



What is going wrong with community engagement? How flood communities and flood authorities construct engagement and partnership working

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Accepted Version

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Mehring, P., Geoghegan, H., Cloke, H. L. and Clark, J. M. (2018) What is going wrong with community engagement? How flood communities and flood authorities construct engagement and partnership working. *Environmental Science & Policy*, 89. pp. 109-115. ISSN 1462-9011 doi: <https://doi.org/10.1016/j.envsci.2018.07.009> Available at <http://centaur.reading.ac.uk/77091/>

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To link to this article DOI: <http://dx.doi.org/10.1016/j.envsci.2018.07.009>

Publisher: Elsevier

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1 **What is going wrong with community engagement? How flood communities**
2 **and flood authorities construct engagement and partnership working**

3

4 **P. Mehring^{1,3*}, H. Geoghegan¹, H. L. Cloke^{1,2,4,5}, J. M. Clark¹**

5 **1. Department of Archaeology, Geography & Environmental Science, University of Reading,**
6 **Reading, UK**

7 **2. Department of Meteorology, University of Reading, Reading, UK**

8 **3. National Flood Forum, Bewdley, Worcestershire**

9 **4. Department of Earth Sciences, Uppsala University, Uppsala, Sweden.**

10 **5. Centre of Natural Hazards and Disaster Science, Uppsala, Sweden**

11 ***Corresponding author: P. Mehring - (phiala.mehring@pgr.reading.ac.uk)**

12

13 ***Highlights***

- 14 • The impact of historical technocratic constructions of flood defence on contemporary flood
15 risk management.
- 16 • How one size fits all engagement processes fail to appreciate the heterogenous nature of flood
17 communities, where ‘collaborative’, ‘contractual’ and ‘hybrid’ constructions of community
18 exist.
- 19 • The importance of equitable ways of working in the establishment of partnerships within flood
20 risk management.
- 21 • How knowledge hierarchies negatively affect partnership working and flood communities.

22 ***Abstract***

23 In this paper, we discuss the need for flood risk management in England that engages stakeholders
24 with flooding and its management processes, including knowledge gathering, planning and decision-

25 making. By comparing and contrasting how flood communities experience ‘community engagement’
26 and ‘partnership working’, through the medium of an online questionnaire, with the process’s and
27 ways of working that the Environment Agency use when ‘working with others’, we demonstrate that
28 flood risk management is caught up in technocratic ways of working derived from long-standing
29 historical practices of defending agricultural land from water. Despite the desire to move towards
30 more democratised ways of working which enable an integrated approach to managing flood risk, the
31 technocratic framing still pervades contemporary flood risk management. We establish that this can
32 disconnect society from flooding and negatively impacts the implementation of more participatory
33 approaches designed to engage flood communities in partnership working.

34

35 Through the research in this paper it becomes clear that adopting a stepwise, one-size-fits-all
36 approach to engagement fails to recognise that communities are heterogenous and that good
37 engagement requires gaining an understanding of the social dimensions of a community. Successful
38 engagement takes time, effort and the establishment of trust and utilises social learning and pooling
39 of knowledge to create a better understanding of flooding, and that this can lead to increasing societal
40 connectivity to flooding and its impacts.

41

42 **Keywords:** community engagement, partnership working, knowledge hierarchies, trust, flood
43 communities, and flood authorities

44

45 **1.0 Introduction**

46 Flooding is a multi-dimensional systemic risk (Renn et al., 2011) embedded in other societal processes
47 (Evers et al., 2016) such as transport, health, education, food production, drinking water provision,
48 ecosystem services and so on. It is fraught with uncertainty and ambiguity (Renn et al., 2011; Aronica
49 et al., 2013) which necessitates a holistic, that is an integrated approach, to ensure that all elements
50 of the risk are managed as effectively and efficiently as possible. For flood risk management to be

51 deemed successful it also needs to include increasing societal awareness of, and preparedness for,
52 flooding alongside helping society to build greater resilience to flooding (Geaves and Penning-Rowell,
53 2015). It is through engaging society with managing flooding that these outcomes can be attained.

54

55 In this paper we discuss the need for flood risk management ways of working that engage stakeholders
56 through partnership working, including knowledge gathering, planning and decision-making. How-
57 ever, we demonstrate that the terms 'engagement' and 'partnership working' are themselves fraught
58 with uncertainty and ambiguity and are constructed differently by the various stakeholders of flood
59 risk management. We seek to understand these different constructions and provide a more united
60 framing of engagement and partnership working which can then be embedded into both policy and
61 practice through a combination of top down and bottom up processes.

62

63 By comparing and contrasting the experiences of flood communities being 'engaged' by the flood au-
64 thorities with the approaches that the Environment Agency use when 'working with others', we gain
65 an understanding of how flood risk management has come to be framed within a technocratic para-
66 digm. We then move on to examine why a more democratic paradigm is critical to the engagement
67 of communities and the development of partnership working.

