MANAGING DISASTER RISK AND RESILIENCE IN THE UK: RESPONSE VS. PREVENTION IN POLICY AND PRACTICE

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1. Introduction

The term 'resilience', whilst being surrounded by various debates on its meaning, usefulness and characteristics, has become an integral part of Disaster Risk Management (DRM) terminology. DRM is defined as "The systematic process of using administrative directives, organizations, and operational skills and capacities to implement strategies, policies and improved coping capacities in order to lessen the adverse impacts of hazards and the possibility of disaster" (UNISDR, 2007).

Within the context of DRM, different approaches to resilience provide different levels of importance to the objectives of avoidance (avoid the shock), recovery (rebound after the shock) and withstanding (resist the shock). Tobin (1999) suggests that resilience is adopted in three ways: as a way to mitigate (emphasising a reduction of exposures and risks); as a way to recover (accepting that not all the shocks can be eliminated and thus embraces actions that are required after them); and as a way to instigate structural changes in society and institutions (based on the importance of situational factors (physical location, age, income, etc.) and cognitive factors (psychological and attitudinal)).

Literature on resilience and its role in DRM also focuses on different aspects. Some concentrate on conceptualising the idea of resilience metaphor and finding its connections to societies and the environments (e.g. Brand and Jax, 2007; Pelling, 2003). Others focus their attention on local resilience, including urban resilience and local and community-level adaptation to climate change (e.g. O'Brien and Read, 2005; Prasad et al., 2009); emphasis on local resilience rests on the belief that resilience is largely dependent on local action and micro-scale conditions. Some literature argues for a holistic or a broader systems approach to resilience (e.g. Martin-Breen and Anderies, 2011; Lizarralde et al., 2013); this group is based on the 'Hyogo Framework for Action 2005-2015' (UNISDR, 2005) and the revised and recently adopted 'Sendai Framework for Disaster Risk Reduction' (UNISDR, 2015b). These frameworks argue that a broader approach that integrates multiple levels of analysis and intervention (from individual to the national level); multiple time-scales: prevention, emergency, rehabilitation, reconstruction, long-term development; and, multiple sectors of intervention, including emergency action, environmental protection and urban development.

However despite the lack of consensus about what 'resilience' means the term has in recent years became a central element in policy documents and programmes at international, national and regional levels (Aldunce et al., 2014). In the UK, since the introduction of the Civil Contingency Act (the Act) in 2004, civil protection activity has been conducted under the epithet of 'UK resilience' (HM Government, 2004a). As this chapter will explore, 'UK

resilience' covers a great variety of areas, from national security to international aid. In this chapter we will demonstrate how resilience policy is implemented in a way that focuses on response rather than on prevention; and also we highlight some of the issues in implementing such policies at the local level.

2. Resilience agenda in the UK

2.1 DRM and resilience

Some sections of the UK Government view DRM as one of the key areas that require future attention, as "important drivers of change could substantially increase future risks of disasters, notably the increasing frequency of extreme weather events due to climate change, and large population increases in cities exposed to natural hazards" (Foresight, 2012:5). The main objectives of DRM in the UK are (UNISDR, 2013):

- Spotting trouble, assessing its nature and providing warning;
- Being ready to respond;
- Building greater resilience for the future;
- Providing leadership and guidance to resilient communities; and
- Effective management.

However, DRM has not always been at the top of the agenda. Since 2001, there has been a shift in how disaster risk has been managed and a dramatic change in purpose and organisation of 'civil protection' in the UK. In place of the Cold War model of civil defence, there emerged a model full of interdependencies and with increased connections with society and (Mann, 2007). The UK civil protection plan was significantly restructured to codify existing practices and introduce new statutory duties (O'Brien and Read, 2005) but in doing so still utilising the agencies and personnel that were largely grounded in a civil defence mentality (Bosher 2014). In 2004 the UK government implemented a legislative and capacity building programme under the banner of UK Resilience. However, as O'Brien and Read (2005) point out, 'the use of the term resilience is an interesting choice' (p.354), because whilst policy makers increasingly use the term, it was not particularly well defined.

The 'resilience agenda' goes hand in hand with the 'security agenda' in the UK, however whilst the security agenda has traditionally been centralised, the resilience agenda retreats from 'grand planning' and offers 'a legitimate path for disengagement' of the State (Haldrup and Rosen, 2013) by becoming a 'facilitator' instead of a 'builder' of resilience. At the same time, however, whilst it is argued that the resilience agenda is effectively the same as the security agenda, the term 'resilience' only covers particular areas. The traditional security discourse which focuses on defence does not use the term, but it is used frequently when it

comes to the area of DRM, which includes wider security issues such as terrorism and cybercrime, as well as civil emergencies.

