Views from the Frontline and Frontline methodology: critical reflection on theory and practice[1]

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Keywords:

Methodology, Qualitative methods, Frontline, Views from the Frontline Paper type Technical paper

1. Introduction and brief rationale

This paper forms part of a special issue following from and expanding the exploration of programmes of local-level action presented in an earlier paper (Gibson and Wisner, 2016). That paper promised a deeper exploration of the methodologies it outlined, underpinning the "Views from the Frontline", "Action at the Frontline" and "Frontline" action research programmes conducted by a global NGO network, the Global Network for Disaster Reduction (GNDR, 2009, 2011, 2013, 2015, 2017a). These programmes are of interest both in terms of their intention of providing information to influence change at all scales, and because of the way the energies of a substantial global network were channelled into a substantial action research programme. This paper presents that deeper exploration, accounting for the emergent structure and methods of the programmes, showing how iterative cycles of action and reflection progressively changed shape of the programme. It examines the organisational structure, data gathering, analysis and data representation methods, showing how these took account of the particular context for the work. It discusses the application of findings at local, national and international level, and draws together the challenges and questions emerging from the programme.

1.1 Phases of the programme

The evolutionary, and at one point revolutionary development of the programme's design methodology and goals, along with the change in name can be confusing to the reader. In summary, the various aspects of the programme are as follows.

1.1.1 Views from the Frontline (VFL).VFL were conducted in 2009, 2011 and 2013 with a global reach. Core methodology based on local level one-to-one questionnaires relating to aspects of disaster risk reduction. Main application of findings was International and National.

[1] *An edited version of this paper was published in the Special Edition of the "Disaster prevention and management: An international journal" Vol. 28 No. 1. in August 2018*

1.1.2 Frontline. Frontline was conducted 2014–2016 in regional pilots in Latin America, Africa and Asia. Core methodology was based on open-ended consultations with individual respondents, analysed qualitatively. Main application of findings was national and local.

1.1.3 Action at the Frontline. Action at the Frontline was conducted in 2011–2016. Companion activity was supporting local-level collaboration and action linked to findings from VFL and Frontline and also yielding qualitative case studies. Not considered in this paper.

1.2 The writers

The writers bring complementary perspectives to this exploration: Terry Gibson led on development and implementation of the programme over the whole period covered. Nigel Scott supported the analysis and generation of findings from the data gathered during the studies. Carlos Barahona at "Statistics for Sustainable Development" gave us an outside perspective as an expert and practitioner in research design during the preparation of this paper.

2. Design and design development, iteratively through pilot stages

GNDR has a goal of influencing Disaster Risk Reduction frameworks established by the UN secretariat for disaster reduction (UNISDR). The frameworks under the consideration include the Hyogo Framework for Action (HFA) 2005–2015 (UNISDR, 2005) and the Sendai Framework for Action (SFA) 2016–2030 (UNISDR, 2015a). Frontline and the earlier VFL programme resulted from the Global Network for Disaster Reduction (GNDR)'s intention to " [...] roll out a local level assessment of progress focussed on implementation of the HFA. This bottom up assessment would complement the top down attempt by the UN to monitor implementation of the HFA" (Gibson and Wisner, 2016). The initial VFL programme conducted in 2009 employed a questionnaire derived from the five "priorities for action" and "cross-cutting themes" of the HFA (UNISDR, 2005; GNDR, 2009). Addressed in one-to-one consultations with representatives of three respondent groups – local government, civil society organisations and community representatives – it included approximately 40 questions. The number and the precise questions varied with respondent group. A five-point Likert scale was used for responses. Further questions were posed to identify the individual respondent by age, gender, self-perceived economic status, etc. Each locality was similarly tagged by location and risk zone. This method formed the basis of the studies also conducted in 2011 and 2013. Results were aggregated and presented at international fora; principally the UNISDR two-yearly Global Platform for Disaster Risk Reduction (GPDRR). Guidelines were also provided by GNDR for the national level data to be used in national and local consultations.

Reports were impactful in first presentation at GPDRR 2009. The then head of UNISDR said subsequently:

> "Thanks to that report there is now a face, a recognition and an understanding of what you represent. Not because you are NGOs or civil society but through what you have done. The work you have done and you've put that forward. My feeling is that you have done something quite remarkable through that work."

(Margareta Wahlstrom: UN Assistant Secretary for Disaster Risk Reduction, speaking at Global Workshop 27 January 2010. Gibson, 2012).

