Build Back Better

in recovery, rehabilitation and reconstruction

2017 | Consultative version

In support of the Sendai Framework for Disaster Risk Reduction 2015 - 2030

UNISDR
United Nations Office for Disaster Risk Reduction

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Introduction

Disaster impacted countries and communities are oftentimes much better equipped to Build Back Better during the extended period of recovery, rehabilitation, and reconstruction when they have taken actions to strengthen recovery capacity and decision-making effectiveness prior to the onset of disaster. As such, implementation of **Priority 4b**[1] focuses on building this capacity through the creation and strengthening of recovery-focused relationships, the establishment of planning and coordination mechanisms, and the introduction of methods and procedures to ensure recovery activities are adequately informed and supported. National-level disaster recovery frameworks provide the structure and context required by stakeholders active in recovery planning and operations. Pre-event research and planning for post-event recovery (i.e. pre-disaster recovery planning) helps to identify and address functional requirements and resource needs, and increases the likelihood that risk reduction and sustainable development opportunities are incorporated. Finally, recovery outcomes depend heavily on the existence of programs and mechanisms that support recovery, whether through the provision of human, financial, or other resources, or by promoting, informing, and as necessary, mandating risk-aware, climate-adaptive, and development-focused recovery goals.

Stakeholders in Priority 4b, which include national and local governments, the private sector, and civil society organizations, can undertake a number of tasks to implement Priority 4b. This guide recommends the following four tasks:

4b.1 Develop an all-stakeholder, national-level disaster recovery framework

4b.2 Enable pre-disaster recovery planning among all stakeholders

4b.3 Formalize processes and systems to enable effective assessment of post-disaster damages and needs in order to more accurately quantify and characterize recovery needs and to formulate broad recovery strategies

4b.4 Institute or strengthen policies, laws, and programs that promote (incentivize), guide (ensure), and support *Build Back Better* (BBB) in Recovery, Rehabilitation, and Reconstruction (RRR) in both the public and private sectors, and by individuals and households

[1] Priority Four of the Sendai Framework has been divided into two separate efforts for development of the WiA guidance. Therefore, recognizing the WiA guide for "Enhancing disaster preparedness for effective response" as the first part of the Priority Four (4a), this WiA guide as 4b focuses on "'Build Back Better' in recovery, rehabilitation, and reconstruction."

Task 4b.1:
Develop an all-stakeholder, national-level disaster recovery framework

A. Understanding the task

What's the purpose of this task?

This task focuses on bringing together the country's diverse community of disaster recovery stakeholders in order to establish a common all-hazards disaster recovery framework to better manage pre- and post-disaster planning and operations. Performance hinges on the ability of stakeholders to collectively identify, analyze, and document the parameters within which recovery effectiveness and efficiency are maximized at all government levels and by all stakeholder groups (including businesses, nonprofit organizations, communities, households, and individuals).

Through framework development, intergovernmental and inter-organizational relationships, roles, and responsibilities are clarified, and common recovery goals, objectives, and vision statements are documented. While nations' frameworks may vary in their structure and design, their basic function is to define stakeholder relationships, clarify recovery phases and timelines, provide information on transitioning from relief to recovery, and explain how recovery operations are concluded. Governments can use the recovery framework to explain recovery support programs, and to communicate information regarding factors key to effective and efficient recovery.

Why is it important?

Recovery is the most complex of the disaster management functions, involving the greatest number and variety of stakeholders and affecting the greatest long-term impact on a community's social and economic success. There are numerous relationships that must be formed and dependencies that must be fostered, many of which are wholly unfamiliar to the recovery stakeholders that typically operate outside of the post-disaster context. An inclusive and comprehensive disaster recovery framework serves as an agreed way forward to simplify the recovery process thereby maintaining or even improving development trajectories while ensuring adherence to *Build Back Better* principles. Recovery is most successful when the wide-ranging needs of communities, organizations, and individuals are addressed in the coordinated manner that recovery frameworks enable.

Disaster recovery frameworks are thus necessary to ensure an adequate structure for and linkages between the systems, strategies, and plans which

arise in the post-disaster setting. The diverse community of recovery stakeholders involved in both pre- and post-disaster recovery planning look to national-level frameworks to better understand roles and responsibilities and for guidance on developing recovery goals, objectives, and measures for success. Moreover, the presence of a recovery framework enhances awareness and adoption of common recovery principles deemed critical to positive recovery outcomes, articulates a shared sustainable recovery vision, and enables prioritization and sequencing of recovery activities.

How does it relate to other priority tasks?

National-level disaster recovery frameworks inform the recovery planning process covered in Task 4b-2 and the planning for and conduct of assessment covered in Task 4b-3. At the same time, these frameworks take into consideration existing policies, laws, and programs as discussed in Task 4b-4.

Terminology

- **Build Back Better (BBB):** The use of the recovery, rehabilitation and reconstruction phases after a disaster to increase the resilience of nations and communities through integrating disaster risk reduction measures into the restoration of physical infrastructure and societal systems, and into the revitalization of livelihoods, economies, and the environment (United Nations General Assembly, 2016[2]).
- **Reconstruction:** The medium- and long-term rebuilding and sustainable restoration of resilient critical infrastructures, services, housing, facilities and livelihoods required for the full functioning of a community or a society affected by a disaster, aligning with the principles of sustainable development and "build back better", to avoid or reduce future disaster risk (United Nations General Assembly, 2016).
- **Recovery:** 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 community or society, aligning with the principles of sustainable development and "build back better", to avoid or reduce future disaster risk. (United Nations General Assembly, 2016).
- **Recovery Framework:** Establishes a common platform for the whole community to build, sustain, and coordinate delivery of recovery capabilities. Describes principles, processes, and capabilities essential to more effectively manage and enable recovery following an incident of any size or scale. Defines how emergency managers, community development professionals, recovery practitioners, government agencies, private sector

[2] United Nations General Assembly. 2016. Report of the Open-Ended Intergovernmental Expert Working Group on Indicators and Terminology Relating to Disaster Risk Reduction. Seventy-First Session, Item 19(c). A/71/644.

professionals, nongovernmental organization leaders, and the public, can collaborate and coordinate to more effectively utilize existing resources to promote resilience and support the recovery of those affected by an incident (US Federal Emergency Management Agency, 2016[3]). A document that articulates a vision for recovery; defines a strategy; prioritizes actions; fine-tunes planning processes; and provides guidance on recovery financing, implementation, monitoring, and evaluation. An effective recovery framework is not a plan, but rather a strategy that complements the Post-Disaster Needs Assessment process by outlining long-term goals and communicating the shared principles according to which progress will be measured. (GFDRR, 2015[4]).

- **Rehabilitation:** The restoration of basic services and facilities for the functioning of a community or a society affected by a disaster (United Nations General Assembly, 2016).

[3] US Federal Emergency Management Agency. 2016. National Disaster Recovery Framework. Second Edition. US Department of Homeland Security. http://bit.ly/2gdvYtz.

[4] GFDRR. 2015. Guide to Developing Disaster Recovery Frameworks: Sendai Conference Version. March. http://bit.ly/1iH7kh5.

B. How to do it

Recommended steps

1. Convene and appropriately resource a multi-disciplinary national-level Recovery Framework Taskforce (New Zealand Ministry of Civil Defence and Emergency Management, 2005[5]) to champion and guide the framework development process.
2. Identify recovery stakeholders and promote sustained stakeholder engagement.
3. Design a national vision of effective recovery that is cognizant of the anticipated recovery issues, and appreciates ongoing and planned development activities, efforts to improve climate change adaptation, and the need to address disaster risk and vulnerability.
4. Define a set of common and clear disaster recovery goals, objectives, and principles. These should be clear targets rather than general policy statements.
5. Define stakeholder roles, responsibilities, and expected recovery capacities as they pertain to both recovery preparedness (including pre-disaster recovery planning) and post-disaster planning and operations.
6. Describe the mechanisms through which governmental financial, material, and technical resources are provided in support of disaster-impacted communities and entities during recovery, rehabilitation, and reconstruction.
7. Develop guidance and provide training and outreach to increase awareness of and familiarity with the national recovery framework.
8. Promote the use of new technology and tools, including social media, open data, and big data, and develop applications for recovery that improve cooperation, communication, and collaboration.
9. Increase all funders' awareness and appreciation of recovery financing needs to overcome the disproportionate focus on response that presently exists.
10. Develop peer- or industry-driven systems to monitor and evaluate recovery, and establish appropriate indicators for successful recovery, based on the premise of *Build Back Better*.

