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The role of local communities in a global risk landscape

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Chapter 9

What can be learned from the disaster front?

Enhancing disaster risk reduction (DRR) and building resilience are cross-cutting issues that affect progress towards the achievement of the Sustainable Development Goals (SDGs). Several constraints limit the integration of DRR and resilience into disaster management and development. Drawing on previous research, we reflect on how top-down approaches in disaster management fail to address DRR and resilience, and worsen social risks and the root causes of disasters, including rent-seeking, elite capture, organised crime infiltration, disaster capitalism and corruption. We discuss DRR and resilience, and the paradigm shift it prompted in disaster management thinking, from 'managing disasters' to 'reducing the risks of disasters'. We argue that, to integrate DRR and resilience into development, a similar paradigm shift is needed in the field of Impact Assessment from 'assessing the impacts' to 'reducing the risks' arising from development, especially if the goals of the 2030 Agenda are to be met. This shift should be supported by changes in how the impact assessment community perceives the scientific, institutional, and socio-cultural roles Impact Assessment has (and should have) to foster sustainable development and achieve the SDGs.

From assessing impacts to reducing risks and building resilience: Revolutionizing Impact Assessment to reduce the risk of disaster and to achieve the Sustainable Development Goals

Introduction

The risk of disasters is ever increasing in terms of extent, intensity, and frequency, disproportionately affecting the regions and people that are most vulnerable (Hallegatte et al., 2017, 2018; Wallemacq and House, 2018; UNDRR, 2019). The growing human cost of disasters has led the international disaster studies community to develop global strategies to reduce disaster risk and build the resilience of people and places at risk. Since the 1980s, various international declarations, principles, and guidelines have contributed to the establishment of a disaster risk reduction (DRR) and resilience paradigm that should be the basis of all disaster management phases and sustainable development in all countries (UNDRO, 1982; IDNDR, 1994; UNISDR, 2005; UNISDR, 2015). In these documents, the United Nations has advocated for integrating DRR and resilience into all development policies, plans and projects, and called upon all countries to express their commitment to reduce vulnerabilities and associated disaster risks, and better strengthen capacity and resilience at all levels of society before and after disasters (Imperiale and Vanclay, 2019a, 2019b). The *2030 Agenda for Sustainable Development* (UN, 2015) reaffirmed the need to enhance DRR and build resilience, concepts that are embedded in the Sustainable Development Goals (SDGs) and corresponding targets. Enhancing DRR and building sustainable and resilient societies are cross-cutting issues that will impact progress towards the SDGs (Aitsi-Selmi et al., 2015; Kelman, 2017; UNECOSOC, 2018; Mizutori, 2019).

We consider that a disaster is a multidimensional phenomenon that comprises: (1) the characteristics of the hazard (e.g. climatic, geo-physical, environmental, hydrogeological, human, technological); (2) the multiple dimensions of risks and impacts, including how they are perceived, experienced and distributed; (3) the social pre-conditions of disasters (i.e. the local root causes of disaster, local vulnerabilities and social risks, hazard exposure and insufficient risk reduction); (4) the capacities of local people to learn from past failures and disasters, and to transform towards reducing the social pre-conditions of disasters and enhancing resilience at the local community level (i.e. community resilience) and other levels of society (i.e. social resilience); (5) the principles, goals, priorities, and methods reflected in disaster risk management and post-disaster interventions; and (6) the effectiveness of the social processes, services and support available to the community before and after disaster.

Although not yet fully implemented in practice (Imperiale and Vanclay, 2019a, 2019b), DRR and resilience have prompted a shift in disaster management thinking from ‘managing disasters’ to ‘reducing disaster risks’ (IDNDR, 1994; UNISDR, 2005, 2015; Coppola, 2015). This shift has led to two major changes in the meta-discourses about the way disaster management should be perceived: from ‘top-down command-and-control’ to ‘social learning and transformation’; and from a ‘top-down culture of social protection’ to a ‘glocal culture of resilience’.

Using our research following the 2009 earthquake in L’Aquila, Italy (Imperiale and Vanclay, 2016a, 2016b, 2019a, 2019b, 2020) and the disaster studies literature (e.g. Oliver-Smith, 1990; Oliver-Smith and Hoffman, 1999; Cutter et al., 2006; Klein, 2007; Gunewardena and Schuller, 2008; Lowenstein, 2015; Schuller and Maldonado, 2016; Harvey, 2017), in this reflection paper, we discuss DRR and community resilience thinking and recommended practices, and the structural failures of top-down approaches in relation to: respecting the United Nations disaster management principles; integrating the DRR and resilience paradigm into disaster management practice; and enhancing social development outcomes in disaster management interventions. More specifically, we discuss how the mythology of top-down, military-type, command-and-

control approaches, and the top-down social protection attitude accompanying such approaches, creates structural failures in understanding, recognising, engaging, and empowering the capacity of local communities to learn, transform and build resilience.

Drawing on United Nations declarations (UNDRO, 1982; IDNDR, 1994; UNISDR, 2005, 2015), which for over three decades have advocated integration of DRR and resilience into development policies, plans and projects (4Ps), we ask what the lessons learned in disaster management can suggest to development thinking and practice. We conclude that what is advocated by the DRR and resilience paradigm will only be incorporated if there is a similar shift in impact assessment from ‘assessing the impacts’ to ‘reducing the risks’ of planned interventions. We reflect on how this paradigm shift might happen, especially in terms of how the Impact Assessment community produces knowledge, and perceives its institutional, social and cultural roles. Impact assessment should stop producing confidential technical reports that fail to contribute to sustainable transformative action, and should start developing and testing innovative approaches that can turn impact assessment methods into effective tools for transformative knowledge co-production. Knowledge co-production processes should be capable of enhancing mutual understanding of the multiple dimensions of risks and impacts, acknowledging local people’s perceptions, needs, desires, vulnerabilities, knowledge, values, and capacities, and should orient planned interventions into building transformation towards sustainability.

