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RECOVERY AND DISASTER RISK REDUCTION IN CENTRAL AMERICA: REFLECTIONS AND UNANSWERED QUESTIONS 25 YEARS AFTER HURRICANE MITCH¹

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Summary

Twenty-five years have passed since Hurricane Mitch hit Central America in 1998. The event marked a turning point in the development of risk management approaches. Hurricane Mitch encouraged discussion around the drivers of risk and their connection to development processes in the region, as it brought to light the links between impact and exposure and vulnerability in all its dimensions. An increased focus on disaster risk management contributed to the development and strengthening of regulatory and institutional frameworks and encouraged greater participation of civil society.

However, the response to Mitch focused on particular events —lacking a multi-hazard vision, necessary for promoting territory-specific action— and, also, predominantly on extreme events (intensive risk), for which responses tend to be limited to compensatory, reactive actions. Even more critically, the focus on high magnitude, intensive events contributed to ‘sectorizing’ disaster risk management. Management tended to be essentially dissociated from development interventions and investments, which are the channels through which prevention (prospective) and risk reduction (corrective) actions as well as and resilience-building should be encouraged.

Post impact recovery processes can be an opportunity to transform risk conditions and to avoid new risk in the future. To do this, a critical analysis of risk drivers must be carried out along with a review of the development dynamics that enabled (or promoted) previous risk construction. Building resilience through recovery processes requires a medium- and long-term perspective to transform current conditions (i.e., multidimensional vulnerability) but also to influence future dynamics and trends and avoid the generation of new risks.

Key findings

- » The last 25 years have witnessed **important progress in conceptual and methodological development** as well as in the development of institutional frameworks for disaster risk management (DRM), particularly as regards risk reduction, and the increasing participation of civil society organizations and public and private sector support networks.
- » The major impact of Hurricane Mitch (1998) boosted the discussion around the underlying causes and drivers of risk, highlighting **the connection between poverty, inequality, rural-urban migration, unplanned urban expansion**, and environmental degradation and the need to implement transformative recovery processes that help tackle the underlying causes and the more immediate drivers of disaster.



¹ This Policy Note is based on the Reflection Document prepared by Allan Lavell for presentation at the Mitch+25 Forum, an event that provided inputs to shape its final version.

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- » However, recurring disaster effects associated many times with events of smaller magnitude than Mitch in areas previously affected by Mitch, show that **recovery processes are not achieving the needed transformation of risk conditions**.
- » With Mitch as a reference, attention was directed towards specific hazards (mainly hurricanes and tropical storms) and the occurrence of extreme events, with the consequent **focus on reactive actions**. This has tended to marginalize attention to recurring, smaller scale, including slow-developing events, where **prevention and reduction actions linked to land and environmental management are most effective**, and where their development prevent or help limit the potential impact of extreme or significant magnitude events in the future.
- » DRM continues to be guided by the notion of disaster as a product, instead of **the notion of risk as a process, where causality and response are interlinked in the dynamics of development**. UNDP can play a relevant role in mainstreaming DRM into governance, gender issues, inclusive growth or environment programs.

Policy recommendations

- » To achieve the Sustainable Development Goals (SDGs 1, 11, 13 and 16), resilience building requires a broad perspective that explicitly considers the relationship between disaster risk and sectoral and territorial development issues, from local to national and global. With a prospective vision, interventions should be aimed at changing hazard scenarios, including those related to climate, and in modifying environmental, social, and economic dynamics.
- » Recovery from a crisis can and should serve as an opportunity to reduce still existing risk conditions and contribute to prevent new disaster risk and disaster situations. The strengthening of governance and governability are key elements to this end, as they can promote intersectoral, multi-level and interterritorial coordination processes that bring together public, private, and civil society stakeholders.
- » To ensure a transformative intervention through recovery, the identification of recovery needs must be based on comprehensive sectoral and territorial assessments, as well as on the identification of risk drivers and multidimensional vulnerabilities (with a crosscutting gender, generational, intercultural approach, and differentiated capacities).
- » The reduction or avoidance of risk conditions requires a medium- and long-term vision of recovery and the linkage to development processes. Tackling risk drivers

requires strengthening governance and governability capacity, as well as aligning response to development plans and programs, including national multi-year investment planning.

