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Relocalising disaster risk reduction for urban resilience

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'Relocalisation' is defined as aiming to return communities to a more local basis, including in disaster risk reduction. In 2005, Boulder Valley, Colorado, USA formed a non-profit, non-governmental organisation to implement relocalisation. In late 2006 and early 2007, the group's leaders decided to pursue relocalisation as a for-profit venture and effectively eliminated disaster risk reduction from the relocalisation agenda. This paper analyses these actions and the consequences for relocalisation through the framework of good governance, which involves the principles of participation, transparency, accountability, rule of law, effectiveness and equity.

For Boulder Valley's group, rule of law was the only good governance principle which was likely to be adhered to. The other principles were violated to different degrees, mainly owing to leadership decisions which were not enacted in consultation with the group's membership. This experience suggests three leadership-related lessons for trying to retain disaster risk reduction in future relocalisation activities.

- (a) **Leaders' personal agendas can preclude community-based agendas, even within grassroots movements.**
- (b) **Disaster risk reduction is challenging to keep as a high priority when short-term profits dominate decision-making.**
- (c) **Community consultation and participation processes do not necessarily lead to community-based decisions.**

Overall, leaders should be facilitators to reconcile disparate interests and to guide decision processes rather than being decision-makers or organisational controllers.

I. URBAN RESILIENCE, DISASTER RISK REDUCTION AND RELOCALISATION

Building and maintaining urban resilience requires support and action from individuals through to global organisations. While top-down guidance and support are useful for actions such as providing resources and standardising definitions and legal frameworks, broad involvement and initiatives from the local level, whether in urban or non-urban settings, tend to yield the most successful long-term outcomes.^{1–3} Community-based work is not a panacea^{4,5} but is an essential part of achieving urban resilience, as demonstrated by the long history of work on this topic covering contemporary and historical examples.^{6–9}

Yet many interpretations, uses and definitions of 'resilience' exist.¹⁰ Two examples of definitions of resilience are that it is

- (a) the opposite of vulnerability and refers to the ability of an entity, which could include an urban community, to resist or recover from damage¹¹
- (b) the ability to return to the original state following a hazard event.¹²

In the context of urban areas dealing with disasters, a more useful definition is

The capacity of a system, community or society potentially exposed to hazards to adapt, by resisting or changing in order to reach and maintain an acceptable level of functioning and structure. This is determined by the degree to which the social system is capable of organizing itself to increase its capacity for learning from past disasters for better future protection and to improve risk reduction measures.¹³

The main advantage of this definition is the understanding that both change and learning from the past are necessary for achieving resilience.

With a 'disaster' defined as 'A serious disruption of the functioning of a community or a society causing widespread human, material, economic or environmental losses which exceed the ability of the affected community or society to cope using its own resources',¹³ connecting the ideas of 'resilience' and 'disaster' yields the definition of disaster risk reduction as 'The conceptual framework of elements considered with the possibilities to minimise vulnerabilities and disaster risks throughout a society, to avoid (prevention) or to limit (mitigation and preparedness) the adverse impacts of hazards, within the broad context of sustainable development'.¹³ An international framework for implementing disaster risk reduction, incorporating urban resilience, has been developed by the United Nations.¹⁴

These definitions and the framework¹⁴ exemplify the top-down guidance and support noted earlier as being helpful for building and maintaining urban resilience. Matching these endeavours with local approaches is also needed and has been completed, such as by applying the framework¹⁴ for developing general guidelines for disaster-resistant communities¹⁵ and for

specific case studies including Italy¹⁶ and seven mega-cities.¹⁷ Others have also applied these and similar approaches for case studies to propose a 'resilient cities initiative',¹⁸ to set up a 'non-profit association established to assist local authorities around the globe in their struggle against disasters and emergencies',¹⁹ and to focus on local action for urban disaster risk reduction.²⁰ Many examples also exist of community-based teams and programmes for urban disaster risk reduction (Table 1).

2. BACKGROUND TO BOULDER RELOCALISATION

Complementing this work, another approach has been developed for engaging urban communities in disaster risk reduction, called 'relocalisation'. Relocalisation is defined as aiming to return communities to a more local basis from their current, relatively centralised and transport-dependent systems, in sectors such as food, energy and manufacturing. The initial impetus towards relocalisation was anticipating limited external energy supplies, especially as fossil fuels become increasingly expensive and restricted in supply, a situation termed 'peak oil'.^{23,34} Relocalisation has since expanded to embrace climate change impacts and economic globalisation threats and to focus on building and maintaining local livelihoods.

