent factors.

Assessing the content of the documents and impact on collaboration context	• Is the content of the document(s) sufficient to give the reader an understanding of:
	    ○ the disaster management process?
	    ○ the individual roles and responsibilities of the individual within their organisation as related to the disaster management process?
	    ○ the duties of the overall collaborative effort?
	    ○ an understanding of best practice?
	    ○ an awareness of the relevant stakeholders and their general functions?
	    ○ the legal basis for action and the scope of this legislation?
	• To what degree would the document aid in the effectiveness of collaboration?
	
	The content of the guidance was discussed in **Section 6.11** and further within **Chapter 5** in the documentary review. What these documents lack quite severely is the assumption on the part of the writer that it unlikely that the reader from a specific organisation will go on to read the rest of the documents in this list, which are

	in combination quite critical to understand the UK IEM system both in a general sense, and also to understand the collaborative mechanisms.
Expectation of familiarity with document(s)	- A document that is not read has no power. How likely are the documents assessed likely to be read? - Who needs to read the document and why? This goes beyond the consideration of the target audience into a consideration of the degree to which the assessor would expect that a stakeholder could carry out their function without familiarity with the document content in question, although the familiarity of the content need not necessarily be solely from the document itself, but other tactics, such as training and exercising. Being cognisant of this from the outset of the document design would have considerable positive impact of the resulting document. The researcher expected that the familiarity with the guidance would have to high for the planners at a minimum, considering that even reading the guidance as a series left many gaps in understanding of the process and roles and responsibilities division. In practice, this varied wildly between the participants. Some participants for example were very much on the vein that once the processes described in the guidance are embedded into the system, the guidance becomes less important, discussing localised versions of their emergency response and recovery plans, which summarise all of these key points from each document combined and

translated into the local framework for their method of action. Some placed higher expectations on their working groups in being familiar with this guidance on their own time, with the opinion that it is part of their individual duty to be aware of the guidance themselves to carry out their roles. Some considered the high level of expertise of the guidance to be their responsibility and had the expectation that if a question of "what does national say about this" come up, the question would be directed to them. Across every other stakeholder not involved in the emergency planning process or risk assessment, the expectation of familiarity with the guidance documents as a primary source is extremely low. We show this within the model of the interplay of documents and stakeholders in the UK IEM in **Figure 7.2**. The researcher is of the position that the guidance, as it is right now, having fared poorly in every indicator within this assessment framework is too unwieldy to be expected be used more widely by a wider spectrum of stakeholders.

- **Decrease the cognitive burden and thereby the time for familiarisation with the documents for example by improving their design and organisation, decreasing the volume and redundancy, and the other recommendations within the theme cognitive burden**
- **Increase the imperative to read the documents by enhancing the legitimacy of the documents**
- **Increase the activity around the document by improving its life cycle**

Capacity to utilise document effectively	• What is the capacity of the stakeholder's using the guidance, with consideration of how this capacity changes during different phases of the UK IEM? While the results of the expectation of familiarity of documents to a set list is not uniform, and in fact there is no definitive list of guidance, from the results, the importance of documents in the UK IEM is nevertheless apparent. This could be the use of planning documents ubiquitously, or just the fact that incidents are not the norm, which means that at some point, an incident will be a first for even emergency planners, whose day-job is working with the IEM, for which they would then have to sit with a guidance for that situation, given no one is really going to sit there from national to explain it to them. There are at least the 300+ LAs where this is definitively the case. So the need to develop guidance and documents that are well designed, and that do better across the identified factors is important, particularly as emergency planning departments continue to see lay-offs across the country due to austerity and the recession. Planners will have to do more with less people, and the number of people that will be able to sit round a 100 page document to ensure they have all the relevant information is decreasing. • **There is a need for a systematic assessment of the capacity of LRFs and LAs in particular with regard to their accessibility to emergency planning officers, which showed extremely wide variations in the study**

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	• **Fund LRFs at a national level to ensure a minimum level of secretariat function**
Document author	• The ownership of the document confers a degree of legitimacy to its content. How do the documents do in this regard?
	• Is the author of the document given, or just a department (e.g., Cabinet Office or CCS)?
	The ownership of most of the documents is solely to the organisational body, being the Cabinet Office, which may further specify this as the Civil Contingencies Secretariat or the JESIP unit. There is no indication of who the actual author or authors of the document within the department may be. With a sustained look at the guidance and their history, it was possible to find the initial consultancy requests that went into producing these documents, which gives some indication of the team, and the timeline as after the PIR review of the CCA when the bulk of the guidance was produced, but it is very much a black box process. While the use of the document author as the institution does confer a degree of legitimacy to the document, the researcher notes that this make the document into an artefact that the stakeholders have decreased engagement with. Such practice is acceptable for general guidance towards the public (or mainstream), but for specialist guidance the research suggests this is questionable, particularly when the specialists are typically employed

by government bodies. Part of the reason the researcher posits that the rollout of JESIP was successful, besides its funding to the tune of £1.7 million, was the continuation of the JESIP unit even after the framework for interoperability was first developed in 2014, leading to the development 3 editions built on lessons learned. Multiple comments were made by participants on the disconnect between the authors of the guidance, and reality at local level. The lack of authorship seems to affect the accountability and trust in the document itself. Participants who knew the authors of the document were more engaged when speaking of the document itself as process, and more understanding of perceived shortcomings.

- **Guidance would benefit from named authors, or a brief description as the contributors and editors of the document, including an outline of the consultancy and review process within the document itself as an annex or foreword.**
- **The disconnect between the national and local needs to be addressed. The development of guidance from Cabinet Office and the Civil Contingencies Secretariat needs to better reflect local practice, and additionally be developed by civil servants situated on a permanent basis in emergency planning rather than on a temporary, rotational basis**

Clarity of purpose, including target audience	• Is the aim (or relevance to the user) of the document clear? Particularly from the outset within the title of the document or abstract or its indexing terms; with particular consideration of whether the intended target, including the targets command level (strategic, tactical, or operational). Within the assessed guidance documents, it is heavily evident that the documents are intended for specialist audience. However, this is not made clear from documents themselves. Despite the IEM system involving a host of stakeholders at different command levels, the documents lack clarity on who they are intended for. The process of identifying the 18 final documents was a long and involved process, which was made more difficult by the lack of clarity of documents. For example, one of the 59 documents reviewed was the "The lead responder protocol" (Cabinet Office, 2011) is actually aimed at identifying which organisation should be responsible warning and informing the public and the media representative for incidents, which it does within the start of the document, but just in terms of its title, changing it to "The lead responder for warning and informing" alone would clarify its purpose from the outset. Additionally, the document does not have its title, author or year of publication (which within the document is noted as version 1 May 2007, rather than the 2011 of its webpage publication) within the pdf itself for some reason, which is the case in a number of documents within the review, which means if it were discovered as a printed copy or outside of the webpages containing it, identifying the document itself is an issue.

Clarity of text and required familiarity of context	• What degree of prior familiarity of the UK IEM, including technical jargon, is necessary to make sense of the document or content, including familiarity with other related texts, especially those identified using the criteria for the study? • What is the clarity with which the need for background knowledge is expressed to the reader, including signposting to the relevant material? • How clear and readable the document is, especially in terms of technical jargon, and a consideration of cognitive overload/burden? The level of expertise necessary for reading and implementing these documents is extremely high and interconnected i.e., the documents require awareness across the series. Overall, the best way to address this is by decreasing the cognitive burden of the documents as a set, which we discuss in next.
Volume and Redundancy	• What is the volume of the documents being assessed, individually and in series? Comment on the overall volume of the text, including number of pages as a baseline; but also, density of text, design and clarity will have an overall impact on the actual cognitive burden. • Can this be represented numerically, taking account the density of the text? • What is the degree of internal redundancy within a document?

- What is the degree of redundancy between documents, where do the most common redundancies occur, and is the redundancy unnecessary?
- Is the volume of the text necessary to communicate the relevant information?

There is a very high volume of guidance and heavy degree of redundancy between the documents. There is a great deal of repetition, particularly in the form of a summarising text from the "*Emergency preparedness*" or the "*Emergency response and recovery*" documents. The CCA 2004 and its Regulations 2005 were also continuously summarised in terms of duties. This is partly the fault of these documents – both the "*Emergency preparedness*" and the "*Emergency response and recovery*" documents are extremely long individually, being 580 and 233 pages long respectively. The CCA 2004 and its Regulations 2005 meanwhile are legal texts, requiring prerequisite knowledge in policy analysis and discourse to make sense of as standalone documents. All the documents aim to be standalone, so tend to have a mix of repetition for context, but ultimately, both by themselves and as a set fail to give a clear understanding of the local collaborative arrangements as post interviews, it becomes very clear that the system itself is highly variable between LRFs.

