

Global Assessment Report
on Disaster Risk Reduction



Recovery as a catalyst for reducing risk

International Recovery Platform

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2011

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Table of Contents

Introduction	1
1 Recovery is fundamentally a development issue	1
1.1 Changed attitudes after a disaster provide an opportunity to reduce risk	1
1.2 Capacity links recovery to both relief and development.....	4
1.3 Reducing risk during recovery requires time.....	6
2 Planning and resourcing risk reduction during recovery.....	8
2.1 Ex-ante planning leads to a better recovery.....	8
2.2 Plan to use streamlined developmental processes to reduce risk.....	10
2.3 Post disaster assessments, monitoring and learning	12
2.4 Financing mechanisms for recovery	13
3 Build on existing resilience	16
3.1 Build on community’s cultural and social resilience.	16
3.2 Mainstream gender during recovery.....	17
3.3 Good governance and local leadership for recovery.....	20
4 Conclusions and Policy Recommendations	22
Annex 1 List of organisations interviewed and profile of professionals surveyed	23
Annex 2 Profile of 91 professionals answering the online survey.....	24
Annex 3 Key guide questions for interviews	25
Annex 4 Summary of survey with answers (see PDF attachment).....	26
Bibliography	27

Introduction

“...throughout the world, we must work harder in the recovery stage to avoid reinstating unnecessary vulnerability to hazards. As I have often said, ‘building back better’ means making sure that, as you rebuild, you leave communities safer than they were before disaster struck.” - *Bill Clinton, UN Secretary-General's Special Envoy for Tsunami Recovery, 20th December 2006 (UNISDR, 2004a)*

Countries afflicted by disasters have to address immediate issues of relief and reconstruction. However, they also have the opportunity to ‘build back better’, and in doing so reduce risk from disasters. This chapter discusses the conditions, factors and possible actions that could further enable recovery to become a catalyst for reducing risk. The chapter provides examples, suggestions for investments and tools to improve risk reduction in recovery.

ISDR defines recovery as “decisions and actions taken after a disaster with a view to restoring or improving the *pre-disaster living conditions* of the stricken community, while encouraging and facilitating necessary adjustments to reduce disaster risk”. ISDR also states, “Recovery (rehabilitation and reconstruction) affords an opportunity to develop and apply disaster risk reduction measures” (UNISDR, 2010).

Three processes defined the priorities described in this chapter – a global desk review, a poll of ninety-one recovery and development professionals from around the globe and in depth interviews with thirty-seven risk reduction professionals in Asia, the continent most impacted by recent disasters. See annexes for further details. The desk review entailed researching evaluations, learning documents, guidelines, global case studies, strategy and policy statements, post disaster needs assessments, new risk reduction laws and strategic action plans. This review highlighted the main trends, challenges and opportunities in recovery. The review informed the key area of questioning explored during the in-depth interviews with thirty-seven key national and regional government and non-government professionals. These opinions informed a global survey that quantified opinions from a wide geographic and professional background.

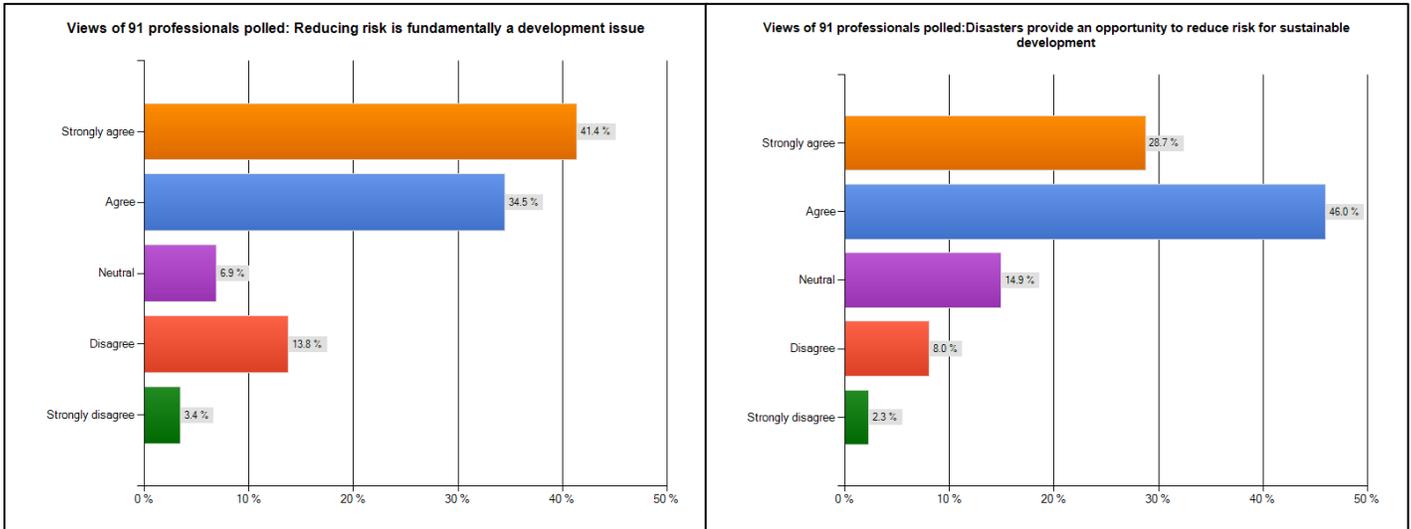
1 Recovery is fundamentally a development issue

1.1 Changed attitudes after a disaster provide an opportunity to reduce risk

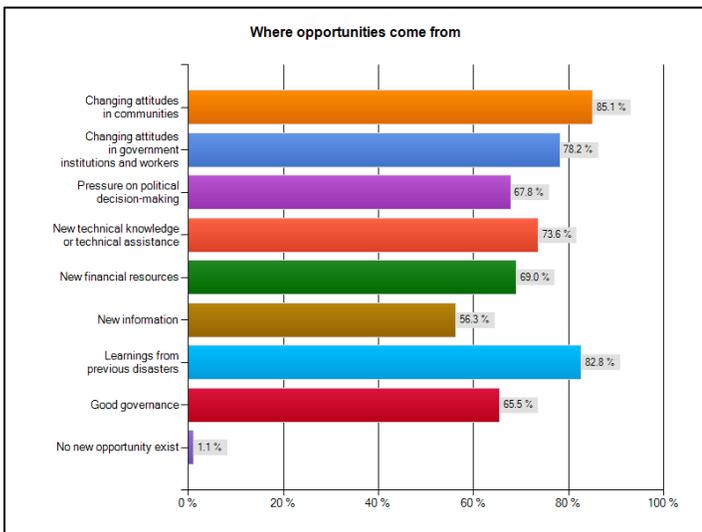
“While many people are aware of the terrible impact of disasters throughout the world, few realize that this is a problem that we can do something about.” - *Kofi A. Annan, UN Secretary-General (UNISDR, 2004a)*.

Before a disaster, progress in addressing underlying risk factors is often constrained by suboptimal governance, weak policy and regulatory frameworks, low political and administrative will and capacity as well as nonchalant attitudes towards disaster risk reduction at all levels. After a disaster, attitudes change. This creates an opportunity to reduce psychological as well as administrative barriers and to increase political will for mainstreaming risk reduction into development-orientated recovery.

Recovery involves compressing decades of development into a few years while reducing future risks, including those from climate change. Disasters often destroy decades of development gains but also offer opportunities – driven by changes in attitude, technical and financial resources, as well as political support. Recovery offers the opportunity to address the underlying risk factors from multiple hazards and ‘build back better’. These changes can be short lived without an impulse for resilient development.



Over seventy-five percent of professionals polled for this paper agree or strongly agree that *'Reducing risk is fundamentally a development issue'*. Furthermore, seventy percent agreed or strongly agreed that disasters provide an *'opportunity to reduce risk for sustainable development'*. Over seventy-five percent felt that these opportunities come from changing attitudes in communities, government institutions and workers as well as learnings from previous disasters and new technical knowledge and assistance. Professionals from lower income countries placed more emphasis on attitude change in communities whereas those from middle-income countries stressed institutional attitude change. About two thirds of all respondents felt that opportunities also come from new finances and information and are drive by political pressure and governance. Importantly only one respondent felt that disasters did not provide an opportunity to reduce risk.



This attitude change provides a window of opportunity. This window of opportunity can close if coherent leadership does not promote clearly and consistently key frameworks and messages of possible measures for risk reduction.

For example, following a major cyclone in 1991, the Bangladesh authorities reassessed their risk reduction strategies. They redesigned cyclone shelters, enlarging them and relocating them closer to current population centres – taking into account cultural traditions and behaviour, with accommodation for economically important domestic livestock. Shelters and all new official buildings were in the future to have two elevated stories to protect families displaced by floods. Shelters also primarily took the form of schools, health dispensaries or

other public facilities to ensure that they were well maintained, and more importantly, that the public associated them with disaster preparedness. Over the years, these community cyclone and flood shelters have become an integral part of an overall local risk reduction strategy that has further developmental benefits. Local preparedness committees also use them for emergency exercises and evacuation drills for people 'living with floods' (International Recovery Platform, 2007).

Disasters provide an opportunity to reduce risk. The ability to address the underlying risk factors and accelerate risk reduction is dependent on available skills and capacity. Ninety-five percent of professionals polled for this paper stated that *'local and national governments as well as communities were important or very important in providing the skills or*

capacities necessary to reduce risk during recovery'. In addition, over ninety percent stated that development actors and NGO's are important or very important in providing the same skills. The same professionals felt that relief actors were less important in providing the skills and capacities necessary to reduce risk during recovery than development actors. Recovery is fundamentally about development. The tools and skills for 'business as usual' in development can be adapted and applied to risk reduction in recovery, and that development priorities should remain priorities during recovery. These priorities are often critical for reducing medium-term vulnerabilities and should not be overshadowed.

Social infrastructure Development, Chokwe, Mozambique
Prioritized recovery interventions in line with development initiative

In Mozambique, the 2000 floods destroyed many existing buildings made from traditional material. In Guevara and Late, rural communities identified roads and bridges as major priorities post-floods recovery in 2000. However, they also considered that the areas affected by the floods poor social infrastructure namely the health and education network before the floods. Communities saw this as an opportunity to converge recovery programme with social infrastructure development, as these are important asset for future development. Mozambique has one of the lowest literacy rates in the world and an extremely high infant mortality rate. The communities readily identified social infrastructures as priorities after the flood, both in cases where the flooding destroyed social infrastructure and in areas where schools and health centres had not previously existed. Government and other actors built roads and bridges in coordination with the local and provincial authorities in accordance with provincial and district plans. These actors provided additional facilities with the local district authorities (Education and Health) in accordance with previously identified priority areas and the human and financial resources available to staff the new facilities. It was clear that this was one of the main positive outcomes of the devastating floods.