Subsequently it appeared that the messages and language of the reports, including the term "Views from the Frontline" and the emphasis on "Local Action" were appropriated by UNISDR, being absorbed into their organisational schema:

Since the Global Platform in 2009, *local action* is delivering results and drawing increased attention. The Making Cities Resilient campaign has signed over 150 to date, illustrating the commitment and contribution of mayors, local governments and their supporters worldwide. A new Community Practitioners Platform for Resilience is being used by policy makers and community organizations to build alliances between them. The Global Assessment Report 2011 recognizes local perspectives and incorporates "*Views from the Frontline"* from civil society organizations. But, to what extent do our interventions lead to improved conditions in the places where the vulnerable live and work? Are all our programs and policies targeted enough at supporting local action and building on local assets? How can we accelerate finance and *increase investment in local action*? What do we need to do to make this happen?

(Extract from second announcement of UN Global Platform for Disaster Risk Reduction, 17 November 2010. UNISDR, 2011a. Italics added).

Evidence suggests this appropriation served to blunt the impact of GNDR's messages by merging them into their established strategy and messaging. For example, the claim that UNISDR championed "increased investment in local action" reassured patrons, primarily governments, that the challenges of organisations, such as GNDR had been addressed, whereas the behaviour and policy recommendations of the organisation did not shift in line with the change of language.

At local level, GNDR member organisations faced the challenge of attracting the attention of national and local government to the reports. In many cases, the limited engagement of the small NGOs predominantly forming GNDR's membership with government offices created a barrier to this.

Seeking to learn from each iteration of the programme, GNDR conducted "learning reviews" after each. The first (GNDR, 2010) highlighted the local-level engagement stimulated by the process, where one member for example said the consultations had led to meeting opportunities they had not had previously.

The first, 2009 survey (GNDR, 2009) was based directly on the five priority areas of the HFA, with approximately equal numbers of questions on each:

- Priority 1: ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation.
- Priority 2: identify, assess and monitor disaster risks and enhance early warning.
- Priority 3: use knowledge, innovation and education to build a culture of safety and resilience at all levels.
- Priority 4: reduce the underlying risk factors.
- Priority 5: strengthen disaster preparedness for effective response at all levels.

The detailed narrative of each priority, and therefore the questions devised in the survey, had an institutional focus considering the delivery of priority actions by national and local government, which as time went by led to increasing recognition that local-level respondents were not equipped or informed to assess this performance. Consultations at a global meeting of GNDR members in London, January

2010, suggested that the focus of the second study should not repeat the first, both because of concern as to whether respondents could engage with these questions and also as little change would be detected in a two-year period. They further suggested that from a local-level perspective a critical issue was the quality of governance, and the 2011 survey was therefore shaped around this theme, using a similar questionnaire methodology (Gibson, 2012). In subsequent reviews concerns were raised about the local relevance of this action. The term “extractive” was used, and one organisation asked how the circle (of returning the information for use by the people who provided it) could be completed (GNDR, 2012). These responses highlighted a practical concern about the direct usefulness of the exercise to the respondents. Responses to the governance questionnaire were markedly homogeneous leading to the suggestion that respondents were not equipped to make assessments of the quality of governance, and were making superficial responses. More deeply it was recognised in discussions within GNDR that the method elicited local views on the HFA framework, but did not allow local articulation of experience and knowledge. A local-level respondent said of similar surveys that they asked “what do you think about our framework?” rather than “what do you think?”.

Discussions within the GNDR membership led to a suggested shift to some form of local risk mapping focus, thereby emphasising local experience and knowledge. This shift reflected discussion of the meaning of study findings, and on the scale of disasters considered most significant by local-level respondents.

2.1 The meaning of the findings

What constitutes a “disaster” depends on viewpoint and perspective. At the simplest level something regarded by an external observer as a disaster, such as a seasonal flood, may be considered normal and useful at local level. However, local perception may also become accepting of livelihood and life-impacting events as “normal” and intractable, leading to resignation and passivity. Findings from Frontline are based on perceptions (and of course so are many other views) and sense-making of these and complementary external views depends on dialogue, rather than taking either an external or a local view as absolutes.

