

## **Civil society and flood resilience: Characterising flood risk volunteers and understanding motivations and benefits**

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### **Introduction**

In Britain over recent years there have been a number of significant flood events notably in 2007, 2012 and 2013/14. These affected hundreds of thousands of people (The Pitt Review, 2008, Met Office, 2012). In the 2007 floods thirteen people lost their lives (The Pitt Review, 2008). From December 2013 to March 2014 Britain faced further extreme weather with a succession of storms that brought widespread disruption to transport, communications and other important infrastructure (Met Office, 2014). Increasingly, flooding, along with other major events such as fire and climate change, are being considered within the wider context of community resilience. A Strategic National Framework on Community Resilience (Cabinet Office, p4 2011) was produced in 2011. Community Resilience is defined as:

*Communities and individuals harnessing local resources and expertise to help themselves in an emergency, in a way that complements the response of the emergency services.*

The focus is on ensuring that communities are aware of the risks that they face and understand how they can help themselves. A community resilience programme was set up in 2008 to explore ways of supporting communities to become more resilient. Along

with this as part of the United Kingdom governments approach to managing austerity, the ‘Big Society’ was promoted as a policy concept giving communities more powers, encouraging people to take an active role in their communities, transferring power to local government, and supporting social enterprises and charities (BBC, 2010; Woodhouse, 2013). Although contested by many as nothing new and potentially a route to a diminished society (Coote, 2010), central to the Big Society was the idea of local people and groups undertaking activities on a voluntary basis. Indeed, volunteering has a strong and established history in the UK: forty four percent of adults in 2012-13 volunteered formally at least once a year (IVR, 2014). We use the recognised definition of volunteering as:

*‘an activity that involves spending time, unpaid, doing something that aims to benefit the environment or individuals or groups other than (or in addition to) close relatives’.* Home Office (2005)

In this paper we explore the role of civil society volunteering in the context of flood resilience. We report on research undertaken by Forest Research (the research agency of the Forestry Commission) for the Environment Agency (EA) in 2013/14<sup>1</sup>. The research focused on investigating and appraising the involvement of volunteers in Flood and Coastal Risk Management (FCRM) outcomes in England. We undertook a review of available evidence about FCRM volunteering, developed a prototype evaluation framework, undertook an online survey of volunteers and focused on four case studies of FCRM volunteering using interviews, site visits and document analysis. We also ran workshops with EA staff and interviewed organisations that the EA was working in partnership with. We draw on some elements of this research to: 1) outline how we started to characterise volunteers; 2) understand their motivations for volunteering and the benefits they gain, and 3) consider how to develop an evaluation framework for flood volunteering.

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<sup>1</sup> The primary data collected for this research was undertaken before the December-March 2013/14 flood events

## Understanding FCRM volunteering

### *Creating a FCRM volunteering dataset from secondary data*

We applied a Rapid Evidence Assessment (REA) methodology<sup>2</sup> to collate information about flood focused volunteering from academic literature and other reports available on the web. In addition, we used a questionnaire with 22 EA staff involved in FCRM volunteering to provide additional information. Together the REA and questionnaire responses provided a total of 97 unique examples of FCRM volunteering. It was this dataset that we used to develop our understanding of FCRM volunteering. Each of the 97 examples was profiled using a set of attributes known to be important to volunteering in other contexts (Ambrose-Oji et al. 2013), and were factors emerging from the evidence as playing some part in these community-based FCRM volunteering efforts. The attributes included evidence about who was volunteering (e.g. demographic characteristics, experience of flooding), the objective of the volunteering and the activities involved, where the volunteering effort took place (e.g. location in watershed, rural-urban, degree and type of flood risk), and who the actors involved were (e.g. who organised the volunteers, links with local authorities and civil society organisations).

### *Types of volunteering*

We examined the purpose of the volunteering activity across all 97 cases. There were four types of volunteering which accounted for 70% (i.e. 72 of 97 cases) of all examples. The largest group (29 of 97 cases) were '**Flood Wardens**'. This is a position supported by the EA and other public agencies, where the volunteer acts as the 'eyes and ears' of public services and is tasked with informing relevant agencies of impending flooding incidents, operating flood management infrastructure and warning local residents of potential risks. The next most numerous role (21 of 97 cases) was what we called a '**Flood Volunteer**'. These individuals were not state sponsored Flood Wardens, but people working far more broadly, getting involved in emergency responses, in planning, organising community emergency volunteers, undertaking river maintenance, bringing

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<sup>2</sup> <http://www.civilservice.gov.uk/networks/gsr/resources-and-guidance/rapid-evidence-assessment>

authorities together to raise funding, linking with other community based flood groups, and working with local landowners to look at long term catchment issues. In these cases the volunteers often felt they were filling a gap in public sector service provision, and were finding ways to improve the resilience and general situation of their communities. The next most important group were '**Flood Alleviation Volunteers**' (11 of 97 cases), these individuals and groups were concerned with raising funds to build flood alleviation infrastructure and often disbanded or became dormant once those objectives were achieved. As such these volunteering roles were focused on overcoming state resourcing constraints. Finally the '**Habitat Volunteers**' (11 of 97 cases) were concerned with conservation and environmental quality. Their work was not always explicitly directed at flood risk management, but could have important impacts (e.g. keeping waterways clear of invasive plants).