Source: Lessons Learned from Mozambique Floods www.unicef.org/evaldatabase/index_14126.html (UNICEF, 2000)

The following case shows that development can both increase and decrease risk. During recovery, an understanding of the underlying risk factors and inherent resources of key stakeholders is critical to reducing risk.

Transnational watershed management in Guatemala and Mexico
Disasters changing attitudes instigate a developmental change

In 2005, Tropical Storm Stan dropped torrential rains on the high-altitude upper watersheds of the Coatán and Suchiate rivers that straddle the borders of Guatemala and Mexico. This caused flooding and mudslides that led to an estimated 2,000 deaths and damages of up to USD\$40 million. The storm destroyed roads, bridges, water supply systems, crops and local economies.

These watersheds were deforested and badly degraded in many places. In addition to deforestation, coffee plantations have contributed to soil erosion and increased the risk of flooding and mudslides. The region also supplies water to a large number of residents in Mexican and Guatemalan cities located in the lower areas and are the main sources of irrigation for agricultural and livestock purposes. The watershed degradation often causes water shortages in downstream communities and industries. Furthermore, population density in the region is high and the environmental degradation has limited people's livelihood options.

The 2005 disaster propelled communities to take action and find ways to reduce the risks of flooding. With the support of IUCN's Water and Nature Initiative and other organizations, local communities organized themselves and undertook the Tacana watershed project. The main goal of the project was to reverse environmental degradation of the region, reduce risk of devastating floods and landslides and develop more sustainable livelihood options. The four-year project had four main objectives:

- consolidate mechanisms for the coordination and management of water resources with an integrated approach,
- gather information for creating sub-basin management plans,
- implement a strategy for raising awareness and information- sharing, and

- build strategic alliances for the implementation of sub-basin management plans in the short, medium and long term.

The IUCN worked directly with local organizations and initiated alliances between local groups through numerous pilot projects that created knowledge-sharing networks. The project informed local communities of the consequences of unsustainable environmental management and were involved in identifying different demands and priorities on water use and watershed management.

The Tacaná Watershed Project initiated micro-watershed councils in Guatemala and similar watershed committee in Mexico. In Guatemala, the formation of councils helped the affected communities to strengthen water governance in a country where water management regulations were virtually non-existent. Driven by the need to expand their livelihood options to reduce poverty, these community councils have diversified farming systems, including terracing of degraded slopes and reforestation through the introduction of agro-forestry. Additionally, a voluntary association was formed that built 19 greenhouses and received certification from the Exporters Association of Guatemala for growing flowers and plants.

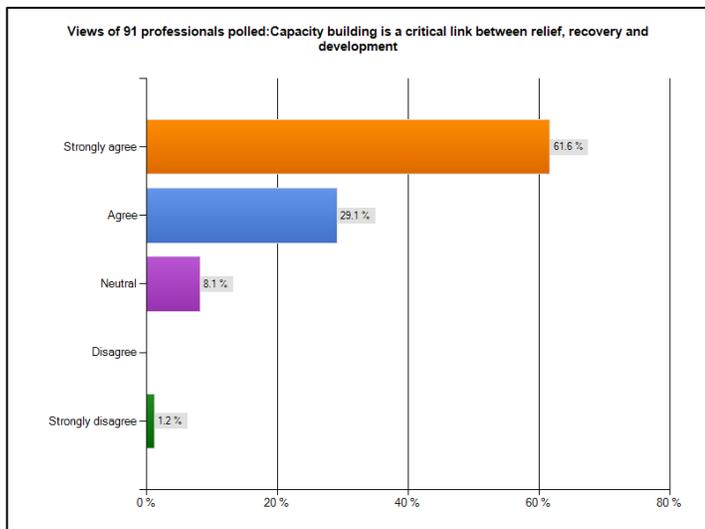
Municipalities in Mexico and Guatemala also collaborated in the project by integrating their micro-basin management policies. The two countries signed an agreement, the Tapachula Declaration, to develop joint projects on watershed management.

Source: IUCN Water and Nature Initiative, and IUCN Central America, accessed at www.iucn.org/es/sobre/union/secretaria/oficinas/mesoamerica/

Environment as infrastructure – Resilience to climate change impacts on water through investments in nature, accessed at www.waterandclimate.org/index.php?id=5thWorldWaterForumpublications810

1.2 Capacity links recovery to both relief and development

“While capacity building is the single most important aspect of efficient linkages (between relief, recovery and development), it has been largely ignored . . . primarily because actors have a restricted sense of their priorities in this area, and tend to see capacity in external terms” - Source-*"A ripple in development? Long-term perspective on the response to the Indian Ocean tsunami 2004"* - (Brusset, 2009).



Ninety percent of professionals polled for this paper agree or strongly agree that ‘Capacity building is a critical link between relief, recovery and development,’ whereas only eighteen percent think that, ‘there are sufficient investments in capacity building for disaster risk reduction after a disaster’. Capacity building is a much debated and differently understood term. However, recovery professionals expressed in interviews and surveys that there is too much focus on training and short-term capacity building immediately after the disaster. They felt that this often hinders medium term capacity building planning and execution. Similarly, a focus on institutional and process capacity building is often needed rather than ubiquitous trainings.

Logically, capacity is in part dependent on pre-disaster progress towards mainstreaming risk reduction and institutional capacity building or in other words progress toward the Hyogo framework for Action. Governments, which have progressed in terms of the integration of risk reduction into sustainable development policies, have the

institutions and capacity to reduce risk during recovery. This acceleration provides an opportunity to benefit a wider population not just the affected population.

The following example from a senior physical planner, who played a leadership role in the reconstruction of Skopje, Yugoslavia (1963), and Managua, Nicaragua (1972), after they had each been devastated by earthquakes has elaborated this fundamental problem with recovery that *“The seeds of failure to recover may stem from unaddressed pre-disaster weaknesses.”* He noted a tendency for everyone to blame the disaster for various problems. However, gradually he realized that 90 per cent of the problems encountered were present before the disaster occurred. The disaster simply exposed them. They included a number of residual constraints, such as poor governance, insufficiently enforced building codes, lack of planning, limited accountability, corruption in various areas etc. This recognition raised serious questions as to how far it was possible to go in addressing such weaknesses in the society in the course of reconstructing towns and cities. It was even more confounding as people involved in managing recovery seldom have either the mandate or the authority to do so (International Recovery Platform, 2007).

Attitude change, leadership and additional resources available during recovery can provide an opportunity to accelerate pre-existing development initiatives and priorities. Early recognition of existing local capacity, resourcing and planning is important to integrating risk reduction into recovery for sustainable development. China has adopted an innovative strategy for financing and resourcing recovery by pairing an economically strong local government with a less developed one. The twin provides support not only for the hardware, but as well for the software and capacity surge, as described in the box below.

Twinning for shared resources, China 2010

An alternative resource mechanism, *cities sharing process and human resources, experiences and finances.*

China has a twinning assistance program. This program has a role in providing badly needed financial and technical inputs to disaster-affected areas from a pre-established twin province or municipality. This mechanism twins one a better-off province with another in need. The agreement includes diverting one percent of the annual income, and technical capacity, from the richer province to fund recovery projects for three years. This partnership is mutually beneficial providing the donor province with experience and financial and technical assistance to the disaster affected province.

After the 2010 earthquake in China, through the twinning assistance program Shandong Province and Shanghai Municipality, provided not only funds to build schools and hospitals to a higher than pre-disaster standard but also a program to upgrade management and professional capacity in schools and hospitals in Beichuan County and Dujiangyan City. They did this by deploying existing staff to the newly built institutes to provide on-the-job guidance or by sending teachers, doctors and managers to the donor provinces to receive training. Thus, when the buildings become operational again, both the structure and the services provided will be of a higher standard.

Shifang is a recipient city twinning with Beijing Municipality. Thirty-five primary and middle schools from Shifang signed a twinning agreement with 25 primary and middle schools in Beijing. This led to a Beijing – Shifang Distance Education Training Network allowing Shifang teacher’s access to about 20 courses over an E-learning system established by the Beijing Educational Science Institutes. On this network, more than a hundred education specialists provide on-line coaching. In addition, Shifang students can join the same classes with their twin schools in Beijing using this system. Outstanding teachers from Beijing will go to Shifang to provide training to over 3,000 teachers and administrative staff. In addition, 180 key teachers from Shifang City will go to Beijing for training in 2010.

Learning: Twinning provides benefit to both recipients and donors, building capacities and government networks within the country or region. It provides a stable source of funding and critical capacity sharing for a number of years. The cities who agreed to this before a disaster encourage longer-term partnerships and risk sharing. Twinning can help

cope with the increase demand needed for skills after a disaster as well as building these capacities. It can be agreed on before a disaster allowing for fast and predictable deployment during recovery.

For further information and source: 什邡35所学校与25所学校牵手成为“姊妹校”

www.sc.gov.cn/zt_sczt/zhcjmhxjy/cjjy/kjcj/200912/t20091217_871603.shtml

北京—什邡第二批对口支援与合作学校举行签字仪式

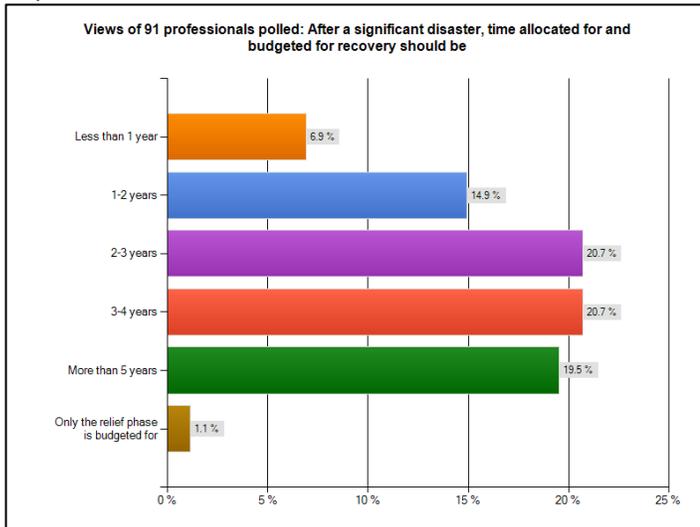
www.sc.gov.cn/zt_sczt/zhcjmhxjy/dkzy/sf/200912/t20091201_859811.shtml

1.3 Reducing risk during recovery requires time

“It is often said that a major disaster compacts 20 years of rebuilding into a few years of reconstruction”
(Global Facility for Disaster Reduction and Recovery, 2010)

Recovery takes time and should not be rushed into. Planning and preparing for recovery, as organisations plan and prepare for response can help address the real pressures and demands for speedy recovery. However, for recovery to take place and have a developmental impact, a developmental timeframe, albeit accelerated is necessary.