UK Resilience takes an 'all hazards' approach, the objective of which is to ensure 'that a robust infrastructure of response is in place to deal rapidly, effectively and flexibly with the consequences of civil devastation and widespread disasters inflicted as a result of conventional or non-conventional disruptive activity' (UK Resilience, 2007 in Rogers, 2011, p. 94).

Cabinet Office (2012) defines resilience as "the ability of the community, services, and of infrastructure to detect, prevent, and, if necessary, to withstand, handle and recover from disruptive challenges". This definition underpins the development of all subsequent resilience-related work, including the Local Resilience Forum (LRF) framework (which will be discussed later in this Chapter), the National Risk Register and National Security Strategy, the identification of people who might be vulnerable in a crisis, data protection protocols, cyber-security programmes, and plans for the protection of critical infrastructure and the prevention of violent extremism (Cabinet Office, 2012).

The UK has an established system for emergency planning and engagement between required stakeholders (see Figure 1) described in the Civil Contingencies Act (the Act) (Cabinet Office, 2004a). This system is a network of designated governmental, non-governmental and private organisation (typically referred to as 'responders') that can be activated during an emergency and is enacted through exercising and training. This network does not exist permanently (and does not have statutory rights) as the organisations remain formally separate, but is activated if an emergency event occurs. This approach ensures that responders potentially exist at any point in time based on the multi-agency plans that can be changed based on past experiences (Anderson and Adey, 2012).

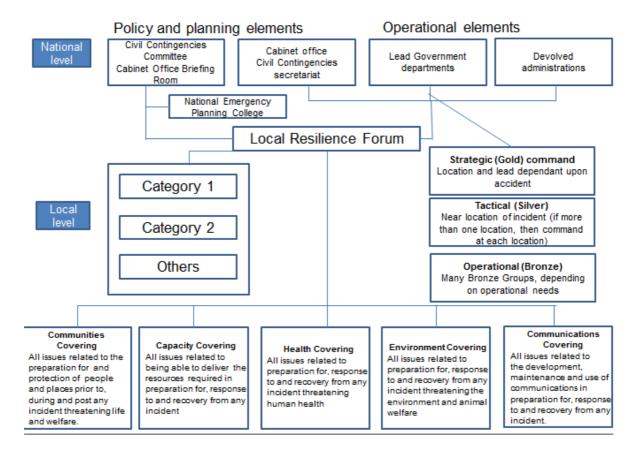


Figure 1: Emergency response arrangements in the UK (Adapted from: Fisher et al., 2014)

The Act was the starting point of a new contingencies system that has been developed as a result of various events in the period between 1989 and 2001 (including flooding, terrorist incidents, epidemics and fuel protests). The overarching aim of the Act is preparedness, so all the decisions in the Act are geared towards the negotiation of the potentialities of the event but at the same opening out the possibilities of response that can be adapted to a specific event. But rather than focusing on the event itself, the Act emphasises the generic consequences of events for human welfare, the environment, and the national security (Adey and Anderson, 2011).

Whilst UK Cabinet office has ultimate responsibility for civil protection, resilience is carried out through the Local Resilience Forum (LRF), because emergencies typically start at the local level, and most incidents are expected to be able to be dealt with by local responders at this level. The Act describes the duties of appropriate stakeholders to cooperate in a LRF, and formal meetings and allocations of work to responsible stakeholders. It broadens the understanding of civil contingencies activity that now includes planning, preparation, response, recovery and protection, and requires Category 1 and Category 2 responders (Table 1) within a given locality to coordinate and prepare for the causes and consequences of various events. The coordination however is event-specific and the participation of Category 2 responders and other stakeholders depends on the type, location and scale of the event.

The LRFs, which are defined along Police Constabulary boundaries, typically meet three times a year to discuss emergency planning within their county. In the event of a major emergency, the group would form the Strategic Coordinating Group for that emergency, i.e. it would provide a forum for the co-ordination of a multi-agency response. A number of subgroups with specific areas of responsibility meet six times per year and report to the LRF. However LRFs are neither legal entity nor do they have powers to direct their members, which is often seen as a weakness of such systems (Manyena et al., 2013).