68

69 We finish by unpacking the problems encountered when endeavouring to adopt more democratised
70 ways of working: the impact that knowledge hierarchies have on flood communities; the problems
71 associated with adopting a stepwise, one-size-fits-all process to engagement; and the consequences
72 of not taking the necessary time to build the trust required to make partnership working successful.

73

74 **1.1. The reframing of flood risk management: from a technocratic to democratic paradigm**

75 For centuries, humans have fought to reclaim land from the control of water. Protecting lowlands
76 with river embankments, drying out potential farmland via field drainage and creating vast networks

77 of drains to enable wetlands to become viable for agriculture (Werritty, 2006; Scrase and Sheate,
78 2005). Land reclamation was a battle between land owners and water, to defend the soils and turn
79 them into productive food generating landscapes (Purseglove, 2015) and feed an ever-growing popu-
80 lation. Managing water was set in a paradigm of technocratic flood defence.

81

82 The advent of World War 2 necessitated the UK to become more self-sufficient in the production of
83 food (Tunstall et al., 2004). This led to intensification in agricultural production and further changes
84 to the flood landscape through modification of land management practices, increasing land drainage
85 and more reclamation of land from the waters (O'Connell et al., 2007; Wheeler and Evans, 2009;
86 Marshall et al., 2014). This all bolstered the framing of a defensive approach to managing flooding
87 achieved by utilising a centralist and technocratic approach with limited input from the public. Such
88 an approach failed to accommodate the opinions of the communities it impacted nor their historic
89 use of the land (Purseglove, 2015).

90

91 The practice of protecting agricultural land through flood defence continued until a series of flood
92 events in the late 1940s and early 1950s challenged the premise of what should be defended. Flooding
93 in the Fens in 1947 (Wainwright, 2007), in Lynmouth in 1952 (McGinnigle, 2002; Hill, 2015) and severe
94 coastal flooding in 1953 (killing over 300 people) (Scrase and Sheate, 2005; Lumbroso and Vinet, 2011)
95 initiated the reframing of flood defence; from defending agricultural land to defending property and
96 keeping people safe (Donaldson et al., 2013; Nye, 2011). This reactive reframing (Tunstall et al., 2004)
97 did not, however, alter the underlying paradigm of flood defence. If anything, it strengthened the
98 centralist and technocratic 'flood defence' response.

99

100 Flood defence became predicated on the institutional construction of hard engineering solutions de-
101 signed to defend towns and cities against the rising flood waters. This 'defence' was framed in terms
102 of 'sovereignty' (Donaldson et al., 2013) where government determines flood risk management policy

103 and approach and what constitutes 'public good' in the face of flooding. This approach effectively
104 removes society from flooding. It abstracts communities and other stakeholders from the actions
105 taken towards managing flood risk (Tapsell et al., 2002) and protecting their homes and livelihoods.
106 Those living at risk of flooding became, in essence, passive observers, with flood risk authorities acting
107 on their behalf.

108

109 The 1980's and 1990's saw the beginning in a shift away from the paradigm of flood defence moving
110 towards one of flood risk management (McEwen et al., 2017). The emphasis on protecting urban
111 environments was further increased as over production of food and increased access to global markets
112 (Tunstall et al., 2004) reduced the perception of the need to defend agricultural land from flood
113 waters. Increased computer power, advancing models and the beginnings of the understanding of
114 the impact that flood defence techniques had on the environment all led to seeking a more integrated
115 approach to flood risk management. Embedded within this new paradigm was the requirement for
116 society to take responsibility for managing individual flood exposure, for example, creating flood plans
117 or making homes more flood resistant and resilient. Flood communities were no longer to be
118 abstracted from managing flooding but rather abruptly immersed into the process. Thus 'community
119 engagement' started to play an important role within flood risk management.

120

121 In 2004, echoing the Netherlands's approach of '*Room for the Rivers*' (Netherlands, 2012), Defra
122 published '*Making Space for Water*' (Defra, 2004) which further developed the concept of flood risk
123 management. The challenge now faced by the flood authorities in England was to move their
124 approach to managing flooding away from historic technocratic and top down ways of working, arising
125 from taking a flood defence approach, towards more inclusive democratised approaches (McDaniels
126 et al., 1999). 'Engaging the community into the decisions made about managing flooding' was the
127 objective (Landström et al., 2011), and this tended to play out as the flood authorities endeavouring
128 to make communities make themselves more resistant and resilient to flooding. Through taking a top

129 down approach deployed without using two-way communication there could be little understanding
130 of what 'engaging the community into the decisions' meant to 'the community'.