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[5] New Zealand Ministry of Civil Defence and Emergency Management. 2005. Focus on Recovery: A Holistic Framework for Recovery in New Zealand. http://bit.ly/2dEJe7D.

Questions to ask

When developing an all-stakeholder national disaster recovery framework, ask:

- What is the current coping capacity of the built environment in light of known hazards?
- What is the current coping capacity of the community in light of known hazards, shocks, and stresses?
- What type and degree of support will different stakeholders require, and what organizations or agencies are best positioned and equipped to provide it?
- Does there exist a National Platform for Disaster Risk Reduction through which stakeholder coordination and information sharing may be focused?
- Are there adequate efforts to integrate disaster risk reduction, resilience, sustainable development, and climate change adaptation at all levels of government?
- Are national and/or local and regional laws and policies supporting *Build Back Better* in recovery, rehabilitation, and reconstruction?
- Do existing disaster recovery support mechanisms (financial, technical, or otherwise) promote sustainable development and risk reduction in accordance with the *Build Back Better* philosophy?
- Is there adequate recovery support for vulnerable populations?
- Are there means to accurately assess those sources of vulnerability and risk in order to identify effective risk control measures, and is there adequate support for such measures to be implemented?
- As part of the *Build Back Better* strategy and guidelines, have planners adequately considered for whom conditions will be 'better' by including wide stakeholder involvement in the planning process.
- Are there mechanisms to ensure coordination of disaster recovery training and exercise among all levels of government, and all recovery stakeholders?
- Is there a process by which post-disaster information, including best practices and lessons learned, may be updated in a timely fashion in the Recovery Framework?

C. Responsibilities and resources

Who should be involved?

- National government disaster management / civil defense organizations
- National, state/provincial, and local government agencies involved in long-term disaster recovery, including development planning and finance ministries / departments, environment, home/interior, education, health, social welfare, public works, transport, housing, development, and agriculture, among others
- Government business support agencies / offices
- Members of the National Platform for Disaster Risk Reduction
- The private sector, including federations and chambers of industries
- Banking sector representatives
- Insurance sector representatives
- Public infrastructure sector, including transport, electricity, water and sanitation
- Construction sector representatives
- Logistics sector representatives
- Nonprofit and faith-based organizations
- Social networks, including diasporas
- Academia, including those with a public policy focus as well as experts in social and natural sciences and disaster risk management
- Urban planners, legal, public administration and public policy experts

What conditions facilitate the task?

- There exist high levels of political commitment to and public support for building institutional frameworks.
- Government agencies and offices remain committed to dedicating adequate human and financial resources to building and maintaining recovery capacity.
- Recovery framework development includes diverse stakeholder participation supported by ongoing efforts for outreach, training, and education.

- There exist partnerships, both vertical and horizontal, that seek to enhance the impacts of pre- and post-disaster recovery actions, and appropriate engagement of public-private sector, mass media, civil society, and external organizations is conducted in order to enable effective long-term recovery when required.
- There exists a National Platform for Disaster Risk Reduction.
- There exist long established formal and informal networks within and across communities and borders, that may be activated with high efficiency towards supporting and complementing recovery activities.
- There exist strong links between national and local governments which reduce or eliminate communication gaps, thereby ensuring that opportunities to *Build Back Better* are recognized and exploited.
- Institutionalized assessment of hazard risk occurs at all government levels and in all sectors in order to establish an accurate understanding of vulnerability and risk at the international, national, regional, and local levels.
- There exists knowledge and understanding of the impacts and implications of alternative strategies.
- Recovery is viewed holistically, as part of a continuum and inseparable from preparedness, response, mitigation, and sustainable development.
- Recovery is approached in a cyclical manner wherein actions to strengthen resilience are taken both before and after disasters occur – rather than a linear approach that limits recovery action to the aftermath of an event.
- There exists a long term national vision which covers spatial planning, infrastructure development, land use, housing and industrial recovery.

D. Illustrations

- **Basic Guidelines for Reconstruction in response to the Great East Japan Earthquake**
  The Great East Japan Earthquake was indeed an unprecedented national crisis. It was an extremely large scale disaster, causing extensive damage of approximately sixteen thousand people dead and five thousand missing (as of 28 July 2011) and about ninety-two thousand people still living in refuge (as of 14 July 2011) and vast area affected. In addition, it was a compound disaster of earthquakes, tsunami and a nuclear accident and had a broad impact all over the nation. Based on this understanding, the nation must mobilize all its efforts towards recovery from the Great East Japan Earthquake, then towards reconstruction with a future vision for the purpose of advancing social and economic restoration and rebuilding people's lives in the disaster area as well as revitalizing vibrant Japan as a whole. Considering that more than one hundred thousand people are still forced to live in difficult conditions such as under evacuation shelters, the Government will collaborate with actors such as local governments and private sector and accelerate its efforts for the early dissolution of evacuation centers by constructing temporary housings etc., as well as for the improvement of living conditions at current temporary housings, the final disposal of disaster related waste and the rebuilding of basic infrastructures such as lifelines (water, electricity, gas, etc.), traffic network, farmlands and fishing ports. The Guidelines constitute a blueprint for the Government to tackle numerous challenges in the reconstruction process in response to the Great East Japan Earthquake, based on the Basic Act on Great East Japan Earthquake Reconstruction (Law No. 76, 2011). It was decided by the Reconstruction Headquarters in response to the Great East Japan Earthquake on 29 July 2011 (The latest version is as on 11 August 2011).

- **The United States National Disaster Recovery Framework (NDRF)**
  Federal legislation that was passed in the United States in the aftermath of Hurricane Katrina mandated the creation of an improved national-level disaster recovery strategy. The US Federal Emergency Management Agency (FEMA) led the development of a National Disaster Recovery Framework (NDRF), which was first released in 2011, to satisfy this requirement. The new NDRF was developed in order to better define how the national government organizes and operates to utilize existing resources to promote effective recovery in support of disaster-affected communities, which has included the creation of a "NDRF Cadre" of experts that may be requested by disaster-impacted communities to assist with both general and sector-specific recovery planning. In addition to reinforcing the importance of building back better, the NDRF describes key principles and steps for community recovery planning and implementation,

and promotes a process of widespread community engagement. Since its release, many local communities have developed complementary pre-disaster plans and frameworks that enable enhanced coordination of resources in the event of a disaster.
For more information, see: http://bit.ly/2edmkr9.

- **New Zealand Holistic Framework for Disaster Recovery**
  The Government of New Zealand enacted new Civil Defense and Emergency Management (CDEM) legislation in 2002 to support a national strategy of increased community disaster resilience. To address within this context the anticipated recovery and reconstruction needs of communities impacted by future disaster events, the Ministry of Civil Defense and Emergency Management convened a working group that spent 18 months developing a national disaster recovery framework. The resultant document titled *Focus on Recovery: A Holistic Framework for Recovery in New Zealand* communicates the national strategy including the recovery principles and goals. The guide reiterates the national strategy for emergency management and disaster risk reduction, but also defines recovery and communicates a national recovery vision. It describes five key components of recovery, which include: Community; Social Environment; Built Environment; Natural Environment; and Economic Environment. Perhaps most importantly, the framework explains four national recovery principles, among which are included comprehensive and integrated hazard risk management and pre-disaster planning for disaster recovery operations. In addition to the framework itself, CDEM published a guidebook for recovery planning to assist stakeholders in understanding the multi-faceted nature of recovery and to further integrate recovery into their emergency planning and other disaster risk management processes.
  For more information, see: http://bit.ly/2dEJe7D.

- **Guatemala Disaster Recovery Framework**
  In accordance with the provisions of the Hyogo Framework for Action, the Sendai Framework for DRR, the Strategic Framework for the Reduction of Vulnerability and Natural Disasters in Central America, and several national laws and regulation, the Government of Guatemala developed a national-level disaster recovery framework in 2015. The purpose of this framework is to contextualize and develop post-disaster recovery issues that promote further reduction of disaster risk. The Framework represents a commitment on the part of the national government to address the need to *Build Back Better* in recovery, reconstruction, and rehabilitation. It is described as being "the document that establishes the general guidelines on which the recovery processes in Guatemala must be developed," and "[i]t develops in its content the work approach, the legal framework, the coordination system, and articulation of actions, areas of intervention, sectoral roles, and responsibilities." Most importantly, the Framework

states that it "emphasizes the importance of actions that promote the sustainability of all recovery processes, reducing vulnerability and increasing resilience." It introduces key recovery principles that drive the *Build Back Better* effort, and provides a legal and normative basis for recovery actions.
For more information, see: http://bit.ly/2gUGoy4.