Understanding the social dimensions of disasters

The sociology of disasters field has established that disasters are not fatalistic external events from which people must be defended, protected or saved, rather they are socially-produced phenomena deriving from pre-disaster vulnerabilities (Quarantelli, 1995, 1998; Rodriguez et al., 2007; Oliver-Smith et al., 2017). Disaster risk is commonly understood as the interaction between the consequence (severity) and likelihood (probability) of a hazard (Coppola, 2015). Hazards are events, agents, or physical conditions that have the potential to cause fatalities, injuries and affect the multiple dimensions of community wellbeing (Coppola, 2015). Although there is a social dimension associated with all hazards (Mahmoudi et al., 2013; Imperiale and Vanclay, 2016a, 2019a), hazards can be classified as natural (e.g. earthquakes, floods, typhoons), socio-natural (e.g. bushfires, droughts, landslips, famine, climate change), medical/health (e.g. epidemics), industrial (e.g. explosions, collisions, leakages), infrastructural (e.g. collapse of buildings or bridges, power outages, building fires), technological (e.g. exposure to radiation or carcinogenic substances from the use of technology), and socio-political (e.g. war, terrorism, ethnic conflict).

The risk associated with a hazard is determined by the characteristics of the hazard itself, hazard exposure and susceptibility. Hazard exposure and susceptibility are exacerbated by local vulnerability, and are reduced by community resilience and local people’s capacity to learn and transform towards reducing the root causes of disasters (i.e. local vulnerabilities and social risks, see Oliver-Smith et al., 2017). Overall, what determines whether a hazard is experienced and/or becomes perceived as a disaster (realised actuality or impact) are risk (i.e. hazard exposure and susceptibility) and vulnerability (Coppola, 2015). The intensity and extent of risk is influenced by the physical, social, economic and environmental vulnerabilities of a community, which worsen the social impacts from and likelihood of disaster (Coppola, 2015; Oliver-Smith et al., 2017; Imperiale and Vanclay, 2016a, 2019a).

The more vulnerable local communities are and the more incapable they are of reducing risks in advance (i.e. prevention), or reacting positively in the immediate aftermath (i.e. preparedness), the more likely a hazard will turn into a disaster. Conversely, the more capable communities are of learning, transforming and being resilient, the less likely a hazard will become a disaster.

By definition, disasters always have severe social impacts on local communities. Drawing on the Social Framework for Projects (Smyth and Vanclay, 2017), these impacts can be categorised as being impacts on (see Figure 1):

- people (e.g. their lives, health and wellbeing, needs, capacities, and perceptions);
- community (e.g. local social, political networks and on local social cohesion, institutions and governance);
- culture (e.g. local cultural and religious structures and shrines; local customs, beliefs, language and ceremonies; tangible and intangible cultural heritage);
- livelihoods (e.g. assets, jobs and occupations, and access to-credit);
- infrastructure (e.g. roads, bridges, factories, public facilities, utilities and social services);
- housing (e.g. family homes, buildings for farms or other business activities)
- environment (e.g. the quality of the environment); and
- land (e.g. natural resource assets; natural heritage; ecosystem services; protected areas).

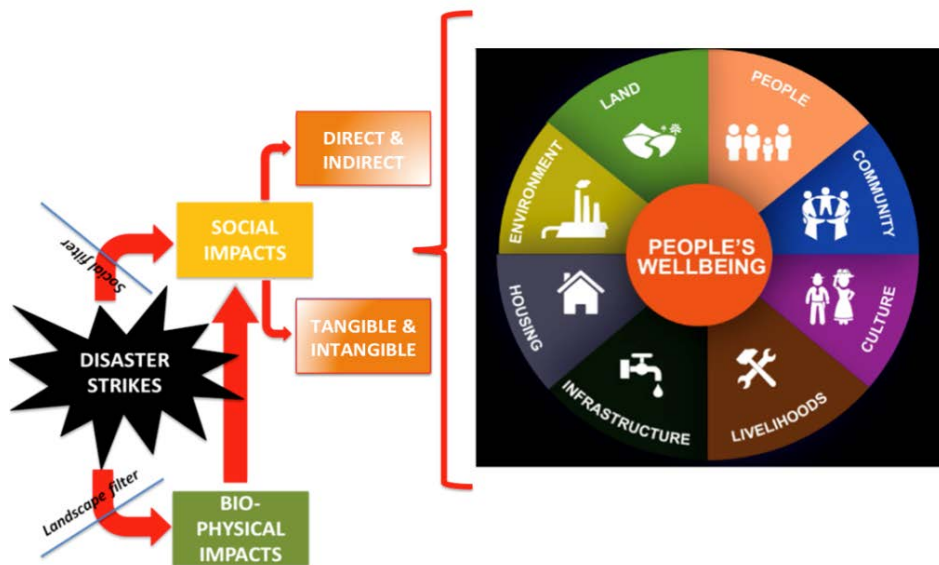


Figure 1: The social impacts of disasters

Source: this paper (modified from Smyth and Vanclay 2017)

The social impacts that are experienced vary from disaster to disaster, and are unequally dispersed between the regions of the world and within local communities, depending on the local social pre-conditions (Coppola, 2015). Understanding vulnerability in social terms is crucial to appreciating the unequal distribution of risk among different places and communities, and within the same community. Vulnerability is commonly defined as “a measure of the propensity of an object, area, individual, group, community, country, or other entity to incur the consequences of a hazard” (Coppola, 2015, p.33). While, potentially, all people can be vulnerable to disasters, some groups of people are more vulnerable than others. Local vulnerabilities include the cognitive (e.g. psychological susceptibility to fear, anxiety; lack of sense of community; lack of sense of place; lack of sense of risk) and interactional weaknesses (e.g. lack of social inclusion; lack of social cohesion; weak local governance; poor housing; poor land use) that affect the multiple dimensions of local people’s wellbeing, and that increase their exposure to, and experience of, the negative social impacts of disasters.