2.2 Everyday disasters

Frontline findings reinforce others (i.e. Petley, 2012; UNISDR, 2015b) in showing that small scale multi-hazard events, referred to colloquially as everyday disasters, have a more substantial influence on lives and livelihoods than has been allowed by global databases such as EM-DAT, by international institutions and governments. However, this finding collides with institutional and political sensitivities. For example, INGOs and governments find it easier to secure funds for, and coordinate response to large, visible intensive disasters. Governments prefer to focus on “natural” disasters as these do not have political implications (pers.com. UNISDR , 2013). The current American administration, for example, has imposed restrictions on activities related climate change reflecting current ideology, with USAID and OFDA directing that no mention should be made of climate change in funding bids. (Pers.com GNDR, 2017a). An unavoidable component of Frontline would therefore be navigation of political perceptions and ideologies.

The proposal which emerged was for a method of experiential, rather than geographic risk mapping. Key characteristics of the initial pilot design for this programme, named “Frontline” were:

- based on a conversation and free text responses rather than a questionnaire to enable people to articulate their own experience and knowledge;
- focus on “priorities” in terms of people’s responses, to identify the issues they considered most critical;
- framed around “threats”, “consequences”, “actions” and “barriers” to invite articulation of local experience consequent on threats, as well as local capacities and constraints;
- to some extent a “quick and dirty vulnerability and capacity assessment”, designed to be simple to conduct, given the need to roll it out to a wide range of organisations without substantial training;
- employing a qualitative analysis method to enable the qualitative material gathered to be aggregated and analysed at a range of scales; and
- emphasising the local relevance and application of the material, linking it to a companion method for local consultation, action planning and action (“Action at the Frontline”).

Based on these characteristics, guidelines for data gathering were produced. Interviewers were guided to initiate open conversations concerning the threats, consequences, actions and barriers the respondent experienced. Previous data gathered at local level by GNDR and emerging assessment’s from other sources (i.e. UNISDR, 2011b, 2013) revealed that smaller scale multi-hazard events accounted for a substantial proportion of losses at local level, and the method was intended to be sensitive to these. The language (for example “threats” and “consequences”) was intended to broaden the discussion from “disasters” – often perceived as large scale and limited to intensive events such as earthquakes, storms, floods, drought, etc., to these recurrent smaller scale events, referred to colloquially as “everyday disasters”.

A table formed the basis for interviewers to capture interviewees’ perceptions as open responses. To avoid generating huge lists of all possible concerns, interviewees were invited to prioritise the “top five” threats that concerned them. The table guided the conversation to record the corresponding consequence, action and barrier for each threat.

Initial piloting in South America suggested that the process was practical and was yielding useful results. It also showed that interviewers sometimes struggled to understand a broader definition of “disasters” and that more guidance and training was needed to help with this. The table format itself tended to encourage interviewers to focus on “filling the boxes” rather than on discussion. Finally, constraining interviewees to just one consequence, action and barrier for each threat limited their ability to characterise these.

A second pilot in Central America followed by a third pilot across Africa and Asia was based on redesign of the method to account for the above points, providing further documentation and videos to support guidance and training, and redesigning the table as separate sections for each of the five threats nominated, inviting interviewees to identify three consequences, actions and barriers for each threat.

The possibility of using technology for data recording has been considered at various points. Indeed in 2011, a large scale interactive SMS survey was piloted (Gibson and Scott, 2011) and the use of tablets for data entry has also been considered. In the former case, a major limitation was the lack of personal interaction, limiting responses to multiple choice style responses, and with limited respondent information. Although mobile phone-based surveys enable large sample sizes to be achieved at relatively low cost, it was not felt that this method was appropriate to the goals of the programme. To date the use of technology such as tablets or smartphones has been constrained by limited technology access by members and more significantly poor internet access. The situation is changing rapidly and the use of apps on phones or tablets should be kept under consideration.

2.3 Training and participation

In all interations of the VFL and Frontline studies the role, capacity and training of GNDR member organisations conducting the studies were critical elements. All iterations were supported by training guidelines which were rolled out through national workshops at which key players were present. Training of local-level participants was delivered through a "training the trainers" model. The scale of the enterprise compared with the limited capacity of the organising network secretariat meant that confidence in the standard of training of each individual participant was necessarily limited. In some cases material which was returned showed clearly a limited understanding of the method. For example, in some cases returned surveys were incomplete, or contained surprisingly homogeneous responses. The capacity of individual organisations appeared to have a strong influence on the quality of data, where high-capacity organisations, sometimes indigenous and sometimes the country offices of INGOs were involved there was often greater understanding of the methods employed and greater staff capacity to carry out the work.