- » Intersectoral and territorial preparedness/planning for recovery should be a priority to enable rapid, timely and efficient responses that comply with the principles of equity, sustainability, and resilience. To that end, investment should be made in the development of recovery governance frameworks, comprehensive assessment instruments focused on risk drivers, and through strengthening both public and private capacity at the regional, national, and local level.
- » Effect and impact assessment approaches, and post-disaster recovery needs assessments have a high potential for estimating losses and damages from climate change. The suggested lines of action can serve as a basis for building resilience from a developmental perspective.

1. Introduction

The present document searches to reflect on the results of recovery processes, considering a transformative and resilience-building approach, and analyzing its impact on the drivers of disaster risk. The reflection is based more on in field experience and observation, and the result of independent evaluation procedures, than on concrete disaster institution research and evaluation results due to a general lack of institutional mechanisms for post action monitoring interventions (beyond assessing progress in the execution of infrastructure works) and measuring their impact on improving the living conditions of the population, including reducing their risk conditions.

Twenty-five years after Hurricane Mitch, this event is used as a point of reference to analyze disaster risk reduction (DRR) approaches in transformative recovery and reconstruction strategies. However, a significant number of large-scale events have occurred since, some of them of much greater local and subregional impact than Hurricane Mitch itself- for example, Stan in Guatemala and Iota and Eta in Honduras. Such larger scale events have been accompanied by numerous smaller, extensive events. This repeated impact on areas previously affected by Hurricane Mitch, demonstrates that the recovery process did not achieve an adequate or at times even incipient transformation of risk conditions.

This note discusses progress so far post Mitch but also the pending challenges facing the future.

2. Mitch and the contribution to the evolution of DRR

The impact of Hurricane Mitch in Central America, between October and November 1998, marked a turning point in the conceptual and methodological development of disaster risk management (DRM). It became a milestone in awareness-raising, at the crossroads between the postulates of the International Decade for Natural Disaster Reduction (IDNDR), captured in the Yokohama Declaration (1994), and the Hyogo agreements (2005). The IDNDR postulates had been nourished by the flourishing of arguments and concepts that favored an understanding of disaster risk as a social construction and, therefore, disaster risk management as a field that should be linked to development processes that incorporate prospective and corrective strategies for prevention and mitigation. On the other hand, the Hyogo agreements showed an innovative emphasis on reducing the drivers of disaster risk in society, and promoting a governance consistent with this objective, while eradicating the erroneous, but still prevalent, notion of natural disaster from its own UN terminology.

Mitch notably helped to place exposure, vulnerability and both natural and socio-natural hazards, firmly at the center of causal analysis and elevated them to a status never seen before in a post-disaster situation in Latin America, and perhaps in the world. The link between poverty, inequality, environmental degradation, rural-urban migration and rural modernization, among other contexts, and disaster risk, which contributed to a social construction approach, was widely highlighted and put at the forefront of national and regional agendas. Consequently, it promoted reconstruction and recovery plans and strategies based on the idea of ‘transformative reconstruction’ (at an economic, social, cultural, and environmental level, with an emphasis on land use planning) and inspired a common language and the hope for cooperation towards reconstruction based on the notion and idea of an isthmus wide, ‘regional disaster’. Nevertheless, this idea and guiding principle was rather more endorsed and supported by European countries than Central American governments themselves, who carried out reconstruction and recovery actions primarily based on a national and many times separately local approach.

However, together with the Hyogo agreements and the impacts of several other disasters that occurred towards the end of the 90s and the beginning of the 2000s, the experience was significant in encouraging fundamental changes in legislation and regulations at the country level, along with a widescale emergence of civil society

organizations and public and private sector support networks on risk and disaster. All this contributed to Central America becoming one of the most advanced regions in terms of discussion and conception of risk management at the Latin American and global level.