In August 2005 in Colorado, USA, Boulder Valley Relocalization (BVR) was founded as a local residents' non-profit, non-governmental group to implement relocalisation for the Boulder Valley community. Boulder Valley was not explicitly defined by the group, but was accepted as being a loosely delineated area northwest of Denver with approximately 300 000 people scattered over approximately 2000 km² of the Rocky Mountains and central plains of Colorado. The largest settlement is the university city of Boulder with a resident population of 95 000.³⁵

From the definition of 'disaster' given earlier (UNISDR, 2008), any location with people has the potential to experience a disaster, hence disaster risk reduction must be addressed irrespective of the place's other characteristics. This means that relocalisation would not be completed to avert a specific form

of disaster but, rather, must be enacted to address the root causes of vulnerability that are exposed when a disaster strikes.^{1,3}

For example, the city of Boulder is in a flash flood plain while Boulder Valley is situated on the lee side of the Rocky Mountains, and faces chronic overdemand of water for the available water resources available. To suggest that BVR should address flash floods and droughts as the place-based threats for Boulder Valley would only provide part of the story. Instead, by definition, relocalising disaster risk reduction means that all vulnerabilities should be tackled to cover all disaster issues that might arise, including but not limited to

- (a) event-based threats with examples for Boulder Valley being flash floods, droughts of various forms, tornadoes, avalanches or rock falls onto land transportation routes, a plane crash at one of the airports in Boulder Valley, terrorist attacks, epidemics, or space weather disrupting communications
- (b) longer-term disastrous conditions, with examples from Boulder Valley ranging from human-caused climate change to an economic recession to an erosion of civil liberties.

Following the founding of BVR, the first formal steps towards effecting relocalisation in Boulder Valley were taken in January 2006 by formulating a strategy to write a relocalisation master plan with a commitment to finalise the plan during 2007. One BVR subcommittee was formed to tackle relocalising disaster risk reduction across Boulder Valley, based on an all-vulnerabilities approach, irrespective of how those vulnerabilities would manifest in a disaster. Details were published³⁶ including results from the disaster risk reduction subcommittee to that date and the plans for future work to incorporate disaster-risk-reduction in the master plan.

Between acceptance and publication of the disaster risk reduction subcommittee's work,³⁶ the plans for relocalising Boulder Valley and for BVR shifted radically, effectively eliminating disaster risk reduction from the relocalisation agenda. This paper updates the work on relocalising disaster risk reduction for Boulder Valley, describing the events related to this rapid shift in late 2006 and early 2007 and the reasons for the change, from the perspective of the present author, who was involved in BVR from January 2006 until March 2007, especially through running the disaster risk reduction subcommittee. The sources used are people who were directly involved with the disaster risk reduction subcommittee, people who were involved with the rest of BVR/BGL ('Boulder Going Local', described in section 3), minutes of meetings and documentation published on the websites of BVR and BGL. Individuals' names and direct quotations from them—given verbally, by email, or in meeting minutes—are not provided here for reasons of confidentiality.

3. OBSERVATIONS ON ORGANISATIONAL GOVERNANCE

In January 2006, subcommittees were formed within BVR to work towards the master plan. BVR was run in an ad hoc manner through informal, open discussion meetings, which were attended by between 15 and 40 people. BVR's leaders referred to the structure as an 'adhocracy' and said that they

Location	Programme name
Asia	Townwatching ²¹
Australia	Community fireguard ²²
General	Disaster-resistant and quality-of-life community ²³
General	Shanghai principles ²⁴
Japan	Jishu-bosai-soshiki ²⁵
Taiwan	Integrated community-based disaster management program ²⁶
Turkey	Community disaster volunteer training program ^{27,28}
USA	Community emergency response teams ^{29,30}
USA	Teen school emergency response training ³¹
USA	Wingspread principles ³²

Table 1. Examples of community-based disaster risk reduction teams and programmes

were comfortable without further formalisation to keep BVR grassroots driven and to ensure that the real work towards relocalisation was done in the subcommittees.