2.4 The role of VFL in influencing international, national and local actors

Subsequent sections of this paper discuss the methods of analysis, representation and uptake of the material gathered, addressing particularly the question of local relevance. Underlying the whole history of development of VFL and Frontline is the tension between local, national and international uptake of the material. As Figure 1 indicates, concerns about the international/national focus of VFL leading to it being extractive and having limited local relevance led to the development of Frontline, whose focus was more heavily local (though global reports were deployed at UNISDR platforms in 2015 at Sendai and 2017 at Cancun). The twin goals of international influence, clearly a GNDR goal, and local relevance, clearly a concern for GNDR and its members, continue to shape the programme, which in a newly emerging iteration, retitled VFL, combines the global level assessment process of the initial iterations with the local-level learning process of Frontline.

3. Methods of data gathering

GNDR enjoys the great benefit, for research purposes, of a wide network of globally distributed NGO member organisations (approximately 1,000 at the time of writing) who have valued participating in action research programmes, such as VFL and Frontline. Throughout the iterations of these programmes a common organisational structure has been employed. In each country a "National Coordinating Organisation (NCO)" is identified, an organisation with the capacity to take this role (Approximately 70 NCOs have been involved). This organisation in turn identifies a number of locally based participating organisations (POs) (approximately 600 organisations) who undertake the consultations in agreed locations. This structure, in principle, creates a coordinated country-wide effort with good reach to a range of locations within the country.

In practice, the selection of organisations and localities has a degree of expediency, depending on the breadth of connections that GNDR, and more importantly the NCOs have in each country. For example, member organisations have reported that they have been excluded from participation for various reasons. In some countries, the coverage does not reflect the diversity of risk experience of the population. As noted above, some organisations have proved not to have the capacity to undertake the work effectively. The GNDR secretariat has a limited ability to assure the quality of all participation due to limited communication directly to the POs and due to the limited capacity of the small secretariat. Finally, funding normally presents a challenge. The level of funding required to provide a significant grant to each of over 600 POs has normally been beyond the reach of GNDR and the programme has depended heavily on the commitment and goodwill of these organisations.

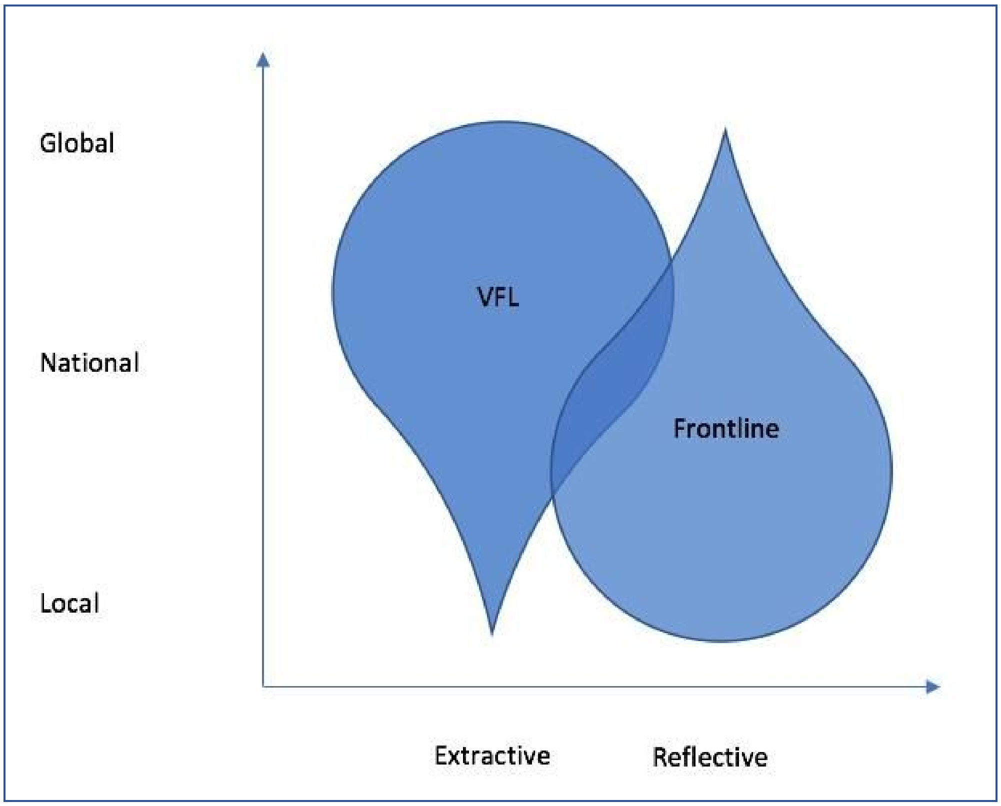

Figure 1. Comparing context and character of VFL and Frontline

A deeper issue is the question of "bias" in the data gathering process resulting from this and other factors. This will be discussed in the following Section 3.3.