E. Further reading

- Federal Emergency Management Agency. 2016. National Disaster Recovery Framework (NDRF), 2nd Edition. Government of the United States of America. http://bit.ly/2edmkr9.
- Ministry of Civil Defense and Emergency Management. 2005. Focus on Recovery: A Holistic Framework for Recovery in New Zealand. Government of New Zealand. Report IS5/05. http://bit.ly/2dEJe7D.
- World Bank Group. 2015. Guide to Developing Disaster Recovery Frameworks. Sendai Conference Version. Global Facility for Disaster Risk Reduction. http://bit.ly/2eolKUg.

Task 4b.2:
Enable pre-disaster recovery planning among all stakeholders

A. Understanding the task

What's the purpose of this task?

Conduct of pre-disaster recovery planning (PDRP) is considered integral to a nation's, community's, or organization's capacity to effectively and efficiently manage all recovery, reconstruction, and rehabilitation needs in the aftermath of a major disaster. Pre-disaster recovery planning has to be conducted to the degree that presently exists with other disaster risk management functions such as response or mitigation. Pre-disaster recovery planning is driven by strong leadership buy-in at all governmental and organizational levels, the existence of national and local policy, and the availability of comprehensive programming support.

Performance on this task focuses on promoting and building effective leadership initiatives, developing national and local laws and policies that encourage planning activities, and developing the necessary support mechanisms and programs. The purpose of these activities is to not only raise awareness and appreciation of the intrinsic and operational value of pre-disaster recovery planning, but also to ensure that those who wish to conduct it are able to do so in a meaningful way and well-informed manner.

Why is it important?

Post-disaster recovery benefits immensely from PDRP. Like response planning, PDRP allows some of the more difficult, time-consuming decisions to be addressed in a time-relaxed environment where ample thought and energy can be dedicated to identifying possible opportunities within the Build Back Better strategy. It also allows for deeper reflections on options and solutions and their costs and benefits. Once a disaster strikes, pre-planned strategies are quickly mobilized, thereby allowing greater attention to event-specific, post-disaster recovery actions that must be performed according to prevailing conditions and newly-generated data. In the absence of the coordination mechanisms and strategies established through pre-disaster recovery planning, recovery projects will often commence despite knowledge about their implications on the long-term outcomes.

Pre-disaster recovery planning is not the replacement of the planning efforts required in the post-disaster setting on account of the unpredictable nature of disasters - even those that occur regularly. Rather, PDRP enables effective

coordination and decision-making structures, and facilitates rapid yet informed action in an otherwise demanding and chaotic environment. It also increases the likelihood that the planning process is inclusive of all stakeholders, including vulnerable groups that are typically overwhelmed in the post-disaster environment and therefore less capable of participating under such circumstances. There are a number of organizational and policy issues that are common to almost every disaster, and across multiple hazards. The payoff for addressing these foreseeable issues in pre-disaster recovery planning is significant.

When the affected communities' needs are paramount for planners, government leaders, lawmakers, and the community members themselves, access to required funding may be markedly increased. Another benefit of pre-disaster recovery planning is that it greatly increases the ability of these stakeholders to recognize and harness atypical opportunities as they are presented.

The problem, however, is that pre-disaster recovery planning is conducted far too infrequently. Many communities fail to recognize the value of PDRP, or lack the resources or knowledge to perform the actions required. This task is also important because it seeks to establish a culture and environment wherein development of such plans becomes the norm.

How does it relate to other priority tasks?

Pre-disaster recovery plans are influenced by the presence and form of a national recovery framework, and the work of a National Platform for Disaster Risk Reduction (if one exists), as described in Task 4b.1. In this manner, the pre-disaster recovery planning process is likewise best served through integration with the greater comprehensive disaster management cycle inclusive of preparedness, prevention, and response. Pre-disaster recovery planning is informed by mitigation planning, development planning, and climate change adaptation efforts, and should be seen by these complementary activities as an avenue for future funding. Recovery should also be tied to the updating of infrastructure, changes to land use planning, and other major development initiatives. The assessment plans and processes detailed in Task 4b.3 are often included in or guided by pre-disaster recovery plans. And finally, pre-disaster recovery planning process, and the plans themselves, may be informed and supported by, or perhaps required by, the laws, programs, and other mechanisms detailed in Task 4b.4.

Terminology

1. **Effective Recovery:** Effectiveness pertains to the achievement of mission objectives and desired outcomes. One can gauge the effectiveness of goals only if: a) those goals exist and actions may be measured against them, and; b) mechanisms are in place to measure those actions. In disasters, effectiveness measures are typically established during the recovery planning process (both pre- and post-disaster), though it must be understood that the planning process itself needs to be informed, inclusive, and accurate for these measures to have any value. Recovery goals should run parallel to the overarching long-term goals of both the individuals and the greater communities to which they belong (including long-term development goals) (IRP, 2015[6]).

2. **Efficient Recovery:** The term *efficiency* refers to the manner in which a task or action is performed, suggesting that productivity is maximized while cost, time, and effort are minimized. Efficient recovery actions are typified by a high-degree of coordination between stakeholders and concurrent efforts, are performed with a high-degree of competence, and achieve an acceptable level of benefit given the resources invested for recipient individuals or communities (IRP, 2015).

3. **Pre-disaster Recovery Planning:** A process of institutionalizing recovery capacity that is undertaken before any actual disaster is imminent or occurs to strengthen disaster recovery plans, initiatives, and outcomes. The concept is built on the recognition that much can be done before a disaster happens to facilitate recovery planning after a disaster and improve recovery outcomes. (IRP, 2012[7]).

4. **Recovery Sector:** Recovery themes or requirements that draw upon similar stakeholders, information, resources, and other commonalities that enable concerted and collaborative planning and management (FEMA, 2016[8]).

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[6] International Recovery Platform. 2015. Implementing Efficient and Effective Recovery through the Post-2015 Framework for Disaster Risk Reduction. 2015 World Conference on Disaster Risk Reduction (WCDRR).

[7] International Recovery Platform and United Nations Development Programme. 2012. Guidance Note on Recovery: Pre-Disaster Recovery Planning. Kobe. http://bit.ly/2fzj3Sb.

[8] US Federal Emergency Management Agency (FEMA). 2016. Community Disaster Recovery Planning. FEMA Emergency Management Institute. Higher-Education Program. Course Instructor Guide.

B. How to do it

Recommended steps

The steps required to foster an environment for effective pre-disaster recovery planning differ by stakeholder and include:

National government

1. Promote pre-disaster recovery planning as a critical component of emergency management capacity through inclusion of pre-disaster recovery planning in national-level policy, as a function of the National Platform for Disaster Risk Reduction, or by other means.
2. Develop standard and stakeholder-specific guidance to inform the planning process.
3. Institute training programs for operational staff and for leadership.
4. Work with local-level decision-makers to increase awareness and inform decision-making.
5. Facilitate training about the importance of and processes for conducting pre-disaster recovery planning for relevant national government staff.
6. Incentivize pre-disaster recovery planning through financial programs, grant eligibility, or other means.
7. Further coordinate government-wide integration of sustainable development, climate change adaptation, and disaster risk reduction such that ongoing efforts to conduct or support pre- and post-disaster recovery planning and operations are guided by these three overarching policy goals.
8. Establish sector-specific national-level recovery support groups or functions in order to organize and coordinate pre- and post-disaster recovery assistance requested by and provided to disaster impacted communities.
9. Design and develop a national-level recovery planning information and knowledge management platform to promote the sharing of lessons learned and best practices, and to ensure that recovery planning efforts are informed with relevant and current data.
10. Promote the development and sharing of hazard-specific risk data sets to inform the planning process in formats accessible to all stakeholders.
11. Develop disaster scenarios for the most exposed cities and regions to help communities better identify likely recovery issues and requirements in the course of their planning efforts.