Table 1: The range of key 'responders'

CATEGORY 1 RESPONDERS		
Local Authorities	All principal local authorities	
Government agencies	Environment Agency, DEFRA, Maritime and Coastguard Agency	
Emergency Services	Police Forces, British Transport Police, Fire Authorities, Ambulance Services	
Health Services	Primary Care Trusts, Health Protection Agency, National Health Service Acute Trusts (Hospitals), Foundation Trusts, Port Health Authorities	
CATEGORY 2 RESPONDERS		
Utilities	Electricity, Gas, Water and Sewerage, Public communications providers (landlines and mobiles)	
Transport	Network Rail, Train Operating Companies (Passenger and Freight), Transport for London, London Underground, Airports, Harbours and Ports, Highways Agency	
Government	Health and Safety Executive	
Other	Chamber of Commerce, non-Governmental organisations and social care charities	

Overall, The UK Civil Contingencies Act places less emphasis on dealing with major catastrophe and more on a range of events that threaten to disrupt, damage, or destroy life, thus focusing on preparedness and response to these events – the implications of this will be discussed later in this chapter.

2.2 Resilience policy

Whilst efforts to implement resilience are taken at the local level, the majority of the UK policy documents examined refer to measures and initiatives that have a national/country scope of influence. This is hardly surprising, given that the policy is written by the national government; but at the same time, considering the strong influence that the idea of community and city resilience has had in literature (Norris et al., 2008; Pelling, 2003; Stumpp, 2013; Tobin, 1999), it becomes clear that UK policy has had to make efforts to redefine the boundaries of the resilience approach.

Resilience is mentioned in documents aimed at foreign affairs, for example: The UK government's humanitarian policy (DFID, 2011), which "outlines how the UK will help build resilience to crises and respond to humanitarian need resulting from conflict and natural disasters". One of the programmes is 'Building Resilience and Adaptation to Climate Extremes and Disasters Programme' (BRACED) supported by the Department for International Development. It is also used in relation to terms of data protection (service resilience) and telecommunications (Cabinet Office, 2011a). The definition of resilience therefore resonates with a wider discussion within the UK Government on how to handle new forms of risk triggered by a more globalised and interconnected world.

As demonstrated by a recent in-depth policy analysis¹ (Figure 2), the policy framework focuses on using a multi-hazard approach, taking into account natural hazards as well as manmade threats (although the term 'resilience' is not used in the Terrorism Act).

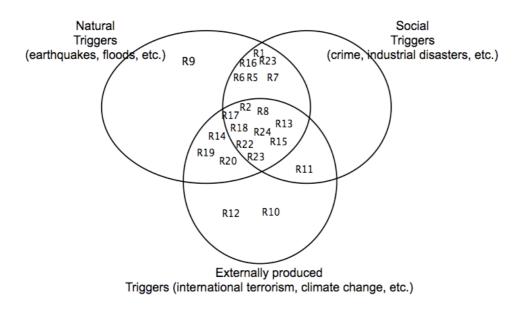


Figure 2 'Resilience to what' in UK policy² (Chmutina et al. 2014)

All the activities are based around the integrated emergency planning (cycle of emergency planning): "Central government's approach to civil contingency planning is built around the concept of resilience. This is defined as the ability "at every relevant level to detect, prevent, and, if necessary, to handle and recover from disruptive challenges". The processes which underpin resilience form the fundamental elements of civil protection." (Cabinet Office, 2003: 1). It is appreciated that it is impossible to fully eliminate some risks, therefore resilience is seen by the Government as a way of building capacity to respond to emergency events while taking into account the potential interdependencies of services/systems that maybe disrupted; accordingly, resilience in this context primarily refers to the capacity to respond to emergencies and to quickly return to some form of 'normality'.

Unsurprisingly, several representations of community resilience focus on emergency response. One of them argues that resilience corresponds to "Community and individuals harnessing local resources and expertise to help themselves in an emergency, in a way that complements the response of the emergency services" (Cabinet office, 2011, p.11). This representation largely ignores the idea of 'bouncing forward' (Brown, 2011; Birkmann, 2012) and thus is at odds with some theoretical definitions that refer to the importance of producing structural changes in the system, rather than merely returning to previous states of it (Bosher, 2014). In addition, the UK resilience agenda – by encouraging 'active citizenship' – motivates people to engage with situations that are deemed beyond their control; this often leads to a passive attitude from the public (Joseph, 2013).

