Ocean and Coastal Management 161 (2018) 147–155

Contents lists available at ScienceDirect

Ocean and Coastal Management

journal homepage: www.elsevier.com/locate/ocecoaman

Delivering more inclusive public participation in coastal flood management: A case study in Suffolk, UK

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ARTICLE INFO

Keywords:
Coastal and estuarine flooding
Hold the Line
Public participation
Q methodology
Discourse analysis

ABSTRACT

Ongoing problems achieving local population acceptance of coastal flood strategies threaten their implementation. A lack of meaningful engagement by all elements of potentially affected populations is seen as instrumental in this problem. This research assumes that multiple discourses exist on involvement with flood management, but that most are not engaged in decision-making. The aim is therefore to identify, and develop an approach for engaging with, all discourses related to flood management decision-making. Q methodology and follow-up interviews were used to identify both discourses and issues with current engagement strategies related to involvement in flood management in a case study population, controlled to allow for potential bias subject to the validity of the information deficit model, based in the Alde and Ore Estuary, Suffolk, UK. The five discourses included people who are knowledgeable; politically aware; sceptical and pragmatic; sceptical and locally attuned; and engaged or disengaged; in their perspectives on flood management. A workshop was subsequently held to identify engagement strategies that could engage with all discourses. Involvement of participants representing the range of existing discourses is argued to be necessary to lead to effective recommendations for more inclusive engagement approaches.

1. Introduction

A major problem with the estuarine coastline of Suffolk, a county in the south east of England, in the United Kingdom (UK), is its ongoing vulnerability to flooding from the sea. If severe weather conditions occur such as those that can create storm surges, and these are accompanied by high tides, there is potential for increased flood damage, above and beyond that due only to sea level rise in the short term (Hulme et al., 2002; UKCP, 2009). However modelling predictions of weather and tides cannot forecast with any certainty when these phenomena will occur, and what their magnitude might be (Hulme et al., 2002). It is when storm surges in the North Sea coincide with strong northerly winds and high tides that the worst effects of flooding have been felt on the south east coast of England. The most notable flood in the last century occurred in 1953 (Waverley, 1953). These floods led to considerable loss of life and property, and ultimately to the construction of sea and river wall defences designed to prevent flooding from events of a similar magnitude. With maintenance, the defences have essentially held since that time (Thomas, 2014). This demonstrable success of an engineered solution in response to a natural disaster helps to explain a preference, held by many local people in coastal flood risk areas of Suffolk, for a policy of 'Hold the Line' (that is maintain the position of the post 1953 flood defences and the maintenance of river and sea wall defences).

In England, the Environment Agency (EA), under guidance from Defra (The Government Department for Environment, Food and Rural Affairs) proposes strategies that must also be informed by non-statutory Shoreline Management Plans (SMPs) (devised in 1993) for protecting the coast and estuaries from flooding. SMPs are based on a division of the English and Welsh coastline into eleven cells to: improve understanding of coastal processes; predict the future evolution of the coast; identify assets that could be affected by coastal change; encourage research and monitoring of coastal processes; and facilitate consultation between groups with an interest in the shoreline (Potts, 1999). In 2003 a change in an area of SMP1 covering Orfordness in Suffolk was recommended from the maintenance of a coastal defence (the 'Hold the Line' strategy), to one involving re-alignment of defences (allowing controlled areas of flooding). The change was proposed by the EA based on the argument that the costs of defending mostly farmland, by maintaining or improving the estuary and river walls, far exceeded the

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https://doi.org/10.1016/j.ocecoaman.2018.04.026
Received 10 September 2016; Received in revised form 26 April 2018; Accepted 27 April 2018
Available online 16 May 2018
0964-5691/

value of assets protected. This led to an increase in the activity and formation of action, pressure, and local management groups, some of which were operating outside the existing consultation processes of Local Government Plans and EA Strategies (Andren, 2004; Green, 2007; Boggis, 2008; Henderson, 2012). At this time it became clear in the Alde and Ore Estuary area of Suffolk that without an adequate relationship between policy makers (in this case the EA) and some individuals and groups of local people, policies could not be enacted or were significantly delayed. Thus meaningful engagement is critical if plans are to be accepted and implemented, and this research seeks to understand how this can better be achieved.

Meaningful engagement in environmental decision-making is mandated through the EU Directive on public participation in environmental decision-making (European Parliament and the Council of the European Union, 2003), which is itself based on the UNECE Aarhus Convention on access to information, public participation in decision making and access to justice in environmental matters, which applies to any plans or programmes relating to the environment (UNECE, 1998). Whilst the effects of Brexit (the UK withdrawal from the European Union) on environmental legislation has yet to be seen, it could be assumed that since the UK has ratified the Aarhus Convention, which is independent of the EU, the need for involvement of the public will still be recognised (Bond et al., 2016).