#### *Role of volunteers*

Our analysis showed that there were four broad roles within these FCRM volunteering types. Volunteers themselves might take on one or more of these areas of responsibility. The types of volunteering role were:

- **Knowledge focused**, encompassing activities such as surveying a river in a catchment walkover, checking river gauges, monitoring water quality, pollution monitoring, collecting data as part of a citizen science project (51 of 97 cases)
- **Campaign focused**, for example raising awareness of flooding, taking part in flood planning, educational work with schools, and promoting the uptake of local flood warden services (50 of 97 cases)
- **Physical focused**, such as embankment building, habitat management, opening and closing sea gates, clearing drainage ditches and water courses (41 of 97 cases)
- **Virtual focused**, such as remote monitoring or web related action such as documenting the groups' activities and providing information on web pages (5 of 97 cases).

## **Motivations and benefits of FCRM volunteering**

### *Primary data collection*

Although the secondary data set provided a general indication of the form and scope of FCRM volunteering, primary data was collected to validate these initial findings and add detail around the motivations and benefits of this kind of volunteering. A mixed methods approach was used to collect qualitative and quantitative data from a survey of volunteers, volunteer activity diaries and interviews, and case studies of different kinds of FCRM projects.

We estimated that there might be between 1,700 and 3,500 potential FCRM volunteers based on baseline data provided by EA staff (Ambrose-Oji, 2013). A total of 87 FCRM volunteers were recruited to take part in the survey and 63 completed it. Sixty one volunteers were involved in interviews and diaries. Twenty EA staff and its partner organisation staff were interviewed and two workshops with EA staff were organised (O'Brien et al., 2014a; O'Brien et al., 2014b). Case studies were selected to provide the perspectives of: 1) volunteers, 2) EA staff and 3) partner organisations working with the EA. Four case studies were completed, based in Lincolnshire, Cornwall, Sheffield, and the village of Bodenham in Herefordshire.

### *Volunteer motivations*

The survey revealed the importance of knowledge and campaigning type activities. Monitoring river and tide levels was the most common activity (knowledge activities), with participation in the work of community flood action groups and forums, and working to pass on flood warnings within the community also significant (campaign activities).

Unpicking the detail of why volunteers undertook these activities, the survey showed that individuals reported their motivations for taking up FCRM volunteering as: wanting to do something to prevent flooding (40%); to help the community as a consequence of flooding experiences (17.5%); or to take on some kind of leadership role in community response and awareness (21%). The variety of motivations mentioned by volunteers engaging directly with the EA was the most diverse. When asked why they continue to volunteer, the three most important motivations respondents mentioned were: altruistic

reasons related to serving their community (33%); the continuing need for risk mitigation through flooding infrastructure improvements and maintenance (30%); and the ongoing need to maintain community preparedness (19%). Data from the volunteer interviews, diaries and case studies reinforced these views. People were shown to care for the place they lived in and the people who lived there. One respondent from South Yorkshire was typical when describing how he wanted to:

*'help people with the trauma and the emotional strain and stress [of flooding]. It eased problems as it was a shared experience'* (South Yorkshire Flood Warden)

### *Benefits to individual volunteers*

Respondents noted the benefits of FCRM volunteering as they applied to individuals, communities and/or public agencies. At an individual level many people mentioned a sense of value that came through their volunteering. For example, one woman mentioned that one of the dangers of getting older is *'feeling you don't matter anymore'*, and how being a Flood Warden helps her fulfil a role that has meaning for her. The primary data strongly reflected findings from the secondary dataset. Even though community focused motivations may have brought people to volunteering, personal benefits most often mentioned were about skills and knowledge development.

The survey showed 87% of people had increased their understanding of community flood risk, and 82% of individuals increased their knowledge of the agencies and services involved and responsible for flood risk issues. There was a reported change in volunteers understanding the level of their personal flood risk (75%), of what they can do to reduce their flood risk (63%), and what they can do to recover from flooding (59%). Interview data revealed the extent to which many volunteers had come to know about the mechanisms and processes of flooding in their local area, and had often researched the history of flooding in their area to put the current risk within context. Case studies and interviews also demonstrated that volunteers had learnt how to work with the state, built a better appreciation of the limits of the state and where community-based action and volunteering could make a difference. Evidence from one of the case

studies illustrated that Habitat Volunteering is used as a way to build employability. This stood in contrast to community-based volunteering which involved more older people (84% above 54 years old) who were providing their professional skills and knowledge, which in many cases (27%) often involved civil engineering and land management.