Identifying, recognising, engaging, and empowering the positive social processes that enable and strengthen local people's capacities to learn from disasters and past failures and transform towards: (1) reducing local vulnerabilities and social risks; (2) enhancing the multiple dimensions of local wellbeing and capacities; and (3) building resilience at all levels of society, are crucial to strengthen resilience at all levels of society (Imperiale and Vanclay, 2016b). Social resilience refers to the general ability of local communities and external actors to mitigate the risks and impacts of unexpected changes, and to learn and transform at all levels of social organization (Berkes and Ross, 2003, 2016; Matarrita-Cascante et al., 2017). Thus, turning risks into opportunities for social development (Vanclay, 2017) and building resilience before and after disasters requires activating inclusive social learning and socially-sustainable transformations towards reducing local vulnerabilities and the root causes of disaster.

We define social learning as the cognitive processes that enable individuals, communities and external actors to learn from the most vulnerable and from local vulnerabilities, and thereby to pro-actively change their feelings, attitudes and behaviours towards reducing the social pre-conditions of disasters. This learning reinforces and is reinforced by the creation of shared knowledge, beliefs, values, and narratives. Social transformation can only occur with social learning and is the set of social and institutional processes that enable individuals and societies to learn and change in cognitive and interactional ways in order to reduce local vulnerabilities, enhance wellbeing and capacities, and build resilience. Cognitive changes include changes in the perception of shared needs, vulnerabilities and desires, individual and collective feelings and attitudes, knowledge, beliefs, values and myths, while interactional changes are in the nested interactions people have with each other, and in the institutional and financial strategies, physical planning, community participation, and risk management approaches that external actors adopt in their disaster management interventions.

Social learning and transformation can be activated in each of the eight dimensions of community wellbeing (see Figure 1). They are essential components of resilience at all levels of society (Kelman et al., 2016; Sharpe et al., 2016; Berkes and Ross, 2016; Cavaye and Ross, 2019) and ideally bring external actors and local communities to better reduce local vulnerabilities, risks and the root causes of disasters, thus enhancing local community wellbeing. In Figure 3, we provide a conceptualization of the multiple dimensions of risk, which are composed of hazard, hazard exposure, susceptibility, and which are negatively influenced by local vulnerability and the local root causes of disasters. We also provide a conceptualisation of the agency of local communities and external actors that can perpetuate business as usual, or can enact, enable, engage and empower inclusive social learning and socially-sustainable transformation towards reducing local vulnerabilities and social risks.

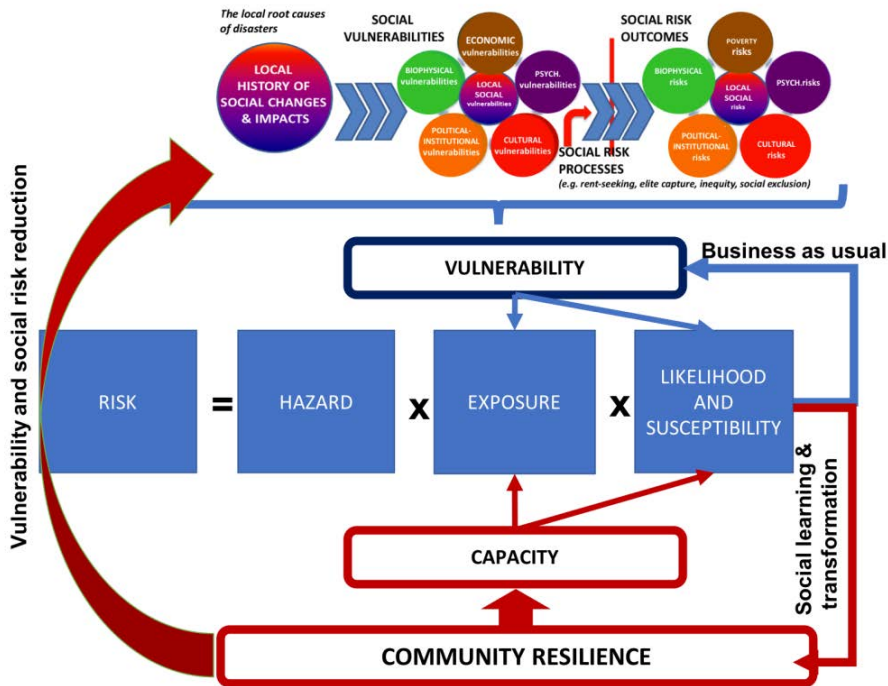


Figure 3: The multiple dimensions of risk
 Source: this Paper

Recognising local community resilience and building resilience at all levels of society

In social terms, resilience is the agency that individuals, communities and societies have to build and put into action the processes needed to reduce the negative impacts of undesirable events and enhance local wellbeing (Imperiale and Vanclay, 2016a). At the local community level, this is called ‘community resilience’ (Davidson, 2010; Cote and Nightingale, 2012; Berkes and Ross, 2013, 2016; Cavaye and Ross, 2019). Community resilience is the set of social survival processes that occur within places and are put into action by local people, before and after disaster. It includes the capacities to collectively learn and transform to reduce disaster risks and impacts (Imperiale and Vanclay, 2016a). Community resilience has cognitive (e.g. intersubjective intentionality) and interactional dimensions (e.g. mutual aid, cooperation), which individuals and communities use to learn, transform, and reduce disaster risks and impacts (Davoudi, 2012). Intentionality is a person’s cognitive processes of identifying a purpose, emerging from and orienting their feelings, attitudes and behaviours towards that purpose (Searle, 1980). In resilient communities, shared intentionality emerges among people living in an environment of perceived and/or experienced crisis (Imperiale and Vanclay, 2016a). Local people reflect on their environment and community at risk, and develop a shared intentionality that feeds and is fed by:

- (i) a feeling of empathy towards the most vulnerable and those most in danger;
- (ii) a perception of shared local vulnerabilities;
- (iii) a perception of shared local needs, desires and capacities related to enhance local wellbeing;
- (iv) an attitude of individual and collective responsibility towards reducing local vulnerabilities and associated disaster risks and impacts; and
- (v) a culture of resilience.