At the same time, it helped spread the erroneous idea that hurricanes and tropical storms were almost the only hazards affecting Central America. The typical multi-hazard context (geological, volcanic, climatic, oceanographic, and technological) of the region was left aside, a fact tragically recalled by the impact of the 2001 earthquake in El Salvador. The Sendai agreements (2015) emphasized the imperative of adopting a multi-hazard and systemic vision. The increasing concentration on climate risk as a separate category and reality nowadays may also be undermining a multi hazard, comprehensive vision of disaster risk. Similarly, the focus on major disasters did not prompt an adequate consideration of the continuing impact of extensive risks (associated with floods, landslides, droughts, plagues, and epidemics) and recurrent smaller-scale disasters, for which the implementation of prevention actions, linked to land management, is much more effective.

Despite these ex post identified limitations, all the pieces were apparently in place such that comprehensive risk management, oriented towards risk reduction could flourish as a continuous process and integral component of development planning. However, subsequent events would show us that the time had not yet come for the successful and sustained development of integrated disaster risk management, with the complexity and timeliness required when faced with risk construction processes.

3. Recovery: definition and features

The term ‘recovery’ linked to disaster risk management was initially defined as the restoration, and where appropriate, improvement of facilities, livelihoods, and living conditions of communities affected by disasters, including efforts to reduce disaster risk factors (UNISDR, 2009). The term itself expanded and integrated the prior notion of ‘reconstruction’ focused primarily on the construction or replacement of damaged physical structures, and the restoration of local services and infrastructure.

The OIEWG⁴ subsequently defined recovery (2016) as “the restoring or improving of livelihoods and health, as well as economic, physical, social, cultural, and environmental assets, systems and activities, of a disaster-affected

4 Open-ended Intergovernmental Expert Working Group on Indicators and Terminology (OIEWG).

community or society, aligning with the principles of sustainable development and 'build back better', to avoid or reduce future disaster risk". Here, the concept of 'build back better' integrates short-term recovery efforts and long-term development plans.⁵

Endorsing the need for *ex ante* recovery planning, the United Nations Office for Disaster Risk Reduction (UNDRR) stated that "by preparing for recovery before a disaster, pre-disaster recovery planning has allowed recovery actors to take advantage of a window of opportunity to initiate larger development changes and reduce future disaster risk." Such an argument is consistent with the notion of transformative reconstruction drawn up as a post-Mitch strategy. The formulation of methodologies for assessing recovery needs and defining recovery frameworks through the tripartite partnership between the United Nations, the World Bank and the European Union⁶, is worth mentioning here. It encourages going beyond the typical sectoral lists of affected infrastructure and beyond returning to 'business as usual', moving towards an intersectoral analysis that allows a 'build back better' approach, addressing both productive, social, and service infrastructure, as well as human impact.

However, a thorough review of the underlying causes and the most immediate drivers of risk, along with the dynamic pressures that generate them, remains pending. This is critical to lay the foundations for prospective risk reduction processes guided by the notions of equality and equity. Corrective management operates on existing contexts where the underlying causes and drivers have already contributed to the construction of risk, often requiring investments in engineering 'solutions' (e.g. restructuring of buildings, strengthening of roads and bridges), nature based approaches (e.g. reforestation of slopes and mangroves) and land use planning (e.g. relocation of populations, changes in farming patterns).

Finally, recovery must recognize the different territorial scales and their challenges and levels of complexity. Mitch led to the notion of a 'regional disaster' and the need for recovery at the regional level, or at least at a whole-country level, as was the case for Honduras and to a lesser extent for Nicaragua. However, the concurrence of different exposure and vulnerability conditions in different localities and areas, affected in varying degrees by the same triggering event, signifies that a disaster like the one associated with Mitch can be seen not as a single disaster but rather, as a very wide and varied set of 'local disasters'. This forces us to consider and emphasize local-scale

implementation of the recovery process, where various sectoral initiatives interact, and have a consolidated impact on the affected area. Exclusively centralized planning leads to isolated interventions, disconnected from local development processes. It is very likely that the post-Mitch recovery approach was closer to a very broad set of unrelated local actions than to a real comprehensive subnational, national, or regional recovery process.

Post-Mitch DRR and considerations on the role of recovery

What do we know about the accomplishment of the objectives set for risk reduction and as to the reduction of future risk drivers in the post-Mitch period in our region?