12. Assess disaster risks based on scientific and academic research findings.

Local government

1. Coordinate with the national pre-disaster recovery planning.
2. Assess local disaster risk based on scientific and academic research findings.
3. Assess local disaster recovery planning capabilities and identify gaps.
4. Engage local leadership to champion the pre-disaster recovery planning process.
5. Promote and encourage broad community stakeholder participation, including women, children and other vulnerable groups, and build on their resourcefulness.
6. Using information generated through the hazard identification and risk assessment process, determine key areas of intervention and perform background studies where possible (e.g., debris disposal sites).
7. Vet recovery service providers and establish pre-disaster vendor arrangements for recovery-related needs including assessment, inspection, purchasing, construction, and others.
8. Identify and collect (or commission) data and information critical to both recovery planning and recovery operations.
9. Establish or strengthen inclusive recovery coordination and decision-making mechanisms.
10. Work with neighboring communities to coordinate recovery plans regionally.
11. Develop a communication program using multiple channels to provide timely and accurate information to the public and all other recovery stakeholders.
12. Develop a recovery staffing program in partnership with neighboring localities.
13. Secure access to recovery resources (Institute recovery resources program, establish pre-disaster recovery contracts, establish mutual aid agreements, issue Cat Bonds, etc.)
14. Draft a pre-disaster recovery plan, including a long-term community vision and incorporating development plans and mitigation strategies.
15. Conduct recovery plan exercises and communicate it to all stakeholders (validate recovery plans and arrangements by undertaking regular

exercises both within organizations and in a multi-agency context at all levels (i.e. from local to national level)).

16. Develop and include concrete and measurable indicators to monitor progress of implementation and achievement of recovery goals. Specify the need for systems that enable the transparent generation of reliable and actionable knowledge about the recovery process and enforce appropriate accountability for the recovery and its consequences.
17. Regularly consult with the public to obtain their feedback and inputs through focus-group discussions and group meetings.

Private / Nonprofit Sector

1. Support pre-disaster recovery planning efforts with subject matter expertise or services (e.g., academia can provide analysis on expected disaster impacts and recovery needs).
2. Communicate recovery resources and capabilities to local government planners.
3. Enter into pre-disaster recovery supply and services contracts.
4. Conduct business continuity planning / continuity of operations planning and scenario planning.
5. Work with industrial support organizations and business associations to coordinate pre-disaster recovery efforts.
6. Large businesses may provide leadership and mentorship to SMEs.
7. Establish clear mechanisms for volunteer management and maintain an up-to-date database on available human resources and contact details.

Questions to ask

In supporting pre-disaster recovery planning at the local level and among private and nonprofit sector entities, ask:

- Are the recovery sectors well-defined?
- Do accurate, risk-based planning requirement exist?
- Do local planners have appropriate planning guidance and ample human and financial resources?
- Are planning efforts sufficiently linked with ongoing sustainable development, climate change adaptation, and disaster risk reduction efforts?

- Are systems in place to ensure that DRR-driven regulations including land use planning, building codes, and critical infrastructure assessment, may be rapidly updated in the immediate aftermath of the disaster?
- Do planning efforts advance progress towards meeting the seven global indicators for the global targets of the Sendai Framework for Disaster Risk Reduction?

C. Responsibilities and resources

Who should be involved?

1. Agencies and leaders at all levels of government, the business community, NGOs and faith-based groups, youth and women groups, elected officials, community activists, contractors, individuals, and others
2. Insurance companies
3. Elected officials
4. School administrators
5. Construction companies
6. Business associations
7. Donors
8. NGOs
9. Community members

What conditions facilitate the task?

- Pre-disaster recovery planning is most beneficial when conducted at multiple scales and policy levels. This enables a more effective response to disasters of various magnitudes and ensures a unified approach when multiple levels of government must work together. The appropriate level at which pre-disaster planning should be initiated will differ from country to country. The existing disaster management infrastructure and the extent of government decentralization will influence this decision. Ideally, pre-planning should take place at the local level and at all other levels where disaster management decision-making takes place. At a minimum, planning for recovery at national and local levels is recommended.
- It is impossible to predict exactly how a particular hazard will impact an organization, a community or a country. However, with an understanding

of the types of recovery requirements that would likely arise, such as infrastructure repair, replacement housing, or psychosocial care, recovery planners can take a number of actions to ensure that efforts in those areas are effective. With such knowledge about likely impacts and conditions, it is possible to form sectoral task forces, to perform necessary studies, to identify and draft contracts for resources and services, and other needs. Legal and regulatory needs can also be investigated, such as the nature and duration of reconstruction moratoria, locations for debris disposal, infrastructure replacement, or community relocation, to name a few. The preparations and analysis to support these actions is much better served in the time-relaxed environment prior to a disaster.

- National governments must recognize and address the fact that many communities will lack the basic competencies required to conduct pre-disaster recovery planning, or lack the necessary resources. A lack of appreciation may be due to the community not having been impacted by a disaster in recent years, or because community leaders have not prioritized the issue.
- Ultimately, communities need to take full ownership of their own recovery.

D. Illustrations

- **Tokyo, Japan PDRP**
  The Tokyo Metropolitan Government (TMG) has conducted pre-disaster recovery planning in recognition of the significant potential for a future damaging earthquake event. Recovery planning efforts have been fully integrated with regional disaster management plans, thereby providing strong coordination between response and recovery activities. The planning process in Tokyo began with a review of theoretical recovery models, specifically those which are community-based and which focus on development. Damage models, which helped to scope out likely recovery requirements, included consideration of infrastructure, housing, livelihoods, social networks, and human welfare. The resulting plan consists of three documents: the grand design, a recovery manual for officers (outlining municipal responsibilities), and a recovery manual for citizens. To test their recovery plan and familiarize citizens with their recovery roles and responsibilities, the TMG conducted a unique exercise that helped planning participants to better understand the planning scenario inclusive of visiting potential reconstruction sites and spending a night in a disaster shelter. Pre-disaster recovery measures covered in the plan include estimating disaster damages given the present planning context, preparing recovery concepts and methods based on estimates, and sharing methods between municipalities and citizens in order to

enhance recovery capacity. For more information, see: http://bit.ly/2gHQWxD.

- **Makati City, Philippines PDRP**
  Makati City developed an earthquake-specific pre-disaster recovery plan in 2014, which subsequently earned the city the title of "Most Prepared" in the Manila metro area by a national volcanology and seismology institute. The PDRP is the product of a much more comprehensive and coordinated capacity building and planning effort that has also included the development of a city-wide emergency operations plan, an earthquake hazard-specific contingency plan, and a 5-year disaster risk reduction and management strategy (each of which was adopted through passage of a city ordinance). The PDRP organizes assistance into seven recovery sectors inclusive of: Economic; Infrastructure; Governance; Health and Psychosocial; Financing; Housing; and Environment. Prior to a disaster, the PDRP guides the collection and analysis of baseline recovery data, the formulation of appropriate recovery-based policy, procurement of specialized equipment, and other capacity building efforts. Once a disaster occurs, the plan guides the conduct of or coordination with rapid damage assessment and needs analysis (RDANA) efforts, the post-disaster needs assessment (PDNA), the formulation and implementation of recovery activities (including those specifically targeting Build Back Better outcomes), and the tools for monitoring and evaluation recovery success. Planning has allowed the city to make careful study and consideration of important recovery issues such as evacuation destinations, and the construction of multi-hazard emergency management resources such as multi-level evacuation centers. Moreover, it has enabled the conduct of recovery-focused training and relationship-building activities among municipal staff that will conduct recovery operations in an actual disaster event. For more information, see: http://bit.ly/2i57jEf.

- **Fairfax County, Virginia, USA PDRP**
  Fairfax County is a regional government in Virginia, USA. Supported by a planning grant from the federal government, the county initiated a pre-disaster recovery planning process in 2009. The planning team was expanded within the first year of the project to include representatives from the private sector, nonprofit organizations, neighboring jurisdictions, and interested members of the public. The process was facilitated by an outside consultant but the planning team. The stated goals of the effort were to, "Provide a single reference for guiding actions and decision-making, establishing priorities, and identifying roles and responsibilities during recovery from a catastrophic natural or human-caused disaster," and to, "provide high-level strategy, coordination, and related actions to be executed both prior to and after the occurrence of a disaster." The pre-disaster goals of the plan were to: be prepared and proactive; maintain

local control (of the incident); leverage existing resources and partnerships; promote legitimacy and credibility; focus on fairness; and build on existing planning and priorities. Post-disaster goals included: provide effective command and control; maximize funding opportunities; communicate effectively; foster resilient redevelopment and reconstruction; enhance the economic base; provide social and human services; ensure quality housing; and provide lifelines and restore infrastructure. The plan structured operations according to the US National Disaster Recovery Framework, which increases the likelihood of effective post-disaster coordination in recovery. Furthermore, it links prescribed activities to existing disaster management plans including those covering response, continuity of government, and hazard mitigation. The full plan can be viewed at: http://bit.ly/2gQR5C3.