In some cases the importance of building social capital, links between members of the community, and the opportunity to socialise, was also mentioned as a benefit. For example:

*'we treat it to a degree socially there are lots of times after we have done the jobs, the work we want to do when we stop for a few drinks and nibbles and such afterwards ... it's social .... it's not all work.'* (Bodenham Flood Protection Group)

It is important to note that there were also disbenefits of volunteering. In particular a small proportion of the sample (5%) felt that their physical health and fitness had decreased as a result of volunteering, and that their happiness and well-being had been negatively affected (4%). This was linked with the kinds of activities that were undertaken, e.g. physical exertions connected with cleaning ditches, maintaining waterways, or the stress of being responsible for issuing community-level warnings, or the time some volunteers may be spending on activities.

#### *Benefits to communities and public agencies*

The case studies revealed most about benefits of volunteering at a community level and in terms of meeting the objectives of state agencies and public services under pressure. The obvious benefits of additional manpower, the development, maintenance and management of flooding infrastructure, and community-based communication and response were all recognised. Communities and public agencies also mentioned the benefits of changing the governance arrangements around FCRM. The Cornwall case study, for example, demonstrated the benefits of moving away from the more instrumental approach of directing Flood Wardens. Involving community-based Flood Volunteers as well as a range of stakeholder organisations created a:

*'... willingness to engage and to look at different ways of doing things and to learn together'.* (Volunteer Cornwall)



This social learning lead to more effective FCRM planning and response, as well as stronger connections and ties between stakeholders. These benefits were echoed by a participant managing Habitat Volunteers. In this case they pointed out that:

*‘to get good engagement, ownership I suppose, not the volunteering where you go out at a set time every week to do set stuff, we need to move to the sort of continuous volunteering .... the more flexible forms of volunteering .... that’s more innovative and perhaps more useful ....’* (Social Enterprise, Sheffield)

But, there are dis-benefits for public services too. As one EA staff member explained, it is:

*‘Intensive to manage the volunteers and it can take up a lot of time and once you start investing time in a community you can’t always control what is going to happen. Some places spiral in the amount of time that needs to be spent on them’.* (EA staff member)

### *The spectrum and characterisation of FCRM volunteering*

Synthesising the body of secondary and primary evidence to combine understanding of volunteer motivations, FCRM volunteering benefits and the degree of involvement of state and other agencies, we describe a spectrum of volunteering. Figure 1 shows a spectrum with four dimensions.

The primary activity and motivation dimensions illustrate volunteering tasks and outcomes which are community focused to the left end of the spectrum, with individual benefits placed at the other end. Motivations and values at the community end of the spectrum relate to protection of property, human life and community security, whilst motivations and values at the individual end relate to issues such as training and individual skills development as expressed by Habitat Volunteers. There is also a link between these dimensions and socio-demographic characteristics of volunteers. The empirical data suggested older, retired people who are more able to give their time sit at the community end of the spectrum, whereas at the individual side there is a more varied and younger demographic profile where volunteering helps to develop CVs, open



up networking opportunities and serves to help volunteers looking for employment opportunities.

**Figure 1. A spectrum of volunteering along four dimensions**

State involvement	High or Low                      Medium                      Low		
Governance	By themselves	In partnership	Through other organisations
Motivations	Community focused motivations and benefits	Partnership and community focused motivations	Individual focused motivations and benefits
Primary Activity	Awareness and infrastructure improvement and maintenance		Skills development and recreation

Governance arrangements map onto the activities and motivations, with community organised volunteering aligning with community benefits, and volunteering organised by other organisations associated with benefits to individual volunteers. It is interesting to note that because of the kinds of volunteers and their motivations, the place of volunteers managed directly by the EA is at the community end of the spectrum. However, the EA also plays a part in partnerships and projects that are managing volunteers all along the spectrum. Community organised and individual volunteering for community benefit involves little state direction in the case of community flood action groups, but a high level of state support in the case of Flood Wardens. Partnerships and volunteering through other organisations involves the EA in activities related to steering

groups and strategic advice, to align outcomes with national and regional priorities and make best use of organisations' limited resources.

### **How can we evaluate FCRM volunteering?**

We developed an evaluation framework that could facilitate EA assessment of the benefits of involving volunteers in FCRM activities. After reviewing existing evaluative approaches to environmental volunteering, a collaborative workshop with EA staff led to discussion of the current evaluation of FCRM volunteering and future evidence needs. Twenty six project evaluations were included in our review. All were focused on volunteering initiatives within the environmental, heritage or social sectors, and three were evaluations of catchment management or flooding projects (Lancashire Wildlife Trust, 2013 a and b; WRVS, 2012).