131

132 **1.2 Moving towards 'good' engagement: effective flood risk management**

133 We acknowledged earlier that flooding is a systemic risk embedded within society (Ortwin Renn, 2011;
134 McDaniels et al., 1999), it is a wicked problem (Horst and Webber, 1973). Managing such a complex
135 problem necessitates the generation of an exhaustive understanding of the sources, pathways,
136 impacts and societal elements of flooding, in order to generate an understanding of what solutions
137 could be developed to address it. Participatory processes and partnership working can create the
138 environment in which this exhaustive understanding can be developed. It is through combining
139 different domains of knowledge and through alterations to decision-making processes using
140 collaborative approaches (Löschner et al., 2016), that flood partnerships have the potential to create
141 more effective flood risk management responses. Engaging all flood stakeholders creates a degree of
142 knowledge overlap which strengthens the process potentially yielding more impactful outputs
143 (Löschner et al., 2016).

144

145 The realisation of co-creating flood risk management solutions ultimately depends on the capacity of
146 the different actors and groups involved in partnership working to communicate, learn, negotiate and
147 reach collective decisions (Muro and Jeffrey, 2008). This is initiated by the development of a shared
148 understanding of the local flooding situation through combining knowledge and experience which
149 ultimately can lead to enhanced connectivity with flooding and the creation of the resilience and
150 resistance that society requires to withstand it (Frijns et al., 2013). This is a form of social learning
151 and is being increasingly used in environmental problem solving (Johansson et al., 2013). Here social
152 learning is centred on developing relationships and trust, both of which take time and perseverance
153 (Johansson et al., 2013).

154

155 The move towards more democratised ways of working has been stilted by the tendency to hold onto
156 old ways of working, with the paradigm of a technocratic response retaining the psychological upper
157 hand as evidenced in this research. When engagement is set in the shadow of technocratic ways of
158 working, 'being heard' becomes a central problem for flood communities (Thaler and Levin-Keitel,
159 2016). A frequently heard lament at flood group conferences, workshops and forums and within this
160 research is that flood risk management continues to be something that is being "done" to flood com-
161 munities rather than "with" them [respondent:115]. This lament is set against changes in the way the
162 flood authorities work. For example, the Environment Agency has recently employed a number of
163 Engagement Officers. Whilst the flood authorities are endeavouring to engage the community, com-
164 munities fail to see these activities as them 'being engaged'. Within this paper we argue that the
165 constructions of 'engagement' differs between flood communities and flood authorities create this
166 discord.

167

168 **1.3 Moving towards 'good' engagement: appreciating that communities are heterogenous**

169 Having established that good community engagement is beneficial to all flood risk management stake-
170 holders and to the processes of managing flooding, we now turn our attention to what is 'good' en-
171 gagement. There are many facets to what constitutes 'good' engagement and many are dependent
172 on how individual flood communities are constructed. Community construction is defined by the di-
173 verse characteristics of people, place (MacQueen et al., 2001) and experience. Communities are het-
174 erogeneous (Dempsey, 2010) and failure to appreciate this complexity when 'engaging' with a com-
175 munity will result in engagement processes which are, at best, challenging, and at worst, create a
176 breakdown in communication and relationships (Barnes and Schmitz, 2016). The notion of social cap-
177 ital is useful for making sense of a community's potential response to 'engagement'. Putnam (2001),
178 in his book about the decline of social capital in the US (Bowling Alone), defines social capital as the
179 connections amongst individuals, their social networks and the reciprocity and trustworthiness that
180 results from these connections. The social capital held within a group has a marked impact on the

181 construction of that group (Putnam, 2001). A flood community with strong social capital will respond
182 to a flood event differently compared to a community with little or no social capital. Strong social
183 capital (Kuhlicke et al., 2011) generates a positive response to a negative external stressor such as
184 flooding and can provide the skills and resources to enable at-risk communities to anticipate, respond
185 to, cope with, recover from and adapt to, the external stressor. It is highly improbable that engage-
186 ment advances by flood authorities which do not appreciate these skills, nor understand a commu-
187 nity's connectivity to flooding will be successful.

188

189 However, social capital is not static, it is not an unchanging force within a community. Good engage-
190 ment which utilises social learning through participatory ways of working can develop and strengthen
191 social capital (Frijns et al., 2013). Good engagement should not only aspire to developing good rela-
192 tionships with 'the community', it should aim to use social learning to co-create knowledge, enhance
193 social capital and increase the resilience of society towards flooding.