Opinions from interviews and a poll of professionals carried out for this survey show that almost half of all respondents think that ‘after a disaster, short timeframes do not allow for risk reduction’. Respondents and interviewees state that risk reduction should start on the first day of a disaster. The professionals polled indicate that the time required for recovery is dependent on the type and size of the disaster as well as the local context. Respondents felt that actions after a disaster can reduce risk and that short timeframes are a constraint but do not



always prevent successful risk reduction measures. Over ninety-five percent of all respondents felt that time is important or very important to build the capacity of people and institutions, analyse and understand underlying risk factors, raise awareness of the opportunities to reduce risk and then link recovery to development processes. Eighty to ninety-five percent of respondents felt that, the capacity of local government, available finance and knowledge, donor or budget timeframes as well as the demands and pace set by communities, were important or very important in dictating the pace of recovery. Despite the stresses after a disaster, it is still important therefore to step back and plan a resilient recovery based on government capacity and the pace and needs of the affected population.

According to the in-depth interviews, one of the most important requirements for reducing risk during recovery is to allocate sufficient time. This represents something of a change in thinking. Following the 2004 Indian Ocean tsunami, for example, some donors were initially allocating less than one year, whereas for the Haiti earthquake in 2009 they were proposing a recovery process of ten years. Governments in disaster-hit countries have to observe both timetables, balancing the political expediencies of short-term measures against the needs for longer-term recovery. The World Bank’s evaluation of its disaster assistance noted that “It often happens that activities that might contribute greatly to the recovery effort (and to the borrower’s subsequent long-term development) are not included in ERL [Emergency Recovery Loan] projects because they cannot be completed in the three years allotted’ (Independent Evaluation Group, 2006).

If the time frame is too short, the danger is that the recovery processes may build back vulnerabilities or even increase them, while risk reduction will amount to little more than a series of add-on training programs (Tsunami Global Lessons Learned Project, 2009). Short-term planning and rapid disbursement also tends to focus on projects rather than adopt a systematic programme approach (International Recovery Platform, 2007).

One frequent problem is a conflict between donor timeframes and real timeframes. Donors are under pressure to disburse funds quickly, typically within two or three years, whereas the recovery phase for a major disaster is likely to be three to five years. The period required would depend on a number of factors, including the goals of the recovery and how far the countries had progressed in terms of their disaster risk reduction strategies. Much too will depend on the capacities of communities and local government and leadership – and a number of underlying risk factors, which may include centuries-old social fault lines, based on gender, social exclusion or marginalization (Cosgrave, 2008).

It takes time to build institutional capacity and to mainstream disaster risk reduction and climate change adaptation into development policies, and to align initiatives with local or national government budget cycles. It also takes time to pass the necessary laws and build the mechanisms to enforce local regulations. After the tsunami in Aceh Indonesia, for example, most people understandably wanted to get on with their lives. However, “reconstruction is far more complex and takes far longer than anyone would like or might imagine,” says Kuntoro, head of BRR, the Agency for the Rehabilitation and Reconstruction of Aceh and Nias. “The public, the media and the rest of the world needed to be educated about the challenges and length of time required to deliver an effective post-disaster reconstruction programme.” While it is extremely hard to win the battle to manage expectations, BRR was able, with time, to reduce some of the pressures to show faster progress which could have led to bigger programmatic problems (Tsunami Global Lessons Learned Project, 2009).

Mainstreaming risk reduction approaches into development takes time and requires significant capacity development. The development of policies, strategies, laws and regulations along with key institutions and capacities, is critical to ensuring a basis for resilient recovery. Disasters highlight these needs and afford the opportunity to accelerate progress. However, the immediate recovery needs of the affected population challenge the time required to create the environment to reduce risk.

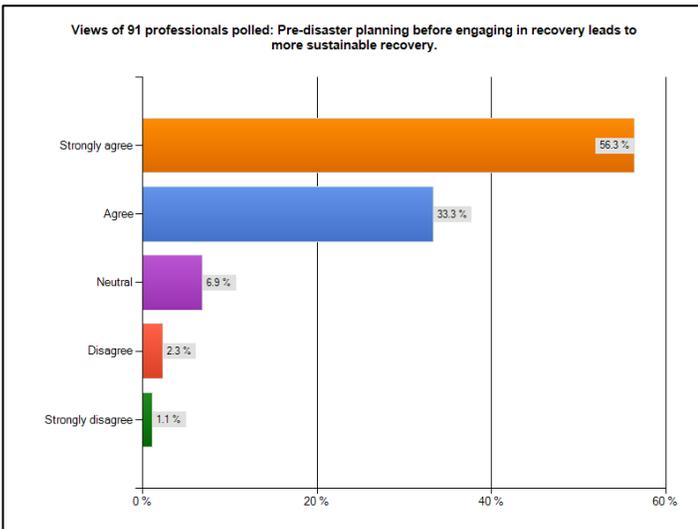
2 Planning and resourcing risk reduction during recovery

2.1 Ex-ante planning leads to a better recovery

“Having effective plans in place before a disaster makes a difference in speeding up recovery and minimizing risks after a disaster. However, the reality is that many local governments give little attention to disaster recovery and mitigation planning in local development plans” (Berke and Campanella, 2006).

Recovery provides an opportunity to ‘build back better’ and reduce risk in development. However, to keep this window open, one needs to invest in time, information, leadership and capacity. Planning helps keep windows open, ensure change happens and align short and longer-term timeframes and processes.

There is strong support for planning. Ninety percent of professionals polled for this paper agree or strongly agree that ‘pre-disaster planning before engaging in recovery leads to more sustainable recovery’. Ninety-seven percent felt that *planning for recovery and/or risk reduction before a disaster leads to more efficient, sustainable recovery, improving quality and speed*. Moreover, almost ninety percent of the organisations these professionals worked for undertake disaster recovery planning, either before or after a disaster – forty-two percent at the sector level. Sixty-one



percent of these plans involve development actors, fifty-six percent include financial mechanisms and more than forty percent include institutional and human capacity building as well as streamlined processes.

Investments in pre-disaster planning pay dividends in terms of speed and quality of integrating disaster risk reduction into recovery. National and international actors place emphasis on improving predictability in disasters and pre-disaster sectoral planning and analysis of policies and strategies. A good planning policy provides a multi-sectoral framework for disaster risk reduction allowing the coordination of government agencies, participation of civil society and collaboration with the private sector and all stakeholders. A recovery plan should be refined from existing frameworks. Recovery plans should have a clear

and coherent approach to disaster risk reduction, integrated into development initiatives, multi-hazard in nature, and where appropriate consider climate change scenarios. They should address anticipated future climate risks. Governments need to lead stakeholders, involving communities, women and the marginalized to develop good plans – this facilitates implementation.

Preparing for response is an accepted investment, given its additional complexity, preparing and planning for recovery is critical. **Planning should also involve preparing ex-ante for post disaster recovery.** In Latin America, the Organization of American States Unit for Sustainable Development and Environment has undertaken ex-ante planning for housing reconstruction to ensure adequate materials are available following a disaster and that builders, homeowners and government agencies are aware of damage reduction measures and construction techniques that can result in more hazard-resistant housing. This includes guidance for governments, the construction sector, the finance and insurance sectors, and homeowners, with in-depth information on construction techniques, standards and materials (OAS, 2001).

The United States government drafted a National Disaster Recovery Framework (NDRF) in February 2010. The draft outlines how community recovery is supported on a national level. The framework builds on scalable, flexible, and adaptable coordinating structures to align key roles and responsibilities, linking local, state, tribal and federal governments, the private sector, and voluntary, faith-based and community organizations that play vital roles in recovery. It captures resources, capabilities, and best practices for recovering from disaster, recognizing that significant challenges can confront all recovery efforts, from a relatively localized event to a large-scale disaster that demands substantial resources. Once finalized, this Draft NDRF is intended to be the companion document to the National Response Framework (NRF) issued in January 11 2008. The NDRF defines:

- key recovery principles;
- roles and responsibilities of the recovery coordinators and other stakeholders;
- a coordinating structure that facilitates communication and collaboration among all stakeholders;
- guidance for pre- and post disaster recovery planning; and
- the overall process to capitalize on opportunities to rebuild stronger, smarter, and safer communities.

The development of this framework is important. In September 2009, the President charged the Department of Homeland Security (DHS) and the Department of Housing and Urban Development (HUD) to establish a Long-Term Disaster Recovery Working Group, composed of more than 20 federal departments, agencies and offices, to provide operational guidance for recovery organizations, as well as to make recommendations for improving the nation's approach to disaster recovery. During the fall of 2009, DHS/FEMA and HUD sponsored outreach sessions in each of FEMA's ten regions and stakeholder forums in five cities across the nation to provide stakeholders from a wide array of organizations and backgrounds the opportunity to provide up-front input to the Working Group on ways to strengthen disaster recovery. DHS/FEMA and HUD also organized discussion roundtables with professional associations and academic experts. The Long-term Disaster Recovery Working Group also created a web portal, www.disasterrecoveryworkinggroup.gov, which enabled a large and diverse group of stakeholders to provide input. Over six hundred stakeholders representing the local, state, tribal and federal governments, as well as public and private sector organizations contributed more than six thousand responses from across the nation. The draft NDRF reflects as core principles the significant themes and recommendations that emerged from these stakeholder outreach efforts. These principles include:

- **Individual & Family Empowerment** – Recovery is not only about restoration of structures, systems, and services – although they are critical. A successful recovery is also about individuals and families being able to rebound from their losses, and sustain their physical, social, and economic well-being
- **Leadership & Local Primacy**- Local governments have primary responsibility for disaster recovery in their community and play the lead role in planning for and managing all aspects of community recovery
- **Preparation for Recovery**- Critical to recovery preparedness is pre-disaster planning, an ongoing responsibility for all levels of government, individuals, families, businesses, voluntary, faith-based & community organizations
- **Partnerships and Inclusiveness**- Partnerships and inclusiveness are vital for ensuring that all voices are heard from all parties involved in disaster recovery, and that the most innovative and relevant solutions are considered.
- **Communications** – All disaster recovery managers should promote clear, consistent, culturally-sensitive, and frequent communication of critical recovery information through a process that is inclusive of and accessible to the general public and stakeholders
- **Unity of Effort** – For successful recovery to occur, stakeholders coordinate and direct assistance resources to achieve recovery priorities developed by the affected community
- **Timeliness & Flexibility** – For successful recovery to occur, timely recovery activities and assistance are delivered through a coordinated and sequenced process
- **Resilience & Sustainability** – For successful recovery to occur, communities should implement mitigation and resilience strategies that minimize their risk to hazards and strengthen their ability to withstand and recover from future disasters

Source and further information on this initiative see: www.fema.gov/recoveryframework/

On a similar note, and before the national effort, the City of Los Angeles developed a recovery plan in anticipation of the next earthquake. Both these cases signify the importance of pre-disaster recovery planning.

