Institution: University of Manchester

Unit of Assessment: 17 (Business and Management)

Title of case study: Influencing policy, management practices, and response capabilities for the effective management of spontaneous volunteers during disasters

Period when the underpinning research was undertaken: 2015 - 2019

Details of staff conducting the underpinning research from the submitting unit:

Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Duncan Shaw	Professor of Operations and Critical Systems at Alliance Manchester Business School, Honorary Professor at the Humanitarian and Conflict Response Institute	Jan 2015 – present
Jenny Moreno	Research Associate	Jul 2016 – present
Chris Smith	Senior Lecturer	Jun 2015 – present

Period when the claimed impact occurred: 2015 – 2020

Is this case study continued from a case study submitted in 2014? N

1. Summary

Professor Shaw and his colleagues at the University of Manchester used their operational research findings to develop an International Standard (ISO22319) for involving spontaneous volunteers in emergency situations. The new standard encapsulates principles that Shaw and his team have used to inform the development of plans, policies and practices for managing spontaneous volunteers in the UK, Chile and Argentina. In the UK, these actions have significantly improved the capacity of Local Authorities to respond effectively to emergencies, including enabling thousands of volunteers to contribute to recovery and relief efforts in response to the COVID-19 pandemic. The principles have also informed the Chilean government's response to wildfires and tornadoes, and the response to COVID-19 by policymakers in Argentina and Chile.

2. Underpinning research

Since 2015, Duncan Shaw has led an interdisciplinary research team that examines how spontaneous volunteers (SVs) can be deployed effectively in response to natural and man-made disasters and emergencies, including terrorist attacks, floods, earthquakes, and pandemics. Although interdisciplinary, the work is rooted in operational research approaches and methods; it has involved field studies, computational modelling, and case studies.

Shaw's initial research, based on analysis of SVs' involvement in past flood emergencies in the UK, identified their potential to assist public sector bodies (including UK Local Authorities (LAs)) and private sector organisations [1]. Prior to Shaw's research, the value of SVs in assisting with emergency responses was not widely understood. Instead, as SVs were unknown and untrained, they were often viewed as an inconvenience who brought unnecessary risks and would hinder the efforts of emergency responders if not carefully managed. Approaches and practices for managing SVs varied widely, and there was often tension between SVs and official response organisations. Shaw's research shifted this perspective, providing a clear definition of SVs that generated a positive attitude toward them (as a valuable resource) among policymakers and practitioners.

Analysing a number of past emergencies in England, Shaw and colleagues generated a model of the involvement/exclusion paradox pertaining to spontaneous volunteers [2]. The paradox is that volunteer involvement is often needed to boost capacity and capabilities during emergencies, but SVs are typically excluded due to safety concerns. Shaw and colleagues' model identified the critical dynamics pertaining to SV involvement and informed core principles for involving SVs. In short, the research undertaken by the team up to this point clarified the scope for, and means to safely increase, SV involvement in response to emergencies.

Research led by Shaw from 2016 onwards extended the concept of SVs into community resilience and expanded the purview of the work internationally. The work identified barriers including a lack

of capacity and expertise given the absence of sustainable, accredited training programmes [3]. This renewed focus provided an academically robust argument for improving standards and guidance for managing volunteers across agencies and nations. As an integral part of this renewed focus, Shaw and Moreno undertook case analyses of female SVs in the 2010 Chilean earthquake and tsunami [4, 5].

These cases identified a need to understand the difficulties of responding to multiple emergencies simultaneously. Using stochastic optimisation techniques Shaw examined the effect of limited resources on responses to concurrent emergencies [6]. He identified key social, locational, technical, financial and political factors that need to be jointly considered in order to ensure the effective allocation of scarce resources when major emergencies happen simultaneously.

Overall, this body of research has provided critical evidence concerning the resources, policies and practices needed to manage SVs effectively. Crucially, it has laid the foundations for Shaw's SV planning framework which, as described below, was published as an International Standard, and has in turn served as an important pathway to additional national and international impact.