194

195 **2. Research questions, methods and analysis approach**

196 Research is never without a context nor is value free (Rose 1997), as such it is important to
197 acknowledge the social identity and situated knowledge of one of our authors who has lived at risk of
198 flooding. This experience which, includes their journey starting a flood group which demanded that
199 the flood authorities 'do their job' and stop flooding, through to the realisation that flood risk is com-
200 plicated and therefore requires all stakeholders, including communities, to work together, informs
201 this research. Through the author's work as a Trustee of the National Flood Forum, it has been im-
202 possible to silence the voices and experiences of other flood groups which echo many of the chal-
203 lenges and opportunities that the author has encountered personally. Additionally, much of the re-
204 search conducted in this area has been conducted by 'outside' observers, where researchers work
205 with communities as neutral participants to facilitate understanding of the human impacts of living at

206 risk of flooding. The research within this paper utilises the positionality of the author and acknowl-
207 edges potential constructions of ‘them and us’ between researcher and the researched and builds on
208 a more pluralistic sense of ‘we’ through shared lived experiences. Where themes embedded in re-
209 spondent’s words and phrases resonate directly with personal experience, and where the challenges
210 and triumphs of battling ‘*to get something done*’ can be viewed through the lens of experiential
211 knowledge. These lived observations have motivated this academic research project at the University
212 of Reading that investigates the following three questions which frame the research within this paper:

213

- 214 • How do flood communities construct ‘engagement’ and ‘partnership working’?
- 215 • How does the Environment Agency construct ‘engagement’ and ‘partnership working’?
- 216 • How can these constructions be aligned to improve community engagement and partnership
217 working?

218 It is through facing some of the challenges that the author first came across the Environment Agency’s
219 internal ‘working with others’ guidance document and began to appreciate the dichotomy between
220 the construction of engagement as experienced by flood communities, with the construction of en-
221 gagement within the Environment Agency’s guidance document.

222

223 In what follows, we compare and contrast how flood communities experience community engage-
224 ment and partnership working through the medium of an online questionnaire, with the process’s and
225 ways of working that the Environment Agency use when ‘working with others’.

226

227 The online questionnaire consisted of 13 questions ranging from understanding how those living at
228 risk of flooding thought flood risk was managed and separately how it should be managed, whether
229 the flood authorities that manage flooding showed good leadership and whether flood communities
230 should be involved in flood risk management. The questions generally followed the format of an initial

231 closed question requiring a 'yes' or 'no' response followed by an open-ended probe 'why do you say
232 that?'.
233

234

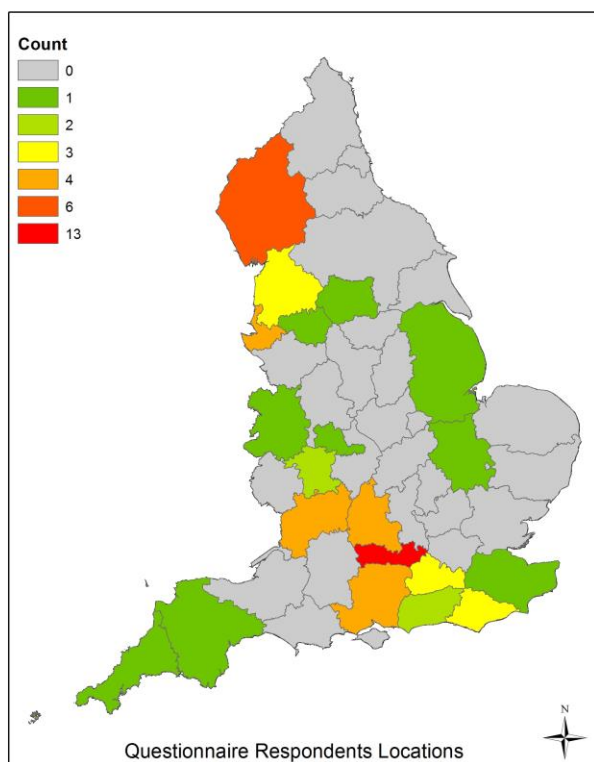
234 The questionnaire targeted individuals living at-risk of flooding and local/national flood groups. 62
235 people responded to the questionnaire and 10 responded to additional questions. The on-line survey
236 was distributed through social media and emails from the National Flood Forum to their 300+ affiliated
237 groups with additional support through social media by the Environment Agency. Participants were
238 self-selecting.
239

240

240 57 of the 62 respondents either represented flood groups or were individuals who had experienced
241 flooding. The remaining five were either flood wardens or councillors representing those living at risk
242 of flooding with one respondent representing the Environment Agency. From the community-based
243 respondents, one had not flooded but was aware that their home had flooded before they moved in.
244 One individual had not flooded but neighbouring properties had. 10 additional respondents had also
245 not experienced internal flooding but had been impacted by gardens, local roads and other infrastruc-
246 ture, for example schools, being flooded. 15 respondents had suffered flooding on one occasion, 11
247 on two occasions and 19 on three or more occasions. Responses were geographically spread across
248 England.
249

250

250 **Diagram 1:** the locations of respondents to the questionnaire: red areas with 12 respondents, dark
251 orange – 6, light orange – 4, yellow – 3, light green – 2 and dark green – 1.