At one of the general meetings in October 2006, in response to a question about strategic management, one of BVR's leaders inadvertently revealed that a small committee was making strategic and financial decisions about BVR without consulting or informing the wider group. This small committee comprised BVR's leaders along with a few others who were invited to join but who had no specific role. Exact numbers and responsibilities of the members on the small committee cannot be provided because that information was never made available, despite repeated requests for it.

This situation was challenged during that meeting and in subsequent meetings, but no change resulted. Direct questions about the opportunities for others to join the small committee were evaded. In early 2007, one BVR member asked specifically to be involved in the small committee but was not permitted.

Towards the end of 2006, it was further revealed that the small committee had decided to form a for-profit group, which was eventually called Boulder Going Local (BGL) to complement BVR. Direct and repeated questions to BVR's leaders were not answered about

- (a) the division of responsibilities between BGL and BVR
- (b) the need for a for-profit entity rather than a formally registered non-profit entity.

The leaders of BVR and BGL were the same people, and were still self-appointed, so they are hereafter referred to as 'BVR/BGL's leaders', again noting that the differentiation of responsibilities between BVR and BGL was never made clear.

Without consulting BVR, BGL's 'campaign slogans' were announced as 'Buy local first! Eat local! Grow local! Local energy! Local currency!' Other themes being developed by BVR including health, water and disaster risk reduction were left out. Without consulting BVR, the master plan's development was subject to an indefinite delay and then abandoned by stating that completing the master plan was no longer an important relocalisation goal. Work completed to date on incorporating disaster risk reduction into the master plan was not considered for BGL.

BVR/BGL's leaders' silence on strategic management questions, leaving out from BGL key volunteers from BVR, choosing to focus on certain sectors at the exclusion of others and downgrading the importance of completing the master plan were all questioned at meetings through early 2007, but discussion was restricted and answers were not provided.

By March and April 2007, most key players in BVR—those who had consistently attended meetings and put in volunteer hours—who were not permitted to be involved in BGL had withdrawn from the Boulder relocalisation movement. The most common publicly-stated reason for withdrawing was lack of time, but in private, a few participants intimated or described criticism of BVR/BGL's leaders with varying levels of harshness. Lack of control when volunteering for tasks, lack of

organisational direction, lack of involvement in decision-making and uncertainty regarding the purpose and future of BVR/BGL were all mentioned privately regarding reasons for withdrawing from the organisation.

4. ANALYSIS OF ORGANISATIONAL GOVERNANCE

The United Nations provides six principles of good governance: participation, transparency, accountability, rule of law, effectiveness and equity.³⁷ Despite analyses and critiques of the meaning and application of 'good governance'³⁸ along with the challenges of defining each one, these principles are stated as being important for disaster risk reduction activities, from research³⁹ to policy⁴⁰ to on-the-ground project implementation.¹⁴ The six principles, or variations thereof, are further shown to form a useful approach to understanding governance characteristics such as local democracy,⁴¹ sustainable development,⁴² which explicitly includes disaster risk reduction,^{1,3,43} and analysing the appropriateness and effectiveness of aid from the World Bank.⁴⁴

As such, irrespective of the principles' limitations and the ongoing discussion regarding the interplay between democracy and good governance, the six good governance principles provide a helpful framework for observing the actions of BVR/BGL from the perspective of relocalising disaster risk reduction in Boulder Valley. This section examines each of the good governance principles, providing a qualitative overview of BVR/BGL's performance, based on and supplementing the observations identified in the previous section. Major limitations of the analysis are

- (a) the lack of formal mechanisms established by BVR/BGL for monitoring and evaluating the organisation's performance in any areas, not just good governance
- (b) the reticence of BVR/BGL's leaders to answer or to discuss questions and to provide information on many of the topics and concerns raised.

The first good governance principle, participation, was permitted in BVR except for within the small committee making financial and strategic decisions. The adhocracy allowed members to pursue their own interests in their own ways with limited control from the leaders, but while ensuring that they matched the long-term goals of BVR. This approach generated significant enthusiasm and inspiration within BVR, including volunteers to run speaker and seminar events along with conducting publicity about BVR's activities and goals. It was also effective because BVR's discussion meetings attracted a manageable number of participants, noted previously as between 15 and 40 people.

