SEI Stockholm Environment Institute

Enabling an ambitious agenda for transformation in development and disaster risk

Transformation as a fundamental approach

Disaster risk reduction (DRR) is a complex challenge that requires work on many fronts with a diversity of disciplines and stakeholders that cannot be successful without consideration of development, as the two are closely interconnected.
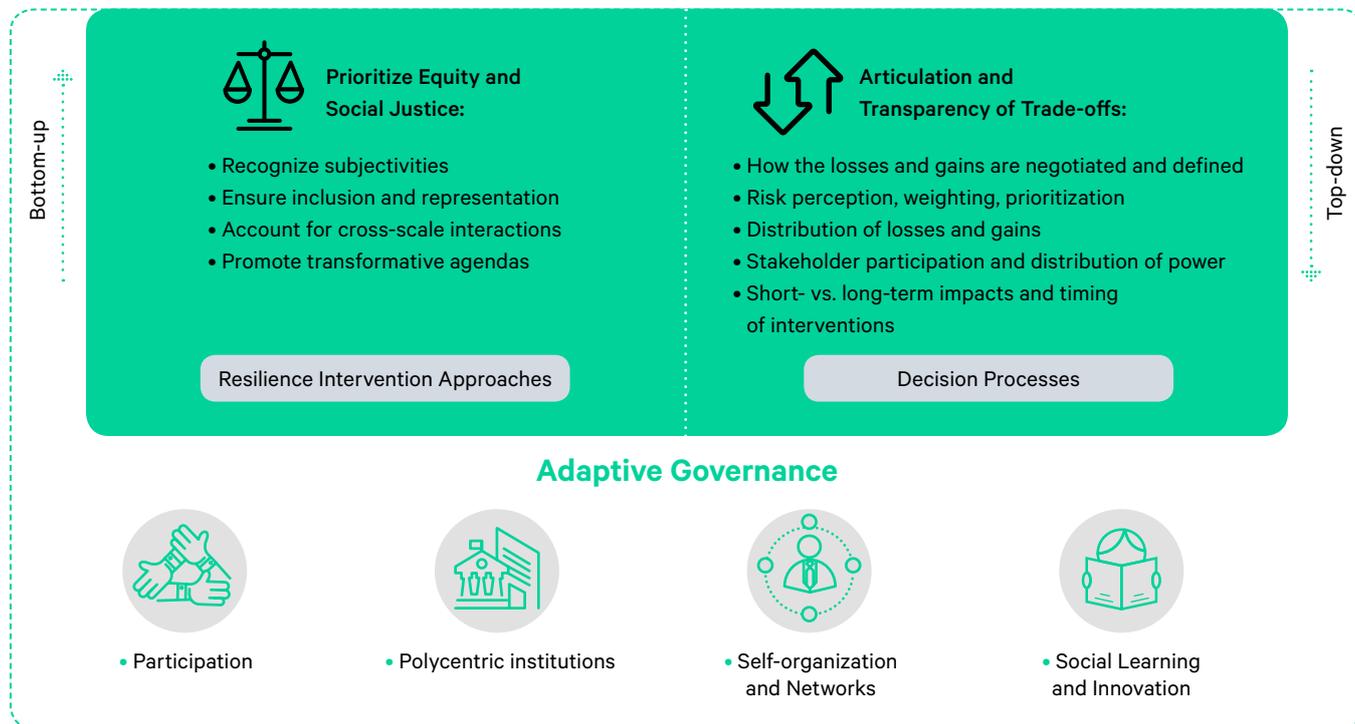
Progress on disaster risk reduction is often restricted by its failure to acknowledge how development processes can act as the root causes of disasters. Addressing the underlying drivers of risk inherent in the failures of development and DRR requires actions that challenge existing structures, power relations, vested interests, and dominant narratives that persist within systems and maintain and perpetuate poverty, inequality, and marginalization – a transformation of the current DRR approach.

As a boundary concept, transformation challenges dominant values and goals in current development practice, and examines the underlying failures of development and DRR to call for radical policy changes. Transformative DRR cuts across sectors, and is characterized by changes in structures, goals, perspectives, and/or governance regimes that alter the risk management status quo. In this framing, transformative processes are triggered by major disasters, and positive outcomes are enabled by inclusive decision-making, self-organizing groups and networks beyond established institutions, and anticipatory risk planning that goes beyond coping.

Identifying opportunities for transformation

There is currently a gap in identifying clear, practical entry points for transforming the relationship between development and disaster risk. To help address this gap, we have identified three opportunities that can lead to transformation: (1) exposing development-disaster risk trade-offs in development policy and decision-making; (2) prioritizing equity and social justice in approaches to secure resilience; and (3) enabling transformation through adaptive governance. Figure 1 presents a conceptual framework of these three opportunities and how they relate to one another.

Transformative Development Pathways

Bottom-up

Prioritize Equity and Social Justice:

- Recognize subjectivities
- Ensure inclusion and representation
- Account for cross-scale interactions
- Promote transformative agendas

Resilience Intervention Approaches

Articulation and Transparency of Trade-offs:

- How the losses and gains are negotiated and defined
- Risk perception, weighting, prioritization
- Distribution of losses and gains
- Stakeholder participation and distribution of power
- Short- vs. long-term impacts and timing of interventions

Decision Processes

Top-down

Adaptive Governance

- Participation
- Polycentric institutions
- Self-organization and Networks
- Social Learning and Innovation

Equitable, Resilient and Sustainable Development

1. Exposing development-disaster risk trade-offs in development policy and decision-making

The DDR community has paid little attention to critical risk-creating or reducing decision processes, including in development. The inherent trade-offs of development activities, and their implications for disaster risk, must be considered in development and DRR decision making. We propose five interlinked dimensions of trade-offs in development decision-making that help to highlight the potential costs, or risks, associated with development decisions. They consider both how risks are perceived, weighted and prioritized, and the processes through which development and risk trade-offs are conceptualized and negotiated.