- **Introduce a document hierarchy into guidance and rather than producing multiple documents aimed at different stakeholders, it is better to have the guidance with a common context introduction, which then expands out by role, organisation, or command tier. This would have the**

	impact of introducing common ground from the outset. At the moment, from the identified list alone, we have redundant texts for LRFs, Cat 1 and 2 responders, LGDs, CONOPs (or national) • **Consolidate the guidance to reduce redundancy and volume of guidance. When updating or producing new guidance, where repetition or amendments are made to core arrangements, supersede old documents rather than have them exist concurrently**
Design and organisation of the document	• How is the design of the document, including inclusion of diagrams and aids in the understanding of the document? • How is the structure of the document and the overall organisation of the content? Many of the documents are dense blocks of dry text, with little in way of diagrams or visual aids to represent the information. When considered in series or set, the organisation of the documents have much room for improvement. This does come back to the issue of there being no definitive list of guidance as well. Individually, the larger documents, particularly "*Emergency preparedness*" and "*Emergency response and recovery*" could be developed to be more user friendly. The individual chapter format of the "*Emergency preparedness*" is particularly cumbersome, and this may have been something intended to be revisited after the CCA Enhance Programme in 2012, although throughout the webpage guidance we see the individual chapters being referenced as almost standalone or individual documents in their own right.

	- **The design of many of the documents could be improved in manifold ways to make them more engaging and user friendly, from changes to the font and paragraph spacing, to the inclusion of diagrams or a bit of colour to the text (besides the plain black, with the occasional use of blue titles)**
	- **More emphasis on visual aids and summarisations of content**
	- **At Local level**
	    o Develop a single multi-agency (major) incident plan to which every other plan can connect back to
	    o Keep the major-incident plan as brief as possible
	    o Plan exercises so that they follow out of the major incident plan, and then into specific plans
	    o Major incident plan should be as close to procedural as possible (an activation plan)
	    o All incident plans or ongoing response should have clear escalation parameters for major incident declaration

Ease of access and navigation	- How well is the document or webpage is sign posted towards, and the general level of importance the document is assigned in sign posting, e.g., being considered "key" or "necessary" reading material? - How is the ease of navigation between topics within the document and to related documents?

	Both within the documentary review and from several participants, there were comments on the difficulty of navigating the guidance, both due to the volume of individual guidance and the number of guidance documents available. Others raised the concern of knowing which guidance is still in force. There is a reliance on national resilience advisors as both the authority and source for guidance on an individual basis, and notably there were no issues raised about this aspect of the national-local relationship. • **At national level, there is a clear need to publish and maintain a definitive centrally updated list of guidance documents, both generic and specific** • **Better use of hyperlinks both between and within documents would greatly ease the use of the documents electronically, with pdfs offering more advanced and convenient indexing options than those utilised when the guidance was published**
Language: Ambiguity, interpretation and the clarity of R&R and accountability	• What is language around the allocation of roles, responsibilities and accountability in vertical authority gradients? • What is the language around stakeholders within the body of text? • What is the language around collaboration? • To what degree to which the language is open to interpretation?

	There is a heavy placement or "devolution" of responsibilities to the local level, with very vague roles and responsibilities placed upon the national level. However, with the lack of real oversight and standardisation, it is up to the local level regardless. This was extensively discussed in **Sections 6.11** and **6.13.2**, and there was no clear consensus on how the inherent ambiguity could be resolved without contention. The way forward involves working towards resolving the disconnect between the national and local levels, which would eventually allow for the introduction of clear, practical examples within some of the guidance. A monitoring and auditing program is the clear-cut way to go about this, despite the low appetite for this at the local level.
Functionality as vehicle of legitimacy	• Documents as legislation or regulation empower stakeholder action and serve as "vehicles" of legitimacy. Do the documents do this? • Documents lay out the formal structures within organisational settings. To what extent are the collaborative arrangements formalised and how is authority shared within the formal collaborative arrangements? The degree to which the assessed documents give legitimacy to stakeholder actions is low. The legitimacy the national policy and guidance provides to actions of the LRF and individual organisations through the CCA (2004) itself is very low. Overall, much of the documents are non-statutory. The LRF is not a legal entity.

	Until there is an auditing process in place for emergency planners, their legitimacy remains low. Some documents are perceived as carrying more weight, for example the new "National Resilience Standards", however this is not a sentiment shared by all participants. The fact that they subjectively carry more weight to the gold-level is their most redeeming feature. The issue of legitimacy is very elegantly sidestepped in the documents themselves, but ultimately leave the planners with very little room for action if they are side-lined or underfunded, and no central oversight process to a meaningful measure. • **At a local level secretariat function through the bi-annual meetings should be a clear formal structure, to legitimise their action** • **As local capacities decrease, there is a clear need for the LRF secretariat to have a minimum capacity established and a need for work towards greater formalisation of the LRF secretariat at the national level** • **Consolidation serves to increase the legitimacy of the document as it gives a clear indication of national interpretation as "leading practice"**
Life cycle of the document	Comments on the life cycle of the document. Includes the time to develop and implement document, the document review period and the degree of consultation, and the frequency of review of the document.

- What evidence can be seen with regard to consultation around the document during it development?
- Is there a clear version control seen for the document, and is there access to previous versions of the document?
- Is there a clear period of review for the document and what is this frequency?
- What can be ascertained with regards to the time for the implementation of the document in practice?

The life cycles of the policy and guidance is extremely long. The process by which new guidance is produced, rolled out, tested, review, consulted and implemented may take years. As a result, much of the guidance is highly dated. A period review of the implementation of the CCA is required within the legislation, however to date there has been only one substantial period of review that has resulted in change to the guidance identified, wherein the review period took several years to update the guidance. We reviewed the Post-Implementation Reviews (PIR) version for 2012, 2017 and 2022. The PIR of 2012 which led to the largest overhaul of the "*Emergency Preparedness*" and "*Emergency response and recovery*" guidance, as we discussed in **Section 5.4.3**. Participants discuss the National Resilience standards in the making, a process taking several year, which was ultimately not well timed as the "*Integrated review: call for evidence*", which several participants expressed high hopes for as a national attempt to overhaul the current system, was not conducted till after the standards had already been published. However, having examined both the report published from the Integrated review, the "*Global Britain in a competitive age: The Integrated Review of Security, Defence, Development and Foreign Policy*", which came out in 2021, and the PIR of the CCA of

2022, the researcher see little evidence of substantial change to the CCA statutory duties or process. The 2022 PIR however does call for a review of the guidance itself, noting consultancy feedback to the effect of outdated guidance, which is a first, since this was not the case for the previous 2 PIRs, however this is the clarified within the text as being focussed on developing guidance for the role of the chair of the LRF. Considering this refers to the bi-annual meeting of the LRFs at the gold-level, the researcher sees limited impact in this endeavour as there is no indication that this is for their role in SCG.

In the "Expectation of familiarity with document(s)", we mentioned the approach of LRFs to produce localised translations of the national guidance for regular use. We note some problems with this approach in using alternatives to using the guidance directly in that where the guidance is used to develop local translations, it is the case that the decision-making process behind choosing which options are appropriate is based upon the capacity of the LRF at the time. Guidance describes a range of options, framed in ambiguous language, between what must be done, could be done, and "leading practice", with a fair bit of scope between even prior to interpretation. If the LRF opts to the route of embedding in practice, and a done-once and dusted approach, then the decision making process behind the subsequent documents or outcomes from the local translation become limited, or more dependent on activity around the document based on incidents. That major incident plans see the most activity however does mitigate this, and more so the current state of guidance being very sporadically updated. In a more dynamic system, such an approach to local translations would be a cause for concern.