E. Further reading

- International Recovery Platform and United Nations Development Programme. 2012. Guidance Note on Recovery: Pre-Disaster Recovery Planning. Kobe. http://bit.ly/2fzj3Sb.
- International Recovery Platform and United Nations Development Programme. 2016. Guidance Note on Recovery: Private Sector. Kobe. http://bit.ly/privatesectorrecovery
- International Recovery Platform and United Nations Development Programme. 2010. Guidance Note on Recovery: Infrastructure. Kobe. http://bit.ly/2e8rPBo
- International Recovery Platform and United Nations Development Programme. 2010. Guidance Note on Recovery: Shelter. Kobe. http://bit.ly/2fcniim
- International Recovery Platform and United Nations Development Programme. 2010. Guidance Note on Recovery: Health. Kobe. http://bit.ly/2f4BI7x
- International Recovery Platform and United Nations Development Programme. 2010. Guidance Note on Recovery: Psychosocial. Kobe. http://bit.ly/2ehPIti
- International Recovery Platform and United Nations Development Programme. 2010. Guidance Note on Recovery: Climate Change. Kobe. http://bit.ly/2fpIAxA
- International Recovery Platform and United Nations Development Programme. 2010. Guidance Note on Recovery: Environment. Kobe.

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- International Recovery Platform and United Nations Development Programme. 2010. Guidance Note on Recovery: Gender. Kobe. http://bit.ly/2euxh2g
- International Recovery Platform and United Nations Development Programme. 2010. Guidance Note on Recovery: Governance. Kobe. http://bit.ly/2f4zAwB
- International Recovery Platform and United Nations Development Programme. 2010. Guidance Note on Recovery: Livelihoods. Kobe. http://bit.ly/2fcq8DE
- International Recovery Platform and United Nations Development Programme. 2010. Guidance Note on Recovery: Telling Live Lessons. Kobe. http://bit.ly/2eWySyK
- United Nations Development Programme. n/d. Methodological Guide for Pre-Disaster Recovery Planning Processes: Guidelines and Actions for National, Regional, and Local Governments. http://bit.ly/2fzkZtZ.

Task 4b.3:

Formalize processes and systems to enable effective assessment of Post-Disaster damages and needs in order to more accurately quantify and characterize recovery needs and to formulate broad recovery strategies

A. Understanding the task

What's the purpose of this task?

This task aims to institutionalize and strengthen the plans, systems, and infrastructure by which rapid and effective post-disaster recovery assessments - inclusive of opportunities to *Build Back Better* - may be performed at the national and local levels.

Why is it important?

The initiation of post-disaster assessment of damages, losses, and needs typically occurs concurrent with the onset of disaster even though many long-term disaster recovery activities may not begin immediately after the event. To properly facilitate the recovery planning process, appropriate and adequate resources must be dedicated to data collection, analysis, and distribution. Exploitation of disaster risk reduction and sustainable development opportunities is often contingent upon data and information that may be directly extrapolated from or collected in conjunction with that which drives response. Moreover, such assessments are critical to enabling impacted governments to formulate their requests for assistance and plans of action relative to post-disaster offers of support from the international community.

Recovery-focused assessments are led and conducted by a wide range of agencies and organizations (based in the affected country or abroad) that focus on an equally-broad range of recovery sectors. In the absence of proper planning and coordination, variance in data targets and collection methods may result in data gaps, biases, or errors. An effective assessment is not a guarantee of recovery success but rather a prerequisite, so capabilities and clear procedures must be in place prior to a disaster. Poor assessment data causes delays and confusion, and can result in retention of risk, missed opportunities to improve lives and livelihoods, and an inability to achieve positive recovery outcomes.

How does it relate to other priority tasks?

Recovery assessments are a key component of pre-disaster recovery plans (Priority 4b Task 2), and the human and financial resources that support them are defined by a nation's recovery framework (Priority 4b Task 1).

Terminology

- **DaLA:** The Damage and Loss Assessment (DaLA) Methodology was initially developed by the UN Economic Commission for Latin America and the Caribbean (UN-ECLAC) in 1972. It has since been improved through close cooperation of WHO, PAHO, World Bank, Inter-American Development Bank, UNESCO, ILO to capture the closest approximation of damage and losses due to disaster events. It is a flexible tool that can be adapted to specific disaster types and government ownership requirements. The DaLA Methodology bases its assessments on the overall economy of the affected country. It uses the national accounts and statistics of the country government as baseline data to assess damage and loss. It also factors in the impact of disasters on individual livelihoods and incomes to fully define the needs for recovery and reconstruction. A DaLA includes: Damage as the replacement value of totally or partially destroyed physical assets; Losses in the flows of the economy that arise from the temporary absence of the damaged assets; The resultant impact on post-disaster macroeconomic performance, with special reference to economic growth/GDP, the balance of payments and fiscal situation of the Government.

- **Disaster Damage:** Occurs during and immediately after the disaster. This is usually measured in physical units (e.g., square meters of housing, kilometres of roads, etc.), and describes the total or partial destruction of physical assets, the disruption of basic services and damages to sources of livelihood in the affected area (United Nations General Assembly, 2016).

- **Economic loss:** Total economic impact that consists of direct economic loss and indirect economic loss.
  Direct economic loss: The monetary value of total or partial destruction of physical assets existing in the affected area. Direct economic loss is nearly equivalent to physical damage.
  Indirect economic loss: A decline in economic value added as a consequence of direct economic loss and/or human and environmental impacts (United Nations General Assembly, 2016).

- **PDNA:** Post-Disaster Needs Assessment is a synthesis of DaLA and human recovery needs assessment. It typically includes the recovery and reconstruction framework that guides the post-disaster recovery strategy.

A unique aspect of the PDNA is that it is led and owned by the government of the affected country and assisted by a multi-disciplinary, multi-agency team comprising the World Bank, GFDRR, UN Agencies, European Commission, and other relevant stakeholders. The PDNA includes damage, loss, and macro-economic impacts on the affected economy; Impacts on livelihoods, incomes, and human development; Short, medium, and long-term recovery and reconstruction needs; and, Measures for mainstreaming Disaster Risk Reduction in post-disaster recovery and reconstruction plans (GFDRR, 2017[9]).

B. How to do it

Recommended steps

The steps required to support or develop fast and effective post-disaster recovery needs assessment capabilities include:

National Level

1. Identify and engage appropriate national government representatives from relevant line ministries or departments who will remain actively involved in the capacity building and post-disaster conduct of assessments at all levels (for both technical assistance and operational management), including members of a National Platform for Disaster Risk Reduction if one exists.
2. Develop national-level systems, standards, and protocols for disaster assessment that ensure the principles of *Build Back Better* are incorporated into long-term planning for recovery, rehabilitation, and reconstruction.
3. Promote a national standard for post-disaster needs assessment and provide training, technical assistance, and financial support to communities wishing to develop the necessary capacity.
4. Develop the necessary infrastructure and requisite systems for providing rapid support to local recovery-centric assessment efforts.
5. Assist in coordinating the dissemination of information from needs assessments (often stemming from diversely affected regions) to home-based and foreign-based organizations

Local Level

[9] Global Facility for Disaster Risk Reduction. 2017. Damage, Loss, and Needs Assessment - Tools and Methodology. GFDRR Website. Accessed January 2017. http://bit.ly/2ihiY5O.

1. Appoint a local or regional damage assessment coordinator.
2. Convene a stakeholder working group and Identify post-disaster recovery assessment needs for hazards likely to impact the community, including information to support disaster declarations, recovery support programs (including the consolidated appeals process), and other needs.
3. Revise assessment protocols included in local emergency operations plans to adequately address anticipated recovery data and information needs.
4. Identify human and technical resource needs and establish contracts of memoranda of agreement with contractors and/or nonprofit organizations.
5. Coordinate assessment plans with neighboring jurisdictions to enable awareness of regional recovery needs.
6. Establish local laws/ordinances, including building moratoria, that ensure disaster assessment outcomes are factored into long-term recovery decisions.
7. Establish pre-disaster social, economic, environmental, demographic, and other development baselines and indicators to which post-disaster assessment data will be compared in order to fully contextualize recovery planning efforts.