- **Aggregation** centres on the prevailing tendency to focus on the aggregated gains of decisions, while inadequately considering the losses (economic, environmental, and social), as well as the impacts of those gains and losses at smaller scales.

- **Risk** focuses on multiple risks (hazard and non-hazard-related), including interacting risks, that must be considered within decision-making, the prioritization of those risks in the face of limited resources, and differential risk prioritization by policymakers and wider society.

- **Equity** focuses on the uneven distribution of benefits, losses and risks from development-related decisions across different groups.

- **Time** relates to assessing the benefits and losses of a development decision in the short-term versus the long-term, as well as the short time frame in which decisions must often be made, especially in post-disaster processes.

- **Participation** deals with who is included or excluded and whose interests are prioritized in decision-making processes.

2. Prioritizing equity and social justice

Actions in one part of the system may have unintended consequences at other temporal or spatial scales, enhancing the resilience of a particular group or community at a particular time, while eroding that of others. Equitable resilience, therefore, is necessary for transformation in development and disaster risk, and this concept requires us to consider overcoming or rejecting the dominant narratives that exist within a system when they fail to address the inequitable distribution of costs and benefits, including risk distribution.

Our findings indicate four key elements need to be considered if interventions are to work towards equity and social justice.

- **Recognizing subjectivities**: Subjectivity draws attention to the ways in which groups become socially differentiated due to cultural, racial, ethnic, gender or other social attributes, and how this shapes disaster risk. Subjectivities often shape how people interpret experiences and information, including those related to disaster risk, and whether or not people take action to reduce their risk.

- **Ensuring inclusion and representation**: Inclusion of diverse social groups based on different social groupings, including gender, age, ethnicity, disability and sexuality, that influence resource distribution and human-environment relationships is vital. This confronts the power and inclusion imbalances that exist between different stakeholders in decision-making processes at multiple scales.

- **Working across scales (geographical and temporal) and levels of governance**: Scale acknowledges the importance of geographical and temporal scales in resilience and systems thinking. Scale can also contribute to exclusion, for example as those living far from the geographic, political or social core may be marginalized.

- **Promoting system(s) transformation when existing arrangements degrade well-being or increase risks for sections of society**. To achieve equitable resilience, subjectivities, inclusion and scale must be jointly understood, with transformation, or the possibility for transformation, as the last stage of the four-step process.

3. Enabling transformation through adaptive governance

Adaptive governance recognizes that interactions between people and ecosystems are inherently unpredictable and that governance needs to be adaptable to changing knowledge and circumstances and to promote experimentation and innovation.

Adaptive governance framing has four key enabling components for transformation within development and DRR systems. These characteristics, are: (1) polycentric and multi-layered institutions characterized by, for example, collaborative co-management that involves power-sharing, cross-sectoral institutional linkages, and institutional diversity; (2) participation and collaboration, including social capital, knowledge-pooling, and public participation processes; (3) self-organization and networks which can involve formal and informal, multi-level bridging organizations; and (4) social learning and system innovation, which can be characterized by, for example, shared learning, public learning, and triple-loop learning. While the presence of these components alone does not necessarily mean a transformation will occur, they can provide the conditions needed to enable transformation.

A strength of adaptive governance is its ability to engage in retrospective and forward-thinking, which jointly constitute important aspects for disaster resilience-building. It is, therefore, an approach that facilitates holistic evaluations of multiple hazards, human vulnerabilities and exposure, options to reduce disaster risks, and capacity gaps based on past experience and plausible future scenarios. Another key strength of adaptive governance is its openness and adaptability; it does not favor a particular organizational or administrative structure. Instead, it promotes iterative, context-specific problem-solving processes that can respond to new insights and changing conditions.

While there are numerous opportunities for synergies between adaptive governance and DRR, namely through the Sendai Framework, several challenges exist in terms of translating these synergies into concrete action plans. These challenges include unequal power relations, including across different scales and communities of practice, and achieving flexibility and adaptability, particularly within rigid and hierarchical government structures that suppress interventions supporting transformation.

Transformation for the future

Development and disaster risk are closely interconnected. If today's ever-increasing disaster risk is to be addressed, we must ensure the breakneck pace of development in many world regions is more equitable, resilient and sustainable. This will require a transformation of the current DRR model that challenges the dominant values and goals in current development practice, identifies the failures of development and DRR, and calls for radical policy changes. Three opportunities for realizing this transformation include: analysis of the trade-offs that are associated with development or DRR decision making; an explicit focus on securing equitable resilience through development or DRR interventions; and application of adaptive governance to transform development and DRR systems.

A multi-disciplinary research agenda can help to ensure successful outcomes of the Sendai Framework and refocus development and risk reduction efforts toward support for those most vulnerable to disaster risks. We need to gather more empirical evidence of transformation in action to guide us to a knowledge and action based future where substantial reductions in disaster-related losses and damages become reality. Testing and refining the opportunities presented in this brief, among others, is urgently needed to enhance understanding of what types of transformations are possible and how they may be achieved in practice. With this knowledge, and action, we can assist communities in their efforts to reduce disaster risk and respond robustly when disaster strikes.

Key literature

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