City of Los Angeles - Recovery and Reconstruction Plan

In 1987 the City of Los Angeles Emergency Operations Organization (EOO) launched an innovative process of planning for post-earthquake recovery and reconstruction. The Mayor and Director of the EOO brought together representatives from academic fields and key outside agencies with staff of various City departments into functional working groups to confront the issues. This multi-agency team approach is the cornerstone of the planning process and ensures a citywide perspective in the complexities of post-earthquake recovery and reconstruction planning.

The draft Recovery and Reconstruction Plan is based on the premise that successful recovery and reconstruction is dependent on systematic pre-earthquake planning for the restoration of services, housing and economic vitality. The Plan therefore deals with both the pre-event and post-event periods and serves as a checklist for Departments. Each action program is left to the discretion of the lead Department and programs appropriate to the event are implemented.

The Plan's policies and programs will be continually refined as the City learns about "what works" through studying the recovery process of disaster- impacted communities and conducting recovery-training exercises. Over three-quarters of the action items included in the Plan are pre-event, such as structural and non-structural mitigation projects and programs, identification of temporary trash disposal sites, and analysis and assessment of various economic recovery strategies.

City agencies and departments are already developing the factual basis and analysis needed for post-event decisions, so that policy-makers in the City Council and elsewhere will be spared the uncertainty and stress of making uninformed decisions in a chaotic post-disaster environment. Virtually every City agency, office or department has a defined role in the Recovery and Reconstruction Plan. Under the Emergency Operations Ordinance, the City EOO is responsible for coordinating the planning process, and, once the draft Plan is approved by the Mayor and Council, managing its implementation. The City EOO is therefore involved in the entire disaster cycle: preparedness, mitigation, response and recovery and reconstruction. The plan includes sections on Residential, Commercial and Industrial Rehabilitation; Public Sector Services; Economic Recovery; Land Use/Re-use; Organization and Authority; Psychological Rehabilitation; Vital Records; Inter-jurisdictional Relationships and Traffic Mitigation.

For source and further information see: www.emergency.lacity.org/pdf/epa/Recovery_and_Reconstruction_Annex.pdf

2.2 Plan to use streamlined developmental processes to reduce risk

Experience from large disasters have also highlighted that before a disaster it is important to **plan streamlined processes and build capacity to implement those processes** for both development and post-disaster recovery. There is an opportunity to plan and build capacity before a disaster to have solid connections to development processes and capacities that are needed to ensure that risk is reduced not increased after a disaster. According to Spangle 1991 in 'Rebuilding after earthquakes: lessons from planners', *"After an earthquake strikes, as planners, you will be thrust into the world of instant life or death decisions, mounds of building permit applications, daily dealings with a new bureaucracy with incredible paperwork requirements, and unremitting pressure to get things back to normal. Everyone will want a plan, but few will want to take the time to plan. People expect you to have answers to problems you have not even thought about before. You will be dealing with new experts - geologists, structural engineers, and seismologists with information you will not understand."* (Spangle, 1991) These prevailing conditions can have a major influence on the success or frustration of recovering from a disaster, a solution to address such pre-disaster deficits is to include measures that can minimise them in the general development planning. While there can be no quick or

absolute remedies to long entrenched conditions, there are positive attributes that can be employed in disaster recovery management (International Recovery Platform, 2007).

In Aceh, GTZ supported the development of a streamlined environment assessment tool with the environmental control authority of Aceh province (BAPEDAL). This recognised that it was critical to complete environmental assessment for physical infrastructure to allow people to have a roof over their heads and the basic physical infrastructure necessary to recover. It also recognized the importance of environmental assessment in not only reducing risk but also avoiding risk increasing. The case, detailed in the box below, also shows that authorities can use and prepare similar streamlined process in many sectors before a disaster for replication in future recovery programs.

Streamlined environmental assessment tool in Aceh

Streamlining planning and development processes and resources for efficient recovery and replication

The 2004 Tsunami destroyed more than 100,000 homes, public buildings, and roads in Aceh. It left half a million people homeless, some to be housed in hastily built barracks and tents or squeezed into schools and mosques. In order to help those affected build a roof over their heads as soon as possible, hundreds of Indonesian and international aid organizations made project applications to the provincial government.

The environmental control authority of Aceh province (BAPEDAL) ultimately selected 86 major projects for environmental impact assessment. However, to meet the urgent needs of the situation, a shortened and ‘easy to read’ version of the otherwise exhaustive test procedure had to be found. With this in mind, the GTZ-supported project “Support for Local Governance for Sustainable Reconstruction” (SLGSR) – financed by the German Federal Ministry for Economic Cooperation and Development (BMZ) – developed a method that focused on key environmental factors. This enabled a quick reaction to the people’s need for reconstruction, while keeping the negative effects on the environment to a minimum.

The task was challenging, particularly as different criteria govern the construction of a road or a canal than a building a house. Therefore, the selection of key projects – reached by SLGSR workers in conjunction with the provincial environment authority – was of great importance. In some cases, the choice was easy. For example, in the quarrying of sand and gravel – both are taken chiefly from rivers near the building site. However, if there are no controls on their removal, these actions will alter the course of rivers. That in turn can cause flooding and landslides. If a river changes course, it can even undermine bridge supports and make the entire structure collapse – something that occurred in two cases in the district of Aceh Besar, where there had previously been no controls. Therefore, it was obvious that all projects for the quarrying of sand and gravel would have to be carefully checked. Other major project types selected were for the building of roads, ports, airports, water systems, power stations, and waste disposal sites. The SLGSR team also developed a checklist for all building projects that did not have to undergo a compulsory review by the authorities. Using this list, those commissioning a project were able to check the most important factors themselves. The goal was to make those responsible aware of possible damage to the environment, while offering possible solutions.

The Indonesian Environment Ministry quickly agreed to the fast-track assessment method and gave its backing to the project-run courses to train the responsible officials in its application. However, most of the local institutions still preferred the familiar lengthy process. Many of the authorities did not adopt the fast-track method until November 2007, when the Ministry declared it the legal standard across the country in cases of reconstruction.

In the meantime, SLGSR workers and the provincial government had already tested the method on a new waste disposal site near the village of Makmur. They chose the location as it did not threaten any key ecosystems and it contained large, impervious layers of clay (to prevent toxins from seeping deeper into the ground). The fast-track method cut the assessment time in half. After all the formalities, SLGSR workers and the environmental authority organized a public consultation with the nearby village community with nearly 300 people attending, to ensure public

agreement before developing the waste site. The project included an improved sanitation system for the local communities and the prospect of new jobs.

Key points

- It is important to use local and development structures and capacities to monitor processes. This leaves a legacy of capacity and increases ownership of the local government.
- Agreeing to streamlined processes for assessments can increase the speed and quality of recovery.
- Pre-agreeing and training people in streamlined processes, at the appropriate level before a disaster is important to reduce workload and allow for the enforcement of regulations without slowing recovery.

Source: GTZ – Eight Case Studies from Aceh: www2.gtz.de/dokumente/bib/gtz2009-0112en-arpp-8-case-studies.pdf

2.3 Post disaster assessments, monitoring and learning

Post-disaster planning should aim to ensure efficiency and public safety and take place swiftly to preserve social and economic networks. Moreover, from the outset authorities should be concerned with equity, since those with the fewest resources generally get less attention from aid organizations, and get it later. People who are better integrated into economic and social networks will recover faster.

Policy-makers and planners need post disaster assessments to acquire the knowledge and understanding of the changed context to develop or enhance their policies, strategies and plans. Assessments, based on learning from national and international good practice, should include a system-wide reappraisal of underlying risks factors, including climate change and opportunities to reduce risk. By designing long-range assessments and having clear planning priorities, governments can better cooperate with communities, international organisations, and build local capacity. Policies and planning should consider disaster risk reduction as an investment. A number of tools exist for comprehensive assessment.

Recent trends in planning include a **broader post-disaster needs assessment** recognising the importance of capacity, community and social resilience as well as investments in monitoring and learning systems. Governments and international organisations are making significant investment in more holistic, inclusive and aligned post-disaster assessments for large emergencies. Over the past years, global assessment and planning methodologies have evolved and aligned. Initially multiple assessments were carried out and their results were coordinated by the host country. Recently a partnership between the World Bank, UN and the European Commission has developed a Post Disaster Needs Assessment (PDNA), which is a more efficient government led process. Earlier, assessments were sector and reconstruction orientated. Now assessment methodologies continue to evolve with increasing emphasis on social capital and capacities, inequalities, livelihoods, environmental and risk reduction issues, whilst maintaining the information needed for planning and resource allocation by sector. The methodologies are more aligned and holistic, allowing the host government to lead the planning process and link assessments with monitoring evaluation and learning systems. The combination of Damage and Loss Assessments (DaLA) and the assessment of human development impacts into a PDNA provide a comprehensive picture and basis for establishing recovery needs and priorities. An all-encompassing recovery framework, which is a principal output of a PDNA can capture these priorities (Global Facility for disaster reduction and recovery, 2010a).

In China, for example, following the Wenchuan earthquake, planning for the restoration and reconstruction started soon after. Starting early allowed both development and disaster managers to identify the problems and enable decision-makers to allocate the resources to meet short, medium and long-term needs. The National Development and Reform Committee, which worked with 45 ministries, provincial governments, and state institutes to prepare a recovery plan, while also seeking good practices and advice from the international community, led the process. When the consultations were completed, the authorities started to implement the recovery plan – *'The State Overall Planning for Post-Wenchuan earthquake Restoration and Reconstruction'*.

