Give2Asia

IIRR

Building Community Resilience

Mapping the Journey of Local Community-based NGOs in Developing Sustainable Preparedness Programs

White Paper | Spring 2017

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Introduction

Building community resilience is the process of strengthening capacities of individuals, communities, governments, and other social systems to manage natural disasters effectively in order to minimize losses, and "bounce back" in the shortest possible time. It is both a "journey" and a "destination" at the same time, and we must focus on both simultaneously to realize its benefits.

In 2013 when Typhoon Haiyan (Yolanda) hit the Philippines, the world witnessed the nature and scale of destruction that can happen when vulnerable communities are faced with disasters of growing intensity. The Philippines records an average of 20 typhoons per year; and, due to climate change, the intensity, unpredictability and scale of natural disasters is expected to increase. Coupled with unmitigated stresses and underlying risks such as poverty, economic and food insecurity, and rapid urbanization, this increase in hazards will place people at more risk than ever before.

Disasters brought about by Typhoon Haiyan and those that came before it - Typhoon Washi in 2011 and Typhoon Bopha in 2012 - have already caused tremendous losses to human lives, property, livelihoods, and national economies. Even with the assistance of foreign governments and humanitarian aid agencies, the cost of providing relief aid and reconstruction for the aforementioned typhoons were too expensive to bear. According to the Philippine Government, Typhoon Haiyan cost the country $2 billion, or 0.7% of its 2013 GDP.[1] Together, in 2009, typhoons Ketsana and Parma cost the Philippines 2.7% of its GDP.[2] Despite the high price tag, the recovery efforts continue for years after and resilient rebuilding remains far from complete.

More and more, these growing shocks and underlying stresses must be mitigated **before** natural disasters in order to preserve lives, livelihoods, and ways of life. Experts have declared that investing in community resilience and disaster risk reduction programs is cost effective.[3] Yet investment in disaster risk reduction remains low compared to the total investment in disaster relief and in development in general. A study in 2013 revealed that 12 of 23 low-income countries received as much as $160,000 of disaster relief aid for every $1 received for disaster risk reduction. [4]

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[1] Philippine National Disaster Risk Reduction and Management Council, Update Report on the Effects of Haiyan, April 2014
[2] Government of the Philippines and The World Bank Group, TYPHOONS ONDOY AND PEPENG: Post-Disaster Needs Assessment, Manila, Philippines, 2009
[3] C.M. Shreve and I. Kelman, Does mitigation save? Reviewing cost-benefit analyses of disaster risk reduction, International Journal of Disaster Risk Reduction
[4] Jan Kellet & Alice Caravani, "Financing Disaster Risk Reduction: A 20 year story of international aid." Overseas Development Institute, Sept. 2013, http://www.odi.org.uk/sites/odi.org.uk/files/odi-assets/publications-opinion-files/8574.pdf

Building community resilience can take many forms. In the Sundarbans of Bangladesh, community resilience can be built by providing the fishing communities with access to early warning systems in order to better manage their time at sea and to prevent the loss of lives, boats, and fishing equipment. In the remote islands of Indonesia, community resilience can be strengthened by reducing the dependence of farmers on costly commercial fertilizers and farm inputs through the practice of *permaculture* – a holistic form of organic and sustainable food production. In Vietnam, community resilience means ensuring business continuity for small and medium-sized enterprises, which are the main drivers of community economic activity, making up 40 percent of GDP, 80 percent of businesses and 90 percent of the workforce.[5]

This paper is the second of a series that is borne out of the partnership between Give2Asia and the International Institute of Rural Reconstruction (IIRR) to support local non-governmental organizations (NGOs) building community resilience. The initiative has two primary components. The first is meant to influence a shift in funding paradigms of US-based donors and

philanthropies towards recognizing the value in investing more on local resilience-building programs, in addition to the current focus on disaster relief and recovery. The second component is to strengthen local organizations in designing and implementing community resilience building programs. This is achieved through learning conferences, training on community-managed disaster risk reduction and providing small grants to implement innovative local resilience building initiatives.

The first paper in this series focused on disaster vulnerabilities in six of (what Give2Asia and IIRR have evaluated and identified as) the most at-risk and underserved countries in Asia, in order to help the international donor community – which invests millions of dollars annually – invest in resilience efforts effectively and wisely.

This paper aims to give corporations, foundations, individual donors, and other advocates of community resilience the information to invest strategically in Asia - one of the most vulnerable and at-risk regions on the planet.