The effectiveness of BVR's participatory approach is demonstrated in that the topic of disaster risk reduction was concerning for two BVR/BGL leaders to the extent that they refused to discuss the possibility of disasters. They stated that they could not deal with the thought of extreme events and that they had no interest in considering the subject, so they preferred to avoid the issue. Offers were made to spend time with education and discussion through examining the importance of disaster risk reduction and urban resilience for sustainability and development.^{1,3,45} Those offers were declined. Descriptions of disasters that Boulder Valley had experienced in the past were

met with indifference. Yet the participatory aspects of BVR through the adhocacy meant that the disaster risk reduction subcommittee was able to proceed initially with their interest in relocalising disaster risk reduction without interference from the BVR/BGL leaders who were uncomfortable with this topic.

BGL provided minimal opportunity for participation, so pursuing disaster risk reduction and urban resilience topics was not feasible. Instead, these topics were removed from the relocalisation agenda with neither consultation with, nor agreement from, BVR. The shift away from the master plan and the emphasis on BGL rather than BVR, without clarifying the relationship or connections between the two, meant that these decisions could not be questioned or countered.

Accountability and transparency cannot be quantified or formally evaluated because no mechanism was created for doing so, yet both accountability and transparency appeared to be occurring for BVR from January to October 2006. During that time, the relatively small size of the adhocacy, the openness of the subcommittees and the frequent reporting to each other meant that BVR was truly operating at the grass roots level, being accountable to one's peers regarding the progress of relocalisation. The process was also entirely transparent, because all general and subcommittee meetings were openly advertised and minutes were made available to everyone through an online network—apart from the small management committee which was revealed in October 2006.

At that point, it became apparent that accountability and transparency were lacking for that one instance. Efforts to increase accountability and transparency were stymied, because the small committee's meetings were not announced, even when specifically requested, and the small committee's decisions regarding finances were disseminated after the decisions had been enacted. The choice to create and focus on BGL was not discussed and options to become involved were not available, except when specific individuals were asked by BVR/BGL's leaders to contribute to specific tasks on the leaders' terms, rather than the volunteers' terms. BGL, as a for-profit entity, had no obligation to be accountable and transparent, but then the community representativeness and grass roots approach of BGL could be questioned.

Rule of law appeared to have been fully met for BVR and BGL in that no intimation was made that either organisation was involved in illegal activities or processes. At the time of the formation of BGL, however, formal legal mechanisms were not needed for BVR because it was not registered as a formal organisation. Additionally, the tenet that 'absence of evidence does not mean evidence of absence' applies here in that formal legal investigations and monitoring had not been completed for BVR or BGL because there was no reason for that, so the fair assumption is that rule of law was adhered to. This aspect of good governance was likely met in both BVR and BGL. As a formally registered group, BGL had formal legal reporting to complete, but that occurred after the timeframe of this discussion.

Effectiveness is difficult to judge, especially as no mechanism was created for monitoring and evaluating BVR or BGL. Developing and determining indicators for good governance or

for progress in sustainability or development is not straightforward,^{46,47} so for BVR/BGL, qualitative and general observations are made briefly, suggesting mixed effectiveness for those groups.

Effectiveness within BVR was demonstrated by progress made towards the master plan and by the networks created within Boulder Valley covering all relocalisation actions. Ineffective aspects of BVR included abandoning the master plan without consulting members, the slow dissolution of all BVR subcommittees and the inability to retain volunteers. BGL's focus on specific sectors at the exclusion of others could be argued as being ineffective in comprehensively addressing relocalisation. That choice could also be supported as being effective by giving an organisation a focused mandate within which to succeed, rather than becoming diluted across all topics and tasks.

Yet disaster risk reduction and urban resilience literature^{1,3,14,43,45} discusses from theoretical, policy and practice perspectives that long-term effectiveness of sustainability and development processes is unlikely to be achieved without explicitly considering disaster risk reduction. In fact, no other relocalisation movements were found, apart from BVR, that explicitly address disaster risk reduction.³⁶ This suggests a significant gap in relocalisation activities, which could have long-term detrimental consequences for these movements, especially if they have not addressed business continuity⁴⁸ or readied community teams (Table 1).