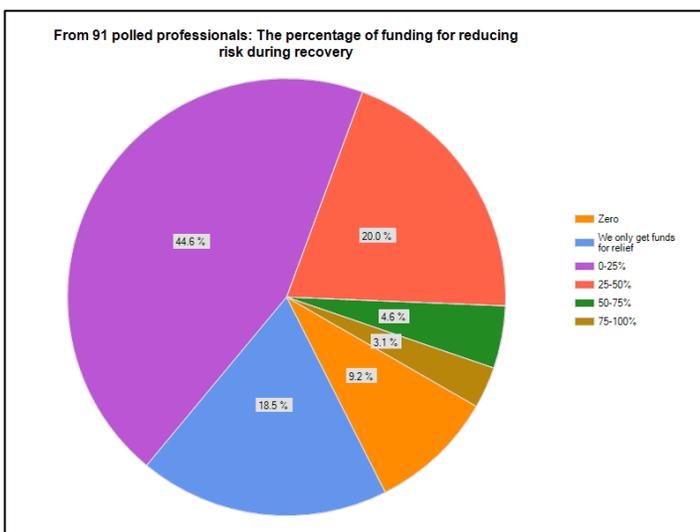
However, such assessments are not single events but ongoing processes involving **monitoring, evaluating and learning**. This can be achieved by integrating capacity building, disaster risk reduction, climate change scenarios and development plans into ongoing post-disaster assessments. Initial rapid survey work should be followed up with more detailed analysis to help identify corrective actions (Beck, 2005). At present, however, recovery programs are rarely subject to systematic assessments. Generally, the reports are piecemeal, and review the performance of one agency, rather than the programme as a whole. As a result, despite expenditures of billions of dollars there is limited information on whether recovery programming has been pro-poor or supported livelihoods. Government, international agencies, and other organizations active in recovery should jointly assess the programme as a whole. After the 2004 Indian Ocean tsunami, for example, key actors did invest in the Tsunami Recovery Impact Assessment and Monitoring System (TRIAMS).

The aim of the **TRIAMS process** was to adequately inform governments, donors, NGOs, civil society and other stakeholders on the progress of the recovery efforts in the tsunami-affected areas, so that adjustments could be made to the assistance programs in order to address the un-met needs and the existing inequalities. It did this by assisting governments, aid agencies and affected populations in assessing and monitoring the rate and direction of recovery over the recovery phase. After the tsunami, TRIAMS represented an important breakthrough by proposing one framework of core indicators through which to monitor progress and assess impacts across different countries and locales. The framework looks not just at *infrastructure*, but also *social services, livelihoods* and *vital needs* remaining from the relief phase. The core components of the TRIAMS process have included output and impact indicators across the primary sectors of recovery; both quantitative and qualitative data on beneficiary perspectives; and additional qualitative data to help explain findings of key output and outcome indicators (Tsunami Global Lessons Learned Project, 2009). For information and sample indicators see www.proventionconsortium.org/themes/default/pdfs/TRIAMS_summary.pdf

2.4 Financing mechanisms for recovery

Good policies and plans may be in place, but without the necessary resources for implementation, these will remain hollow commitments. Often finance, especially from non-governmental sources is less dependent on need, and more influenced by media attention. Vast disparities exist between the resources available for high profile disasters such as the 2004 Indian Ocean Tsunami and small or medium disasters, which attract little attention.

Governments need a rational mechanism to allocate financial, human and material resources to risk management structures. Resource allocation poses a challenge in situations where so many demands compete for limited resources.



Development and recovery issues such as insufficient capacity, weak governance, corruption and a weak national resource base may undermine development of innovative mechanisms for resource mobilization and the providing of task incentives.

Donors often met Government appeals for recovery funding at a rate of 50 per cent or less. This may prove problematic, for example for the housing programme in Pakistan, and suggests that, given limited funds, agencies should focus on activities most likely to reduce poverty and vulnerability (Beck, 2005).

In the survey carried out for this paper, almost fifty-three percent of those responding stated that their post-

disaster programs explicitly incorporate and budget for disaster risk reduction, another twenty-three percent partly incorporate disaster risk reduction. However, the percentage of funding was low. Seventy-two percent of respondents indicate that for their organisation, the percentage of funding used for disaster risk reduction was below twenty-five percent, for relief only or zero. In the poll, only 7.7 percent of organisations allocated more than half of their funding for reducing risk.

The professionals polled for this paper indicated that they felt that level of media attention is most important in influencing the amount of funds received, followed by the needs of the affected population and political decision-making. National government the UN, INGO and then local government were considered the most important groups funding risk reduction during recovery; insurance and the private sector were considered the least important of the options given.

Reducing risk in recovery and leaving a legacy and capacity to reduce risk in development requires a surge of institutional and technical capacity. In addition, normal development processes need to be streamlined to meet the expectations and demands of speed in recovery. Agreements for human resource sharing and the prior planning and agreement of streamlined processes can facilitate and accelerate risk reduction mechanisms in recovery.

However, if governments identify disaster risk reduction, including changes to risk profiles due to climate change, as a priority and re-arrange their national development priorities, governments can identify resources to reduce existing and future risk due to climate change. This prioritisation will allow recovery investment to protect development gains. Community participation is a resource that often manifests itself financially or helps improve impact and efficiency.

Financial planning prepares governments for catastrophic climate impacts and maintains essential government services in the immediate aftermath of disasters. Pre-arranged financing arrangements—such as catastrophe reserve funds, contingent lines of credit, and catastrophe bonds—allow governments to respond swiftly, scale up social protection programs, and avoid longer-term losses that accrue to households and communities while people are homeless, out of work, and experience basic deprivations. Having immediate funds available to jump-start the rehabilitation and recovery process reduces the derailing effect of disasters on development.

Many small countries are financially more vulnerable to catastrophic events because of the magnitude of disaster-related losses relative to the size of their economy; in Grenada in 2004, for example, the winds of Hurricane Ivan caused losses equivalent to more than 200 percent of GDP-97. Because outside aid is not always immediately available, 16 Caribbean countries have developed a well-structured financial risk-management scheme to streamline emergency funding and minimize service interruptions. Operating since 2007, it provides rapid liquidity to governments following destructive hurricanes and earthquakes, using innovative access to international reinsurance markets that can diversify and offset risk globally. The box below provides details of pre-arranged financing mechanism, based on easily measured disaster impacts for fast disbursement and recovery such as Catastrophe risk insurance facility in the Caribbean and weather related insurance direct to farmers in Bolivia.

Weather-Indexed Insurance

Catastrophe Risk Insurance Facility- Caribbean Community governments

Insurance against service interruption after disasters is among the many challenges facing the governments of small island states in the aftermath of natural disasters, the most urgent is obtaining access to cash to implement urgent recovery efforts and maintain essential government services. This challenge is particularly acute for Caribbean countries, whose economic resilience is limited by mounting vulnerability and high indebtedness.

The new Caribbean Catastrophe Risk Insurance Facility provides Caribbean Community governments with an insurance instrument akin to business interruption insurance. It furnishes short-term liquidity if they suffer catastrophic losses from a hurricane or earthquake.

A wide range of instruments exists to finance long-term recovery, but this facility fills a gap in financing short-term needs through parametric insurance. It disburses funds based on the occurrence of a predefined event of a particular intensity, without having to wait for onsite loss assessments and formal confirmations. This type of insurance is generally less expensive and settles claims quickly, because measuring the strength of an event is almost instantaneous. The facility allows participating countries to pool their individual risks into one better-diversified portfolio and facilitates access to the reinsurance market, further spreading risks outside the region.

Such insurance mechanisms should be part of a comprehensive financial strategy using an array of instruments to cover different types of events and probabilities.

Source and further information: (Ghesquiere, Jamin, and Mahul, 2006)

www.siteresources.worldbank.org/PROJECTS/Resources/Catastrophicriskinsurancefacility.pdf

Index-based insurance in Bolivia, Fondo de Mitigación del Riesgo Agrícola Bolivia

Fundación PRO FIN has developed an innovative, index-based insurance scheme that is being piloted in four provinces in Bolivia. It combines incentives for risk reduction and a flexible, people-centred index mechanism. In this scheme, the trigger is based on the production levels of reference farming plots in areas that are geographically similar in terms of temperature, precipitation, humidity, and type of soil. Farmers identified as good practitioners, by their peers, farm the reference plots. The scheme is based on the fact that these farmers have established reputations within their communities for their skills and knowledge and that the yields on their plots can serve as reliable indicators of whether production levels have been adversely affected by environmental factors (thus triggering an insurance payout) or by other factors within a farmer's control. This reduces the moral hazard in the scheme, and the reference farmers also serve as technical assistance agents to promote ideas for increasing yields and reducing disaster risks and impacts.

The system encourages other farmers to match the reference farmers in implementing efforts to reduce the effects of drought, excess rains, hailstorms, and frost, lest those farmers run the risk of having their own plots affected significantly more than the reference farmers' plots.

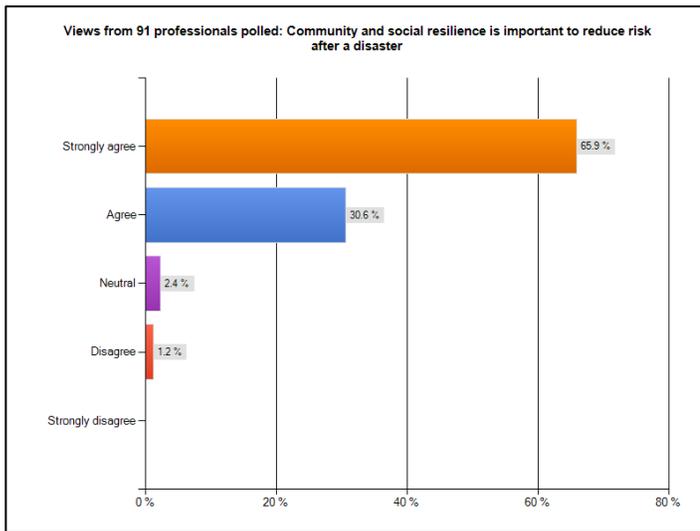
Source and further information: Fondo de Mitigación del Riesgo Agrícola, at www.fundacion-profin.org/fmra.html

3 Build on existing resilience

3.1 Build on community’s cultural and social resilience.

“Without a dedicated effort to change historic patterns of inequity, traditionally marginalised or disenfranchised groups will continue to lack both the political awareness and power to demand their fair share of recovery resources.” - United Nations Special Envoy for Tsunami Recovery, President Bill Clinton (Tsunami Global Lessons Learned Project, 2009).