Private / Nonprofit Sector

1. Establish pre-disaster committees to conduct baseline data collection such as the location of infrastructure and available capacities.
2. Support post-disaster damage assessment of needs, including damage to infrastructure and requirements for repair or replacement.
3. Communicate baseline information and capacity for damage assessment to local government planners.
4. Enter into pre-disaster services contracts.

Questions to ask

To ensure that effective recovery assessment capabilities exist, ask:

- Is there an understanding of the importance of disaster assessment capacity at the community level?
- Who is responsible or mandated to undertake disaster assessment within departments or organizations? Is there a network to connect them such that information can be quickly integrated in order to avoid overlaps?

- Do communities have the necessary financial, human, and technical resources to ensure that recovery needs are addressed in post-disaster assessments?
- Is there a process in place for the data of the post-disaster assessment to be integrated and compared to the baseline data? Is this an easy and straightforward process? For infrastructure assets, is there an asset management system in place?
- Do assessment protocols address recovery-specific data and information requirements, or are they narrowly focused on immediate relief and response operations?
- Do relationships exist between governments at the national, regional, and local levels that ensure assessments are both coordinated and complementary?
- Are local governments prepared to incorporate assessment data into recovery planning and decision making processes?
- Are the private and nonprofit sectors adequately integrated into and engaged with the assessment process?
- Where can the private and nonprofit sectors obtain information about how to conduct assessment?

C. Responsibilities and resources

Who should be involved?

- National emergency management or civil protection agency
- National Platform for Disaster Risk Reduction
- Local or regional emergency management offices
- Local development planners
- Nongovernmental organizations and businesses involved in disaster assessment, recovery planning, and operations
- Institution/s with primary responsibility for DRR coordination and policy guidance, whether the Ministry of Interior, National Disaster Management Authority, or other.
- Fully dedicated institutions with specific responsibilities on different aspects of DRR; e.g. Meteorological Services, Civil Defense, seismic research centers, search and rescue teams, fire departments, the National Red Cross/Crescent Societies etc.

- Sectoral ministries and local governments which have a role in integrating DRR into development planning (land-use, safer construction, rangeland management, water conservation and management, awareness and education); e.g. agriculture, environment, education, urban development, water, transport, gender/women's affairs/social affairs.
- Private and nonprofit civil organizations, including insurance companies, business associations, international NGOs, community-based organizations and women's organizations, among others.

What conditions facilitate the task?

- Incorporation of disaster risk reduction and other elements of building back better into the needs assessment process (and likewise recovery itself) is weak unless such principles are fully factored into pre-and post-disaster recovery plans, recovery budgets, and ultimately into the comprehensive disaster risk management approach.
- Recovery-focused assessment must be an inclusive process, and must be led by the impacted nation's government (national or local).
- Recovery must be viewed as an integrated process, inseparable from preparedness, response, mitigation and integrated with development.
- National and local governments must view disaster information in light of its national security implications, but at the same time must recognize and act on the importance of sharing it freely among those involved in recovery operations at all levels and in all sectors.
- The post-disaster setting is a complex and demanding environment, where the most urgent task is to promptly assess humanitarian needs and provide life-saving relief assistance to those affected. It further requires an assessment of the damages and losses caused by the disaster and the development of a comprehensive recovery plan that would lead back to a sustainable development process where risk reduction in the face of disasters is explicitly considered.
- An established pre-disaster social, economic, environmental, infrastructure, demographic, and other development baselines and indicators to which post-disaster assessment data will be compared in order to fully contextualize recovery planning efforts.
- To meet the challenge of incorporating DRR and sustainable development in recovery planning, most countries impacted by major disasters require the support of national and international actors. Having a good coordination mechanism like the EU/UNDP/WB Post-Disaster Needs Assessment (PDNA) process can provide a common platform for partnership and coordination.

D. Illustrations

- **Developing Recovery Needs Assessment Capacity in Myanmar**
  Myanmar is exposed to significant risk from a range of natural hazards that includes cyclones, earthquakes, flood, fire, and drought. When Cyclone Nargis struck the country in 2008, Myanmar lacked a post disaster review structure and had no centralized capacity to conduct recovery assessments (HFA Progress Report 2009-2011). A joint assessment group was established in the disaster's aftermath, which included representatives from the Government of the Union of Myanmar, the United Nations, and the Association of Southeast Asian Nations (ASEAN). While comprehensive in its membership, this group was only assembled post-disaster and thus unable to begin formal assessments until June 10th - nearly 5 weeks post-cyclone. To address capacity shortfalls, the Government of the Union of Myanmar in 2014 sought the assistance of external partners in order to conduct recovery assessment training. Officials from 24 departments and agencies were tapped to participate in a program of Post-Disaster Needs Assessment (PDNA) training. The course, which was organized by the Relief and Resettlement Department within Myanmar's Ministry of Social Welfare, Relief, and Resettlement, was facilitated by the Asian Disaster Preparedness Center (ADPC) and supported by the New Zealand Aid Programme. The Government of the Union of Myanmar was able to establish a cadre of recovery assessment experts that is drawn from across a broad range of functional sectors as a result of these training efforts. Moreover, participants gained a much better understanding of the key concepts and the roles and responsibilities involved thereby enabling them to implement assessments and conduct recovery activities when needed. To support the training process, a series of fifteen country-specific PDNA technical guidelines was developed through stakeholder consultation. These activities were part of a two-year ADPC/NZAID-supported project entitled "Strengthening Disaster Risk Reduction Capacity in Selected ASEAN Countries."

- **Using Past Assessment Experience to Build Future Capabilities in Samoa**
  The island nation Samoa conducted post-disaster needs assessments in the aftermath of a 2009 earthquake-induced tsunami, and in 2012 following Tropical Cyclone Evan. These efforts illustrated the value of accuracy in the planning process when they revealed that initial estimates of damages and losses were far lower than what had actually occurred. Assessment data was ultimately credited with enabling recovery planners to effectively identify and prioritize recovery and reconstruction measures in both of these events. In order to institutionalize the assessment process and to benefit from the lessons that had been learned in previous

events, the Government of Samoa worked with international partners in 2014 to design and facilitate its first Post Disaster Needs Assessment course in 2014. The training sought to reduce reliance on external stakeholders by establishing a national pool of assessment experts, and to decrease delays in post-disaster recovery planning and operations. This program received support from the African, Caribbean and Pacific Group of States (ACP), the European Union (ACP-EU), and the Secretariat of the Pacific Community (SPC). Since that time, multiple follow-up trainings have been conducted, at times targeting specific sectors such as Tourism or Agriculture and Fisheries. For more information visit: http://bit.ly/2f7GIoO.

- **Strengthening Provincial Assessment Capacity in Lao PDR**
  Following the aftermath of Typhoon Ketsana in 2009, the Lao PDR Ministry of Planning and Investment defined a national approach for post-disaster assessment and recovery. This project, which was supported by the Asian Disaster Preparedness Centre and the World Bank Global Facility for Disaster Risk and Recovery, sought to define a national approach for post-disaster assessment and recovery, to strengthen communication between the province and district level, and to develop clear guidelines and procedures for estimating damages, losses, and recovery needs in a disaster. The project focused on Khammouane Province. Project partners working with committee members prepared a standard operating procedure for the province that covers specific activities, outputs, and responsibilities as well as a realistic schedule based on the province's capacity. The activities guide the officials through the post-disaster assessment process including management meetings, sector assessment, fieldwork for damage and loss assessment, data validation, and consolidation of sector assessments into one provincial assessment report. The post-disaster needs assessment covers the estimated cost of damage, loss, and needs; and how businesses and local people were affected. Assessment teams also require sector-specific steps, templates, and explanations for an assessment to be conducted. For more information, see: http://bit.ly/2gEnvg9.