These components of intentionality comprise the cognitive dimension of community resilience and they orient members of a resilient community towards perceiving disaster impacts and risks as common problems that need to be addressed. They also orient local people's intentionality to perceive the reduction of local vulnerabilities and the enhancement of wellbeing and capacities as collective strategies to address common problems (Imperiale and Vanclay, 2016a). The building of a culture of resilience through the production of shared knowledge, beliefs, values and narratives reinforces the perception among members of a resilient community of the shared needs and desires they have to reduce local vulnerabilities and enhance local wellbeing and capacities. The building of a culture of resilience strengthens local people's sense of community, sense of place, and sense of risk, all of which are cognitive factors that are crucial to building and strengthening community resilience (Berkes and Ross, 2013, 2016; Imperiale and Vanclay, 2016a, 2016b). All this orients local people's intentionality, behaviours and social interactions towards meaningful social learning and transformation.

As the L'Aquila case demonstrated, before disasters local people learn from the perception and experience of disaster risks. They develop empathy and caring for those most exposed, and develop social responsibility towards reducing (or demanding reduction of) local vulnerabilities and enhancing local preparedness (Imperiale and Vanclay, 2019a). After disasters, local communities learn from disaster impacts and immediately develop empathy and caring for those most affected or most in danger, and develop social responsibility towards reducing disaster impacts and enhancing the wellbeing of people, especially the most vulnerable (Imperiale and Vanclay, 2016a). Before and after disasters, local communities also develop local knowledge, beliefs, values and narratives, contributing to local people perceiving disaster risks and impacts as common problems that require shared solutions, thus strengthening the individual and collective perception of shared needs, priorities, desires and capacities to reduce local vulnerabilities, risks and impacts (Imperiale and Vanclay, 2016a; 2019b).

The individual and collective actions and behaviours of members of a resilient community represent the interactional dimension through which resilience comes into action. In a crisis, the underlying feelings (especially empathy), attitudes (especially social responsibility and caring), and shared local needs, desires and capacities activate local people to help each other (mutual aid and cooperation) (Imperiale and Vanclay, 2016a). Living in an environment at risk or in a post-disaster situation provides community members with opportunities to perceive the disaster risks and impacts as common problems they collectively have to address. Before disasters, the perception and experience of disaster risk induce local people to learn about the interconnections between the worsening of local vulnerabilities and disaster risks, and to transform towards taking individual and collective actions to reduce (or demand reduction of) local vulnerabilities and risks, and to enhance local wellbeing and preparedness. After disasters, local people are able to learn from disaster impacts and, driven by empathy, caring and social responsibility, to re-orient their individual and collective actions towards addressing the negative impacts they perceive and experience as common problems (Imperiale and Vanclay, 2016a). Before and after disasters, rather than any counter-productive action or anti-social behaviour, the shared need to find solutions to common problems brings about positive, cooperative behaviour. Cooperation and mutual aid are the social behaviours on which the interactional dimension of local community resilience is grounded. Before and after disasters, these behaviours bring local people to build collective actions that are primarily addressed towards the most vulnerable and towards addressing the vulnerabilities, risks, and impacts that bring them into danger. Overall, mutual aid and social inclusion (equity, participation, appreciation of diversity, social sustainability) comprise the interactional dimension of local community resilience (Imperiale and Vanclay, 2016a).

Together, the cognitive and interactional dimensions represent the ways in which people in resilient communities collectively learn and transform towards enhancing (or demanding enhancement of) their wellbeing and capacities to reduce local vulnerabilities and the root causes of disaster. Through these dimensions, local people in resilient communities learn and interact with the place where they live and with whom they live, making the needs of the most vulnerable their shared priority, and putting local wellbeing, vulnerabilities and capacities at the core of their collective actions.

Social resilience (as opposed to community resilience) is the capacity of external actors (together with local communities) to build resilience and a culture of resilience. This requires that external actors learn and transform. When external actors intervene in an attempt to help local communities, they bring their own knowledge, beliefs, values, myths, feelings and attitudes towards local people (in other words, prejudices). This cognitive dimension influences their perceptions about local people's vulnerabilities, wellbeing, needs, desires, and capacities to cope with disasters. The institutional and financial mechanisms they use, and the physical planning, community participation and risk management approaches they adopt influence the way external actors plan disaster management interventions and interact with local communities (i.e. the interactional dimension). When external actors intervene, these cognitive and interactional dimensions influence the way external actors recognise or ignore, engage or exclude, strengthen or weaken local community resilience.

Within local communities, there are positive and negative social processes and trends. There can be resilience, but counter-productive actions – such as elite capture, rent-seeking, infiltration of organised crime, and corruption – can also occur (Imperiale and Vanclay, 2019b, 2020). The internal social dynamics that created local inequity, vulnerability and associated disaster risks must be carefully recognised, understood and prevented. The way disaster management and development interventions are conceived, decided, designed, and implemented facilitate negative and positive trends in local communities. Unless properly managed, planned interventions can lead to a worsening of local social risks, including rent-seeking, elite capture, disaster capitalism, organised crime infiltration, corruption, inequity and social exclusion, thus exacerbating local vulnerabilities, the lack of capacity, hazard exposure and associated disaster risks and impacts (Oliver-Smith, 1990; Cutter et al., 2006; Elliot and Pais, 2006; Klein, 2007; Gunewardena and Schuller, 2008; Lowenstein, 2015; Schuller and Maldonado, 2016; Harvey, 2017; Yamada et al., 2018; Yee, 2018; Imperiale and Vanclay, 2019b). Conversely, planned interventions can lead to: enabling positive individual and collective feelings, attitudes, actions and behaviours; enhancing empathy, caring, mutual aid, equity and social inclusion; strengthening social responsibility, local knowledge, sense of community, sense of place, sense of risk, and local people's awareness of shared needs, desires and capacities. Understanding, recognizing, engaging and empowering these positive social processes and driving forces can enable social learning, build socially-sustainable transformations and strengthen resilience (Imperiale and Vanclay, 2016b).