3. References to the research

[1] **Shaw D, Smith CM**, Hieke G, Harris MA and Scully J (2015) Spontaneous Volunteers: Involving Citizens in the Response and Recovery to Rmergencies. Department for Environment, Food & Rural Affairs. HM Government, London. Final report: FD2666. http://randd.defra.gov.uk/Document.aspx?Document=13013_FD2666_FinalReport_SpontaneousVolunteers.pdf

[2] Harris M., **Shaw D**., Scully, J., **Smith C**., Hieke, G. (2016) The Involvement/Exclusion Paradox of Spontaneous Volunteering: New Lessons and Theory from Winter Flood Episodes in England. *Nonprofit and Voluntary Sector Quarterly,* 46(2), 352-371. https://doi.org/10.1177/0899764016654222

[3] Hemstock SL, Buliruarua L-A, Chan EY, **Shaw D**, et al. (2016) Accredited Qualifications for Capacity Development in Disaster Risk Reduction and Climate Change Adaptation. *Australasian Journal of Disaster and Trauma Studies,* 20, 15-34. http://trauma.massey.ac.nz/issues/2016-1/AJDTS_20_1_Hemstock.pdf

[4] **Moreno J** and **Shaw D**. (2018) Women's empowerment following natural disaster: A longitudinal study of social change. *Natural Hazards*, 92(1), 205-224 http://doi.org/10.1007/s11069-018-3204-4

[5] **Moreno J** and **Shaw D**. (2019) Community resilience to power outages after disaster: A case study of the 2010 Chile earthquake and tsunami. *International Journal of Disaster Risk Reduction,* 34(2), 448-458. https://doi.org/10.1016/j.ijdrr.2018.12.016

[6] Doan, XV and **Shaw D** (2019) Resource allocation when planning for simultaneous disasters, *European Journal of Operational Research*, 274 (2), 687-709, https://doi.org/10.1016/j.ejor.2018.10.015.

The research was enabled by four awards from the ESRC Impact Acceleration Account (IAA), totalling GBP73,058 The most recent IAA award (April 2020) included pump priming funds for developing a proposal on 'Recovering from COVID-19: Informing, supporting and developing guidance for local resilience', which has subsequently led to GBP1,012,728 funding from ESRC and partners.

4. Details of the impact

The research led by Shaw has provided extensive benefits to local and regional governments responding to emergencies. In brief, the benefits are:

- A new International Standard for managing emergencies, ISO 22319:2017 'Guidelines for planning the involvement of spontaneous volunteers'
- New policies and plans for local governments, underpinned by a shift in positive attitude toward SVs, which have significantly improved emergency response capabilities
- New guidance from national governments on managing SVs
- Tangible benefits from the deployment of SVs during actual emergencies

Context and pathway

Based on his body of research, the International Organization for Standardization (ISO) invited Shaw to write guidelines for managing spontaneous volunteers, which they published in 2017 as International Standard ISO22319 [A]. Shaw's 2015 report [1] is the only academic work cited in ISO22319, which is available in 5 languages and sold in over 24 countries. International Standards provide an international consensus on the state of the art in the subject of a given standard and provide significant economic and social benefits to organizations adopting them. ISO22319 codified lessons from Shaw's research into a planning framework for governmental emergency managers. The standard provides practical guidance to ensure that SVs safely provide capability and capacity to help communities respond to, recover from and build resilience in the aftermath of major emergencies. Shaw has subsequently worked with local, regional and national governments in the UK, Chile, and Argentina to design and implement new plans and policies for managing SVs, based on his research and the associated guidelines embodied in ISO22319.

Changes in understanding of and attitudes towards SVs

Prior to Shaw's research, the term 'convergent volunteer' was used in the UK Parliament's Civil Contingencies Act 2004 and consequently by local and regional authorities and emergency responders. LAs had not planned for convergent volunteers – most were concerned about the risks they presented, so turned away volunteers or failed to manage them. Shaw's definition of SVs [1, 2], incorporated in ISO22319 [A], helped to change attitudes among emergency planners and responders. In January 2019, The University of Manchester commissioned an independent impact evaluation of Shaw's work and ISO22319 [B]. The majority of LAs surveyed (17 of 19) had already approved or were in the process of developing SV plans informed by Shaw's research and/or ISO22319. Staffordshire, Essex and Hampshire LAs stated that Shaw's research had changed attitudes among resilience workers; their officials now view SVs as increasing their ability to respond effectively with more resources, which has driven local change in policies and practices [B]. The Community Resilience Officer of the Cabinet Office's Civil Contingencies Secretariat stated that Shaw's work had "*encouraged a ground swell of interest and appetite for the [SV] agenda"* [B]. A Deputy Director of the Civil Contingencies Secretariat further stated that "*his [Shaw's] work has been explicitly shackled to statements of mandatory and good practice coming out of Cabinet Office in relation to Community resilience"* [B].