The policies and programs that followed Hurricane Mitch show the influence of the event in improving formal governance mechanisms, including, laws and regulations for promoting DRR. However, there is no extensive evidence of concrete, widescale, sustainable achievements in the reduction of risk conditions, conceived as comprehensive support for the achievement of the sustainable development goals. Rather, experience shows the implementation of a multitude of specific interventions, projects, and localized actions.

All the assessments on disaster risk management carried out so far in the context of Mitch agree in their conclusions and as to the pitfalls and challenges largely identified for the future. These include the declarations of the Mitch+5 and Mitch+10 evaluation meetings; Mansilla, Smith and Novelo (2008); the follow-up midterm evaluation reports to the Hyogo Framework for Action and the Sendai Framework; the World Bank's DRM indicators and IDB's iGOPP; and the Regional and Global Assessment Reports on Disaster Risk Reduction (UNDRR, 2023 and 2021). On the other hand, the ravages associated with hurricanes or tropical storms such as Stan, Agatha, Felix, Otto, Nate, Eta and Iota, and the 2001 earthquake in El Salvador, clearly show that disaster risk and impacts continue to increase, with risk drivers surpassing the risk reduction efforts implemented. This has been further aggravated by the burden of multi-hazard and systemic risk contexts. Important conceptual advances have been achieved, but still lack an effective practical application.

DRM continues to be marked by the view of 'disaster as a result', rather than 'risk as a process', and resources are largely concentrated on response and reconstruction

⁵ The concept of building back better was introduced at the ECOSOC meeting in July 2005 by former President Bill Clinton, Special Representative of the Secretary-General of the UN for post-tsunami recovery. The notion behind it dates back to well before (see, for example, M. Anderson and P. Woodrow, 1989)

⁶ The Post Disaster Needs Assessment (PDNA) and Disaster Recovery Framework (DRF) guidelines were developed by the tripartite partnership between the United Nations System (under the coordination of UNDP), the World Bank and the European Union.

actions (rarely on comprehensive recovery), as well as on preparedness, early warning and more recently promoted anticipatory action. It is estimated that these actions account for around 95% of overall investment in disaster risk management, although it is possible that this figure is overestimated because it may, and many times does not include a consideration of sectoral expenses and investments devoted to actions that include DRR measures without specifying and dimensioning them (for example, those under the heading of adaptation to climate change, or private, domestic, and corporate investment in infrastructure and buildings for service provision). However, it is clear from the growth of disaster impacts that investment in DRR, whether public or private, national, or international, is still well below what is needed.

The reasons for this are diverse, including:

- » the obvious competition for resources between a growing number of large-scale disasters at the global level and their emergency needs, leaving prevention unattended.
- » government structures and coordination entities that endorse the importance of DRR, but prioritize response actions, including institutional staff and financing schemes.
- » lack of focus on prevention and risk reduction by sectoral and territorial development actors, whether public or private, perhaps due to the lack of a holistic understanding of the drivers of risks and their connection with development processes.

At the international level, the tendency of agencies and organizations to predominantly support the development of compensatory management mechanisms is also evident, implicitly suggesting the acceptance of the difficulties and complexity of risk prevention and reduction when also faced with growing and unsatisfied humanitarian needs. This includes the promotion of measures that, despite being called preventive or anticipatory remain reactive in nature, dealing with residual risk, such as 'anticipated or early action'. These actions are important given the global context of growing disasters, but they fail at reducing the structural (rather than residual) risk conditions facing the population.

If we review prospective strategies resulting from post-Mitch governmental deliberations, cooperation agencies and private institutions such as the Central American Institute of Business Administration (INCAE) and Harvard University, they were all based on an erroneous conception of the relationship between development and risk management. They all assumed that risk, its construction, and management, are processes independent of

development processes, and that DRM could be an additional sector through which methods and instruments aimed at reducing and forecasting risk are "applied", until an "acceptable" level is achieved. This did not consider risk itself as a central element in the search for safety, efficiency, performance, and sustainability. In other words, the proposals were based on an understanding of risk as exogenous, instead of endogenous, to development. Under the same perspective, recovery ends up becoming a list of projects, which, although each one individually tries to improve pre-disaster conditions, do not bring any significant real transformation to the area, country, or region.