	• **Introduce a system whereby local translations refer back to guidance and good practice more frequently. Even after the processes are embedded in the system, the selection of options was guided by the capacity *at the time*. Whether the current capacity has increased or decreased should be taken into consideration when looking at the embedded practice and logging the motivations behind such choices would enable informing decisions on changing local policy to new contexts.** • **The need for a national monitoring and auditing initiative is evident. As long as guidance remains non-statutory, their uptake will remain haphazard.**
Version control	• When looking between documents, is there evidence that the difference between document versions is highlighted to the readers? • What are the version control protocols of the document, including access to archive, and the clarity with which the changes to the document are indicated to the reader? Version control is low. It is unclear whether a document is superseded in several instances within just the assessed document list, let alone the many other specific guidance documents, a point brought up by several participants. Participants also independently mentioned considerations of the weight of a document, in terms

of one or another document "carrying more weight". Because the guidance is non-statutory, the question of version control is ambiguous. Many did not give certain comments on the legitimacy of documents, with it more being a subjective discussion, for instance noting that in the labour government, guidance was more prominent for example. Looking at the documents themselves, the researcher also found it difficult to ascertain the versions of documents. The linkage to archival guidance is particularly low, with one needing a solid understanding of navigating the guidance as a whole to find these records, and even then, needing pointers from participants. Regarding changes to the documents, when considering the website, there is a much clearer version control log, with amendments to text being noted in a summary statement at the bottom of the webpage, however detail is sparse on the actual changes. As noted in the document review, **Section 5.3.4** of the many webpages on EPRR, only a two were found within the National Archives. This is much less clear with regards to the documents in the form of files, even when it is indicated that it is a newer or updated version, the actual changes are not tracked, which is most readily apparent in following the Civil Contingencies Act Enhancement Programme between 2008 and 2012, to which the original documents of the "*Emergency preparedness*" and "*Emergency response and recovery*" could not be obtained. However, overall, many of the assessed document are for the most part in their original version, with them being outdated a more pressing issue.

- **There is a need for better version control policies. With regard to webpages, the use of the National Archives would serve to maintain records for later accountability and should be**

	encouraged for the removal of guidance presently carrying disclaimers to the effect of being published under previous administrations of government; or • **Mechanisms should be put in place between administrations to legitimise the continuity of these documents without ambiguity** • **Older webpages should be consolidated, for instance the National Risk Register which has periodic updates, or the Sector Resilience Plans. Centralising these webpages would lead to better overall version control and navigability within the webpages** • **Prior versions of the standalone guidance should be made available, or the production of summary documents of the changes the documents have undergone should be implemented, given that currently it is not possible to locate the previous versions of these guidance, let alone know what changes have been made**
Document utility as a learning or training tool	Comments on the overall effectiveness of the identified document as a training tool, or as a basis for understanding common ground, which is partly a question of the content of the material, but also its material properties. • In terms of material properties, what is the medium of the document publication, and the level of ease with which the document can be edited, adapted, and translated into subsidiary documents by end users?

- Does it have any associated supplementary material to ease its use in a training context?

The documents' utility as a learning or training tool was low. Even if they do read all these documents, which is unlikely, they would only be an expert of the UK IEM as process. They would still need additional training to actually carry out any planning. This is a major failing because of the range of stakeholders involved. The documents give a very high sense of "Unless someone at a higher level gets in touch with you, assume you are on your own" mentality. There is also the interesting phenomena that the documents are not in format where they of the most use to the end-user. For example, the National Resilience standards is a pdf document, and some participants for example make very valid points on how they are not even able to have it as a word document so they can move the content over to an Excel so they can be used a checklist or guide. Considering the constraints to funding and staff that most LRF secretariats have, the format of the document itself becomes a constraint wherein they do not have the time of resources to use them sometimes. Just converting the pdf into an Excel is an exercise of time they may not be able to give.

- **Guidance needs to be developed so that it can actively be used as a resource. As emergency planning teams become smaller, there are less personnel to do more administrative tasks, so documents need to be better catered to be manipulated by the user. For instance, a pdf document that needs to be manually converted into a Word or Excel document by the emergency planner is a drain on limited resources and limits its use, particularly for checklists**

	• **Documents need to be looked at from the onset as a clear web of inter-related material, closer as noted by a couple of participants to being a "Wikipedia" than static documents** • **There is a need for more supplementary material around each guidance documents, which can be used by LRFs for training purpose, such as PowerPoint presentations or videos**

7.5. Critiquing the documentary assessment framework

Even disregarding the time take to develop the initial DAF from the literature and the final DAF through the cross-synthesis of empirical findings, the documentary assessment process is extremely time consuming, given the length of the documents in question. Determining the level of detail to go within each factor was in many cases a matter of time constraints. Initially, when recording higher levels of detail, it was necessary for some factors, especially "Redundancy", to cross-reference and keep in mind content of all the other documents and revisit the factor continuously. And yet, many of the results began to quickly repeat themselves across the documents.

The DAF is difficult to apply to webpages. Given that webpages are typically an interlinked series of pages, determining what set of pages constitutes a "document" is difficult to decide. Only 4 webpages met the criteria developed, having sufficient text within them to be assessed. Where the text volume within a webpage is low within webpages that were focussed on providing links to other webpages, resources or contact details, as was the case in many of the organisation DSS examined, the DAF cannot be used.

Finally, it was not possible to apply all the factors within the framework to the CCA (2004) and its Regulations (2005) as single documents. As part of the general documentary review, they are certainly critical as the underpinning imperative for the whole of the UK IEM system's current state. However, for instance, attempting to assess legislation based on indicators such as "Volume and redundancy" and "Design and organisation" has no value. Being an Act of Parliament and Regulation respectively, as legal texts these two documents have a format that to be meaningfully assessed in terms of legislation would require an entirely separate type of assessment framework, which would only be applicable to other parliamentary Acts or Bills. However, the two legislative documents are essential within the list to contextualise the analysis of their associated guidance and in assessing for instance the "Power and authority" and the "Language" in the initial DAF, which is true to lesser extents with the other factors. Both the initial and final

framework were developed with the intention to be used not just for single documents, but documents as a set.

As such, the researcher would argue that using the framework on legal text would require it to be in the context of related documents, however this would allow broader applications for the framework to be used with minor adaptions to any legislative text or policy framework (for example, the Hyogo framework which was illustrated in **Chapter 2, Section 2.6.4**) which has associated guidance documents or learning/training material. The framework is not a substitute for feedback by end-users of any guidance being assessed within it, however, has the scope to greatly enhance the direction of inquiry of document writers to factors empirically identified within this study in affecting the use of developed documents.

7.6. Summary

This chapter presented an overview of the studies key findings, and a cross-synthesis of the findings of the semi-structured interviews and documentary review in relation to modelling the interplay of documents and stakeholders in the UK IEM and in the development of the final Documentary Assessment Framework. The next chapter is final chapter of this thesis, and synthesises the research objectives, the research contributions and study limitations, with proposals for future research.

Chapter 8

8. Conclusion

8.1. Introduction

The final chapter of this study assesses the research undertaken to understand its value and success in addressing the research objectives. To summarise the results of this study, the objectives are revisited in turn. The recommendations developed by this study are then presented, and research contributions are considered. The chapter and thesis conclude with a consideration of the limitations of the study and a discussion of future areas of research.

8.2. Overview of key findings

- Four levels of documentary support structures were identified in exploring the DSS within the UK IEM – *National governmental DSS*, *National organisational DSS Local DSS (Organisational and Governmental)*, and LRF DSS

- The guidance documents within the national governmental DSS examined do not describe the collaborative arrangements within LRFs, outside of the response arrangements

- The LRFs differ significantly in structure, scope and method, from day-to-day function to the types and frequency of meetings, the hosting organisation, stakeholder distribution outside of core membership to the size of secretariat

- The degree of negotiation in determining the LRF structure and the resulting collaborative arrangements and distributions of R&R in peacetime in individual LRF practice is significant

- Engagement is the most common indicator participants note in determining whether effective collaboration has taken place

- There is disagreement on the idea of limits to collaboration due to participant numbers, but this has some relation to the method of the LRF itself, with inclusive LRFs more likely to discuss the relative merits and constraints, whereas more insular LRFs remain predominantly composed of the primary responders, so do not consider this an issue.

- Funding is a key issue for many LRF secretariats, being one of the key restrictions on the consequent LRF structure and capacity

- The identified key documents fared poorly across the factors within the developed documentary assessment framework (DAF), both initial and final

- There is no definitive list of guidance and the guidance itself is difficult to navigate, with generally poor organisation and design

- There is an extremely high volume of guidance with heavy redundancy between documents. New guidance is released without repealing, replacing or superseding older guidance, without substantial difference between them.