Despite the above challenges, the programme has successfully gathered data in its first three VFL iterations from numbers ranging from 7,200 (2009) to 21,445 (2013) respondents. Although data have shown some clear variation based on locality and organisation (for example, data gathered in Vietnam showed more positive perceptions than other countries. One explanation is a cultural avoidance of negative views). It is striking that similar patterns emerge from comparable risk zones in different geographies (see section 3.3). As an example of this similarity the perception of trends in risks is seen as increasing by all but wealthiest respondents in a range of countries, a result described in the reports as "the poorer you are the worse it gets". More generally as is discussed in section 3.2, it became apparent that comparative discussion was more meaningful between comparable risk zones than between countries.

3.1 Approaches to respondent selection

Whilst the convenience sampling approach described above has many practical virtues, principally budgetary, it has limitations, some of which are as follows:

- Repeatability: part of the original VFL concept was to track progress, which implies generating time series data in order to draw out trends. In order for any time-based analysis to be meaningful, the sampling methodology must be consistent. In principle, this can be achieved if the mix of POs remains constant. This made it even more important to develop a methodology that yielded value to POs in order to secure their long-term commitment.
- Aggregating national samples: making comparisons between different types of threat involved aggregating data from across countries. However, there is no guarantee that these contexts do in fact have a requisite degree of similarity. Furthermore, any simple analysis was compromised by variations in sample sizes returned by different countries, i.e. results were biased towards those countries returning large data sets. Some country networks were more successful in recruiting member organisations, or were more enthusiastic in their sampling. Calculating indies of any sort creates an irrestible desire to make comparisons. The obvious thing to do with average scores is to rank countries, in an attempt to comment on relative progress. However, this was problematic, given the variety in types of disaster contexts sampled in different countries.
- Representation: the samples are by no means representative of national populations, but neither need they be, given that GNDR is only concerned with vulnerable populations. In some respects, the presence and reach of member organisations provided a reasonable sampling frame. What was needed was some consistent frame of hazard zones. However, defining vulnerable context was problematic as that would require a top down definition of what constitutes a threat. Random sampling of national populations would require larger scale sampling techniques than GNDR can undertake, but a more structured approach to sampling was clearly needed. It was decided to adopt an approach based on defining representative risk zones as the contexts, and a representative range (age, gender, disability, etc.) of respondents. Both locality and respondent selections depend on background understanding and assumptions. Regarding location the "lens" is risk, and disaster risk reduction has a developed understanding of the range of risk zones, including both geographies and social contexts. Regarding respondents the "lens" is community development, which recognises the need to place weight on the voices of women, young and old, the vulnerable and those with disabilities rather than depending on "the voice of the big man": those with the greatest influence.

Training and guidelines, disseminated via the NCOs to POs, include these parameters for identifying respondents, the process for the interview, referred to as a "structured conversation" the process for moving towards prioritisation of threats, consequences, actions and barriers and the way that this information is recorded at local level for subsequent coding and analysis. The data, recorded locally on paper, are input into a simple data entry tool by the PO and the file produced by this is returned to the NCO, who collates all the records into one database. The means of aggregating and analysing this data are described in Section 5.

3.2 Data transcription

The underlying software used for these processes is Microsoft Excel. Whilst more sophisticated software such as NVIVO can be used to handle qualitative data this would be beyond the reach of most organisations as they are not typically specialists in qualitative analysis, so the approach was kept as simple as possible. Nevertheless, the basic principles of qualitative analysis are unfamiliar to many and experience showed that more training and orientation was required to ensure understanding of this.

Throughout the Frontline evolution, participating member organisations have used pen and paper to record interviews. The secretariat has then developed macro-assisted spreadsheets to assist with transcribing data from paper to digital data sets, which was done by staff from each NCO.

Free text responses on prioritisation of threats, consequences, actions and barriers are coded by the NCO. This is based on a master code list which has evolved during the Frontline pilots and can be added to by each country. The list of codes (for example “alcoholism”, “damage to homes”, “DRR education” are used to code the free text responses so that the resulting database can group all responses matching the same code.