Over, ninety-five percent of respondents polled felt that ‘community and social resilience is important to reduce risk after a disaster’ and that ‘relief and recovery efforts are more effective if they identify, use and strengthen community resilience’. Yet, about half of all responds felt that insufficient investments are made to understand and involve communities in decision-making to reduce risk during recovery.



People and communities make decisions every day that will influence the inherent risks. Their choices will be influenced by available livelihood opportunities, their living arrangements, their treatment of social inequities, and the type of buildings they live in. Some people will be more vulnerable as a result of social exclusion or marginalization – or of cultural attitudes and a lack of capacity to interact with government and the outside world.

After a disaster, attitudes can change. Eight-eight percent of professionals polled for this paper felt that ‘disasters change attitudes in communities towards their ability to address their vulnerabilities and capacity, providing an important window of opportunity to

reduce risk’. The professionals interviewed and polled stated that this attitude change is not only dependant on the local socio-cultural context but also time provided to overcome initial shocks. About two-thirds of respondents stated that they invest in keeping this window open, through improving an enabling environment, providing guidance, and community based programming processes such as CBDRR, knowledge and information transfer as well as capacity building. This change affords community centric opportunities that can be short lived. A disaster focuses the mind on hazards, and often creates an opportunity to facilitate a change in the way people, and communities make decisions with regard to reducing or increasing risk during recovery. Some may also be hampered by fatalistic thinking. Nevertheless, a disaster may offer an opportunity for people to change the way they think – if they are offered sufficient information and options. Promoting this attitude change and supporting the decisions people and communities make during recovery can increase or reduce underlying risk factors.

In Indonesia, for example, up to two-thirds of people living in earthquake zones considered this and other major disasters to be ‘takdir Tuhan’ (‘pre-ordained by God’). Government and NGO representatives from faith-based and secular organizations have concluded however, that such beliefs are not lasting constraints, but rather coping strategies and symptoms of powerlessness. Moreover, even if a disaster is considered pre-ordained this does not imply that mitigation is impossible. When religious leaders take responsibility for explaining this, and governments perform their proper duties to the community in a transparent and accountable manner, perceptions can soon start to shift (UNDP, 2009).

Recovery thus provides an opportunity not just to reconstruct physical infrastructure but also to build on the community's inherent cultural and social resilience. For this to happen, however, communities need to be involved very early in the recovery process. Governments therefore should develop standards and strategies for community participation and input, based on social mapping and a close understanding of community strengths and weaknesses – so that programs can capitalize on local leadership and the often-latent capacities, especially of women. This community-driven approach to post-disaster recovery requires significant investments of time and human resources but results in greater client satisfaction, quicker disbursement, and local empowerment. One strategy is to support local networks – which may be as simple as enabling people to contact other members of the network, or it may consist of strengthening such networks by asking for their assistance and providing them with some additional resources (Cosgrave, 2008).

Communities can also be supported to enable them to respond better to a changing climate. For example, floods are common in Asia and climate change is likely to alter rainfall patterns, affecting people's livelihoods and food production capacities especially in coastal deltas. In Bangladesh, the NGO Practical Action helped families displaced by flooding and river erosion to diversify their incomes by establishing a fishing scheme managed by a community committee. The government has granted them a lease to use a government-owned pond and trained women in cage aquaculture fishing techniques. As a result they have been able to increase their income using resources created by increased flooding, using closed fish cages in an existing pond without destroying sport fishing and without requiring large amounts of capital (Practical Action, undated).

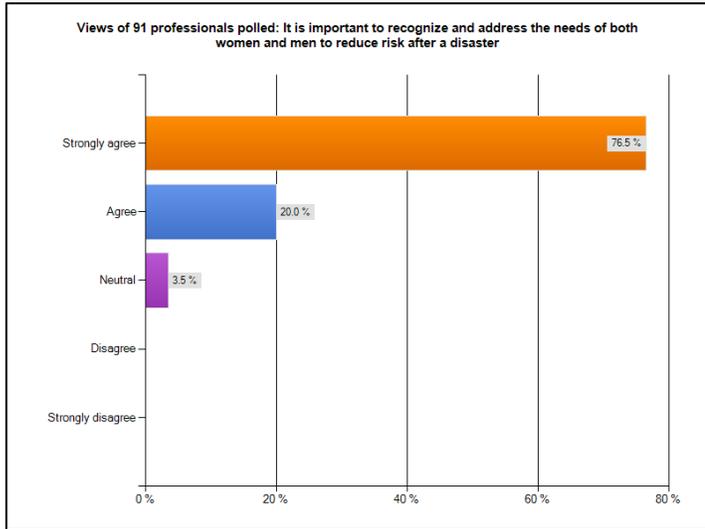
Among the available tools for engaging communities are:

<i>Peoples consultations</i>	Developed by the Fritz institute and used in Pakistan and Java (Fritz Institute 2006);
<i>Beneficiary surveys</i>	Used widely in the Maldives following the 2004 tsunami (Tsunami Global Lessons Learned Project 2009);
<i>Beneficiary profiles</i>	These can be used to develop specific recovery strategies for the landless poor and female-headed households who may require different forms of assistance (Beck 2005)
<i>Help desks</i>	These are places where people can enquire about eligibility for assistance, report potential cases of corruption or file a complaint. After the 2004 Indian Ocean tsunami by October 2006 such help desks had received 17,000 complaints and most were successfully resolved (Tsunami Global Lessons Learned Project 2009);
<i>Social equity audits</i>	Used in Sri Lanka and India these can be carried out by trained auditors. Some NGOs have used such audits to increase the proportion of assistance going to the poorest (Tsunami Global Lessons Learned Project 2009)
<i>Baselines</i>	These should be based on relevant community indicators developed at the start of the recovery programme against which progress can be measured. However perhaps the most valuable benefit of participation is something that is not easily quantifiable: a feeling of individual empowerment, of ownership of community resources and the unleashing of people's own capacities to cope (Tsunami Global Lessons Learned Project 2009);

Although it was not easy where consultations are enforced, projects more successful. However, perhaps the most valuable benefit of promoting participation was something that, in the end, is not easily quantifiable: a feeling of individual empowerment, of "ownership" of community resources, and the unleashing of people's own capacities to cope.

3.2 Mainstream gender during recovery

Gender is a constant issue in development and cited as both a vulnerability and capacity in response, recovery and development. It is recognized as critical to reduce risk and increase capacity and although tools exist most professionals polled feel that these tools are not sufficient to address the desired outcomes.



Ninety-six percent of professionals polled agreed or strongly agreed that *‘it is important to recognize and address the needs of both women and men to reduce risk after a disaster’*. Eighty-eight percent of respondents said that their organizations have specific tools to understand and address these needs but half stated that these tools were not sufficient.

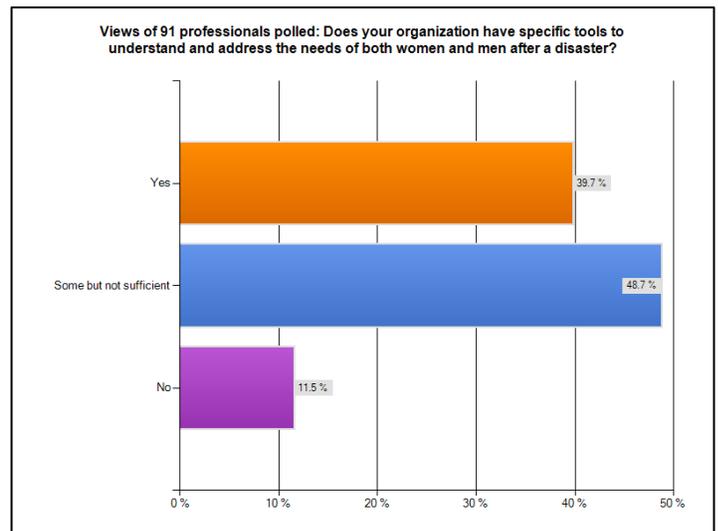
Mainstreaming gender into reconstruction provides for faster, deeper recovery, in addition to the benefits gained in promoting gender equality, and addressing gender based vulnerabilities. Disasters are an opportunity to improve pre-existing conditions, including sex equity. A gender perspective highlights the contributions women and men, girls and boys can and do play in strengthening

resilience to disasters. This benefits the community by increasing resilience to further shocks and recognizing the vital role capacities play in reducing risk. Helping to develop culturally- and gender-appropriate protection and mitigation strategies grounded in the coping strategies, knowledge, and energy of local communities can help achieve this.

Disasters often kill more women than men, but organizations under time pressure tend to overlook gender-specific needs and capacities. Following the cyclone and flood of 1991 in Bangladesh, for example, the death rate was almost five times higher for women than for men. Warning information was transmitted by men to men in public spaces, but rarely communicated to the rest of the family. Many women do not leave the house without a male relative, and perished waiting for their relatives to return and take them to a safe place. Moreover, as in many other Asian countries, most women have never learned to swim, which significantly reduces their survival chances.

Gender concerns should be integral to all reconstruction programs. Culturally and gender appropriate protection and mitigation strategies will not only promote gender equality and address gender-based vulnerabilities, but also ensure faster, deeper recovery, grounded in the coping strategies, knowledge, and energy of local communities.

Some governments and organizations invest in gender surveys to tap into gender specific knowledge, resources, capacities and vulnerabilities. The National Committee of Women, in Sri Lanka, undertook a survey in early 2005, with UNIFEM support, involving more than 53,500 households and eliciting information on women’s pre-tsunami livelihoods, the psychological effects of the disaster and preliminary data on gender-based violence. The survey documented differential impacts, including disparities in loss of life among women, especially women likely to have young children, obstacles to economic recovery faced by women, the conditions facing female-headed households, and other concerns (Tsunami Global Lessons Learned Project, 2009).



Some of the critical issues concern land and inheritance rights, equitable access to decision-making roles and livelihood opportunities. Programs should promote equity-based policy changes, such as joint housing rights for spouses, and funds for the education and resettlement of orphaned adolescent girls and unmarried women. In the state of Tamil Nadu, in India for example, following the 2004 tsunami, the government mandated joint housing rights for spouses, disallowed transfers of the wife’s share to the husband, and ensured that reconstruction work included consultations with women. In addition, it made abandoned and destitute women eligible for pensions; distributed initial relief packages to women family members; and provided more than \$6,800 to orphaned adolescent girls and unmarried women for education.