Planning for more meaningful engagement has also been advocated by Renn et al. (1995) and Cleaver (2001), who thought that participation was intrinsically a good thing. Research by Webler and Tuler (2006 p699) concluded that "*knowing what people think about participation and knowing what people want from public participation is essential in crafting a legitimate and effective process and delivering a programme that is viewed as meaningful and successful*". The research by Webler and Tuler (2006) and later Simpson et al. (2016) used Q methodology to identify more meaningful approaches to public participation. This methodology was also used in this research as it reveals social perspectives (Webler et al., 2003) through the identification of discourses associated with particular issues (Webler et al., 2001). The underlying premise is that meaningful engagement needs to address all discourses if it is to be successful.

However, the intent behind the Public Participation Directive is difficult to achieve in practice as agencies struggle to include all those who could be affected or need, or want, to be informed of flood risk and management. An example of this difficulty in post SMP1 changes was seen in 2004. The EA were in the process of developing estuarine strategies for the whole of the Suffolk Coast that included the Alde and Ore estuary. However some local people found the EA strategy unacceptable as it only offered engineering solutions. This stalled the strategy in 2006 in its consultation phase because the options offered did not take into account environmental, economic and social considerations. The response of some local people in the Alde and Ore Estuary and Suffolk Coastal District Council (SCDC) area has been to form a management group, the Alde and Ore Estuary Partnership (AOEP). The AOEP is made up of both statutory members (EA, SCDC and Natural England, the statutory body tasked with nature conservation in England) and other non-statutory representatives (such as the Alde and Ore Association, Suffolk Coast and Heaths Unit and local landowners). Therefore some of the group can make policy decisions and others give advice. However not all local people have either the motivation or the opportunity to participate by belonging to this group. There will therefore be people in the area who, despite facing equivalent risk, have very different levels of engagement in the development of flood management strategies which affect them.

One of the reasons for different levels of engagement in flood management decision-making was thought to be the knowledge local people had about flood management. This was recognised by an EA Officer who operated locally to the Alde and Ore estuary area at the time and was tasked with devising inclusive strategies. He thought that local people lacked the knowledge of flooding and its management and would therefore find it difficult to initially engage in flood management decisions (Steen, 2009). This reflects the 'information deficit' model (Agyeman and Angus, 2003; Burgess et al., 1998) which argues that lack of knowledge affects understanding and behaviour (Miller, 2001; Dickson, 2005). The information deficit model is not uncontested; the fact that people have a lack of adequate knowledge about science (Sturgis and Allum, 2004; Dickson, 2005), in this case flooding and flood management, cannot always be solved by simply providing scientific information, as the model suggests (Miller, 2001; Dickson, 2005). Research into barriers to individuals' engagement with climate change by Lorenzoni et al. (2007) did identify the lack of individual knowledge as one of the barriers to involvement in decision-making, but not the only one. Simpson et al. (2016) also thought there would be different shared views, values and therefore perspectives that could influence decision making on the coast. Thus, we take the view that knowledge is still a factor that needs to be considered. It was therefore hypothesised that there would be different discourses on participation in flood management, and discourse analysis would be required as a means of identifying the diverse perspectives that exist, prior to identifying and associating appropriate engagement strategies with specific discourses. But to ensure all discourses are identified, the population sample will be controlled for knowledge to ensure that information deficit does not bias the results and conclusions. The research aims were therefore:

1.1. Research aim 1

Identify the levels of knowledge about the causes and consequences of flooding and flood management and current involvement of local people in flood management planning.

1.2. Research aim 2

Identify the discourses on participation in flood management planning using the levels of knowledge and involvement to control the population sample.

1.3. Research aim 3

Identify preferences and recommendations for more meaningful participation in flood management planning encompassing all discourses.

2. Methodology

A case study approach can provide a contextually rich understanding that considers a number of variables, questions and responses that would be needed to fulfil the research aims (Yin, 2003; Flyvbjerg, 2006). The population of Orford village was used as the case study in this research because it is characteristic of many of the east coast towns and villages in this area of Suffolk. These towns and villages are similar in their population structure, location and flood risk. The village had a total population of 659 people in 2009. A significant proportion of dwellings were those occupied by holiday homes and second home owners (134 out of the 518 total dwellings in the electoral Ward), and a local population, which has always lived in the village and worked in local agriculture, fishing and service jobs. A number of the 'incomers' to many of the East Anglian towns will live in newer housing on the coast or river frontages and therefore will be more susceptible to floods. In the area of Suffolk Coastal District Council (SCDC) where these towns are located there are twice as many second homes (7819) as opposed to Waveney District Council (WDC) to the North (3769) (ONS, 2011). Aldeburgh, Orford, Southwold, and the village of Walberswick, are all locations on the coast in the county of Suffolk which are susceptible to both coastal and estuarine flooding (Fig. 1).

Fig. 2 illustrates the research design.