Too often, intentionally or unintentionally, external interventions are implemented through leveraging the same local processes and structural dynamics that created pre-disaster local vulnerabilities (i.e. the local root causes of disaster) (Oliver-Smith, 1990; Gunewardena and Schuller, 2008). One risk associated with top-down approaches in development interventions is that paternalism can prevail, with interventions and their objectives being planned externally to the location where they will be deployed, often with little connection to local needs (Barca, 2009; Barca et al., 2012; Rodríguez-Pose, 2018). Local elites can use interventions to promote their own interests, increasing inequity rather than inclusivity (Barca, 2009). Top-down disaster management interventions are also planned external to the affected area and can be captured by international, national and local elites, thus not reflecting local needs, creating further environmental and social impacts, worsening local inequity, social exclusion, poverty and, therefore, local vulnerabilities and associated disaster risks and impacts. This ultimately

represents a structural failure, which facilitates disaster capitalism and consequently produces a second disaster for affected local communities (Oliver-Smith, 1990; Klein, 2007; Gunewardena and Schuller, 2008).

We define a 'structural failure' in planned interventions as the cognitive and interactional disability to recognise, engage or empower the main local drivers of social learning and transformation at the local level (i.e. community resilience), while reproducing or exacerbating the local structural dynamics of pre-disaster vulnerability (i.e. the local root causes of disasters). In disasters, this leads external actors to provide counterproductive help (Illich, 1972, 1976, 1978; Esman and Uphoff, 1984; Ellerman, 2006) that, rather than looking at disasters as windows of opportunity to build back better, creates dependency on external support and worsens the local social risks, including rent-seeking, elite capture, organised crime infiltration and corruption (i.e. counterproductive learning), exacerbating local inequity, vulnerability, the local root causes of disaster and associated disaster risks and impacts (i.e. counterproductive transformation).

In previous research (Imperiale and Vanclay, 2020), we defined disaster capitalism as being a broad multidimensional concept that relates to the deliberate perverse actions of self-interested elites to extract private advantage from disasters, as well as the mechanisms that facilitate these actions and protect the elites. We conceptualized the mechanism that is enacted by states relying on top-down, centralised civil protection systems. We demonstrated that such a mechanism creates cognitive and interactional failures at the local community level, facilitating disaster capitalism and protecting the private interests of local and national elites, failing to build community resilience. We showed that this mechanism has cognitive (i.e. promulgation of disaster myths, over-reliance on techno-scientific knowledge) and interactional dimensions (i.e. emergency powers, command-and-control and top-down planning).

Lessons for disaster management practice

Drawing on our previous research on the L'Aquila disaster (Imperiale and Vanclay, 2016a, 2016b, 2019a, 2019b, 2020) and other literature in disaster studies, we argue there are two main reasons why disaster management agencies keep enacting the mechanism (described above) that facilitates disaster capitalism and fails to address DRR and build back better more sustainable and resilient communities. First, disaster management agencies that use top-down, centralised civil protection systems are still negatively influenced by a military-type command-and-control approach to communities, resources and disaster risks and impacts. To overcome the negative consequences created by such an approach, a shift is needed from command-and-control to inclusive social learning and socially-sustainable transformations. Second, a top-down culture of social protection accompanies and reinforces this command-and-control approach, leading disaster management agencies to consider affected communities as vulnerable people that need assistance and are unable to learn, transform or cope with disaster risks and impacts. Therefore, we argue that a shift is needed from the top-down social protection culture to a glocal culture of resilience.

Lesson 1: From a top-down, command-and-control approach to social learning and transformation

Before and after disasters, states using centralised civil protection systems tend to adopt a top-down, military-type, command-and-control approach, which considers crises and disasters as situations of chaos that need to be controlled. Such an approach also considers that, to be quick and efficient, a rigid command chain in the management of financial resources and interventions is essential. This approach is accompanied by a mythology that leads external actors to consider the behaviours of affected people as being a threat to themselves and to the proper functioning of

disaster management actions. Also, local communities must be controlled and kept out of the way while conceiving, deciding, designing, and implementing planned interventions (Quarantelli, 1998; Drabek and McEntire, 2003; Imperiale and Vanclay, 2019b; Finucane et al., 2020).

Before disasters, such a command-and-control mythology leads external actors to consider the sharing of knowledge concerning local vulnerabilities and associated disaster risks as being just a source of collective anxiety. This also leads external actors to consider local knowledge to be unreliable, not scientific, not trustworthy, and something that can lead to alarmism, and that, therefore, must be ignored. Furthermore, any collective action undertaken by local people is considered as being the result of unjustified concern and a source of social and political disorder that must be controlled (Imperiale and Vanclay, 2019a).

After disasters, such a command-and-control mythology leads external actors to consider local people as being inclined to panic. Any initiatives or spontaneous behaviour local people take are considered to be a potential threat to themselves and to the proper functioning of disaster operations. This mythology is accompanied and reinforced by a set of false axioms, including: (1) in post-disaster operations, time is a matter of life and death, therefore, the quicker, the better; (2) consideration of human rights and social and environmental impacts is a waste of precious time; (3) normal laws, governance oversight and local democracy retard emergency operations; (4) the involvement of the public is time-consuming and pointless; and (5) to be efficient, there needs to be 'a single man in charge' who has authority to make quick decisions (Imperiale and Vanclay, 2019b).

Before and after disasters, the command-and-control approach leads states to provide their disaster management agencies with emergency powers, derogation of normal procedures and regulations, and state secrecy provisions (Imperiale and Vanclay, 2019b). Interventions are designed and implemented through institutional arrangements that thwart any effort to recognise, engage and empower local inclusive social learning and transformation. Worse, these arrangements facilitate elite capture, corruption and the infiltration of organized crime. Instead of a culture of resilience, they facilitate a culture of disaster capitalism (Klein, 2007; Gunewardena and Schuller, 2008; Tierney and Oliver-Smith, 2012; Lowenstein, 2015; Escaleras and Register, 2016; Harvey, 2017; Imperiale and Vanclay, 2020).