- The guidance is very outdated in many instances

- There is a pre-existing high level of expertise needed to make best use of the documents

- The overall expectation for familiarity of documents is low, regardless of level (Gold, Silver, Bronze)

- The legitimacy and stakeholder empowerment derived from the guidance itself is low

- That the LRF is not a legal entity has many knock-on effects, particularly in relation to the roles and responsibilities the secretariat will take on

- Tactics expressed by participants as options to gain familiarity with the UK IEM and stakeholder R&R are all activity based (e.g., shadowing, debriefing, training and exercising) rather than more "passive" learning based methods, such as using the documents in question, and the guidance itself is mostly unsuitable for use in direct training (with the exception of JESIP) however,

- Most of the participants have been in their roles for long durations and participants consistently express that other representatives also are recurring stakeholders, who gain familiarity with their R&R and the UK IEM over time, with noticeable development outside of "peacetime"

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- Loss of expertise is a concern, especially given the limits of training, and expectation of expertise from planners
- Neither the guidance nor the external training can tell the reader how a specific LRF works
- External training is seldom used, for two key reasons: cost and logistics, with courses themselves being very expensive in additions to the costs of travelling to the central location, particularly on an individual basis. Additionally, the courses require too much time commitment, wherein allocating time within existing schedules and day-jobs for most members is infeasible where the course lasts multiple days
- Internal training is highly dependent on the LRF, and very heavily exposes the importance of retention of staff

A point that is had to be kept at the fore when placing documents as the central theme for this study was that collaboration is not just the immediate inter-personal connections during a specific event, but also the total context of multi-agency work within the disaster management system in question. This is where it was possible to be distracted because of the tendency to focus on the collaboration between individuals at a **specific** function. For example, at a specific LRF meeting or SCG/TCG meeting, based on the individuals at that meeting, rather than the fact that the documents have set the context to bring these stakeholders together in the first place. It is important to *not take this state of affairs for granted.* The current context of collaboration would not exist without the mechanisms created by the documents themselves, formalising these collaborative arrangements.

8.3. Synthesis of Research Objectives

The aim of this study was to investigate how the documentary supporting structures could be improved to increase the effectiveness of the existing collaboration process within the UK disaster management system in planning, preparing and responding to emergencies. Five objectives were developed in line with achieving this aim, which the researcher now goes over in turn.

Objective 1: Examine collaboration in disaster management and the role of documents in supporting it

Objective 1 was achieved within the review of literature and theory in Chapters 2 and 3. In **Chapter 2**, the Literature review. In **Section 2.2** the role of documents in legitimising the actions of stakeholders within disaster management in general and the UK IEM was laid out, and in **Section 2.3,** their role in laying out the definitions of emergency or disaster incidents and events, as well as the categorisation of these incidents. Within **Section 2.3** the role of documents in recording the understanding of risk and vulnerability through assessments, and the capacity for response and recovery was introduced. **Section 2.4** discussed the role of documents in formalising response arrangements through the development of emergency plans. **Section 2.5** reviewed the role of legislation and guidance in the present the UK IEM model, its phases, guiding principles, the stakeholders identified and their required duties, wherein the national documents lay out common terminology and overarching protocol, however this was found to be restricted to the types of multi-agency coordinating groups that form from the peacetime LRF, rather than formalising local response arrangements, which are instead done through plans. In **Section 2.6** the concept of "resilience" was introduced, along with how this language in documents sets the overarching aim of the UK IEM. The effect of the language of policy documents as such on practice is examined as example of the role of documents. The Literature review the synthesised 7 key factors that affect the utility of a document, which led to the development of the initial DAF, which was presented in the subsequent chapter, **Section 3.6.** Activity theory allowed for the centralisation of the document as an artefact within the system being examined, the LRFs within the UK IEM, with the smallest unit of analysis being activity mediated through the use of the documents, and each LRF being a separate case examined.

The theoretical foundation within **Chapter 3** underpins the lens, negotiated order, through which collaboration is examined within the study, which was a consequence of the literature review of collaboration within disaster management showing the pitfalls of rigid command and control structures. The conceptual framework presented in **Section 3.5** is the first iteration of the expectation of the effect of

documents on the individual and collective context of collaboration as a result of national policy and guidance documents, and the local DSS.

These steps set the foundation to carry out the following research objectives.

Objective 2: Identify and explore the documentary support structures and collaborative arrangements within the UK IEM

Objective 2 was achieved through a combination of the literature review, the documentary review, and the interviews. During the documentary review, four overarching types of DSS were identified: national governmental DSS, national organisational DSS and local DSS, which were further divided into local governmental DSS and local organisational DSS; and lastly the Local resilience forum DSS, which was detailed in **Section 5.3** and summarised the likely interconnections between these DSS types in **Section 5.3.8**. From a systematic search of guidance using the Google search engine and in exploring the 59 stand-alone documents across the different DSS types within the UK IEM and a host of GOV.UK webpages and other DSS type webpages, the initial list of documents, consisting of the CCA 2005 and its Regulations 2005 and 9 guidance documents were initially identified to meet 4 key criteria. As the document review continued, and the interviews were conducted, 3 additional guidance documents were identified, and the scope of the documents assessed was expanded to include 4 key webpages, leading to a total population of 18 documents being identified to form the "core" of the national governmental DSS in the UK IEM.

The document and literature review identified many gaps in the understanding of the collaborative arrangements that form the LRF, showing that the known collaborative arrangements were predominantly around pre-defined response arrangements (such as the SCG, TCG, RCG, MAIC, STAC discussed in **Chapter 2, Section 2.5.7**). There was a dearth of articles that reviewed the multi-agency arrangements that constituted the response arrangements in the UK and indeed there were few on the state of the LRFs, either as a consideration of capacity or

capability, those available being heavily report based. When looking at the named arrangements, these are rarely referred to. It was not till after COVID for example, that SAGE, the scientific advisory body for the national government was discussed in terms of its membership not including a single emergency planner (Alexander, 2020a and 2020b) or for instance specifically looking at one of the multi-agency coordinating groups, the SCG, within LRFs as the focus of the study, as in the example of Radburn *et al* (2023). Typically, when the literature does make reference to the collaborative arrangements, they consider these to be set or prescribed arrangements, and the context of command-and-control doctrine, and do not consider variations between LRFs. There is also a notable emphasis on the response phase in literature, and where documents were considered, it was as a rule in terms of planning documents.

To accomplish this objective, the semi-structured interviews had to be used to map the variations in LRFs across the country. The data obtained was highly valid, with 9 directly from LRF coordinators or senior managers within the LRF secretariats, and the 2 national liaisons discussing the interactions with their LRFs and the differences they observed, and final local authority planner detailing the relationship with their LRF and their place with its structure. The results validated the use of negotiated order (Strauss, 1978) as part of theoretical framework, given the extensive negotiation in the resulting arrangements within individual LRFs, and the broad differences that resulted as such in their structure, for example from variations in stakeholder distributions outside of core membership, the types and frequency of meetings, the size of the secretariats, variations in day-to-day functions and roles and responsibilities.

Objective 3: Develop a framework to assess the documentary support structures

The documentary assessment framework was developed iteratively, first in the literature review in the process of identifying and exploring factors that were discussed as having significance in the use of documents, using Activity theory (Engeström, 2001) to centralise the documents as an artefact within a system.

After identifying a selection of documents for the purposes of the document review and using the initial findings of the literature review and Activity theory to position the researcher as an end-user of the documents, the sub-set of questions for the semi-structured pertaining to the role of documents was developed and participant perceptions were obtained. This then prompted the researcher to revisit the literature review, with a clearer understanding of the types of literature to examine. From this, 7 factors or themes were synthesised from a re-examination of the literature, which were presented in **Chapter 3** the Theoretical foundation of this thesis, in **Section 3.6.** The data collected from the interviews were in the meanwhile continually coded and refined. The cross-synthesis of the interview coding and the initial DAF developed in revisiting the literature was synthesised into a final "*Framework for the assessment and development of national guidance and associated documents*" consisting of 15 factors, which met the fifth and final objective of the research study to**: Develop a framework and/or recommendations to enhance the documentary supporting structures to collaborative disaster management in the UK**

The researcher conceives that documentary assessment framework can be used both academically and, more importantly, practically by practitioners and document authors of both national guidance and information material, as well as local policy documents and plans to initially self-assess developed documents in relation to other related documents, or question individually or as a set the efficacy and uptake of existing documents.

Objective 4: Evaluate the effectiveness of national and local documentary supporting structures in supporting collaboration and capture the perceptions of stakeholders using these supporting structures

Participants were extensively queried with regard to their relationship with a list of identified documents determined to form the "core" of the national guidance, alongside inquiries into the use of any other national guidance, plan template, resource or training material, and these were coded to establish the factors that affect the utility of documents by stakeholders. The evaluation of the effectiveness of national governmental DSS (or national guidance) was achieved through the development of the iterations of the documentary assessment frameworks, the initial DAF synthesised from the literature, and the final framework developed in the cross-synthesis of the initial DAF findings and the continuing coding of the interview data, which systemised the assessment process. The national guidance fared poorly within the indicators of both the initial DAF and the final framework developed.