Equity appeared to be strong within BVR until the October 2006 meeting exposed the small committee, representing a two-tier approach to involvement within BVR. The closed nature of both BVR's small committee and BGL eliminated the semblance of equity. Also, towards the end of 2006, BVR/BGL's leaders steered some volunteer efforts towards organising and publicising permaculture courses given by a BVR/BGL leader. These courses were for profit, but discussion was not permitted regarding the distribution of the profits. Questions regarding the advantage for BVR/BGL of supporting these courses were not answered.

Concurrently, BVR implemented a series of film nights, panel discussions and speaker evenings, running two or three events per month. These events were free and open to the public until February 2007 when BVR/BGL's leaders started charging US\$5 or more for certain events, against the explicit recommendation and vote of the publicity volunteers, recorded in the minutes of one meeting. When concerns were raised regarding to whom the money accrued, whether the event was run by and represented BVR or BGL, and who was responsible for overseeing the finances, no response was given. Confusion increased regarding the relationship between, and activities of, BVR and BGL.

While a for-profit entity such as BGL does not need to provide answers to such questions, the situation violated the equity tenet of BVR. A relocalisation movement, by definition, must be inclusive, meaning that any community member could become involved and that all community members are incorporated into relocalisation plans. Charging a fee for events necessarily limits access for those with limited resources,

especially students, the homeless and the unemployed. BVR/BGL's leaders acknowledged that people would be excluded from non-free events because of affordability, but nonetheless imposed the fixed charge system without trying proposed alternatives such as 'pay what you can' or charging only those earning regular income on an honour system.

Additionally, one original BVR subcommittee was tasked with investigating a 'complementary currency' system for Boulder Valley. This refers to a trade and exchange system not reliant on the national currency to promote a local economy, the success of which is shown through implemented Local Exchange Trading Systems.^{49,50,51} In particular, volunteer hours given to BVR were promoted as an important complementary currency for waiving charges to any BVR/BGL event. All these suggestions were dismissed by the BVR/BGL leaders without discussion, significantly reducing the opportunities for equity within the organisations.

Pursuing profits is not necessarily inherently inequitable. 'Corporate social responsibility'—the suggested need or desire for the private sector to account for societal and environmental issues in their business—is well known for disaster risk reduction⁵² and for sustainability.⁵³ Interest in corporate social responsibility was not evident within BGL, because the rationale was that localisation inherently benefits society irrespective of profits made or of the allocation of profits. Yet charging for activities specifically excluded some of those most vulnerable to disasters, such as the homeless,⁵⁴ despite solutions proposed to maintain both the profitability of, and access to events from, BVR/BGL. Equity therefore diminished significantly in BVR and BGL after October 2006.

5. LESSONS: LEADERSHIP STYLE

For building and maintaining urban resilience, community-based disaster risk reduction is needed and is feasible (Table 1). An important question from the BVR experience is therefore how could disaster risk reduction have been retained within the localisation agenda? Three principal lessons are suggested, all relating to leadership.

First, personal agendas of leaders can preclude community-based agendas, even within grass roots movements. This leads to discussion regarding the definition of 'grass roots' and 'community-based'. BVR/BGL's leaders initially advocated a grass roots perspective and reiterated throughout 2006 the importance of collective decision-making. Yet when disagreements arose on strategic issues, discussion was either suppressed or bypassed. While it would be nearly impossible to satisfy all views within any organisation, the frustration experienced within BVR, as evidenced by the volunteers who left, could be avoided by a more conciliatory and less controlling form of leadership. For an organisation to remain truly community-based, leading does not imply control of all decisions or complete control of an organisation's direction.

The second lesson is that disaster risk reduction is challenging to keep as a high priority when short-term profits dominate decision-making. Despite many studies illustrating the short- and long-term economic benefits of disaster risk reduction^{55,56,57} and demonstrating that successful disaster risk reduction is a long-term endeavour to be integrated into development and

sustainability processes,^{1,3} these premises are not always accepted. In contrast, disasters tend to be viewed as rare and unusual events which are not likely to occur in the short-term and so they do not need to be addressed in the short-term, especially when some people feel uncomfortable discussing disasters and disaster reduction. With a focus on short-term profits within a leader's comfort zone, this problem cannot be overcome. Instead, leaders who listen to and engage with members of their organisation are needed, along with an ability to consider topics which are not usually within their domain or which are not comfortable for them.