In L'Aquila, the civil protection authorities and local authority figures adopted a command-and-control approach, which led them to consider that there would be lawlessness and looting, that local people would abandon their public responsibilities in favour of personal interests, and that extraordinary powers, militarization of the emergency area, and creation of exclusion zones were needed to control the affected population and overcome the emergency. The use of emergency powers and procedures was deemed necessary because of perceived urgency and the intention to quickly end the emergency. However, instead of ending it, the use of emergency powers extended the emergency, allowing the elite to exploit the post-earthquake situation. The State of Emergency allowed suspension of governance oversight and derogation of normal procedures and regulations (e.g. public procurement, environmental assessment, waste management). By giving emergency powers to authorities and allowing no-bid contracts, the institutional arrangements facilitated rent-seeking, elite capture and corruption, and inhibited community participation. Thus, post-disaster interventions became transformed into avenues for disaster capitalism and the infiltration of organized crime (Imperiale and Vanclay, 2019b, 2020).

Lesson 2: From a top-down culture of social protection to a global culture of resilience

For over 30 years, the United Nations has recommended that local communities should be engaged and empowered to reduce disaster risks and impacts, and that disaster management interventions should be seen as opportunities to build back better, enhance DRR, and strengthen

resilience (UNDRO, 1982; INDR, 1994; UNISDR, 2005; 2015). Strengthening resilience means, first, and foremost, that the social learning and transformation processes enacted by local communities should be understood, recognised, engaged and empowered (Imperiale and Vanclay, 2016b). Too often, however, what accompanies the command-and-control approach is a top-down social protection culture, which further undermines the capacities of external actors to recognise and strengthen local community resilience.

The top-down social protection culture is based on two flawed assumptions: that disaster risks and impacts are external to local communities; and that local people must be protected from them. However, according to the international DRR and resilience paradigm, fully understanding disaster risks and impacts means realizing that risks and impacts are not external, but are part of all societies. The paradigm advocates empowering societies so that they themselves can learn and transform to better reduce the local root causes of disasters through effective co-production of transformative knowledge. This implies that the conception, design, and implementation of all disaster management actions should be seen as opportunities to enhance local inclusive social learning and transformation towards reducing the local social pre-conditions of disasters. However, how to engage and empower local communities, and how to enhance inclusive social learning and transformation during planned interventions should be carefully assessed, before and after disasters.

However, external actors negatively influenced by such a top-down social protection culture tend to consider that disaster management should only be the responsibility of the civil protection authorities. This culture leads states to provide national and local authority figures with emergency powers, something that exacerbates local social risks and impacts, inhibits the sharing of responsibility for mitigation and monitoring activities, and restricts communities from learning and participating in disaster management. Furthermore, such a social protection culture leads external actors to rely only on techno-scientific knowledge that merely focuses on: the likelihood of the hazard; the physical impacts on the local built environment; the mitigation strategies that external actors have to design and implement; and how local people are to be informed and protected.

Before disasters, this techno-scientific knowledge fails to appreciate the social dimensions of disasters, the local root causes of disaster, the ways in which local vulnerability and resilience arise, how this influences disaster risks and impacts, how local vulnerabilities can be reduced, and how the capacities of local people to learn and transform towards sustainability can be enhanced. After disasters, this techno-scientific knowledge is mostly about the engineering, organizational and construction measures that external actors consider are needed to mitigate disaster impacts and protect affected communities. Being focussed on techno-scientific and operational issues, their knowledge does not include a coherent understanding of the social and environmental impacts or human rights concerns associated with their interventions. It ignores shared needs, desires, capacities, priorities and collective actions, and the social risks (e.g. rent-seeking, elite capture, disaster capitalism, organised crime infiltration, corruption) affecting the local context. Before and after disasters, this knowledge is not co-produced with local communities, nor intended to be transformative. It is not oriented towards understanding the social dimensions of disaster or the local root causes of disasters, and it fails to recognise the positive individual and collective capacities to learn and transform towards sustainability (Imperiale and Vanclay, 2019a, 2019b, 2020).

As seen in L'Aquila, such a top-down social protection approach led to a risk management strategy that only considered the social risks that threatened the disaster management authorities and their plans. The only things considered were what the national and local authorities believed needed to be suppressed: e.g. panic, alarmism, looting and perceived deviant behavior. The authorities considered civil protection only to be matters of paternalistic communication,

assistance, and public control, which, before disasters, required police action, and after disasters, required militarization of the affected area. The idea that people had nothing to contribute – because they had to be assisted and protected and because recovery operations were perceived as being just technical – facilitated elite capture, rather than cooperation and capacity building. There was nothing in this mechanism that prevented other forms of social risks, e.g. rent-seeking, elite capture, organised crime infiltration, corruption, inequity, and social exclusion, all of which exacerbate the social pre-conditions of disasters (Imperiale and Vanclay, 2019b, 2020).

DRR and resilience thinking advocates for a revolutionary shift from a top-down, centralised civil protection command-and-control approach to decentralised, socially-sustainable community empowerment systems, with disasters no longer being seen as external forces, but as threats originating within the vulnerabilities and local root causes of a society. This shift should be accompanied by sharing responsibility for reducing risks, vulnerabilities and the root causes of disasters with a broader constituency within local communities. Such decentralised community empowerment systems should put at the core of any planned intervention the multiple dimensions of local community wellbeing and greater appreciation of local people’s agency and capacity to learn and transform. These community empowerment systems should enable resilience and a glocal culture of resilience. Such a glocal culture should be built at all levels of society by local communities and external actors co-producing understanding about the capacities of local communities and the local social pre-conditions of disasters.