The Cabinet Office has ultimate responsibility for civil protection; however the main tool through which resilience is carried out are the LRFs that are non-statutory entities (Birkmann et al., 2012). Local efforts in enhancing resilience are built on collaboration between organisations whereas central efforts are based on command and control. The 'resilience agenda' in the UK introduced a number of neoliberal³ policies that were seen as a way to move away from state-enforced security by adopting an ideology that appears to be on 'the side of laissez-faire' (Amin, 2013, p.141). The 'command and control' approach was based on the idea that the public entrusts their safety into the hands of an authority, whereas now the resilience agenda is based on a large amount of information, advice, expert opinion as well as 'heroism' stories where an individual acts in an emergency (Amin, 2013); it emphasises the desirability of personal contingency plans and importance of public involvement and at the same time makes an emergency a 'shared problem'. This eventually creates tensions, notably when centralised decisions undermine local efforts.

National policy serves as a background for implementation, but a strong emphasis is set on expected capacities at the local level: "Government can set a framework for sustainable development at a national level, but many changes need to happen through the Big Society at a local level, [...] The Big Society puts individuals and groups in the driving seat and Government in an enabling role removing the barriers, where appropriate, which prevent others from taking responsibility." (DEFRA, 2011, p.5)

The UK Government sees resilience as a proactive response to a new unpredictable and unstable world (Aradau, 2014) but these expectations are significantly vague. Thus local stakeholders understand and adjust the principles of resilience differently, holding also several expectations from other stakeholders, notably municipalities and control agencies.

3. Tensions between policy and practice

The definition of resilience provided by the national policy is not strictly accepted at the local level and in addition is reified by the professional remits of those who are 'implementing resilience' (Chmutina et al. 2014). Policy on resilience in the UK has put much emphasis on the capacities expected from other stakeholders in order to achieve 'resilience' and provide an integrated emergency planning approach. This leads to tensions not only among national policy makers and local level policy implementers, but also among those who are directly and indirectly affected by the Resilience Programme. One of the most obvious tensions is created by the focus of policy documents and policy implementation on preparedness and response thus neglecting the role that can be played by preventative measures.

Whilst UK policy acknowledges the importance of prevention (as it features in its definition of resilience), the majority of policy that emphasises the importance of the local level resilience actually focuses on response. This is clearly demonstrated in the terminology: local level *responders* are expected to understand resilience as a way to deal with an event, i.e. being prepared for the event in order to be able to respond to it rather than to eliminate it. The focus on preparedness and response is demonstrated in the choice of wording when it comes to defining resilience as demonstrated in Figure 3. The widespread use of the term resilience in the national policy documents is not reflected at the local level and is often at odds with the practical understanding of resilience. Figure 3 illustrates how the understandings of 'resilience' appear to change from policy level to practical implementation level, with the 'prevention' aspects being lost at the local level, which is more focused on coping and being robust.



Figure 3: Characteristics of resilience within four sectors of intervention (Chmutina et al. 2014)

Unsurprisingly, the definition of resilience provided by the LRF that was at the centre of this study goes in line with the definition provided by the Act, and has permeated into every

aspect of emergency services' activities. At the same time, due to the complex nature of the LRF and the diverse profile of professional remits of its members, the LRF adds an extra layer to the definition with the regards to the fact that resilience is more about the organisational capacity of the responders. Additionally, their definitions focus on characteristics of resilience rather than the process of implementing resilience (as emphasised by the policy).

Preparedness plays a larger role among the local implementers of resilience. Planners and flood managers see resilience as preparedness and argue that in some cases, when complete safety cannot be achieved due to practical (including financial) reasons, preparedness and protection (which tend to be used as synonyms of resilience) are the best routes. Resilience is understood as preparedness to something that is out of order, although it is seen as a long-term process that will eventually lead to the incorporation of resilience into day-to-day practice. On the other hand, emergency services identify resilience with the ability to respond to important events, as officers believe that it is impossible to be fully prepared to all risks. However, they also acknowledge that resilience should be a business as usual type of activity: it is an embedded process that does not get acknowledged unless the issues of safety and security are specifically expressed by the client. This understanding of resilience however does not sufficiently focus on the more serious low(er) probability types of events. Resilience is a part of day-to-day practice included in business as usual, and its implementation is assumed