In terms of evaluating the local DSS, the documentary review showed an extremely broad spectrum of DSS which would fall within this description. The objectives were made early on during the research design, prior to the mapping of the extent and categorisation of the DSS within the UK IEM, as seen in **Section 5.3.** Although the research objectives were adapted at various stages of the research, particularly when data access to local plans became an unsurmountable issue and also for instance accounting for changes necessitated to the research design due to the data collection limitation due to COVID, the essence of the initial study objectives were retained. At various stages, different approaches were made to evaluate the local DSS, from the survey of LA plans, that could not be carried out quantitatively due to data access, and the follow on inability to conduct a content analysis of emergency plans, resulting in these being instead qualitatively reviewed as part of the overall documentary review. As such, the consideration of local DSS effect on the context of stakeholder collaboration was explored in the interviews, and from this, the conceptual framework developed and presented in **Chapter 3, Section 3.5**

was refined into a model of the hierarchical interplay of documents and stakeholders within the UK IEM, which was presented in **Chapter 7, Section 7.2.1.**

Objective 5: Develop a framework and/or recommendations to enhance the documentary supporting structures to collaborative disaster management in the UK

Earlier in the synthesis of the **Objective 3**, the process through which the "*Framework for the assessment and development of national guidance and associated documents*" was developed iteratively was outlined. This framework, which is presented in **Chapter 7, Section 7.4** has to the researcher achieved this objective of providing both a framework to assess existing and future guidance, but also give recommendations into how they could be improved. In the research process, a specific set of stakeholders (the tactical level emergency planning officers across organisations in the LRF and its secretariat) who are the primary end users of these documents were identified, with other stakeholders within the UK IEM instead interacting with the primary material (i.e., national guidance) through various degrees of separation, often through these intermediary stakeholders. Although the emergency planners also show variation in the familiarity with the national guidance, their frequency of use, and opinions on the role of the guidance and its utility, their approach to using them shared an overarching commonality. The national guidance was found not to be used as a source of learning, or a source of instructional material in the sense of being followed stepwise, but a goal oriented approach of being translated into local DSS to be used in training stakeholders or establishing policy and procedures by these emergency planners. Given this, it was possible for the developed framework to provided targeted lines of inquiry with which to assess the guidance, and recommendations on how to improve them.

8.4. Research contribution

The research on collaborative working within UK disaster management offers significant contributions to both knowledge and practice. This study is distinctive in its focus on the role of documents in supporting multi-agency collaboration at a local level in the UK and filling the gap in understanding of how national UK IEM policy is implemented by local governance. The study provides a comprehensive analysis of the variations in the structure and capacity of LRFs across England, mapping the hierarchical interplay of a range of documentary support structures and stakeholders within the UK IEM. The developed Documentary Assessment Framework (DAF) serves as a baseline for evaluating existing and future documents, enabling the production of better-suited materials to support collaboration in the UK IEM. The findings of the research highlight the shortcomings of the current system and documentation, providing recommendations for improvement in practice. Overall, this study makes a valuable contribution to both knowledge and policy, providing a deeper understanding of the use of documents in supporting disaster management collaboration in the UK.

A fair degree of generalisability of the findings – the examination of documents flowing down hierarchically, spawning new documents that interact with different levels of stakeholders, through degrees of separation can be applied to other collaborative settings, wherein the outcome or product is a document or associated with one. In particular, given that LRFs are non-legal entities but rather a platform for collaborative action, the findings can be applied more generally to other national disaster management systems.

8.5. Limitation of this study

The research scope for the collaborative arrangement considered was from Local to Significant Level 1, where COBR is not involved. A variable degree of tension between national and local levels of governance was a view of many participants, which would require expanding the scope of the study. Given however, that at that level of response, aside from the "Concept of Operations" (listed in documentary review) as an indicator of practice, the national government has little laid out in terms of their operating procedures, which would necessitate interviewing more participants in a national liaison capacity.

In terms of scope, the research study was also limited to planning, *preparation* and *response*. There is a similar level of documentary support structures underpinning the other phases, particularly in terms of risk in *anticipation* and *assessment*, and *recovery* in general. While risk assessment was considered, this was contextualised in relation to its interaction in the planning and preparation stage.

Data access severely limited the opportunity of the researcher to go into a greater degree of detail of locally produced documents, particularly major incident plans, which for the basis of local standard operating procedures. The researcher also wished to spend a sizable amount of time in the field, observing the use of documents in meetings and the development of plans if possible. COVID and the timeframe of data collection precluded this, however. Nevertheless, the lockdown did allow for a much better-than-expected rapport and data collection from remote meetings, given the switchover to remote working by participants across much of the time period.

8.6. Future research

From the study, the role of documents has been explored hierarchically across the UK IEM. The results show that most stakeholders and command tiers in the UK IEM are separated from primary documentary support structures by varying degrees. The researcher reflects that future research into the process of development of local translations of policy would lead to better developing standard operating procedures not just in response, as is the current emphasis, but across other phases of the UK IEM. An analysis of major incident plans of LRFs, or their standard operating procedures, to explore the variations in local translations of national policy, by examining the selection and motivations of local policy determination has much to offer in this regard. As discovered by the researcher however, data access would be a critical factor here in obtaining permissions to review such material.

The mapping of the LRF structures, which was carried out to ascertain the context of collaboration within the LRFs, showed a high degree of variation in the arrangements seen, with a high level of negotiation underpinning this process. Thematically, its significance to the present study was in terms of the resulting capacities, however future research could carry this further, quantifying this to aid in anticipating the impact of policy change or capacity to enact a change in remit of roles or responsibilities. In addition to better the understanding of capacity, a capability mapping of LRFs in the context of the breadth of expert knowledge concentrated in a few key personnel, as seen, would also produce much insight.

Further application of the Documentary Assessment Framework (DAF) in other countries or regions to determine the transferability and generalisability of the findings is another area of future research, along with further investigation into the implementation of the recommendations provided by the study, in order to assess the impact of the DAF on the development of better suited documents to support collaboration in UK disaster management.

8.7. Summary

This research has resulted in the development of a documentary assessment framework, presented recommendations for improvement of the documentary support structures in ultimately impacting collaboration in the UK IEM, and the results of the primary data have led to theory building and greater understanding the role documents, individually and as a set, play as artefacts within the development of collaboration and collaborative arrangements.

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Appendix

Appendix A: The Interview Protocol

The Interview Protocol contains the procedural material provided to the participants, including:

- The Template of e-mail request for participation in study
- The Participant Information Sheet
- The Participant Consent Form
- The document title "List of documents" presented to all participants for discussion. This document consisting of 4 pages and 3 tables was provided to all participants, and their perceptions of each were explored during the interviews
- The Interview Question in Full, including prompt notes for researcher

Template of e-mail request for participation in study

Subject: <u>Short Interview Request for PhD Study</u>

Dear Local Resilience Forum rep,

I am a PhD Candidate within the Disaster Management program at the University of Salford and, as part of my research, I am conducting a study titled "<u>The role of documents in collaboration within the UK disaster management process</u>". The main aim of my study is to explore the role and efficacy of currently published guidance around the Civil Contingencies Act (2004) and emergency plans published at local level in promoting collaboration within stakeholders engaged in the emergency planning and response process.

I would like to discuss the possibility of interviewing you or a member within your team in taking part in this study, which would be in the form of a short interview (about 45 minutes long) scheduled at your convenience. Attached is a Participation information sheet summarizing the particulars of the study and what taking part would entail.

As thanks and compensation for their time, all participants will be given a £30 Amazon voucher. Given the COVID-19 situation, the interview would be conducted remotely via telephone or video conferencing.

If you are willing, I would most appreciate the opportunity to discuss this further by phone further. Thank you for your consideration! Wishing you a pleasant week and looking forward to hearing from you.

Best regards,

Rukshan De Mel
PhD Candidate in Disaster Management
University of Salford

We would like to invite you to take part in the following research study. Before you decide, you need to understand why the research is being done and what it would involve for you. Please take time to read the following information carefully. Ask questions if anything you read is not clear or if you would like more information. Take time to decide whether or not to take part.

Study Title
The role of documents in collaboration within the UK disaster management process

What is the purpose of the study?
This study explores the context of collaboration in the UK Integrated Emergency management model, focusing on examining the role documents surrounding the Civil Contingencies Act 2004 play in facilitating and supporting collaboration, from policy guidance documents to information material and local emergency plans, and your experience in interacting with such documents.