252

253 Documentary analysis was conducted on the Environment Agency's internal training guide 'Working
 254 with Others' (EA, 2015). The document is designed to facilitate the Environment Agency in their en-
 255 deavours to implement good stakeholder engagement. The guide structures engagement around the
 256 process of 'think, plan, prepare'. It starts with an introduction by James Bevan, Chief Executive of the
 257 Environment Agency before taking Environment Agency staff through a step by step approach for
 258 'working with others'. Access to this document was granted by the Environment Agency's Deputy
 259 Director.

260

261 **2.1 Analysis**

262 Thematic analysis was used to understand and interpret both the information gathered in the on-line
 263 questionnaire and the Environment Agency's 'working with others' document. This thematic analysis
 264 took an inductive hermeneutic approach (Kitchin and Tate, 2000) to interpreting the themes within
 265 both sources of information which identify how the EA and those living at risk of flooding construct
 266 partnership working and community engagement. This hermeneutical approach enabled the layering

267 of meaning, to understand sense and themes both within the sections/sentences they are located
268 within and with the information as a whole.

269

270 The above analytic procedure entailed finding, selecting, appraising (making sense of), and synthesis-
271 ing (Bowen, 2009) of the information contained in the EA' document and the responses to the ques-
272 tionnaire. Care was taken to avoid identifying themes purely based on frequency of use as the style
273 of responses or of the writer(s) of the Environment Agency's documents (Vaismoradi et al., 2013),
274 could affect frequency of mention. The importance of a theme was therefore based on the research
275 questions.

276

277 **3. Results and discussion**

278 ***3.1 Do flood communities believe they should be involved in flood risk management?***

279 Before we move to discuss the construction of engagement and partnership working, we need to un-
280 derstand whether flood communities and individuals within this research actually seek to be involved
281 in the processes of flood risk management. The respondents to the questionnaire were asked directly,
282 'Should communities, residents groups and residents be involved in managing flooding?'. 95% of the
283 respondents replied 'yes'.

284

285 What does 'involved' mean? There is a clear appreciation that local experiential knowledge is im-
286 portant if not vital to effective flood risk management:

287

288 *Only (named flood group) have the knowledge, experience and expertise to promote flood al-*
289 *leviation[respondent:117].*

290

291 *From personal experience. No-one knows more about the effects of flooding than those di-*
292 *rectly affected[respondent:112].*

293

294 *There is a wealth of local understanding that can be used[respondent:120]*

295

296 *Local residents often have far more knowledge of local problems than the authorities, which*
297 *can be extremely useful. XX Council and the relevant authorities are keen to tap into this*
298 *knowledge following discussions with residents. I think they have been very impressed with the*
299 *level of knowledge some of the older residents have from living in the area for a life time[re-*
300 *spondent:113].*

301

302 It is also interesting to note that many respondents constructed 'be involved' around the idea of con-
303 tributing their knowledge to the greater understanding of how and why local flooding happens. Some
304 respondents went as far as to say that 'be involved' should be framed around being consultants;

305

306 *Yes but only as consultants[respondent:33]*

307

308 *In an advisory capacity. Local residents often have far more knowledge of local problems than*
309 *the authorities, which can be extremely useful[respondent:113]*

310

311 Or as being the co-ordinators of flood risk management;

312

313 *Exploit vernacular knowledge - hold agencies to account - fill co-ordination gaps[respond-*
314 *ent:130]*

315

316 There was also an understanding that the inclusion of lay knowledge into the processes of flood risk
317 management will facilitate the acceptance of the resultant decisions;

318

319 *Otherwise the solution will not engage them, it may not be right or meet their local needs and*
 320 *they will feel that something is being "done" to them rather than with them, people need to*
 321 *feel listened to[respondent:115]*

322

323 *They have vital local knowledge of the how and where local flooding occurs. You need the*
 324 *community to 'buy in" to the risk management so that they will take steps to improve their*
 325 *own property protection too[respondent:104].*

326

327 The over-riding theme across the responses was the desire to be involved, with the underlying under-
 328 standing that this was the only way of getting things done.

329

330 **3.2 Engagement and heterogenous communities**

331 Whilst the majority of respondents in this research felt that they should be involved in flood risk man-
 332 agement, the perception of how this should happen varied. This research and others (Geaves and
 333 Penning-Rowell, 2015) found that some people and groups were galvanised by a flood event, or near
 334 misses, into taking action whilst others seek to find a cause to blame and have corrected by others,
 335 for example some respondents identified:

336

337 *'Improve and update the drainage'[respondent:131/9],*

338 *'Flood relief Chanel should be extended....'[respondent:121/9],*

339 *'get the rivers more capacity'[respondent:139/9],*

340

341 The 'galvanised' groups would often try to initiate partnership working with the flood authorities,
 342 seeking collaborative ways of working to develop flood risk management solutions:

343

344 *'It (the flood group) was a very much a clear example of the community group driving the*
345 *agencies forward and not vice versa'[respondent:m7/5].*