The conclusions of the Presidents' meeting in Comalapa, immediately after Mitch, were a confirmation of this statement. DRM was considered an 'add-on' subject, assuming that the current development model was essentially good and what was needed was to add some GDR measures to improve it. This denied the fact that the model itself was the driver of risks and that this could not be addressed with mechanisms independent of the 'development' processes that contributed to build risk in the first place. In that sense, the statement of the President of Honduras at that time, Carlos Flores, that the country had suffered a setback of up to 50 years due to the destruction of accumulated development outcomes, should read 'underdevelopment' instead of 'development' outcomes.

This 'exogenous' approach is also reflected in the way all the strategies devote different chapters to governance, growth, and development issues, and, separately, to vulnerability or risk reduction, instead of treating them in an integrated aspect in the discussion of what changes are needed to make economy, society, and democracy more equitable, fair and secure. In this regard, the campaign of the 2023 International Day for DRR 'Fighting inequality for a resilient future' is an invitation to address the root causes of risk.

4. The role of UNDP in risk management and recovery processes in Central America

As a development agency, UNDP plays a key role in mainstreaming DRM into social, economic and environmental dynamics and has contributed to positioning recovery processes as a link between emergency response and development. Countries in Latin America and the Caribbean (LAC), and particularly in Central America, have gradually expanded their interest to incorporate recovery practices more systematically in their DRR regulations.

UNDP has helped 23 countries in the region to approach this issue, including through the training of officials and the development of methodological guides for the assessment of recovery needs (e.g. Dominican Republic, El Salvador, Costa Rica). Additionally, countries in the Central American Integration System (SICA) region, such as Guatemala, El Salvador, Panama and Costa Rica, have already formulated national recovery frameworks, as a guide for post-disaster management, while also defining lines of action towards strengthening institutional capacity.

Throughout the region, a significant number of civil servants from line ministries, as well as planning and economy departments, have been trained in recovery management. Ideally, this would equip countries with technical teams for capacity strengthening in recovery, needs assessment, and transformative recovery management. A partnership with the Central American Institute of Public Administration (ICAP) is making it possible to expand this training process and link it to public sector development management capacity.

These preparedness efforts for recovery complete other existing initiatives in disaster risk management in LAC. For example, the implementation of inclusive and community-based early warning systems, the integration of approaches and measures for climate change adaptation and risk management into development processes, urban risk reduction and the protection of critical infrastructure, such as water services, airports, or ports.

5. Mitch+25 Forum: key ideas for reflection and discussion

- » **Recovery processes can and should be an opportunity to reduce risk and avoid new disasters.** To that end, governance and governability are key elements, as they may help promote intersectoral, multilevel and interterritorial coordination to bring together public, private, and civil society actors, in the search for improvement in livelihoods and provision of basic services to the affected population.
- » **The identification of recovery needs should be based on the one hand, on comprehensive sectoral and territorial assessments, and, on the other, on the identification of risk drivers and multidimensional vulnerabilities.** These assessments should promote strategies that address the underlying conditions of risk and stimulate transformative recovery processes. The existing approaches could be complemented with elements taken from disaster forensic analysis methodologies (e.g. FORIN).

- » Considering the emphasis on the reduction of risk conditions in the medium-long-term, **recovery processes should be connected to development processes** in order to generate changes in risk drivers, strengthen governance and governability capacities, and align the intervention to the country's multi-year investment plans.

- » Due to the high incidence of disasters associated with water and climate aspects, recovery could be used to test and innovate with new approaches to sustainability and DRR, such as promising and low-cost **nature-based solutions**, so far little funded and tested.

- » **Preparedness for recovery should be a priority to activate rapid, timely and efficient responses that comply with the principles of equity, sustainability, and resilience.** To that end, investment should be made in the development of recovery governance frameworks, comprehensive assessment instruments focused on risk drivers, and strengthening both public and private capacity at the regional, national, and local level.

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