Similarly in Aceh, Indonesia, following the tsunami, women who had lost their husbands and children had no rights to the land on which they lived, so were ineligible for housing assistance. In September 2006 therefore the government adopted a joint land titling policy for women and men – a first for Indonesia. Many people said joint land titling “*was impossible because Muslim shari’a law is very strong in Aceh,*” noted Eddy Purwanto, Chief Operations Officer of the Rehabilitation and Reconstruction Agency (BRR). “*But we saw the opportunity, as did many women at the community level*”. Erna Heryani, BRR’s Director of Land Administration and Mapping agrees: “*People generally understand this as a good thing, most wives or widows never expected they would get land in their name.*” (Tsunami Global Lessons Learned Project, 2009).

It is also important to invest in women’s grassroots organizations. Women’s community organizations have insights, information, experience, networks, and resources vital to increasing disaster resilience. In Sri Lanka, for example, the Batticaloa Women’s Disaster Management Coalition, or Gender Watch, arose, along with a larger network of women’s groups known as the Coalition to Assist Tsunami-Affected Women. They offered spaces for women to discuss their experiences and challenge state officials on violations of women’s rights. In addition, a representative of the network was present at all planning meetings of the post-tsunami psychosocial and protection task force. Achieving gender equality will also require better data. IFRC in Sri Lanka, for example, has established a gender-working group. Moving beyond the baseline of sex-specific data in programme planning and management, the IFRC aims to develop gender indicators and reporting mechanisms (Tsunami Global Lessons Learned Project, 2009).

For equity gains to be sustained it is necessary to anchor innovative practices in the institutional infrastructure. Rather than a piecemeal approach then, countries succeed best when high-level managers are committed to gender equity.

Ensuring that gender issues are incorporated into all development plans “*is not something you have to do because someone tells you to do it. This is something that comes from within your organisation and within yourself to convince you that this is a must.*” – Purwanto (Tsunami Global Lessons Learned Project, 2009)

UNIFEM’s Gender Mainstreaming Efforts after the Tsunami Disaster in Aceh, Sri Lanka and Somalia

To amplify women’s voices to influence recovery policies and agendas, UNIFEM is building the capacity and leadership of women’s organizations to advocate for the promotion of women’s rights in all reconstruction processes.

Gender advisors are in place in Aceh and Sri Lanka, advocating with government, UN Country Teams, and NGOs on women’s most pressing needs and ensuring that their perspectives are part of mainstream efforts. UNIFEM is also working closely with local coordination agencies and task forces, such as the Aceh Bureau for Reconstruction and Rehabilitation (BRR), the Somali Aid Coordination Body Tsunami Task Force (SACB), and the Government Task Force on Tsunami Relief (TAFREN) in Sri Lanka to highlight women’s leadership roles. Support is going to building the capacity of national women’s machineries to form gender units or women’s desks within government recovery processes to

monitor the inclusion of women's perspectives in all decision-making. Local women's groups are receiving support to build skills, organize, and conduct advocacy activities to make them heard at local and national policy-making levels. They are also being supported to mobilize women to participate in grassroots activities through forums and mobile discussions.

To ensure that efforts at the policy level are derived from and remain connected to what women are really prioritizing on the ground, major women's consultations were organized in May and June 2005 in Colombo, Sri Lanka, and in Aceh, gathering hundreds of women to discuss their concerns and articulate their role in the recovery and rebuilding phase. Both meetings were the first time women from different affected districts and villages came together. Besides more immediate concerns about livelihoods, inheritance and property rights, and the creation of adequate settlements and housing, the issue put forward as most critical in the post-emergency phase, was the need for more opportunities for women to interact with local and national authorities, and participate in decision-making to engage with the reconstruction process.

Recommendations from the meetings were brought to the highest policy levels – during a visit in May, UNIFEM's executive director and South Asia regional programme director raised the issues with the Sri Lankan Prime Minister, Foreign Minister and UN Country Team ahead of a donor Development Forum, when it was discovered that women's perspectives were being marginalized in its planning process; in Aceh, after recommendations from the women's consultation were brought to the BRR, its chief promised to recognize and consult with the Aceh Women's Council (a body created at the meeting to represent Acehnese women), and appointed UNIFEM as its gender advisor.

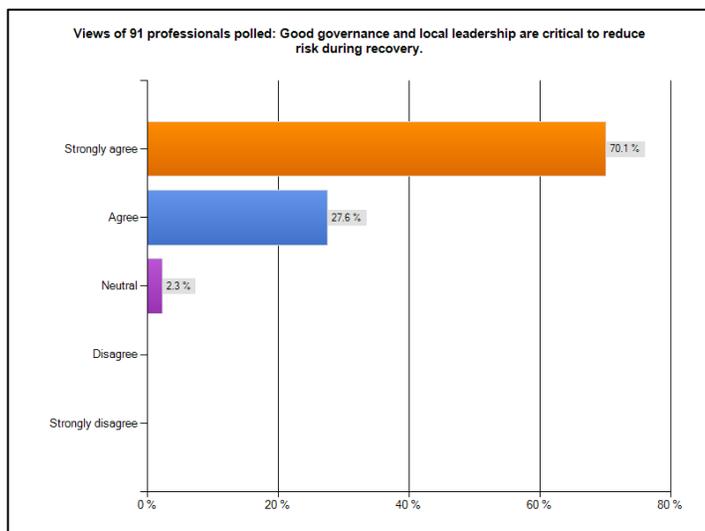
To address the paucity of sex-disaggregated data, UNIFEM is further developing the databanks created in the emergency period by continuing to collect detailed information on all local organizations working on gender issues, including informal and traditional groups. In both Aceh and Sri Lanka, surveys have been carried out in IDP shelters to obtain more first-hand data on women's situation. In Somalia, UNIFEM is giving support to the women's ministry to collect gender-sensitive data.

Source: UNITED NATIONS DEVELOPMENT FUND FOR WOMEN (UNIFEM), *Creating Policy Space – Bringing Women's Perspectives to Decision Makers*, 2005, www.unifem.org/campaigns/tsunami/page6.html (UNIFEM, 2005)

3.3 Good governance and local leadership for recovery

There is recognition that good governance and local leadership is important in disaster resilient development as well as recovery. Almost ninety-eight percent of professionals polled for this paper agree or strongly agree that *'good governance and local leadership are critical to reducing risk during recovery'*. In the same poll local leadership ranked slightly behind planning and community participation in terms of importance in reducing risk during recovery.

Almost seventy percent of those polled agreed or strongly agreed that *'local government is best situated to understand and meet the needs of the affected population during the recovery period'*. This depends on the context and level of decentralization within the affected area. It was also noted that, as local government is more attuned to the risks it is also more at risk from local pressures, corruption and may have contributed to the creation of risk – providing an opportunity to learn from the mistakes of the past.



Good governance is a critical determinant in sustainable disaster resilient development, where future risk from multiple hazards including climate change needs to be understood and addressed. Informed recovery decisions and investments are an opportunity to both accelerate and realign sustainable development incorporating risk and climate change scenarios into development parameters. Good governance is central to realising this opportunity. Governance, or lack of it, is an underlying risk factor. To reduce risk and incorporate climate change, attention to improving governance is important during both recovery as well as prior to a disaster.

As the governmental body responsible for the long-term development and viability of its area, local government is required to consider and institutionalize disaster risk reduction into its day-to-day operations, including development planning, land use control and the provision of public facilities and services. For long-term recovery operations, it is particularly important to advocate and support “good governance” especially in local governments. As the immediate public service provider and the interface with citizens, local governments are well placed to raise awareness of citizens on resilient recovery and listen to their concerns. Recovery operations may fail, if the communities are not properly informed and engaged (Natural Hazards Research and Applications Information Center, 2001).

Learning from the 2004 Indian Ocean Tsunami the Indonesia government recognised this in early decision making after the 2006 Java earthquake. The 2006 Java earthquake was a national disaster, so management authority fell to the national government. However, local government was engaged from the outset, with day-to-day management and decision-making delegated to the provinces increasing the sense of ownership and responsibility in recovery and the provinces long term-development. In addition, almost all provincial and district government respondents spoke of the continuing lack of clarity in the regulations covering responsibility for disaster response, and the problems this had caused in managing the response and recovery. In DIY (Yogyakarta), the negative impacts were relatively limited, and from both province and district level, one reason cited was the strong individual leadership first of the Sultan as Governor; and secondly by the Bupati of Bantul, the single worst affected district across the two provinces (International Recovery Platform and Gadjah Mada University, 2010).

Good legislation for disaster risk reduction in development and recovery should provide a formal basis for any risk reduction action and support policy, plans and organizational arrangements. In the survey carried out for this paper seventy-eight percent of professionals polled felt that regulatory and legal changes were important or very important to reduce risk during recovery. Interestingly, slightly more people felt that enforcement of regulations were more important than new regulations. Investments made before a disaster in terms of national policies, laws and local regulations including enforcement mechanisms can increase the speed and depth of recovery. Pre-existing legal and regulatory frameworks will accelerate and deepen resilient recovery.

Disasters change attitudes and provide an opportunity to accelerate the integration of disaster risk reduction into development and recovery. In addition, disasters often highlight underlying risk factors, by clearly showing what went wrong and what went right. This attitude change provides a window of opportunity to accelerate changes in legal and regulatory frameworks and enforcement mechanisms after a disaster. Over the years, there has been a trend towards legislation and government decrees on disaster risk reduction in ex-ante situation. Recent cases show an evolution to recovery planning, though still with more emphasis on post disaster planning than on ex-ante or pre-disaster planning.

4 Conclusions and Policy Recommendations

Based on the interviews with key informants, desk review and analysis it is evident that resilient recovery demands not only that decades of development are compressed into a few years but also that future risk including from climate change is reduced. Recovery does offer an opportunity to reduce risk, by addressing underlying risk factors. Conditions that determine if recovery reduces risk are in a large part dependent on pre-existing capacities, progress against the Hyogo Framework for Action as well as the leadership and vision both before and after the disaster. During recovery, the opportunity for progress is in a large part driven by changes in attitude towards reducing disaster risk of people and institutions, to the type of disaster experienced. This attitude change can be short lived without the support and direction for resilient development. Especially challenging is to incorporate future risk from climate change and install a multi-hazard perspective into this attitude change. A major disaster can also bring with it technical and financial resources, as well as political support and a will for change. This provides an opportunity to change core capacities shared between development, recovery and indeed climate change. Solidifying this change in the day-to-day work of people and institutions can bring lasting change for both the affected population and others at risk.