346
347 *'From there (forming the flood group) we got to know the EA people. Things continued with*
348 *more frequent contacts and building relationships'[respondent:p9/1].*

349
350 Whilst those seeking someone to implement corrective actions often simply want the authorities to
351 do what they think needs to happen:

352
353 *'Construct a bypass channel to direct flow around mill sluice'[respondent:101/9].*

354
355 *'To upgrade the village surface water system and the sewerage system, which were probably*
356 *installed in the 1950's, to make them able to cope with a future ground water flooding*
357 *event[respondent111]*

358
359 This framing displays 'contractual' (Geaves and Penning-Rowell, 2015) elements where communities
360 expect a level of protection provided by the authorities. These constructions are, however, not static.
361 Flood communities can start with a contractual view of flood risk management and, over time, as they
362 become reconnected to flooding and the processes of flood risk management migrate towards more
363 collaborative constructions, thus creating hybrid flood communities. These hybrid flood communities
364 often blend collaborative and contractual framings of flood risk management, such as;

365
366 *'Engage with the community and commit to a holistic long-term plan to correct the poor in-*
367 *frastructure and plan for the future'[respondent:112/9].*

368

369 Often starting by erring more towards a contractual stance before moving to more collaborative ways
370 of working. This transition can only come through reconnection to flooding, whether that be commu-
371 nities themselves using their experience to better understand flood risk or through engagement with
372 the flood authorities. This is a reflection of the advantages discussed above where social learning
373 develops knowledge and understanding, thus increasing social capital and increasing societal resili-
374 ence to flooding.

375

376 ‘Collaborative’, ‘contractual’ and ‘hybrid’ flood communities require different forms of engagement
377 by the flood authorities. The approaches made to the collaborative groups, seeking equitable part-
378 nership working, will fall flat if offered to the contractual groups, who are seeking readymade solu-
379 tions. On the other hand approaching a collaborative group with a readymade solution will be seen
380 as stealth issue advocacy (Thaler and Levin-Keitel, 2016) and will result in a breakdown in trust creating
381 fault lines (Löschner et al., 2016) within the fledgling partnership. The hybrid groups, seeking a blend
382 of collaboration and contractual responses, pose yet more complications in determining the form that
383 engagement should take. It is clear, flood authority engagement with flood communities can not only
384 come in one size and shape. It can’t be a tick box process; one size does not fit all (Nye, 2011).

385

386 These differing constructions of flood communities – collaborative, contractual and hybrid – echo the
387 paradigms in which flood risk management has been framed over time. The contractual groups are
388 responding to the historically technocratic response to flood risk management where top down solu-
389 tions are expected if not demanded. Whilst the collaborative groups are preferring a much more
390 democratised framing of flood risk management where engagement and partnership working are vi-
391 tal.

392

393 These technocratic and democratic paradigms are also found within the Environment Agency’s ‘Work-
394 ing with Others’ guide. This guide is clear in understanding that partnership working necessitates the

395 Environment Agency being '*a trusted and valued partner*'[EA:8]'. However, this democratised view of
396 engagement and partnership working quickly shifts to a more traditional technocratic paradigm '*in*
397 *most cases we still make the final decision, but we will have worked with others throughout to ensure*
398 *such decisions are as widely supported as possible*'[EA:27]. Here the goal of engagement is attaining
399 acceptance of decisions apparently made without the inclusion of other stakeholders. Trust is being
400 sought in the decisions not in the relationships required to work in collaborative ways and co-create
401 decisions. There is no acknowledgement that other ways of knowing flooding may enhance the ap-
402 proaches made to manage flooding.

403

404 The guide breaks down engagement into a step-by-step process designed to 'fit all' stakeholders and
405 communities:

406

407 *step 1: 'what do we want to achieve?'*[EA:41],

408 *step 2: 'why work with others'*[EA:75],

409 *step 3: 'how do we need to work with'*[EA:118], and

410 *step 4: 'how do we work with others?'*[EA:154].

411

412 It includes deciding what *type of engagement to use*[EA:162]. This process homogenises the construc-
413 tion of community (Scott, 2008) thus enabling engagement to be delivered through the steps laid out.
414 Starting the 'process' with '*what do we want to achieve*' immediately excludes the very communities
415 and their ambitions, that the guide appears to aim to engage. Here 'we' is being constructed as the
416 Environment Agency and this construction is embedded within the other steps, introverting them into
417 decisions made behind closed doors. This is experienced by flood communities as the Environment
418 Agency 'coming in' with predetermined plans and decisions. The construction of engagement appears
419 to be centred around seeking approval for the decisions made by the Environment Agency.

420

421 It appears flood communities are not heard until the Environment Agency seek to '*refine them* [objec-
422 tives] *when we know more about who our stakeholders are (step three) and what they are seeking to*
423 *achieve*'[EA:76]. There is potential for this guide to be developed to open 'we' up into a more plural-
424 istic 'us', whereby developing relationship necessitates making space for listening, learning and think-
425 ing, and making time for working together. Making space for partnership working will build trust and
426 lead to more productive democratised ways of working; working together will create stronger and
427 better solutions. This construction of partnership working is more aligned with how flood communi-
428 ties construct it.