The aim of this research is to investigate the current effectiveness of the documentary supporting structures and determine whether they could be improved to increase the effectiveness of the existing collaboration process within the UK disaster management system in planning, preparing and responding to extreme weather events.

Why have I been invited?
As this research is focussed on improving the current stakeholder collaboration contexts to disaster scenarios, your insight and experience as part of your operational or strategic responsibilities within the Civil Contingencies Act 2004 within the Emergency Planning Unit for your Local Authority make you an ideal in helping to achieve the aim of this research.

Do I have to take part?
Your participation is entirely voluntary. We will describe the study and go through this information sheet, which we will provided to you for your records. We will then ask you to sign a consent form to show you agreed to take part. You are free to withdraw at any time, without giving a reason. You can also stop the interview at any time, without having to explain why. The interview will be digitally recorded, and later transcribed into text form.

Are there any risks involved in taking part?
Due to the nature of the study, we do not anticipate any risks for you from taking part in it. If there are any matters that you would rather not discuss, please tell us and we will miss out these sections of the interview.

What will I have to do?
Upon agreeing to participate in this research study, a mutually suitable date and time for interview will be arranged. The interview will take about 45 min to 1 hour approximately and will be recorded with your permission to be transcribed later for data analysis.

What are the possible benefits of taking part?
We cannot promise the study will help you but the information we get from the study will help to increase the understanding of the current collaboration process and limitations of the UK's with regard to civil contingencies, particularly as a result of extreme weather.

Will my taking part in the study be kept confidential?
All personal information which is collected about you during the course of the research will be kept strictly confidential and will be processed according to the UK Data Protection Act 2018. Any data that can identify you will only be accessible by the researcher, the supervisor for this project and in very rare circumstance, by University regulatory bodies for the explicit purpose of quality monitoring/assurance.

Interview recordings will be transferred as soon as possible from the recording device into password protected computer, accessible only to the researcher, and deleted from the recording device. All data collected from interview recordings will subsequently be transcribed and fully anonymised and coded. All electronic data will be secured on a password protected computer and all sensitive electronic data similarly password protected. This extends to any external memory storage devices. Hard-paper copies of data, including consent forms will be securely stored and accessible only by the researcher.

Data will be stored and archived for at least of 3 years after the completion of the research study and award of graduate degree, to allow verification of data from external sources if necessary.

All publications using the data collected will be written in a way to disguise the identity of research participants involved. Data will not be used which can identify an individual, *unless explicit consent has been obtained from the individual involved.*

The researcher may work with other academic collaborators, for the purpose of producing relevant publications; for future related work; or to allow for secondary analysis of the data. Any data shared in such instances will be fully anonymised.

What will happen if I don't carry on with the study?
You may withdraw from the study at any point, without giving reason. In addition to withdrawing yourself from the study, you may also withdraw any data/ information that you have already provided, up until the time that the interviews have been transcribed and anonymised, approximately four weeks after the date of the interview. Upon request, however, we will securely destroy all of your interview tape recordings and any identifiable personal information at any point.

What will happen to the results of the research study?
The results of the research will be analysed to develop a stakeholder collaboration model and written up for the PhD thesis submission. Moreover, the research findings may be presented and published in the industry and academic journals, conferences or seminars. As stated previously, to further extend the knowledge that will be developed from this research, the results and findings may be shared with other researchers and practitioners. Where the results of the research will be used, the participants will *always* remain anonymous unless you have given explicit written consent to disclose such information.

Who is organising or sponsoring the research?
This study is a self-funded project as part of the researcher's PhD Candidature and is not associated with any external organisations, outside of the University of Salford.

Some important points to note:

- Taking part in this study is entirely voluntary
- It is for YOU to choose whether or not to take part
- You can withdraw at any stage, without having to give a reason for doing so
- You can decide to stop the interview at any point
- You need not answer questions that you do not wish to
- In addition to withdrawing yourself from the study, you may also withdraw any data/ information that you have already provided up until the time that the interviews have been transcribed and anonymised, approximately four weeks after the date of the interview.
- Your name will be removed from the information and anonymised. It should not be possible to identify anyone from our reports on this study.
- If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form

If you agree to take part, prior to your interview, please complete the provided consent form, answering all the questions.

Further information and contact details:
If you have a concern about any aspect of this study, you should ask to speak to the researcher in the first instance who will do their best to answer your questions:

Rukshan De Mel
07719623070
r.c.demel@edu.salford.ac.uk

If you remain unhappy having spoken to the researcher, you can contact the researcher's supervisor:

Dr. Kaushal Keraminiyage
0161 295 6943
k.p.keraminiyage@salford.ac.uk

If you still remain unhappy and wish to complain formally you can do this by sending a letter setting out the details of your complaint to the researcher's Post Graduate Research Director within the School of the Built Environment at the University of Salford.

Dr. Amanda Marshall-Ponting

Director of Postgraduate Research Studies
School of Built Environment
University of Salford
Salford
M5 4WT

CONSENT FORM

Please complete this form after you have read the Information sheet and/or listened to an explanation of the research.

Title of research project:
The role of documents in collaboration within the UK disaster management process

Name and position of researcher:
Rukshan De Mel, PhD Candidate, School of Science, Engineering and Environment, University of Salford

Thank you for considering taking part in this research. The person organising the research must explain the project to you before you agree to take part. If you have any questions arising from the Information Sheet or explanation already given to you, please ask the researcher before you decide whether to join in. You will be given a copy of this Consent Form to keep and refer to at any time.

	please tick or initial
1. I confirm that I have read and understand the information sheet for the above study and have had the opportunity to ask questions and have received satisfactory answers to all my questions.	
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving reason by notifying the researcher. Furthermore, I understand that I will be able to withdraw my data up to four weeks after the interview.	
3. I consent to the processing of my personal information for the purposes explained to me. I understand that such information will be handled in accordance with the terms of the UK Data Protection Act 2018. You may request the deletion of identifiable information at any point.	
4. I agree to the interview being recorded.	
5. I agree to the use of direct anonymised quotes in publications.	
6. I agree that anonymised data collected may be shared with academic collaborators for future research. Data will be held for at least 3 years as a requirement of the doctoral candidature process.	

Name of participant: Date: Signature:

Rukshan De Mel (Researcher) Date: 25/08/2020 Signature: **R.C. De Mel**

If you have any concerns about this research that have not been addressed by the researcher, please contact the researcher's supervisor via the contact details below:

Supervisor's name: Dr. Kaushal Keraminiyage

Supervisor's email address: k.p.keraminiyage@salford.ac.uk

List of documents

Document title	Document type
Civil Contingencies Act (2004)	Act of Parliament
Civil Contingencies Act Regulations (2005)	Policy
Emergency response and recovery (2013)	Guidance
Emergency preparedness (2012)	Guidance
The central government's concept of operations (2010)	Guidance
The role of Local Resilience Forums: A reference document. (2013)	Guidance
The Lead Government Department and its role – Guidance and Best Practice (2004)	Guidance
Expectations and indicators of good practice set for category 1 and 2 responders (2013)	Guidance
Provision of scientific and technical advice in the strategic co-ordination centre: guidance to local responders (2007)	Guidance
UK National Risk Register (2017)	Report
JESIP Joint doctrine: The interoperability framework Edition 2 (2016)	Guidance

The document selection process used 4 main criteria. The documents had to be:

1. Recommended or noted as "key" guidance by government
2. Non-specific to disaster typology
3. Information material for local level arrangements only up to Significant Level 1 emergencies
4. Indicative of the collaborative arrangements or expectations of practice during collaborative engagements

The minimum level of information to be contained in a generic plan (Emergency Preparedness, Chapter 5, p.71)

Generic plan[1]
Aim of the plan, including links with plans of other responders
Trigger for activation of the plan, including alert and standby procedures
Activation procedures[2]
Identification and generic roles of emergency management team
Identification and generic roles of emergency support staff
Location of emergency control centre from which emergency will be managed
Generic roles of all parts of the organisation in relation to responding to emergencies
Complementary generic arrangements of other responders
Stand-down procedures
Annex: contact details of key personnel
Annex: reference to Community Risk Register and other relevant information
Plan maintenance procedures
Plan validation (exercises) schedule[3]
Training schedule[4]

1. **regulation 21(b)**
2. **regulation 24**
3. **regulation 25(a)**
4. **regulation 25(b)**