The coding process is a critical stage in qualitative analysis, as the quality of this work will have a huge effect on the quality of the database. Whilst experienced qualitative analysts, possibly based centrally, could have been engaged they would understand little of the local culture, context or even language and the decision was therefore taken for the NCO in country to do this work. In most cases, these organisations did not have experience in this form of analysis, so as mentioned above the process was simplified as far as possible and was based on excel spreadsheets rather than more sophisticated software. Training was given and support offered.

3.3 The validity of qualitative data and the question of bias

As noted above, many are unfamiliar with qualitative research methods, whereas at a basic level quantitative methods are widely used and understood. It is often assumed that the large scale and numeric basis of such methods is more “scientific”. As many commentators point out, this seeming objectivity masks the fact that the data is interpreted through sets of assumptions (e.g. Merrifield, 2017). As a result seemingly objective research often masks particular biases. The Frontline method recognised the strength of qualitative methods in understanding complex interactions and local perspectives, as the “everyday disasters” forming a major focus of the research are the result of complex interactions of social, economic, political and environmental factors.

There are several elements of bias arising from the “self-selection” of member organisations participating in Frontline. They self-select on the basis of mandate, interest and financial ability. First, the geographical location of sampled communities will be determined by the presence and reach of these organisations. A further concern commonly expressed is that data depending on local perceptions, gathered by local agencies, can introduce an interviewer bias despite careful location and respondent selection. This is a natural effect associated with the expertise and sphere of interest of staff working for agencies with a given mandate.

This can be mitigated to a certain extent by guidelines for the structured conversation process. Nevertheless, both explicit and implicit biases on the part of the interviewer conducting the conversation can affect the data. It is clearly impossible to create a completely neutral conversation and in fact the word “conversation” is the clue. The data which are gathered is a result of the conversation between the community member and the NGO member. It is shaped by both of them. Anecdotally it can be seen that, for example, where NGOs place an emphasis on climate related risks these tend to prevalent. While it may be possible to correct for the influence of the NGO, in the pilots conducted to date such influence has been accepted, and examining the tableau data platform (see below) the influence does not appear substantial, as the perceptions of respondents in similar risk zones from different countries show similar trends.

4. Methods of data analysis

The country level database contains records of the location of each response, the risk zone and the characteristics of each respondent. Additional fields record the perception of trends in risks, self-perceived economic group and several other fields.

The first pilot showed that this process was a challenge for the NCOs, and there were several iterations of the analysis as it bounced between the NCOs and the central secretariat. Questions about sample sizes and about using questionnaires surfaced, suggesting that the NCO had not completely engaged with the method. The coding of the data seemed to reflect this lack of understanding and engagement, with varied responses being assigned the same code.

For the second pilot, set in Central America, these problems were addressed with a wider reaching and intense training session, backed up by expanded guidelines and videos. This – and the third pilot in a range of African and Asian countries – displayed richer data sets with more detailed coding as a result. Nevertheless, questions reflecting a preference for quantitative methods and questionnaires continued to be posed. In social research more widely weight is still given to seemingly quantitative methods in preference to qualitative modes, and this creates a continuing challenge.

The purpose of earlier versions of VFL was to generate evidence of changes in vulnerability to disasters, as a means of assessing the impact of higher level policy decisions. Data were gathered on questions designed centrally by the Secretariat. The analysis then employed statistical tests to look for relationships of interest arising from the data. A subjective metric of how losses due to disasters had changed (in the last five years) was used as the key indicator of change (using a five-point Likert scale). Calculating average scores for this indicator enabled countries to be ranked in terms of “performance”, represented by changing disaster losses. Scores were also disaggregated by a range of descriptors (e.g. age, gender and rural/urban context), which gave some interesting insights into how different segments of society are affected differently by disasters.

Respondents were also asked to give their own assessment of the threat posed to themselves by disasters (unspecified). Correlating these scores with scores for change in disaster losses showed that in the majority of countries, things had got worse for people living in more vulnerable communities.

VFL 2011 focussed on local government functions, and data were gathered on perceptions of progress on 20 indicators. The questions were developed by a small working group of disaster reduction practitioners and academics. Similarly, mean scores were used to rank issues in terms of progress, and to compare and rank countries. Correlating scores with the key indicator of change in disaster losses highlighted those aspects of local governance that appeared to make a difference. This approach yielded some sensible results, e.g., adequate financial resources, local government has adequate expertise, as well as local action plans.