SVs policy into practice: Influencing local government policy and practice in England

Shaw directly assisted English LA's to convert SV guidance into policies and practices. In 2016-17 Shaw supported the implementation of SV planning frameworks in Lincolnshire and Somerset LAs [C, D]. The Senior Civil Contingencies Officer of Somerset Local Authority states that "*Professor Shaw was instrumental in the design of a Spontaneous Volunteers Policy for Somerset Local Authorities … Professor Shaw's research … provided an invaluable baseline of knowledge for the design of the Policy. His research helped to conceptualise the issue of spontaneous volunteers and offer evidence-based solutions … As a result of Professor Shaw's input, Somerset Local Authorities Civil Contingencies Partnership now has a formal structure and guidance in place for the management of spontaneous volunteers*" [C]. The Emergency Planning and Business Continuity Officer for Lincolnshire County Council stated that "*The University of Manchester research informed the preparation and production of Lincolnshire County Council's Co-ordination of Spontaneous Volunteers in Civil Emergencies Policy and Procedure thus improving practice around the management of and knowledge about Spontaneous Volunteers in the County amongst multi agency partners*" [D].

The new plans and practices were used in 2020 as part of LA responses to the COVID-19 pandemic. Essex County Council instigated one of the largest volunteer recruitment drives to assist the vulnerable during the pandemic. Shaw was a member of the Volunteering Tactical Coordination Group in Essex, providing advice, constructing strategies, and shaping processes using the guidance in ISO22319. The council evaluated its use of SVs, showing that 3,600 people volunteered to help Essex Welfare Services [E]. These volunteers helped vulnerable residents by shopping for essentials, collecting medicines and distributing food parcels. The evaluation report [E] cites 11 pieces of Shaw's work.

Following Shaw's research, the British Red Cross (BRC) initiated its SV scheme in 2017, the Community Reserve Volunteer [CRV] programme, which now has 88,000 CRVs, over 3,500 of whom have been deployed during COVID-19 to support over 80,000 people. BRC's Head of Crisis Response stated *"There is no doubt that working with you [Professor Shaw] and your team has provided me … and members of my team with a greater understanding of the SV landscape and the academic research available in this field"* [F].

Influencing national government policy in the UK

On Shaw's recommendation [2] and following his work with LAs, the UK Cabinet Office formed the National Committee on Spontaneous Volunteers (NCSV), involving Shaw as the only academic along with 10 senior practitioners. Following Ministerial approval, the UK government's national guidance on SVs was published in June 2019, within which the Cabinet Office states: "*This guidance was developed based on existing LRF [Local Resilience Forum] activity, with special recognition for the examples provided by Lincolnshire LRF, Somerset LRF, the University of Manchester and British Red Cross*" [G]. It attributes its SV definition to Shaw and provides five "*Notable examples of further guidance and resources*" [G] of which four are based on Shaw's work. To disseminate the guidance, the Cabinet Office's Emergency Planning College commissioned Shaw to run a Volunteering Webinar Series in the early days of the COVID-19 response, delivered to over 200 staff who led volunteering programmes in their respective local authorities.

Influencing local government policy and practice in Chile

Prior to Shaw's research, the Chilean authorities were unprepared for managing SVs. Shaw and Moreno had previously worked with LAs in Chile on community resilience. On hearing of Shaw's work on SVs, several Chilean LAs requested Shaw and Moreno's assistance to implement ISO22319. Twenty organisations across Concepcion Province (population 960,000) collaborated to develop Latin America's first SV plan, published in December 2018 [H]. The National Director of the National Youth Institute of Chile (INJUV) and the Director of the Department of Disaster Risk Reduction described how the plan was put into action. They state that "*In May 2019 two tornados hit Concepcion Province and caused significant destruction whereby it was necessary to conduct our first activation of our SV plan, which successfully registered +150 SVs who were deployed to provide support. These SVs created capacity in responders to do other important work, collect information on needs of the public so we could better target our response, completed tasks for affected citizens, reduced secondary damage to property by the tasks they completed, and hastening recovery of the affected populations*" [I].

The SV plan was incorporated into the wider Provincial Civil Protection Plan for the region and disseminated to its 12 municipalities. Two further municipalities, Talcahuano Municipality (population 90,000) and Pudahuel Municipality (population 230,658), have developed their own SV plans based on Concepcion's plan and using ISO22319. In Pudahuel, a new NGO was created to manage SVs and a new operating structure was adopted to implement the plan. The Pudahuel team also integrated the SV work within an initiative to train 1,200 citizens as part of a Community Emergency Response Team programme, broadening the training to cover how to be an SV team leader, and so giving the SV cell access to trained personnel [I].