Plan category	Type of plan or planning procedure
Generic	Emergency or major incident
Generic capability or procedure	Access to resources
	Control centre operating procedures
	Determination of an emergency
	Disaster appeal fund
	Emergency interpretation service
	Emergency press and media team
	Emergency radio and mobile communications
	Evacuation: minor, major, mass
	Expenditure procedures during an emergency
	External disasters (outside Local Resilience Forum boundary Mass fatalities
	Recovery Rest centres
	Secondary control centre
	Site clearance
	Emergency mortuary and body holding areas
	Use of voluntary organisations by different Category 1 responders
	Warning, informing and advising the public, including public information team
	Crisis support team
Specific hazard or contingency	Aircraft accident
	Chemical, biological, radiological or nuclear
	Chemical hazards
	Coastal pollution
	Dam or reservoir failure
	Downstream oil
	Environmental health emergencies
	Failure of major utilities: electricity, gas, telephone, water
	Foot-and-mouth disease
	Influenza pandemic
	Prolonged freezing weather Rabies
	Rail crash
	Refugees
	River and coastal flooding (general)
	Schools emergencies
	Severe weather
	Smallpox

Specific site or location	Airport City or town centre evacuation
	City or town centre severe weather disruption
	Methane migration
	Multi-storey block
	Non-COMAH industrial sites
	Nuclear power station
	Public event temporary venue
	Road tunnel Shopping centre
	Specific flooding sites
	Sports ground

The Interview Question in Full, including prompt notes for researcher

1. Establish the position of the participant within their organisation, and their roles and responsibilities. Discuss the collaborative arrangements.

2. How do stakeholders approach documents?
   a) What is their perceived objective for reading a particular document or set of documents?
   b) Is this objective or outcome manifest or the stated intended purpose of the document? If not, how and why?
   c) When reading, is it more likely that they have an objective in mind first, and then look for the document and stop when once you feel it has been achieved?

3. **Explore the relationship of the participant with the documents in "List of documents".**
   a) Discuss the minimum requirements of the major incident plan and the impressions of these requirements
   b) Discuss their experience in searching for or using other guidance at national level

4. Has the participant ever approached someone, or had someone approach them, to clarify some part of the policy or guidance documents or plans? For example, some emergency management handbooks direct questions from stakeholders towards the emergency planning unit:
   a) How often do you get enquiries?
   b) What kind of questions are frequent?
   c) Do you find yourself directing the inquirers attention towards specific documents? If not, do these documents exists as such, are they local or national, or is a matter of explaining it to the stakeholder in question?

5. Determine if the participant has taken part in the drafting of a disaster management plan and/or a disaster managements training/actual exercise. Discuss.

6. Establish if the participant is positive or negative to the idea of collaboration, and what their motivating factors are.

7. Determine the participants understanding (and if possible, definition) of collaboration

8. Determine what the participant views that the CCA 2005 calls for in terms of other stakeholders. How does the conversation around the interpretations of "must", "should", "could/may" occur between stakeholders at multi-agency meetings?

9. Is there anything else the participant would like to add? (Having been explained the research aim at the start)

PROMPTS

- Establish the position of the participant within their organisation, and their roles and responsibilities
    - o How do these roles and responsibilities play into facilitating collaboration?

- Establish the participants understanding/definition of collaboration
    - ❖ Is their definition more akin to the definition of
        - ➢ Cooperation
        - ➢ Coordination
        - ➢ Multi-agency response
        - ➢ Collaboration

- Determine whether the participant views that the CCA 2004 calls for
    - o Collaboration
    - o Cooperation
    - o Coordination
    - o Multi-agency Response

- Determine if the participant has taken part in the drafting of a disaster management plan AND/OR a disaster managements training/actual exercise
    - o What did they think about the process?
    - o Who were the stakeholders?
    - o Which stakeholders did they engage with and why?
    - o Were there some stakeholders they were more comfortable with talking to than others, and why?
    - o How did the exercise go about?
    - o Were they able to contribute?
        - ❖ If there was a final product, request and read the material

- Establish if the participant is positive or negative to the idea of collaboration, and what their motivating factors are?
    - o For example, why positive?
    - o Is it driven just by the CCA, or from experience and realisation (if Cat 1)?
    - o If Cat 2, why? Do they want to be more involved? Why?
    - o Are they negative? Why? Too much work already?

- Do the participants feel there is a maximum number (or limit) to the number of stakeholders that could work together? (is this organisational number, or number of people wise) Why?
    - o Is this from previous incidents? Extract reasoning if possible

- What constraints has the participant found when engaging in multiple stakeholder collaboration exercises? Or just exercise with different stakeholders or stakeholders they don't usually engage with?
  - In policy to facilitate
  - Practice and implementation
  - Human oriented factors
  - Resource wise
  - Skill wise
  - Objective/vision-wise
  - ❖ What comes first to the participants mind?
  - ❖ What required prompts?
  - ❖ Do the prompts result in an example being given or am answer being developed?
  - ❖ Not in an attempt to lead the participant, but might be of interest to observe. Clearly indicate what was a result of any prompts. Order may be important. Prompts extract more info.

- What is the difference seen between stakeholders with regular meeting and less frequent ones?

- Who do you most engage with at LRFs or MAR exercises? Why? Direct line of command, or something else?

- **Activities that happen - meetings and training**
  - Frequency
  - Purpose
  - Outcomes
  - Stakeholders

- **Regarding the accessibility of documents:**
  - Storage format – printed/softcopy
  - Medium – intranet use?
  - What is the usefulness of the document (+types) during a disaster?

- Have you ever been present during updates to any of the key guidance documents? How was this?

- How does the LRF help with the drafting of local authority emergency planning documents?

- How many people do you interact with who are only temporarily working on emergencies?

Questions later developed for LRF participants

- So, from speaking to LA emergency planners, I understand that **plans, including specific plans**, may need to be signed off by their LRF. How does this work? What kind of team goes through the plans and what do they look for? What is their benchmark/standard reference?

- During training sessions, when you have large groups, do you find that there's a maximum number that benefits from being togethers? Do you feel that there's a limit at which it's difficult to have a collaborative setting?

- How do you maintain common ground/understanding where the meetings for the full LRF happen bi-annually? And is there a process to determine attendance?
  - How are the results or decisions of the meeting incorporated into day-to-day work of the LRF?

- So, speaking of this term "collaboration", different people have different definitions and ideas of like the extent and what this means. In your role, what would be an ideal collaboration situation for you?

- Have you or any members within your team or LRF used the **Emergency Planning College?**
  - How was that like?
  - Some of the training can be spread out all day, over a few days. How do participants manage this with their day to day job roles?
  - Is it cost prohibitive? (Most of the training is in the range over £800)

- In collaborative exercises, what kind of constraints would you say that you have had, that affect the collaborative engagement or the behaviour of people that come in?

- How many people do you interact with who are working in emergencies on a **temporary** basis?

Appendix B: Interview coding example

Local translations, LRF structure, Document mapping

Local translation of documents

> But, most of this, I would say, is distilled by emergency planners and put into training and plans for people locally to understand.

[Interviewer: Yeah]

So, I would hope they all know that it's the CCA. I'd guess that most of them could probably do the duties from that, yeah?

I would say that "Emergency response recovery" --- **I'm quite poor at even reading that, to be honest**. That's the one that I do have and knock around with. "Emergency preparedness" I've read a lot more.

I'd say they might know it [the ERR] exists. And I would say that what it exists for mostly is if you don't have a plan, you can go to there. So, like if you didn't have a recovery plan, you could go to that chapter and use it. And that would be--- and I would say that say like when we're writing our humanitarian assistance framework, the plan author would go back to that and just double check. But I wouldn't expect anyone to plow through it.

"Emergency preparedness", I don't mind because I've had to--- see I was going to swear then. [laughs] So, I've had to read the NHS framework. *And I think that's really not detailed enough.*

So, "Emergency preparedness", **I've read a few times. I have-- I have interns sometimes**. I've got some interns at the minute. I make them read it and do briefings on it. Every once in a while, I do a briefing on Warning and informing 'cause people don't ever you know-- people don't pay attention to warning and informing, but they never listen to me anyway. So, you know, things like having prepped messages is a difficult thing to answer. Having a lead-- lead officer for each risk. So, you know, I go back to that one quite a lot because it's a different group of people you're dealing with.

P_I   49:15   But-- And I've got-- **I've got a summary document of "Emergency preparedness"** that I usually narc at people about when I have to do it.

And evidently I write essays on stuff all the time. So I have to-- I have to go back to it.

But ultimately, I wouldn't say-- I'd say it's not bad doctrine. I would say again, that the CCA, you know, --- I reckon by 2025, don't you, we will have a new civil contingencies act of some sort that will change things.