As demonstrated here, the role of prevention is neglected on both national and local levels. Whilst being one of the most important components of Disaster Risk Reduction, in respect of managing the impact of natural hazards and man-made threats, it is also the hardest to implement as it involves a much broader range of stakeholders and requires awareness raising, information distribution and typically financial investment. The main challenge in highlighting the importance of prevention lies in the fact that the UK Resilience Programme is aiming at improving coordination among the emergency services but does not particularly take into account community involvement. The UK policy defines community resilience in a rather restrictive way: "Community and individuals harnessing local resources and expertise to help themselves in an emergency, in a way that complements the response of the emergency services" (Cabinet office, 2011b) - as it does not provide any information on the activities that would 'complement the response' nor does it emphasise the importance of self-reliance. To an extent, policy and the actions of LRF underestimate the ability of the community to respond and instead suggest relying on the Category 1 responders, and provide a clear distinction between those who respond and the population that has to be protected (Anderson and Adey, 2012). Curiously, however, when policies are analysed (Table 2), the words such as 'community', 'public' and 'localism' appear much more often in policy documents that in practitioners' vocabulary, the focus of which is on 'planning', 'designing' and 'building' for the event. Even when it comes to business continuity – which plays a much larger role in the

resilience agenda compared to community resilience - the emphasis is on preparedness rather than prevention.

Table 2 Ten most frequently used words relevant to resilience among policy documents and practitioners' responses (Chmutina et al. 2014)

National level	Local level
national	resilience
regulations	plan
flood	building
risk	flood
power	business
localism	people
community	ability
land	event
water	design
public	risk

4. Discussion and conclusions

Whilst the UK government's definition of resilience is portrayed to be holistic, when scrutinised, it really only focuses on particular aspects of risk can be managed and thus undermines the more holistic understanding of resilience. The resilience agenda in the UK deals with emergency situations, which if occur could test the limits of capacity and capability of those implementing resilience, and focuses on anticipation of emergency events and the disruptions caused by them. However, as argued by those implementing resilience (such as members of the LRFs), it is impossible to always predict the event and/or level of disruption it will cause, and this uncertainty leads to a lack of interest or appreciation of the benefits of taking preventive measures. Response activities can be very visible (publically and politically) actions and thus they can bring hope that such interventions can bring the event and its impact to an end. Therefore preparedness activities can effectively influence public opinions about how the emergency services and local government agencies have handled emergency events. When considering preventative activities they can be deemed as being expensive, they may never be needed and also there can be political and social concerns that some sections of society are benefiting (i.e. a flood risk area of a town) at the cost of others (areas of the same town that are safe from flooding) (Bosher et al. 2009).

However whilst the role of prevention is not explicitly addressed in the ways resilience is defined and implemented, it is a part of the resilience agenda in relation to more day-to-day issues, such as petty crime or terrorism.⁴ UK policy clearly states the importance of enhancing resilience, particularly as the complexity of the challenges that the UK faces thus leading to 'cascading disruptions' (Cabinet Office, 2004b). Thus preventing the 'cascade' from happening is at the heart of the resilience agenda. However, the current policy does not provide guidance on what is prevention and what are the means of its implementation. Therefore during the process of being translated from policy to practice, prevention often becomes an enhanced preparedness – but without going into a 'state' of emergency; instead it is seen as a continuous preparation embodied in day-to day-activities.

The focus on preparedness results in a situation where there is a distinction not only between the policies and the day-to-day work but also between those who protect and the population that has to be protected; as highlighted in the previous section of this chapter. Based on best practice, frameworks and guidelines, the resilience agenda in the UK is aimed at coordinating local governments rather than the communities who, it seems, are not trusted enough to be prepared by the policy makers but at the same time are encouraged to be prepared by those implementing the policy at the local level.

The resilience agenda in the UK covers a wide range of issues and can be seen as a solution to a problem where, due to the interconnectedness of the world, many things have to be taken into account simultaneously. It covers every DRM related activity before, during and after an event thus making DRM one continuous cycle rather than a phase-based one. However, being preparedness and response oriented, the resilience agenda in the UK is neglecting the critical integration of preventative (such as hazard mitigation) considerations into the country's development and planning practices and consequently does not sufficiently mainstream DRM into policy-making.