- **National Support for Pre-Disaster PDNA Capacity Building (Indonesia)**
  Following a series of major disaster events in Indonesia, the National Agency for Disaster Management adopted a series of disaster risk reduction measures focusing on disaster rehabilitation and reconstruction. The effort, dubbed *Disaster Risk Reduction Based Rehabilitation and Reconstruction*, or DR4, focused on four objectives, inclusive of:

- Supporting policy through drafting of rehabilitation and reconstruction guidelines
- Building institutional systems on rehabilitation and reconstruction
- Strengthening post-disaster assessment capacity through drafting of PDNA guidelines
- Supporting implementation of DRR-based rehabilitation and reconstruction mechanisms

Working with national and regional disaster management agencies, the DR4 project led the development of a standard PDNA guideline that explains PDNA principles, describes the division of responsibilities, and lists the key steps involved. Three public consultations included in the development process brought together the central government, several local governments, and a range of relevant non-governmental organizations. The resulting guidelines were formalized into the national policy framework through the adoption of a legal regulation (Regulation of the Head of the National Agency for Disaster Management No. 15 of 2011.) Signing of the regulation and launch of the PDNA guideline was supported by an international PDNA seminar and the development and dissemination of an instructional resource that provided case-based illustration of PDNA successes and lessons learned in Indonesia.
For more information, see: http://bit.ly/2iYbEJD

E. Further reading

- Bollin, Christina and Shivani Khanna. 2007. Review of Post-Disaster Recovery Needs Assessment and Methodologies: Experiences from Asia and Latin America. International Recovery Platform and United Nations Development Programme. http://bit.ly/2f3xryh.
- The European Union, the United Nations Development Group, and The World Bank. 2013. Post-Disaster Needs Assessments: Volume A (Guidelines). http://bit.ly/2f3fu3d.
- US Federal Emergency Management Agency. 2016. Damage Assessment Operations Manual: A Guide to Assessing Damage and Impact. Washington, DC. http://bit.ly/2f3fu3d.
- World Bank. 2010. Disaster Risk Reduction (Post-Disaster Needs Assessment). Global Facility for Disaster Risk Reduction. http://bit.ly/2f8cym7.

Task 4b.4:

Institute or strengthen policies, laws, and programs that promote (incentivize), guide (ensure), and support Build Back Better in recovery, rehabilitation, and reconstruction in both the public and private sectors, and by individuals and households

A. Understanding the task

What's the purpose of this task?

A country's or a community's ability to achieve disaster risk reduction, climate change adaptation, and sustainable development in recovery is influenced heavily by the presence of appropriate and strong pillars of support. These mainstays of support may consist of a blend of governmental and organizational policies, legal frameworks, social norms, the provision of training and education, and other relevant mechanisms.

In this task, stakeholders investigate the need for programs that support recovery planning and operations, identify and assess availability, costs, and benefits of opportunities, and address gaps. National governments should establish a functional and productive environment wherein disaster-impacted communities and entities are not only cognizant and appreciative of the importance of and mechanisms for building back better after disasters, but also where such actions are statutorily-required and equitably-enforced, and where the necessary human, financial, and other resources are available to ensure such efforts are made. Leadership and good governance are essential in providing strong support mechanisms for *Build Back Better*.

Why is it important?

The 2015 Global Assessment Report on Disaster Risk Reduction (GAR 2015) described the importance of this task by stating, "[i]n general, countries that already have effective policy and regulatory frameworks as well as strategies and financial mechanisms in place to prevent new disaster risks can take full advantage of the gap to transform development, whereas the window of opportunity opens and closes rapidly for those which have made little progress in putting disaster risk management measures in place before disaster

happens" (UNISDR, 2015[10]).

Assessments conducted under the Hyogo Framework for Action Monitor (2007 - 2013) have highlighted the fact that many initial intentions to *Build Back Better* following disasters are quickly overtaken by a need to rapidly get back to a perception of economic and social normality (WCDRR, 2015[11]). This in turn results in formidable difficulties for those stakeholders wishing to exploit any such window of opportunity to achieve development gains, to redress social or environmental problems, or to limit the underlying risk that enabled the disaster to occur. HFA Priority Area 4 stipulated that nations should, *"Incorporate disaster risk reduction measures into post-disaster recovery and rehabilitation processes and use opportunities during the recovery phase to develop capacities that reduce disaster risk in the long term, including through the sharing of expertise, knowledge and lessons learned."* By the end of the 10-year period of performance, it was found that global progress in achieving this has been limited.

The presence of an effective recovery framework is vital to the establishment of a clear structure and coordination for planning and operational activities. However, in the absence of necessary legal, technical, financial, and other support mechanisms, such conventions lack meaning. Stakeholders must work together to identify obstacles that prevent *Build Back Better* in RRR, including practices that unnecessarily increase the time between disaster onset and recovery operations, over-reliance on compensatory disaster risk management, misguided or weakly-enforced regulations, insufficient funding, poor coordination, or a lack of technical guidance and expertise.

Strong institutional mechanisms allow for adaptive legislative environments. Legislation can be used for *Build Back Better* compliance, where compliance entails using legislation to enforce recovery initiatives to conform to Build Back Better principles. The lack of enforcement of hazard-related laws and adequate risk-based building controls contributed to the large-scale devastation caused by the 2004 Indian Ocean tsunami. Enforcing updated risk-based building design standards through the use of compulsory construction codes and maintaining standards is an important regulatory requirement in Build Back Better. Legislation can also facilitate, simplify and guide recovery activities. Time-consuming procedures, insufficient resources to process permits and the lack of fast-tracked methods delay reconstruction and are some reasons for slow repair and rebuilding. Legislative suspensions and emergency powers can reduce reconstruction time and encourage Build Back Better.

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[10] United Nations Office for Disaster Risk Reduction (UNISDR). 2015. The 2015 Global Assessment Report on Disaster Risk Reduction. http://www.preventionweb.net/english/hyogo/gar/2015/en/home/GAR_2015/GAR_2015_3.html

[11] World Conference on Disaster Risk Reduction. 2015. Reconstructing After Disasters: Build Back Better. Issue Brief. Ministerial Roundtable. March 15.

How does it relate to other priority tasks?

Recovery support mechanisms are the foundation of an effective recovery framework (Task 4b.1), and therefore influence the form and feasibility of the framework itself and of any pre- and post-disaster plans that are developed (Task 4b.2, Task 4b.3).

Terminology

- **Building Code:** A set of ordinances or regulations and associated standards intended to control aspects of the design, construction, materials, alteration and occupancy of structures that are necessary to ensure human safety and welfare, including resistance to collapse and damage. Building codes can include both technical and functional standards. They should incorporate the lessons of international experience and should be tailored to national and local circumstances. A systematic regime of enforcement is a critical supporting requirement for effective implementation of building codes (United Nations General Assembly, 2016). Building codes are a subset of construction codes, which are more comprehensive in terms of assets covered.
- **Compensatory Disaster Risk Management:** Activities strengthen the social and economic resilience of individuals and societies in the face of residual risk that cannot be effectively reduced. They include preparedness, response and recovery activities, but also a mix of different financing instruments, such as national contingency funds, contingent credit, insurance and reinsurance and social safety nets (United Nations General Assembly, 2016).
- **Corrective Disaster Risk Management:** Activities address and seek to remove or reduce disaster risks which are already present and which need to be managed and reduced now. Examples are the retrofitting of critical infrastructure or the relocation of exposed populations or assets (United Nations General Assembly, 2016).
- **Prospective Disaster Risk Management:** Activities address and seek to avoid the development of new or increased disaster risks. They focus on addressing disaster risks that may develop in future if disaster risk reduction policies are not put in place. Examples are better land-use planning or disaster-resistant water supply systems (United Nations General Assembly, 2016).
- **Recovery Ordinance:** A law or statute that paves the way for governments to take action in the aftermath of a disaster, reserving the establishment of actual guidance on what needs to be done for after the disaster has happened (FEMA, 2016).

- **Retrofitting:** Reinforcement or upgrading of existing structures to become more resistant and resilient to the damaging effects of hazards. Annotation: Retrofitting requires consideration of the design and function of the structure, the stresses that the structure may be subject to from particular hazards or hazard scenarios and the practicality and costs of different retrofitting options. Examples of retrofitting include adding bracing to stiffen walls, reinforcing pillars, adding steel ties between walls and roofs, installing shutters on windows and improving the protection of important facilities and equipment (United Nations General Assembly, 2016).