Integrating DRR, resilience and the lessons learned into development

In recent decades, many regions around the world have become increasingly marginalized through population decline, job cutbacks, land abandonment, reduction in public services, and degradation of economic, cultural and natural heritage (Barca, 2009; Barca et al., 2014). These negative trends are perceived and experienced as disasters by many people living in these regions. Since World War 2, top-down approaches in planning related to vulnerable regions have created ‘under-development traps’, contributing to persistent poverty and social exclusion (Barca, 2009; Barca et al., 2014; Imperiale and Vanclay, 2016b). This has made these regions particularly vulnerable to disaster risks and impacts, and economic crises. The risks and impacts produced by global stressors (e.g. climate change) disproportionately affect people who live in these regions. Therefore, strengthening community resilience and institutional capacity, and integrating DRR and resilience into the planning and implementation of 4P is crucial to reverse this ongoing degradation (Barca et al., 2014; Imperiale and Vanclay, 2016b). Recognition that top-down approaches produce social pathologies has led the field of regional development to have an increasing interest in alternative approaches to development that promote sustainable place-based transformation and enhance social development outcomes, including integrating DRR and resilience into planned interventions (Barca, 2009; Esteves and Vanclay, 2009; Barca et al., 2012; UN, 2015; Vanclay, 2015; Imperiale and Vanclay, 2016b; EC, 2013, 2014, 2017; Esteves et al., 2017; Aucamp and Lombard, 2018; Rodríguez-Pose, 2018).

The adoption of *Transforming Our World: The 2030 Agenda for Sustainable Development* reaffirmed the urgent need to build resilience, with resilience being embedded in a wide range of sustainable development goals (SDGs) and targets (HLPF, 2018). Resilience is mentioned explicitly, for example, in SDG1, whose aim is to end poverty in all its forms everywhere, and, more specifically, in Target 1.5, which represents the core resilience target, aiming at building “the resilience of the poor and those in vulnerable situations, and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disaster” (UN, GA, A/RES/70/1, p.15).

To fully integrate the DRR and resilience paradigm into the 4Ps, the lessons learned in disaster management should be taken into account and inspire development thinking and practice. These lessons advocate for a shift in the meta-discourses orienting disaster management practice from a command-and-control approach to social learning and transformation, and from a top-down social protection approach to a glocal culture of resilience. In order to integrate DRR and resilience into 4P, the shift from ‘managing disasters’ to ‘reducing disaster risks’ that has occurred in disaster management should inspire a similar shift in development thinking from ‘managing development’ to reducing the risks from any planned intervention and building resilience; and, correspondingly, in impact assessment from ‘assessing impacts’ to reducing the risks of planned interventions and building resilience. Too often, however, impact assessment is still implemented within a top-down social protection culture and is seen as techno-scientific advice that the practitioner provides only to investors, proponents or the state.

These shifts should be fostered by a new approach to risk that would orient development and impact assessment thinking and practice towards co-producing a transformative knowledge capable of enhancing social learning and transformation and building a glocal culture of resilience, thus counteracting the social pathologies created by the top-down command-and-control approach and social protection culture. The field of Impact Assessment can play a crucial role in building such understanding and supporting development to be more sustainable.

Revolutionizing Impact Assessment to enhance development and achieve the SDGs

Recent advances in Social Impact Assessment (SIA) (Esteves et al., 2012; Vanclay et al., 2015; Kruger et al., 2020; Vanclay, 2020), especially the SIA Framework for Action (Imperiale and Vanclay, 2016b), have shown that SIA can improve social development outcomes of any planned intervention, enacting a transformative and co-produced knowledge with local communities that enables and strengthens inclusive social learning and socially-sustainable transformations, and builds resilience. To liberate its full potential in practice, such framework demands a radical change in the role impact assessment plays in society, from being a mere add-on to pre-determined projects to being the process that drives sustainable development towards achieving social development outcomes and the SDGs. This change can only occur if Impact Assessment practitioners embrace the idea of switching from focusing on impacts to focusing on risks and resilience, and thus on enhancing inclusive social learning and socially-sustainable transformations. This paradigm shift requires changes in how the impact assessment field perceives and performs its: (1) scientific (i.e. knowledge production); (2) institutional; and (3) socio-cultural roles in society, and its contribution and commitment to sustainable development, DRR, resilience and the SDGs, which we elaborate on below.

(1) Changing how scientific knowledge is produced

Current approaches in risk assessment confine risk to simply being the relation between probability and consequence of a hazard, and only focus on the technical characteristics of the hazard (Hanna et al., 2016; Kemp et al., 2016; Esteves et al., 2017; Imperiale and Vanclay, 2019a). This approach fails to acknowledge the broader social context in which risk is constructed, and the differing values of people, especially between the local community and those assessing the risks. Traditional risk assessment does not adequately consider the costs to communities living with risks, which may be acceptable to the business but not to communities (Esteves et al., 2017). Conversely, social science approaches to risk do consider qualitative factors, such as individual perceptions about vulnerabilities, capacities, the hazard, its likelihood, and the social construction of risk (Mahmoudi et al., 2013; Vanclay, 2015; Hanna et al., 2016; Esteves et al., 2017; Imperiale and Vanclay, 2019a). However, there are still limitations in how

risks are conceptualised. The assessment of risks within impact assessment must be further enhanced to better understand and recognise how the vulnerabilities, capacities and resilience of local communities influence risk, and how social risks represent the local root causes of disasters and the structural dynamics of pre-disaster vulnerability. The multiple dimensions of risk illustrated in this paper (Figure 3) is a contribution towards advancing understanding in this field.

From a DRR and resilience perspective, understanding the risks of development and how to reduce them at the local level should be a transformative knowledge co-production process that external actors enact together with local communities (IDNDR, 1994). Instead of being technical advice produced only by experts, the knowledge produced by Impact Assessment should be co-produced with local communities and be transformative. It should include a new approach to risk, based on a better understanding of the multiple dimensions of risk, and of the cognitive (e.g. local knowledge, beliefs, values, narratives, vulnerabilities, needs, priorities and desires) and interactional capacities (e.g. mutual aid, equity, social inclusion, participation) to learn, transform and build resilience. This should lead external actors and local communities towards building a common vision about reducing the vulnerabilities and the root causes of disasters, and enhancing local wellbeing, inclusive learning, socially-sustainable transformation and resilience.

Through the co-production of this knowledge, external actors gain a better understanding of the local vulnerabilities and associated risks and impacts that need to be reduced; and of the cognitive and interactional capacities that need to be engaged and empowered, while enabling local communities to fully participate in the development, mitigation and monitoring activities (Imperiale and Vanclay, 2016b). Overall, this knowledge co-production process should be transparent and accountable, ensure equity, inclusiveness and fairness, and enable deliberativeness. This leads external actors and local communities to build a glocal culture of wellbeing and resilience, which will inspire the co-design of 4P and contribute to achieving the SDGs. More efforts, however, should be made by the Impact Assessment community to better conceptualise the local vulnerabilities, social risks and capacities that characterise the multiple dimensions of community wellbeing. SIA and its recent advances can greatly contribute to this.