The statutory role of emergency management practitioners in the UK also contributes to the emphasis on preparedness and recovery rather than on prevention. Playing a central role in all LRFs, local emergency managers probably want to be more cautious and risk-averse, thus making preparedness and recovery a predominant feature. In addition, emergency managers who are in charge of building and implementing resilience plans to respond (rather than be more preventive) to the events because that is the way they have been trained to operate, thus making preparedness and recovery a predominant feature. At this point it should be noted that this is not a problem unique to the UK; with the UN's Global Assessment Report on Disaster Risk Reduction (UN 2015a) concluding that historically there has been poor proactive management of disaster risk globally due to an over reliance on emergency/civil protection expertise and ideologies.

Such approaches, whilst making a shift towards building resilience and encouraging the implementation of resilience as a process rather than a command and control exercise, still

remains highly centralised and dominated by prescriptive policy and the technicalities that come with it. Present approaches to resilience rely on implementation by those in charge while excluding those directly affected. Making resilience-related policies more flexible and allowing for the incorporation of prevention could provide an opportunity to develop local frameworks that respond to the local needs without being constrained to rather out-date institutional frameworks.

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¹ The methodology used for this chapter consisted of three steps. The first step involved creating a database of documents related to resilience, which included UK national policy documents ranging from 2000 to 2013, published on the UK government web site (www.gov.uk) and written by national agencies such as the Cabinet Office, Home Office etc. Overall, 23 policy documents were thoroughly analysed. The second step involved analysing transcripts from 19 interviews conducted with various stakeholders that are directly or indirectly involved in the implementation of the 'resilience' agenda (including architects, The Head of regeneration, The Flood management officer, emergency planning officers, liaison architectural officers (police), Fire and rescue service officer, The Counter-terrorism security advisor, property developers, an officer of the Civil Contingencies Research Office (police), urban planners). The semi-structured interviews were aimed at identifying the perceptions and representations that stakeholders make of resilience. They were conducted between May and October 2013 and lasted for approximately one hour each. Each interviewee was asked to define resilience and to comment on whether and how resilience is implemented in their day-to-day practice.

The final step of the study consisted of comparing word uses, frequencies and discourses among policy documents and the transcripts of the interviews. This has been analysed using Nvivo 8 software; enabling patterns and analytical generalisations to be identified.

- ² 'R' stands for a policy on resilience. Following list of policies have been analysed:
- R1: Improving the UK's ability to absorb, respond to and recover from emergencies (Cabinet Office, 2013)
- R2: A summary of 2012 Sector resilience plans (Cabinet Office, 2012)
- R3: The National Risk Register of civil emergencies (Cabinet Office, 2012)
- R4: National Security Strategy (HM Government, 2010)
- R5: The national Planning policy framework (DCLG, 2012)
- R6: Keeping the country running: natural hazards and infrastructure (Cabinet Office, 2011)
- R7: Civil Contingencies Act (Cabinet Office, 2011)
- R8: The business continuity management standards (BS25999)
- R9: Strategic Framework and Policy Statement on Improving the Resilience of Critical Infrastructure to Disruption from Natural Hazards (Cabinet Office, 2010)
- R10: Protecting the UK against terrorism (Home Office, 2013)
- R11: CONTEST strategy (Home Office, 2011)
- R12: Terrorism Act (Home Office, 2000)
- R13: The role of Local Resilience Forum (Cabinet Office, 2013)
- R14: Improving the flood performance of the new buildings (DCLG, 2007)
- R15: Localism Act 2011 (HM Government, 2011)
- R16: Strategic National Framework on Community Resilience (Cabinet Office, 2011)
- R17: Climate resilient infrastructure: Preparing for a changing climate (DEFRA, 2011)
- R18: Building regulations (all relevant parts)
- R19: Adapting to climate change (DEFRA, 2013)
- R20: Flood and water management act (HM Government, 2010)
- R21: Maintaining UK energy security (DECC, 2013)
- R22: Providing regulation and licensing of energy industries and infrastructure (DECC, 2013)
- R23: Strategy for national infrastructure (HM Treasury, 2010)

³ Building resilience is often seen as an agenda that fits perfectly into the neoliberal state (Chandler, 2014) that 'venerates decentralisation, contextualisation, autonomy and independence' (Handrup and Rosen, 2013: p.143). Whilst liberalism is about hands-on implementation, the approach of neoliberalism is more towards hands-off facilitation: in a neoliberal state relocation of authority – and simultaneously of responsibility - from the centre to the periphery takes place.

⁴ 'Prevent' is one of the four strands of CONTEST the Government's 'Counter Terrorism Strategy' (HM Government, 2006)