429

430 **3.3 Equitable partnerships: Rebalancing technical knowledge hierarchies**

431 Being a 'wicked' problem, effective flood risk management necessitates the inclusion of the societal
432 ways of knowing flooding. Where community knowledge is regarded as not being as valid or robust
433 in comparison to the priori knowledge of the flood authorities (Whitman et al., 2015) knowledge hi-
434 erarchies are created and these are commonly encountered by the flood communities within this re-
435 search. As discussed above, flood communities are very aware that the knowledge they hold is im-
436 portant when trying to manage flood risk, but that it is often not viewed this way by the flood author-
437 ities.

438

439 *'We are extremely knowledgeable about flooding in the local area. Why not consult us and use*
440 *our expertise?.....Some of the villagers have lived through flooding since they were children*
441 *and need to be listened to''[respondent:138/12b].*

442

443 Communities have both experiential and intergenerational knowledge and often many photographs
444 showing how their locality floods (Garde-Hansen et al., 2017; McEwen et al., 2017). At the very least,
445 these could be used to ground truth models and provide invaluable additional knowledge about the
446 sources, pathways and impacts of flooding. In Lane et al.'s(2011) research on doing flood research

447 differently, the team witnessed how strong hierarchies of knowledge driven by top down and techno-
448 cratic ways of working led to a general breakdown in collaborative working with a negative impact on
449 trust. When knowledge hierarchies come into play, where organisations or individuals perceive and
450 behave as if their knowledge is more important or valid, barriers are created between flood authorities
451 and 'lay people' (Brace and Geoghegan, 2011). These barriers will inhibit community engagement and
452 partnership working (Vasilachis de Gialdino, 2009)

453

454 Many of the flood communities are demanding a more nuanced approach to decision-making,
455 whereby their ways of knowing flooding are taken into consideration. Such groups regard equality and
456 equity in knowledge-production and gathering as a key mechanism for building trust with flood au-
457 thorities and for creating more robust partnerships:

458

459 *'Residents groups/ Flood Groups should be at the heart of managing flood risk'[respond-*
460 *ent110/12b].*

461

462 The technocratic framing of engagement in the Environment Agency's 'Working with Others' guide is
463 fraught with knowledge and power hierarchies, where support for their decisions is sought:

464

465 *In most cases we still make the final decision, but we will have worked with others throughout*
466 *to ensure such decisions are as widely supported as possible'[EA:27].*

467

468 Other ways of knowing are framed as '*concerns, interests and priorities*'[EA:27] which are to be 'un-
469 derstood' rather than used to co-produce solutions or to develop collaborative ways of working. The
470 goal is to attain wide support for Environment Agency decisions. This form of framing is experienced
471 and expressed by communities as '*not being listened too*'[respondent:131/12b], because they cannot
472 see their knowledge and ambitions reflected in the plans developed. Flood communities' knowledge

473 does not readily fit into a technocratic framing where knowledge is imparted in a top down fashion with
474 no room for questioning or challenging it.

475

476 The old technocratic ways of working drive knowledge and power hierarchies (Thaler and Levin-Keitel,
477 2016) and this paradigm is evident within the 'Working with Others' document. As a result, commu-
478 nity engagement is constructed as a means to an end in order to gain support for flood authority
479 action, rather than developing an on-going relationship and achieving more sustainable outcomes
480 (Barnes and Schmitz, 2016).

481

482 **3.4 Building participatory partnerships**

483 In an attempt to surmount these barriers some flood communities talk about an approach of con-
484 structive attrition, cajoling and almost wooing the flood authorities into working in partnership with
485 them. Communities try to convince their prospective partners that they are worth engaging with:

486

487 *'Once they realised we were not a bunch of angry troublemakers the authorities have wel-*
488 *comed us' [respondent:P9/3].*

489

490 *I have been flooded 4 times and the last time is the first time they have listened to me [respond-*
491 *ent:109]*

492

493 The experience of one of the authors when setting up a flood group is similar, the group decided early
494 on that using polite construction attrition in order to gain traction in engaging with the flood authori-
495 ties and as a group pursued this approach relentlessly. We fought hard to 'be heard'. Likewise, the
496 objective for the flood communities featured in our research is to move from one-way wooing to two-
497 way communication and the development of constructive and productive partnerships.

498 This appreciation of partnership working as an equitable two-way process can be seen in the literature
499 (Whitman et al., 2015; Soetanto et al., 2016). It isn't an easy option as witnessed above. There are
500 frequent difficulties in relations between the perceived 'experts' and the 'lay' communities (Evers et
501 al., 2016; Entwistle et al., 2007) and establishing sound workable relationships takes time and effort.