And I got-- I'm going to say I got a little bit argumentative about Resilience standards on-- by-- on that spectrum of cantankerous with government.

You've got emergency bloody preparedness and we've got the good indicators for an LRF, which is what when we-- we do reviews or peer reviews, we go back to that and sort of score ourselves against

Handwritten margin annotations:
- Expectation of familiarity
- overarching familiarity only [Superficial?]
- Volume? ERR = 700+ pages
- Document web familiarity
- Familiarity (Low)
- Plan development?
- Document PURPOSE
- Typology
- Expectation of familiarity
- Plan preference
- Structure
- [familiarity]
- Typology, LRF meeting type
- Structure / Vibration
- Filtered / concern of stakeholders
- Local translation
- Self-critique, Volume, Local translation
- CCA, fit for purpose
- National vs Local Tension
- Redundancy

it and double check.

Funding

And obviously, I always go to the paragraph of saying you need a, you know, a secretariat who is paid well or whatever the equivalent of it is. It's a nice little chunk saying, just "This is an admin. Please give them good cash." And I make that argument, you know, whenever I want money.

need to reduce Redundancy

But then they--- so, I don't--- "Emergency preparedness" and "the good practice indicators" should be one of the same.

There is no point in having two documents that effectively cover exacts the same bloody thing. And very annoyingly, just do it slightly differently.

Quote?

And then obviously we've got Resilience standards. So, I don't know if you've got access to them or have seen them, but umm---

[Interviewer: Umm, not yet. But hear they might not be publicly available]

Got access, after week after interview. compare comments

They're supposed to be publicly available, but they're lying because they're supposed to be on gov.uk, but they're not.

But obviously, we have those on resilience direct and they're developed by ~~Bob MacFarlane [Robert MacFarlane]~~, and I-- I really liked ~~Dr MacFarlane~~ in the Cabinet Office and he's an immensely clever man and he's come down and chatted about things.

QUOTE

But again, I don't see why we would have "Emergency preparedness", "The local good practice indicators" and "Resilience standards" all effectively covering the same things, but just each one is more detail than the last.

Redundancy

So, if you took a Risk assessment on chapter four [Emergency Preparedness], yeah? I know what to do with risk assessment on Chapter 4. I know what to do with the assessment on my good practice indicators. And then I've got two resilience standards on risk-- risk assessment. Yeah. And risk communication, in fairness.

Well, where is... that's stupid, isn't it?

Design, Organisation

Somebody--- it's just because nobody went back to "Emergency preparedness" and did it properly and did a bloody annex at the end, which is the resilience standard.

Frustrations, tensions, Lack of consultation between local & national

So, I've become quite frustrated that what they've done is - they want us to do things differently and stretch ourselves, which I'm I'm happy about. But at no point did they have the balls to go back to the original guidance and just redo the risk assessment guidance. You know, there is no point in having good practice indicators in LRFs and a resilience standard o, risk communication. But at no point just go back and rewrite bloody Chapter 4. **It's a stupid-- it's stupid thing.**

option of how to ORGANISE document structure

Poor Life cycles of guidance

Appendix C: Emergency Planning College training courses

Collated list of training courses available through the Emergency Planning College (EPC, 2022, online)

Course title	Mode of training	Area	Duration (days)	In-person Cost (£)	Online Cost (£)
BCI Good Practice Guidelines Course & Certificate of the BCI Examination Online	Online	BUSINESS CONTINUITY	3	na	2245.00
Build a Validation Exercise Online	Online	PLANNING & PREPAREDNESS	0.5	na	150.00
Business Continuity Masterclass for Strategic Leaders	Both	BUSINESS CONTINUITY	1	475.00	295.00
Certificate of the BCI (CBCI) Examination	In-person	BUSINESS CONTINUITY	1	395.00	na
CM3 Crowd Modelling, Management & Movement	In-person	CROWD & EVENT SAFETY AND SECURITY	2	835.00	na
Crisis Communications	In-person	COMMUNICATIONS	2	835.00	na
Crowd Psychology for Crowd Safety Management	In-person	CROWD & EVENT SAFETY AND SECURITY	2	950.00	na
Debriefing Emergencies & Exercises	Both	RESPONSE & RECOVERY MANAGEMENT	1	440.00	295.00
Debriefing: The Essentials for Practitioners Online	Online	RESPONSE & RECOVERY MANAGEMENT	0.5	na	150.00
Developing & Embedding Business Continuity Management	Both	BUSINESS CONTINUITY	2	880.00	590.00
Emergency Control & Coordination Centre Operations	In-person	RESPONSE & RECOVERY MANAGEMENT	2	835.00	na
Event Licensing	In-person	CROWD & EVENT SAFETY AND SECURITY	1	440.00	na
Exercising Crisis and Business Continuity Plans	Both	PLANNING & PREPAREDNESS	2	835.00	590.00
Exercising: The Core Components Online	Online	PLANNING & PREPAREDNESS	1	na	295.00
Improving Risk Management in Civil Protection	In-person	PLANNING & PREPAREDNESS	2	835.00	na
Incident Manager's Toolkit Online	Online	RESPONSE & RECOVERY MANAGEMENT	0.5	na	150.00
Introduction to Business Continuity	Both	BUSINESS CONTINUITY	2	880.00	590.00
Introduction to Civil Protection	Both	PLANNING & PREPAREDNESS	2	835.00	590.00
Introduction to Crowd Safety Management	In-person	CROWD & EVENT SAFETY AND SECURITY	2	835.00	na
Key Aspects of Civil Protection Online	Online	PLANNING & PREPAREDNESS	1	na	295.00

Course	Type	Category	Days	In-person Price	Online Price
Key Aspects of Contingency Plan Writing Online	Online	PLANNING & PREPAREDNESS	1	na	295.00
Key Aspects of Recovery Management Online	Online	RESPONSE & RECOVERY MANAGEMENT	1	na	295.00
Key Aspects of Strategic Emergency & Crisis Management Online	Online	RESPONSE & RECOVERY MANAGEMENT	1	na	295.00
Key Aspects of Tactical Emergency Management Online	Online	RESPONSE & RECOVERY MANAGEMENT	1	na	295.00
Key Insights into Human Aspects Online	Online	RESPONSE & RECOVERY MANAGEMENT	0.5	na	150.00
Organisational Learning in a Crisis Online	Online	BUSINESS CONTINUITY	0.5	na	150.00
Planning for Evacuation	In-person	PLANNING & PREPAREDNESS	2	835.00	na
Planning for Mass Fatalities	Both	PLANNING & PREPAREDNESS	2	835.00	590.00
Preparing Emergency Plans for COMAH	Both	PLANNING & PREPAREDNESS	2	835.00	590.00
Preparing for Recovery Management	Both	RESPONSE & RECOVERY MANAGEMENT	2	835.00	590.00
Public Safety at Festivals & Mass Gatherings	In-person	CROWD & EVENT SAFETY AND SECURITY	2	835.00	na
Rest Centre Management	Both	RESPONSE & RECOVERY MANAGEMENT	1	440.00	295.00
Safety at Sporting Venues	In-person	CROWD & EVENT SAFETY AND SECURITY	2	835.00	na
Security Risk Management for Crowded Places	In-person	CROWD & EVENT SAFETY AND SECURITY	2	835.00	na
Spectator Safety Management	TBC	CROWD & EVENT SAFETY AND SECURITY	TBC	TBC	TBC
Starting Out in Civil Protection	Both	PLANNING & PREPAREDNESS	5	1950.00	1475.00
Strategic Emergency Management	Both	RESPONSE & RECOVERY MANAGEMENT	2	835.00	590.00
Tactical Emergency Management	Both	RESPONSE & RECOVERY MANAGEMENT	2	835.00	590.00
Temporary Demountable Structures	In-person	CROWD & EVENT SAFETY AND SECURITY	1	550.00	na
The Good Practice Guidelines (CBCI) Training Course	In-person	BUSINESS CONTINUITY	3	1850.00	na
Working as a Decision-Loggist	Both	RESPONSE & RECOVERY MANAGEMENT	1	495.00	295.00
Working in Event Control	In-person	CROWD & EVENT SAFETY AND SECURITY	2	895.00	na
Working in Safety Advisory Groups	In-person	CROWD & EVENT SAFETY AND SECURITY	2	835.00	na
Writing Contingency Plans	Both	PLANNING & PREPAREDNESS	2	835.00	590.00
ALL COURSES	**ALL**	**ALL**	**73***	**25670.00**	**13320.00**

* half-days are taken as one day