More than half (n=15) of the evaluations utilised a combination of standard evaluation methods, such as surveys, interviews and focus groups with staff, volunteers and service users. Two studies used specialist tools such as the Social Return on Investment or the Volunteer Investment and Value audit (Gaskin, 2011).

Although the toolkits reviewed advocate the evaluation of inputs through to impact, few of the evaluations reviewed seemed to take this approach and none explicitly reported in this way. Only those studies that reported the economic impact of their volunteering projects measured any inputs used such as training and staff time. Most of the evaluations focused on the outcomes for the volunteers themselves although some studies did include outcomes for the organisation, wider community and service users. Outcomes for volunteers included increases in wellbeing, skills and social networks (Morris et al., 2013).

At the workshop we found the amount of data being collected about FCRM volunteering varied across EA local areas in England. Some data is collected at annual Flood Warden Seminars that are organised by EA often in partnership with other organisations such as local authorities. Most of the local areas kept an up to date list of active Flood Wardens, and some held post-flood events which provided an opportunity to gain

feedback in communities on Flood Warden activities. Of interest to EA staff was evaluative evidence and approaches that could: describe the full range of benefits people gained from volunteering; demonstrate the value of volunteer activities to the organisation; and share learning about managing volunteers and improving the volunteer offer. However, important barriers to monitoring and evaluation were identified, such as time and resource constraints, and a lack of understanding of the specific objectives for working with volunteers, directly or indirectly, from the perspective of the organisation.

Of key importance was developing an evaluation framework that addressed some of the shortcomings associated with understanding volunteer engagement by the EA, and identified by workshop participants. Allocation of resources within the EA is primarily made on the basis of cost-benefit analyses. These may fail to capture the intangible and unseen ways in which FCRM volunteers avoid losses associated with flooding or accrue some of the benefits, as our case study and questionnaire research revealed. There was a feeling from some EA staff that ways of incorporating the qualitative and narrative, alongside the economic and quantitative, within evaluations would better capture the full range of benefits of FCRM volunteering by different stakeholders and beneficiaries. The prototype evaluation framework developed by FR was part tested in the primary research using qualitative and quantitative methods. A comprehensive list of indicators has been produced that provides a resource for the EA in any future evaluations that can aid the organisation in considering its key objectives and prioritising which indicators are potentially most important in terms of future business needs (O'Brien et al., 2014b).

There was also a desire to share lessons learnt and disseminate good practice relating to FCRM volunteering delivery and evaluation. EA staff highlighted the need for improvements to internal mechanisms to facilitate organisational learning. Face to face seminars or meetings were described as taking time and resources, but were viewed as effective in allowing the sharing of ideas between EA staff working with similar types of flood event or community, and the identification of actions to take forward.

## Conclusions

In our work we have tried to better understand and characterise FCRM volunteering, exploring motivations of volunteers and benefits not only to volunteers but also to the EA and the partner organisations it works with. There is great diversity in the ways in which FCRM volunteering is taking place in England. This is a reflection of a number of issues such as local differences in flood risk, funding opportunities, local capacity and willingness to engage, and the governance of volunteers. Being able to identify a single approach to the governance and evaluation of FCRM volunteering would probably be an attractive proposition for a state agency such as the EA, i.e. an approach that could be rolled out across the country. However, stakeholders and EA staff highlight the importance of adapting to local context and working towards increasing local empowerment and action. Volunteering initiatives should be able to grow organically and the EA at a national level could define the parameters of what is appropriate and what is expected of staff and provide guidance, processes and tools; but not be overly prescriptive. This type of approach would recognise the important local knowledge of staff and volunteers.

Over the past few years there has been a trend within the EA of moving away from directly managing volunteers to more complex governance arrangements that involve partnership working with stakeholders and volunteers, and moving from a narrow focus on flooding to a wider community resilience approach. These more complex ways of working are not just a product of state withdrawal and reductions in funding. Multi-agency partnerships, including the active participation of volunteers and communities, provide more flexible, responsive, and sustainable approaches to dealing with the increasing complexity, scale and intensity of flooding issues. However, the nature of flooding means that areas of high flood risk that have experienced repeated flood events in recent years tend to be the areas where most activity is taking place. In other areas where the risks are less severe, the cooperation between agencies is less well-developed, or the sense of community spirit and cohesion not as strong, engagement with community-based volunteers is more difficult. The shift outlined above provides new opportunities to focus on the role of civil society and flood resilience through

volunteering and community action. This will require support from organisations such as the EA and the partners that it works with such as local authorities, emergency services, third sector organisations and local community groups. Learning lessons from existing practice that is working well is especially important as well as understanding local context and undertaking robust monitoring and evaluation to develop an evidence base of what works and why.

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