Whilst this approach did indeed generate findings that were of value to the Secretariat and provided evidence to substantiate debates held at international fora such as the UNISDR biennial Global Platform for Disaster Risk Reduction, it was not valued by the membership. The process was regarded as extractive, and did not yield findings that could be used by member CSOs. One of the strengths of the network is that members have an ongoing presence in communities, giving them an opportunity to feedback findings. However, this type of finding was of little value to participating communities as it simply told them what they already knew.

This was one of the factors leading to the revision of the methodology introduced in the Frontline approach adopted in the 2015 surveys. As has been described in Section 2, this data collection methodology was based around structured "conversations" with participants. The primary data collected under this methodology related to the four aspects of these conversations: "threats", "consequences", "actions" and "barriers". The analysis then focussed on identifying trends emerging from aggregated data. It started with identifying most commonly reported threats, making copmarisons between countries and between rural and urban areas.

It then used network analysis to explore, for each threat, the most commonly reported barriers associated with specific actions taken. This highlighted those actions for which a single barrier was frequently identified. Note that these actions were not necessarily the actions most commonly taken; neither were the barriers identified the barriers most commonly associated with each threat. This approach highlighted actions that could potentially be eased by addressing a single (or a limited number of) barriers. Another approach taken was to identify the most commonly reported barriers, on the basis that addressing these barriers might have the effect of enabling a wide range of actions.

This approach generated much data that were difficult for members to interpret in any practical way. The diversity of actions (and barriers) associated with threats only emphasised the highly localised nature of disasters, and brought into question the validity of aggregating information from differing contexts on notionally similar threats. It was, therefore, felt that providing a visual representation of the data, along with a means of interrogating it for themselves might be of more value to members.

Again the limitations of making comparisons based on geography were recognised, as for example some cultures, such as in Vietnam, were more positive generally in their responses than others.

5. Methods of data representation and access

Critical to the utility of Frontline is access to the information by different users, local, national, international, citizens, communities, government, researchers, etc. Access is required first for analysis, and second to present and visualise findings for communication, discussion, action and advocacy.

5.1 Analysis

A range of users need to access the data in order to analyse it, examine priorities in relation to different risk zones and respondents and relate these to opportunities for, and barriers for action. At international level, this role is taken by the GNDR secretariat. At National and sub-national level it is taken by in-country organisations. Both require accessible tools as neither tend to have access to experts in statistical analysis. Tools such as SPSS are not practical in these contexts. As the pilot was developed a form of “dashboard” was envisaged, providing graphical access, ideally interactively to allow users to explore the data.

Tableau was identified as an online tool which provided a graphical, interactive interface to the data. The “dashboards” it offered are customisable and formed the basis of online access to the data sets. They allow users to drill down from global to risk zones, nations, regions and individual localities, to examine the perspectives of different groups by gender, age, economic category, etc., and also to examine relationships between particular threats and associated consequences, actions and barriers (www.gndr.org/tableau). Dashboards have been used by the secretariat to produce global level reports, for example at UNISDR GPDRR 2017 Cancun (GNDR, 2017b).

They have also been used by national level member organisations to develop more detailed reports, for example of six risk zones in the Philippines (see www.cdp.org.ph/frontline).

5.2 Representation

The reports referred to above also show the process of representation of findings from the analysis. Although Tableau presents graphical dashboards, these do not communicate directly to end users, ranging from communities to NGOs, local and national government and international institutions. Both the reports cited above demonstrate the use of info-graphics to represent key findings and further work with GNDR member organisations has demonstrated the necessity of this further stage of translation and representation.

6. Applications of data (locally, nationally, etc.)

GNDR developed Frontline as a programme to support influence and action for change at all scales. Case studies from South America and Indonesia (Gibson and Wisner, 2016) demonstrate influence on national level policy. GNDR documents impact at local level in six case studies (GNDR, 2017b). These are exemplars for a wider range of case studies being gathered. Further case studies included in the journal issue of which this paper is a part show in several cases the direct influence of Frontline on local-level action. The companion “Action at the Frontline” programme, based on the principle that learning and action should proceed cyclically, has drawn on Frontline findings in the cases above and in many other cases amongst GNDR member organisations, to promote sustained learning and action.

Influence at an International level, specifically on the UNISDR HFA and SFA, is more difficult to achieve. The nature of barriers encountered at this scale is discussed in Gibson et al. (2018, in this issue). They conclude that change agents should consider whether to step outside the “system”, while local and national level cases suggest that the original intention of developing a programme with direct local relevance has been achieved, both this and the earlier VFL programme face more daunting challenges in achieving global level influence.