The third principal lesson is that community consultation and participation processes do not necessarily lead to community-based decisions. This might not be entirely deleterious. For post-disaster reconstruction, for example, 'Community involvement is essential, but that does not necessarily mean community control'.⁵ Meanwhile, community-based knowledge can sometimes be inconsistent and unreliable, and hence detrimental to local decision-making.⁵⁸

Yet neither of these studies states that community consultation and community involvement should be ignored. Conversely, they advocate drawing on different sources and viewpoints for decision-making. Rather than forcing their own opinions on an organisation, leaders should take the time to seek different information sources and viewpoints followed by synthesising them, to be 'interpreted by skilled accountable researchers, and open to broad scrutiny'.⁵⁸ This form of leadership was not evident for BVR/BGL.

6. CONCLUSIONS

The experience from Boulder Valley's attempt in 2006–2007 to localise disaster risk reduction suggests characteristics of leaders which are needed to ensure the success of a grass roots or community-based process.

- (a) Leaders should not have personal agendas, instead being content to pursue, facilitate and support, sometimes with gentle direction, community-based agendas.
- (b) Leaders should have long-term vision while dealing with short-term issues in the long-term context, rather than, as in the case of BVR/BGL, appearing to be focused on short-term profits.
- (c) Leaders must be willing to take the time and energy required for thorough community consultation and participation processes.

Overall, the BVR/BGL experience suggests that leaders need to be facilitators to bring together and reconcile disparate interests and views, and to guide decision processes, rather than being decision-makers or controllers of an organisation.

The level of urban resilience developed proactively through community-based processes can therefore hinge on the meaning of 'community' and 'community involvement'—and on how that 'community' is led. Despite the continual call for community-based approaches to resolve disaster and development concerns, comparatively little work exists exploring the meaning of 'community', especially in the context of building and maintaining 'community resilience'.

One argument⁵⁹ is that a 'community' effectively does not exist because any group of people comprises different subsets, each of which has its own interests, power, vulnerability and resilience. A group of people in a particular place does not necessarily lead to cohesion, cooperation or commonalities, such as the observation that 'communities are not very community-like'.⁶⁰ This discussion alludes back to the earlier comments regarding the debates on the meanings of 'good governance', each good governance principle and 'resilience', all contributing to the challenges of understanding how community-based processes could succeed.

These challenges do not preclude developing various forms of community resilience within the good governance principles despite differences of opinion. In fact, diversity can strengthen, while stalling on academic definitional disagreements can significantly harm a disaster risk reduction process that locals in a location wish to pursue. The leadership characteristics identified here—with leaders being facilitators to bring together and reconcile disparate approaches rather than being decision-makers or controllers—would support work towards urban resilience, with the possibility of operationalising the good governance principles, even within the context of definitional differences. While such leadership was not present in BVR/BGL, Table 1 illustrates that it can be achieved for community-based disaster risk reduction.

Such leadership is likely to be necessary, but not sufficient, for keeping disaster risk reduction within relocalisation. Boulder Valley already displayed many prerequisites for successful disaster risk reduction which were not discussed here and those prerequisites will not be present in all other case studies. These prerequisites include a reasonable level of affluence, a spirit of voluntarism and community, relatively functional local governance and relatively robust social services and infrastructure. Those advantages did not translate either into good governance for BVR or into successful relocalisation of disaster risk reduction, mainly because the BVR/BGL leadership style exhibited a lack of transparency and a lack of accountability.

In contexts without Boulder Valley's advantages, is relocalising disaster risk reduction possible? The answer is 'yes' by accepting informal networks and informal governance to be as important, if not more important, than formal approaches—an attitude well enshrined in research and practice of disaster-related activities from flood warning⁶¹ to initiating disaster recovery.⁶² The examples of community-based disaster risk reduction from Table 1, along with many more which include combining external interventions and local knowledge,^{63–65} show the successes that have resulted around the world. The lesson is that Boulder Valley residents should not be discouraged about relocalisation or about disaster risk reduction due to BVR/BGL. They can pursue these processes with good governance and with appropriate leadership, irrespective of BVR/BGL.

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