B. How to do it

Recommended steps

National Government

1. Establish legal frameworks for recovery to encourage local governments to prioritize DRR, decentralize recovery, and to establish responsibility and accountability of key actors.
2. Support the establishment of locally-relevant sustainable development mechanisms including construction codes, land use regulations, and critical infrastructure assessment, protection, and improvement.
3. Develop, strengthen, and invest in recovery-focused training and education for local leadership and the business and nonprofit sectors.
4. Strengthen or implement DRR information sharing mechanisms to support pre- and post-disaster recovery planning and operations and recovery coordination.
5. Establish risk-based disaster recovery funding mechanisms (lending or otherwise), and require evidence of Build Back Better in RRR as an eligibility requirement; create set-aside funding reserved for post-disaster DRR projects.
6. Ensure that communities have adequate access to recovery experts (planning and operations) both before and after disasters occur.
7. Integrate DRR, SD, and CCA policies and activities throughout government.
8. Explore ways to improve donor engagement in longer-term recovery financing needs, and to promote a greater focus on the assessment of post-disaster needs when recovery planning and implementation are taking form.
9. Establish a contact point for governmental and non-governmental

organizations to learn about best practices and raise awareness about legal frameworks for recovery and possible problems arising from a lack of clear policies and directives.

Local Government

1. Institute means and protocols to quickly assess and incorporate new risk information in order to reconsider adoption of relevant national or international construction codes and to amend land use regulations.
2. Pass emergency ordinances and recovery ordinances that provide the structure and clarity required to achieve stated recovery goals and objectives.
3. Promote the integration of DRR, SD, and CCA policies throughout government so that all recovery planning and operational efforts are performed in keeping with each.
4. Link and otherwise coordinate mitigation and other DRR plans with emergency planning and both pre- and post-disaster recovery planning efforts and products.

Private / Nonprofit Sector

1. Support and adhere to provisions outlined in emergency and recovery ordinances.
2. Finance Industry: Ensure private sources of recovery funding contain corrective and prospective disaster risk management provisions.
3. Insurance Industry: Promote recovery-based disaster risk reduction efforts through policy premium reduction incentivization programs.
4. Business Associations: Provide an information sharing platform and promote coordination between those businesses providing recovery support and those that require it.
5. Networks (women, youth, diaspora, etc.): encourage members to access information related to recovery support to ensure ethical practice, effective and efficient and complementary support within the legal framework.

Questions to ask

- Does the regulatory and legal environment encourage donor support while simultaneously ensuring that the actions of donor organizations remain

aligned with longer-term recovery goals pertinent to building back better?

- Do community statutes and laws provide sufficient rigidity to prevent longer-term recovery efforts from becoming derailed by competing goals and objectives of donors?
- Do national budgets include provisions for disaster risk reduction that are accessible by local governments and by all relevant sectors in the immediate aftermath of disasters?
- Do national budgets support preparedness for disaster recovery planning?
- Do national laws and/or policies require risk evaluation as a component of public investment, including that which follows major disasters?
- Does a program or system exist that promotes resident or community relocation from repetitive loss properties or otherwise very high risk land?
- What financial or other incentives, whether grant funding, tax breaks, subsidies, or otherwise, would be most effective in promoting the retrofitting of buildings (including those that are non-damaged) to updated construction codes in the aftermath of a disaster?
- Do current construction codes address all major hazards?
- Have there been regulatory or policy gaps identified from previous disasters which need to be addressed? Have these gaps been documented and shared?
- Are there contradictory policies across different organizations or between levels of government? How can these be identified in a pre-disaster context?

C. Responsibilities and resources

Who should be involved?

- National disaster management and civil protection organizations, and associated operational partners
- National Platform for Disaster Risk Reduction
- Finance Office or Ministry
- Public agencies responsible for overseeing the implementation of construction codes, land use plans, and other regulatory mechanisms
- Banking and insurance sectors

What conditions facilitate the task?

- It is important that there exists strong political commitment by top leadership to support disaster recovery capacity building, even in the absence of an actual disaster. Competing budgetary and other resource demands are a formidable obstacle to recovery capacity building, so appreciation for the importance of recovery support must be effectively communicated to those with decision making authority.
- Actions that seek to Build Back Better in recovery are bolstered by acknowledgment that resilient recovery is a basic human right wherein governments, international organizations, and other stakeholders are obligated to ensure citizens' safety from future disasters.
- Recovery effectiveness and efficiency is greatest when policies are in place prior to the disaster to ensure consideration of disaster risk in post-disaster recovery decision making (e.g., permitting, siting of reconstructed facilities), notably in terms of how risk levels have changed given new information.
- Systems for permitting, contracting, and human resource distribution that certify or otherwise ensure architects and engineers are adequately licensed to design and construct resilient structures greatly improve the likelihood that Build Back Better philosophies are upheld as recovery proceeds.

D. Illustrations

- **Cerro Gordo County, Iowa, USA Pre-Disaster Recovery Ordinance**
  In 2002, the Cerro Gordo County Board of Supervisors worked in conjunction with the state (regional) Division of Emergency Management to draft and adopt a pre-disaster recovery ordinance. The ordinance was created in recognition of a need to ensure the County is able "to expedite recovery and reconstruction, mitigate hazardous conditions, and improve the community" after disasters. Furthermore, the ordinance was adopted in recognition that "recovery can be expedited by pre-event adoption of an ordinance authorizing certain extraordinary governmental actions to be taken during the declared local emergency to expedite implementation of recovery and reconstruction measures identified in a pre-event plan." The ordinance promotes Build Back Better in RRR by authorizing the creation of a recovery organization, directing pre-disaster recovery planning efforts, authorizing planning and regulatory powers related to recovery and reconstruction, and identifies the means by which the county cooperates with other governmental and nongovernmental stakeholders. One of the most important provisions of this ordinance is that it empowers

decision-makers to institute a development moratorium to ensure that redevelopment plans have been properly assessed. At the same time, it establishes a single-point of contact for the issuance for building permits, so that responsible construction plans can proceed as quickly as possible given the extraordinary circumstances presented by the disaster. The ordinance also supports disaster risk reduction by requiring county officials to address post-disaster mitigation activities prior to the onset of an actual disaster, and that any new risk information be incorporated into county plans, safety regulations, and public messaging. This ordinance can be found at: http://bit.ly/2fMmBB1.

- **Financial and Technical Support to Build Back Better in Tonga**
  Many islands in the Tonga archipelago were severely impacted by Tropical Cyclone Ian in January of 2014. Heavy damage was sustained by both housing and critical infrastructure. The Government of Tonga, supported by the World Bank, the Global Facility for Disaster Reduction and Recovery, and funded by the Africa Caribbean Pacific-European Union Natural Disaster Risk Reduction Program (ACP-EU NDRR), assessed damages and implemented a recovery program that focused on DRR in the housing and transportation infrastructure sectors. Using information obtained through the assessment, the Government of Tonga was able to develop and release a new recovery and reconstruction policy that promoted the building of housing that is more resilient to the effects of climate change (including future cyclones). The government also supported building back better through capacity building on safe home construction, financial support for repairs and retrofitting, and creation of a public grievance system. Tonga worked with several international partners to support resilient recovery in addition to housing and transportation. The Asian Development Bank, for instance, supported the construction of a more resilient electricity network and educational facilities. For more information, see: http://bit.ly/2gUF6mQ and http://bit.ly/2gwz5JM.

- **Legislative changes in Australia to Build Back Better**
  One of the first steps taken after the Victorian Bushfires on February 7, 2009 was to publish a revised edition of the Australian "Building Code for Bushfire-prone Areas" (AS 3959) on March 11, 2009. The revisions introduced bushfire attack levels (BAL) to identify the bushfire-risk of properties. Stringent design and construction requirements were specified for each BAL to provide greater fire protection. Another key change in legislation was regarding land-use. Soon after the fires, the entire state of Victoria was declared bushfire-prone and placed under the Wildfire Management Overlay (WMO), which imposed stricter planning regulations. By 2011, more accurate mapping of bushfire-risk in Victoria was being carried out to replace the WMO with a Building Management Overlay (BMO). BMOs integrated WMO with building controls. The introduction of

the voluntary "buy-back scheme" posed a solution for people on high-risk lands who were no longer able to build.

E. Further reading

- American Planning Association. n/d. Model Recovery Ordinance. http://bit.ly/2eA8Ogb.
- Global Facility for Disaster Risk Reduction. 2015. Resilient Recovery: An Imperative for Sustainable Development. World Reconstruction Conference 2. http://bit.ly/2hah9nP. phot
- International Recovery Platform and the United Nations Office for Disaster Risk Reduction. 2007. Learning from Disaster Recovery: Guidance for Decision Makers. http://bit.ly/2geUdWy.
- International Recovery Platform. 2009. Disaster Risk Reduction (DRR) and Preparedness. Knowledge for Recovery Series. Info Kit #4. http://bit.ly/2geWIs1.

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