6.1 Costs and sustainability

VFL and Frontline are dependent on donor support for deployment and over the various iterations of the programme financial support has been provided by a range of governments including Ireland, USA, Sweden, the Netherlands, Switzerland and Germany. While this has supported central costs for development, deployment, training, administration and analysis the sums offered to the participating organisation have been modest, ranging from approximately $6000–$20,000 for the key country level NCOs, with typically no financial contribution for the local-level POs conducting the surveys and consultations.

For example, the Memorandum of Understanding for NCOs for the 2011 programme estimated costs as follows:

- National Training Workshop: $7k
- Personnel (Coordinator): $10k
- Travel $: 3k
- Consultation/Follow up: $5k
- Total: $25,000

It offered funding of $9,000 towards this figure, with a further $8,000, therefore totalling $17,000, contingent on funding promised but not secured at the time of the project. The programme is therefore heavily dependent on the in-kind support of GNDR member organisations which in turn depended on the value which organisations placed on the action in relation to their own mandates. In some cases, this value related to the organisation's advocacy in campaigning work, in others the experience of action research was valued. Clearly this dependency on the commitment and provision of in-kind support heightened the pressure of the network secretariat to ensure that the action was seen as relevant and worthwhile by participating member organisations.

7. Limitations and challenges

Limitations and challenges have been identified in the above sections and are summarised,as follows:

- (1) ensuring local-level relevance – avoiding being perceived as extractive and irrelevant by participating NGOs and communities;
- (2) achieving understanding and acceptance of the qualitative methods and key respondent approach adopted;
- (3) achieving high quality in one-to-one structured conversations;
- (4) achieving consistency and accuracy in the coding process;
- (5) ensuring that the scope of information gathering is appropriate to generate meaningful data;
- (6) ensuring that the organisational structure adopted for the programme meets the needs of the membership as well as being appropriate to effective data gathering;
- (7) dealing satisfactorily with the problem of "bias" and with the practical reality that the data reflects a conversation rather than the isolated views of the respondent; and
- (8) ensuring that all users are able to access, analyse and represent information and findings gathered through the process.

8. Further development and further work

The previous section outlined challenges to be considered in further development of Frontline. Areas to be addressed are also summarised in Gibson and Wisner (2016):

- The coding process, training support and quality management may require further examination.
- The sampling strategy should be reviewed, especially in large, geographically and socially diverse countries.
- It is possible that larger samples should be produced; the authors found that sample sizes rapidly shrank as they drilled into the Tableau data.
- “Risk zones” should be considered as a possibly more meaningful unit of analysis than “countries”.
- Limitations of self-reporting by respondents, especially concerning wealth status, need to be considered.
- The interpretation of data from Tableau may require further visualisation to make it accessible to end users.
- AFL case studies should be pursued as a valuable means of triangulating findings. Most of those documented are at early stages, and it will be important to continue documenting the progress of these and other cases.
- Criteria for choosing action at the Frontline case studies and their documentation need to be spelled out.
- A thorough and ongoing discussion of methods used by other researchers attempting to “give voice” to local people should be launched and sustained.

Underpinning these technical and methodological considerations is a deeper challenge referred to in Section 6. These programmes engage with institutions and politics in pursuing their emancipatory goals. In doing so they follow in footsteps treading back over 40 years, from Freire’s (1970) work on mobilising the oppressed poor to change the conditions of their lives, to Chambers’ (1997) influential works calling to “put the first last” and asking “whose reality counts?” Chambers (1983) and Gaventa’s (1980) work on power and powerlessness. These and many others argue that emancipatory and transformatory change depends on giving local people voice and power, counter to a “top down” system. Such a shift in power relations is unavoidably political and as noted above – and argued in more depth by Gibson et al. (2018) – this is unlikely to be achieved by engaging with the “system” and playing according to its rules. Evidence such as that garnered by VFL and Frontline is important but not sufficient. The ways in which such evidence is deployed to support dissensus/disruption are as important as the evidence itself.

Frontline continues to evolve. In its latest iteration, GNDR are attempting to redesign it to retain the local consultation focus, whilst also gathering questionnaire-based information related to the SDG and Sendai targets to provide a local monitoring function. In effect, this redesign combines the VFL approach with Frontline. This leads to trade-offs, for example, the means of consultation may be group based rather than one-to-one. The hybrid approach may address the challenge of ensuring both local and international relevance. The discussion above suggests that an unanswered question is how, given eight years’ experience of failing to exert substantive influence on the system it addresses, this might be achieved.

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