Reducing risk during recovery is fundamentally a development issue, an investment in a development framework to keep the window of opportunity open and make change sustainable.

- Disasters change attitudes of people and institutions to disaster risk reduction. This provides a window of opportunity for change. Invest in awareness and actions to reduce risk, change institutional processes and make change permanent.
- Capacity of people and institutions links relief, recovery and development. Insufficient investment is made to make permanent change to this capacity to reduce risk. Coordinate and invest in this indigenous capacity.
- It takes time to make change happen. This depends on context and capacities. Make support and time decisions based on context and capacity not external demands.

Planning and resources make change happen and address underlying risk factors during recovery

- Preparing and planning for response before a disaster improves response. Prepare and plan for recovery before recovery concentrating on effective strategies, resourcing and partnerships.
- Plan to use streamlined development processes and capacities during recovery.
- Invest in more holistic post-disaster needs assessments and monitoring systems to improve partnerships, coordination and learning.
- Use insurance and risk sharing tools to finance recovery based on need not media.

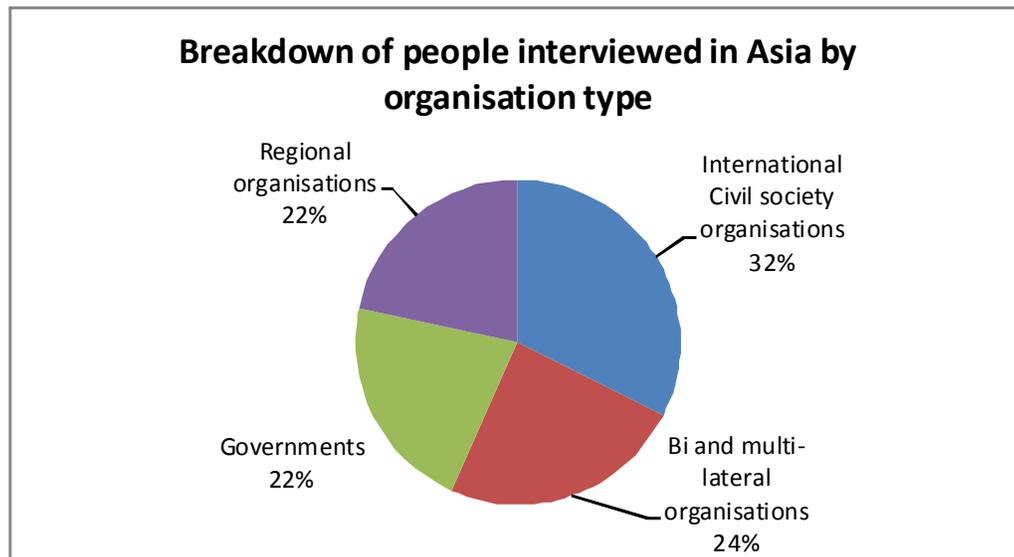
Build on existing resilience to make change permanent

- Invest in tools for knowing, sharing and building upon communities' social resilience and links with government institutions to make change sustainable. Make recovery owner and community driven and invest in established community based risk reduction mechanisms.
- Invest in gender aware recovery and institutions to reduce inherent bias and vulnerability and build on existing resilience based on people with a gender perspective.
- Good governance and local leadership can reduce or increase risk, invest in capacities using the window of opportunity to make changes permanent.

Disaster risk reduction is an investment not a cost. Recovery offers the opportunity to invest in addressing the underlying risk factors from multiple hazards and a changing climate on an accelerated basis for resilient development. Investments are most effective prior to a disaster.

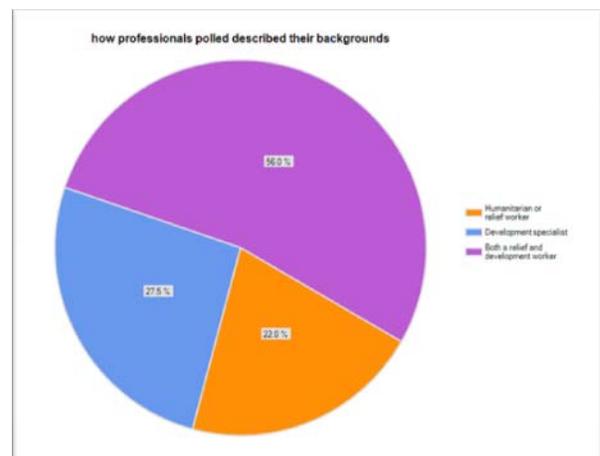
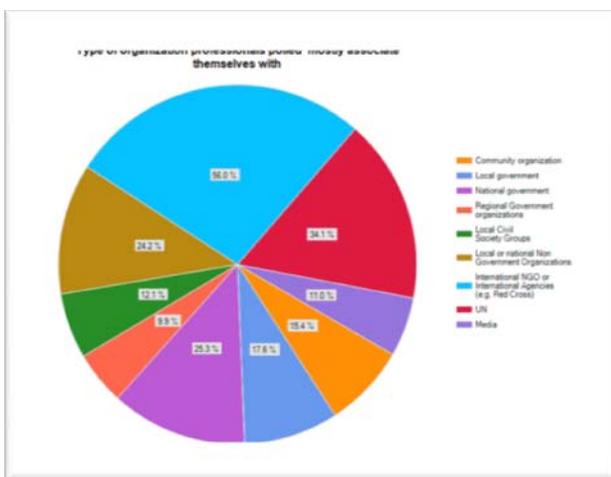
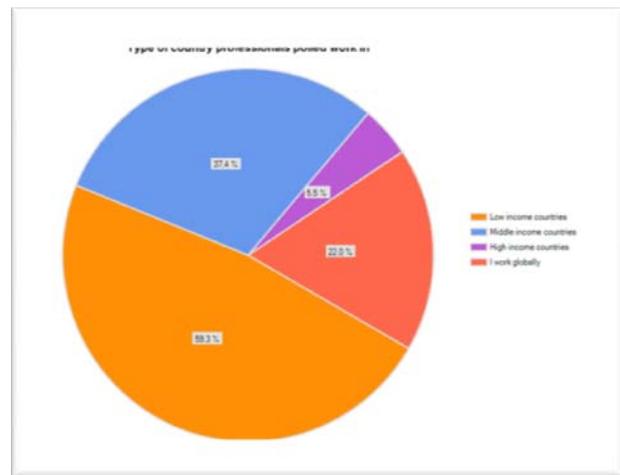
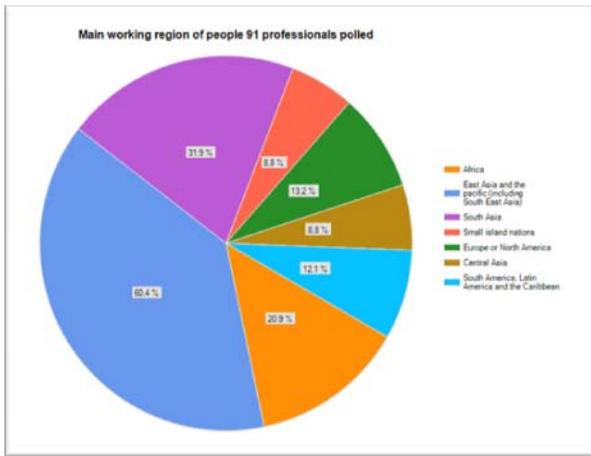
Annex 1 List of organisations interviewed and profile of professionals surveyed

A total of thirty-seven people were interviewed from the following organisations:



- International Civil Society Organisations (12)
 - IFRC, Asia Pacific Zone (3)
 - IFRC, Viet Nam (2)
 - CWS – Bangkok, regional Office (1)
 - Oxfam GB, Regional centre Bangkok (1)
 - Oxfam GB, Indonesian (2)
 - Oxfam GB, Viet Nam (2)
 - Oxfam GB, Philippines (1)
- Bi and multi-lateral organisations (9)
 - UNDP, Asia pacific region (1)
 - UNDP, Sri Lanka - Environment, Energy and Disaster Management (1)
 - UNDP, Indonesia - Crisis prevention and recovery unit (3)
 - GTZ Indonesia, decentralization contribution to good governance (1)
 - Global Facility for Disaster Reduction and Recovery, Viet Nam (1)
 - World Bank, Indonesia (1)
 - DIPECHO South East Asia (1)
- Governments (8)
 - BNPB Indonesia (1)
 - Indonesia National platform and MPBI (1)
 - Viet Nam government Department of Dyke Management, flood & storm control, MARD and Disaster Management Centre (4)
 - Philippines, Office of Civil Defence (1)
 - National Disaster Management Authority Government of India (1)
- Regional organisations ASEAN (8)
 - UNISDR/technical advisor for DRR (1)
 - Disaster Management & Humanitarian Assistance Division (1)
 - Science and Technology Division (1)
 - Agricultural and Natural Resources Division (1)
 - Education, Youth and Training Division (1)
 - Environment Division (1)
 - Asian Disaster Preparedness Centre (2)

Annex 2 Profile of 91 professionals answering the online survey



Annex 3 Key guide questions for interviews

Guide questions during semi-formal interviews (conducted alone with a HAR and GAR utilisation study)

1. What are the key policy changes that facilitate *build it back better (or safer)*?
2. What were the key legislative changes made that facilitate *build it back better (or safer)*?
3. What key strategic choices were made that facilitate *build it back better (or safer)*?
4. What were the key institutional changes made that facilitate *build it back better (or safer)*?
5. What were the key changes made to donor assistance to facilitate *build it back better (or safer)*?
6. What were the key investments made that facilitate *build it back better (or safer)*?
7. What other factors (key drivers) facilitate *build back better (or safer)*?
8. *What are the key changes to the enabling environment which need to be made?*

Key questions included in the written responses, follow-up to interviews

Question 1: What are the main opportunities in the post-recovery environment to reduce risk? Can you give examples or case studies?

Question 2: What were/are the key good practices to improve recovery and reduce risk in the post-recovery environment? Can you give examples or case studies?

Question 3: What are the main challenges in the post-recovery environment to reducing risk? Can you give examples or case studies?

Question 4: Can you give examples of integrating DRR in or during post-disaster recovery in specific sectors, such as reconstruction, water and sanitation, livelihoods etc . . .

Question 5: What are the good practices in post-recovery environment to reduce risk with regard to community participation or gender? Can you give examples or case studies?

Question 6: What changes need to take place in the enabling environment (policies, strategies, actions or institutions) to improve the integration of DRR in post-disaster recovery?

Annex 4 Summary of survey with answers (see PDF attachment)

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