Shaw and Moreno also helped Valparaiso city (population 295,000) to develop its SV plan. This was activated in December 2019 when 248 SVs registered and were successfully deployed to assist people affected by wildfires. The Chilean authorities said that "*These activations and their success would never have been possible without the SV plan and the tremendous expertise provided by The University of Manchester, particularly their provision of the SV Planning Framework based on the research of Professor Shaw and the support of Dr Moreno*" [I].

Influencing national government policy and practice in Chile

The Ministry for Youth (INJUV) supported the development and implementation of SV plans in Talcahuano, Pudahuel, and Valparaiso. INJUV has incorporated training on managing SVs into its annual training package, which involves all regions of Chile [I]**.** Approximately 800 people have been trained as SV team leaders. INJUV created a government department to manage SVs, which

provides support to other national and local organizations. INJUV secured significant government funding to implement ISO22319 in 16 regions of the country. Funding of GBP300,000 from the National Commission for Scientific and Technological Research was used to develop an online app for SVs to register before arrival at a volunteer centre.

The benefits of the increased capacity for managing SVs were evident during the COVID-19 pandemic. In December 2020, Chile had over 560,000 confirmed cases and 15,680 deaths. Activating the SV plan, INJUV established a national online platform to register and train SVs to support vulnerable people in the country. Over 3,000 individuals registered and over 300 SVs were deployed to provide vulnerable people with food and medicine [I].

Influencing local and national government policy and practice in Argentina

After learning of their work in Chile, the Ministry of Security of the Republic of Argentina invited Shaw and Moreno to turn the planning framework in ISO22319 into a plan for Neuquén Province (population 620,000). Neuquén Province is a national centre for natural resources and industry but it is also hit frequently by natural disasters. A working group was tasked in 2018 with developing a new SV plan based on ISO2231. Shaw and Moreno acted as advisors to the group, which involved 40 people from 25 organisations. The Minister of Government and Security stated that "*The support of The University of Manchester was key in giving expert information and motivating us, especially bringing lessons from the SV Planning Framework to inform our work*" [J]. The Minister outlined 11 tangible benefits for Neuquén Province and five benefits to the nation [J], including:

- Establishing a new, fully staffed SV Operations Centre for activations of the SV plan
- Securing four years of funds to train staff in all Neuquén cities in SV management
- As the COVID-19 pandemic unfolded, Neuquén activated the plan, setting up an online platform to register 1,700 SVs and deploying more than 250 SVs to support vulnerable persons.

Subsequently, the Argentinian Government published its national guidance on SVs, in which Neuquén Province and The University of Manchester are cited "*as the inspiration of this national guide and much of the content closely aligns to ISO22319*" [J]. According to the Minister "*This national guide to coordinate SVs has led to a necessary and unprecedented national public policy, which will bring exponential benefit to Argentina*" [J].

In December 2020, Shaw won two Standards Maker Awards from the British Standards Institute for his work making standards available and his leadership in creating a new standard in community resilience and recovery.

5. Sources to corroborate the impact

[A] ISO (2017). Guidelines for planning the involvement of spontaneous volunteers ISO22319. https://www.iso.org/standard/66951.html, Apr. 2017
[B] Powell, D. (2019). *Spontaneous volunteers in major emergencies: The UK Resilience Community 'Three years on' – Survey of UK Resilience Partnerships,* Jan. 2019
[C] Testimonial from Senior Civil Contingencies officer of Somerset Local Authority, Mar. 2021
[D] Testimonial from Emergency Planning Officer for Lincolnshire County Council, May 2016
[E] Volunteering Tactical Coordination Group (VTCG)/ Essex County Council (2020) *Volunteering Discovery: Findings and Recommendations*. May-Sep. 2020
[F] Testimonial from Head of Crisis Response, British Red Cross, Sep. 2018
[G] HM Government (2019). Planning the coordination of spontaneous volunteers in emergencies. Cabinet Office. https://www.gov.uk/government/publications/planning-the-coordination-of-spontaneous-volunteers, Aug. 2019
[H] *Guidelines for the management of spontaneous volunteers in emergency and disaster situations* (2018) Intersectoral Roundtable for the Management of Spontaneous Volunteers in Disasters, Provincia de Concepción, Chile, Dec. 2018 [Spanish]
[I] Testimonial from National Director of National Youth Institute, Government of Chile and Director of the Dept of Risk Reduction, Talcahuano Municipality. Chile, Nov. 2020
[J] Testimonial from the Minister of Government and Security, Neuquén, Argentina, Nov. 2020