502

503 The Environment Agency 'Working with Others' guide urges its staff to consider the amount of time
504 that collaborative ways of working take to implement and that limited resources mean they cannot
505 be in all places at all times:

506

507 *'... we need to be proportionate in deciding when and how we engage. We cannot talk to*
508 *everyone about everything we do'[EA:32].*

509

510 In this context, the need for 'wooing' and 'cajoling' to gain the attention of the Environment Agency
511 is readily understood. Collaborative flood communities need to 'catch the eye' of the Environment
512 Agency in order to initiate the setting up of equitable partnerships.

513

514 **4. Conclusion: moving forward**

515 The prevailing winds of a technocratic paradigm in flood risk management are hard to dispel. Flood
516 authorities appear to remain held within the grip of top down centralist decision-making. Indeed,
517 some flood communities continue to frame flood risk management through the lens of technocratic
518 ways of working. They perceive there is a 'contractual' relationship with the 'powers that be' to stop
519 flooding (Geaves and Penning-Rowell, 2015). Whilst other flood communities take a more
520 democratised view of flood risk management, seeking more collaborative approaches to managing
521 flooding. However, taking this approach often results in those flood communities encountering a
522 series of barriers when endeavouring to engage the flood authorities. Battling for the often-singular
523 construction of 'we' to be a more pluralistic construction of 'we' and 'us all', pushing to be heard and

524 working towards their knowledge and experiences becoming part of flood risk management. Polite
525 and constructive attrition is often the best approach for such flood communities, but it requires
526 sustained commitment.

527

528 Technocratic ways of working utilised by flood authorities continue to frame the construction of
529 engagement and hence partnership working, and these inhibit the utilisation of social learning and
530 miss opportunities to increase societal resilience to flooding. As our research has revealed engaging
531 a community is not a tick box process which can have set steps to be checked off a list. A one-size-
532 fits-all approach fails to recognise the heterogenous nature of flood communities. If engagement is
533 to be achieved rather than something that has to be delivered (Barnes and Schmitz, 2016), it requires
534 gaining an understanding of the social dimensions of a community (Colvin et al., 2016). Engagement
535 becomes a continuous activity which takes time, effort and the establishment of trust and utilises
536 social learning contextualised in place through participatory working.

537

538 We therefore recommend that strategies and guides produced by flood authorities, such as The
539 Environment Agency's 'Working with Others' document discussed here, should steer staff towards
540 initiating engagement with flood communities by adopting a more open and collaborative stance.
541 Such tactics might involve simply listening to the community, hearing about their experiences,
542 acquiring their knowledge, learning about their fears and understanding their ideas. Reflexivity must
543 also be embedded into these approaches were flood authorities reflect on their ways of working as
544 an ongoing process. Within this paper we have spoken about the social capital of communities, flood
545 authorities would do well to reflect upon the social capital held within their organisations and how
546 social learning through partnership working could augment and develop this capital. Flood authorities
547 would also do well to appreciate that just like communities they are heterogeneous and as a one size
548 fits all approach fails to address the various constructions of communities, it also fails to understand
549 the differences in the people who apply these fixed processes.

550

551 Our research has identified a gap in the research literature, whilst there is a good body of work seeking
552 to understand how flood memory can be utilised to increase societal resilience to flooding, there is a
553 little understanding of the tools and ways of working that flood authorities need to facilitate engaging
554 and working with flood communities.

555

556 Flooding is a systemic ‘wicked’ problem, and its management requires a holistic approach. If top down
557 ways of working and technocratic framings of flood risk management continue to prevail, flood
558 authorities and other policy stakeholders are in potential danger of abstracting communities and their
559 knowledge from flood risk management. With a dearth of research expertise about the depth and
560 breadth of good flood risk management engagement approaches, this research suggests that just
561 listening to and talking with a community is an excellent start point to engaging with a community.
562 Opportunities to develop ways of working also lie outside the immediate field of flood risk
563 management. Engaging with other areas and learning from their experiences may provide additional
564 resources to facilitate the move to more democratised ways of working.

565

566 As a society facing the threat of increasing flooding, both flood communities and authorities need to
567 adopt more democratised ways of working. They need to work together to manage flooding and its
568 human impacts, with researchers continuing to offer a critical perspective as that relationship
569 develops.

570

571 ***Acknowledgements***

572 We wish to extend our thanks to; Clare Dinnis, Deputy Director of Flooding, Environment Agency for
573 both supplying the Environment Agency’s ‘Working with Others’ guide and for the numerous
574 conversations about engagement and partnership working, Paul Cobbing, Chief Executive, National

575 Flood Forum for sharing his experiential knowledge and expertise, Heather Shepherd, National Flood
 576 Forum for being a sounding board and to Dr. Paul O'Hare MMU for all his advice and suggestions.

577

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