(2) Changing the institutional role played by impact assessment

A change in how Impact Assessment perceives and performs its institutional role is needed so that it is not merely a legitimisation device for pre-determined projects, but a process that drives the conception, design, decision and implementation of development activities towards achieving the SDGs. By building such a transformative, coproduced understanding, Impact Assessment should be effectively enabled to contribute to the governance of development. Effective institutional arrangements should enable Impact Assessment to ensure that the co-production of knowledge occurs in a common social arena (i.e. community empowerment system) leading to a shared community vision and mutual agreement between the local community and external actors (i.e. decision-makers, investors, proponents) on: (i) the goals and priorities to establish and achieve; (ii) the local vulnerabilities and root causes to reduce; (iii) the capacities to enhance; and (iv) the methods, procedures and actions to implement. Effective institutional arrangements should also guarantee that this common arena is open to the whole of society, thus ensuring inclusive learning, transformation and deliberativeness (Imperiale and Vanclay, 2016b), and that empathy, social responsibility, caring, cooperation and mutual aid towards reducing local vulnerabilities and risks are strengthened. All this should also ensure that the risk of rent-seeking, elite capture, social exclusion, organised crime infiltration are avoided.

Professing that SIA is a philosophy and a process has led to a fundamental switch in understanding SIA practice: changing SIA from predicting and mitigating the negative consequences of projects towards facilitating positive social development outcomes (Esteves and Vanclay, 2009; Esteves et al., 2012; Imperiale and Vanclay, 2016b; Aucamp and Lombard, 2018;

Vanclay, 2020). This advance can greatly contribute to innovating the institutional role of Impact Assessment in society, thus making Impact Assessment a process and a tool capable of influencing the governance of development before any development 4P are conceived, decided, designed, and implemented.

(3) Changing the social-cultural role

A change should occur in how Impact Assessment perceives its social and cultural role in society. As noted by Esteves et al. (2017, p.75) “the dominant approach in risk assessment is to give priority to consequence to the business”. Such an approach considers vulnerable communities as mere recipients of the social protection measures enacted, and the analysis, management and reduction of local vulnerabilities and social risks irrelevant. The way Impact Assessment understands risks of development, and co-produces transformative knowledge should be oriented towards understanding the vulnerabilities and risks that development may produce on community wellbeing. Furthermore, understanding how Impact Assessment can integrate the DRR and resilience paradigm into its practice means understanding how Impact Assessment can enhance inclusive social learning, build socially-sustainable transformations, and strengthen resilience, while preventing local social risks and vulnerabilities from being reproduced or exacerbated.

Among the social risks that are often neglected by Impact Assessment practice are inequity, social exclusion, elite capture, infiltration of organized crime, and corruption. The result of the lack of consideration of these social issues is that funds are often spent on poorly-planned interventions whose meaning and implementation are captured or distorted by national and/or local political and economic elites. Planned interventions funded by national or international funding schemes are often imposed on localities with limited accountability in relation to the money spent, the actors engaged, or the social and environmental impacts created. Because of the lack of a culture of sustainable development, participatory assessment, disaster management and development interventions often create widespread discontent and mistrust among local communities. They often increase inequities and social vulnerabilities within the area of intervention, and they fail to reduce disaster risk, or enhance cohesion and resilience (Imperiale and Vanclay, 2019b).

To address these challenges, Impact Assessment should elaborate new effective tools to enhance social learning and transformation, prevent elite capture, corruption, the infiltration of organized crime, and disaster capitalism. Impact Assessment should radically change its perception about the role it plays in society. By building a common vision and co-producing transformative knowledge with local communities, Impact Assessment can have the potential to contribute to building a glocal culture of resilience. It can bring the wellbeing of local communities, their vulnerabilities, needs, desires, capacities and resilience back to the core of any planned intervention and enhance social learning and transformation.

This culture of resilience will ideally counter-act myths and prejudices, and strengthen the feelings (e.g. empathy), attitudes (e.g. social responsibility, caring), behaviours and collective actions (e.g. mutual aid, cooperation) towards reducing local vulnerabilities and associated disaster risks and impacts. All this will reinforce the processes of social learning and transformation and the building of a public ethic towards local vulnerabilities and the most vulnerable. By being focussed specifically on understanding, recognising, engaging and empowering the resilience of local communities, especially of the most vulnerable, SIA can greatly contribute to this change.

Conclusion

Revolution or evolution in Impact Assessment? is the kind of question that can only be genuinely answered if we are brave enough to ask, and have the integrity to answer honestly, questions like: *Who are we?*; *What is our real mission?*; and *What can we do, individually and collectively, to make a real difference to the global risk landscape in the short and medium term?*

We live in an era in which each of us have witnessed that development activities have often become disasters, irreparably affecting the wellbeing of local communities and their environment, and that, no matter what efforts are made to mitigate the impacts, these mitigation measures are never enough. Fostering social learning from such failures, and building socially-sustainable transformation towards better enhancing local community wellbeing and achieving the SDGs, before the conception of any planned intervention are crucial processes to be enacted, enabled, engaged and empowered if any development is meant to be sustainable. Therefore, instead of being focussed on designing mitigation to minimise harm, more important is to enhance DRR, the capacities of local communities to learn and transform, and to build resilience. Integrating DRR and resilience into development demands a crucial paradigm shift in development thinking from managing development to reducing the risks of development in order to avoid development itself becoming a disaster.

Impact Assessment can play a crucial role in this, if there is a revolutionary shift in its focus from managing the impacts to reducing the risks from development and building community resilience. This would require further research and theoretical efforts to conceptualise local vulnerabilities and risks, and the cognitive and interactional capacities of local communities to collectively learn and transform in each of the multiple dimensions of community wellbeing.

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