There is a clear case for making investment in reducing disaster risk in vulnerable communities. Avoiding losses is always preferable to sustaining them and can be achieved at lower overall cost. But challenging questions

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[5] Anna Bantug-Herrera & William Taylor, "Small Businesses Drive Vietnam's Economy, but Remain at Risk to Disasters." In Asia – Weekly Insights and Analysis, Oct 2012, http://asiafoundation.org/2012/10/24/small-businesses-drive-vietnams-economy-but-remain-at-risk-to-disasters/

remain. If "resilience" is going to take hold as a widely accepted strategy for addressing disaster risk, and not be viewed as yet another development buzzword, it must be seen as a strategy that is integrated with the broader paradigms of community-based development. This paper will attempt to frame this process through looking at these three frequently asked but rarely answered questions:

- Where do we start in building community resilience?
- What existing initiatives are Asian countries progressing towards in building community resilience?
- How do we know that the programs and projects we are supporting contribute to successfully building community resilience?

In order to help address these questions, Give2Asia and IIRR gathered 140 local and international agencies working on community resilience from the following six countries:

1. Bangladesh
2. India
3. Indonesia
4. Myanmar
5. The Philippines
6. Vietnam

During four conferences in South and Southeast Asia, participants shared lessons and case studies related to the successes and challenges in building community resilience. Participants were encouraged to debate and workshop pathways to resilience, indicators of success, and the greatest needs for local NGOs in their country.

One of the conferences Give2Asia and IIRR attended – the UN World Conference on Disaster Risk Reduction held in Sendai in March 2015 – led to the adoption of the Sendai Framework for Disaster Risk Reduction, which aims to build resilience. This framework seeks to "prevent new and reduce existing disaster risk through the implementation of integrated and inclusive economic, structural, legal, social, health, cultural, educational, environmental, technological, political and institutional measures that prevent and reduce exposure and vulnerability to disaster, increase preparedness for response and recovery, and thus strengthen resilience". [6] While this agreement sets commendable broad goals at the national government level, to prepare communities for disasters and the impacts of climate change, it lacks guidance for how community-level initiatives can play a role in resilience-building. Similarly, the COP 21 agreement of the UN Climate Change Conference reached in Paris in late 2015 missed the opportunity to support vulnerable rural and coastal

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[6] UNISDR, Sendai Framework for Disaster Risk Reduction 2015-2030, March 19, 2015, Sendai, Japan

communities in Asia who have already been exposed.

By providing donors with the perspective of current disaster risk reduction practitioners, who come from the world's most at-risk communities, it is our hope that donors will be able to support more effective and holistic disaster programs with confidence.

Give2Asia and IIRR believe that empowered local communities are the key to reducing the kind of disaster losses seen from the Aceh Tsunami in 2004, Sichuan Earthquake in 2008, Tohoku Earthquake and Tsunami in 2011, Typhoon Haiyan in 2013, Nepal's deadly earthquake in 2015, to the multitude of disaster events that don't penetrate international headlines. Given the large role international donors play in helping communities recover from disasters, it is clear that they will be key in reducing the losses that come from these events.

Local Perspectives on Community Resilience

The UNISDR definition of resilience is widely supported by organizations promoting disaster risk reduction and management. But this has not stopped organizations and communities to define their own understanding of what is resilience. In the 2014 conferences that Give2Asia and IIRR conducted, these are some of the views from the perspectives of local facilitators of community resilience programs.

- *"Community resilience is the ability to anticipate, manage, respond, cope and transform the negative effects of hazards for people to have a life of dignity." (from Philippines and Indonesia)*
- *"Community resilience is the ability of communities to withstand, recover and learn from disasters to strengthen future response and recovery effort." (from Bangladesh)*
- *"A community is like a human body; composed of parts connected to each other. If all the parts are healthy then the body is able to fight back the bacteria. Similarly, if all the parts of the community is healthy, they are able to cope up with the disaster. Like the human body, communities need to be flexible and adaptive also." (from India)*
- *"Community resilience is like a Pyit Tine Htaung (a traditional Myanmar toy) which is a round egg shaped doll that always returns to the standing position whatever way it is thrown." (from Myanmar)*
- *"Community resilience is following our slogan of "Live with floods. Live smart with floods." (from Vietnam)*

The Stepping Stones
Where Do We Start Building Community Resilience?

Answering this question begins with an understanding of how community resilience is defined. The term *resilience* was selected as a global development buzzword in 2012 and its use has grown since. [7] While many organizations claim to be working towards resilience, there is no commonly accepted interpretation of the concept and/or the process of building community resilience.

Defining Community Resilience

The United Nations International Strategy for Disaster Reduction (UN-ISDR) defines resilience as *the ability of a system, community or society exposed to hazards to* resist, absorb, accommodate to and recover from *the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions.* (UN-ISDR).[8]

The Intergovernmental Panel on Climate Change (IPCC) defines resilience as *the capacity of a social-ecological system to cope with a hazardous event or disturbance,* responding or re-organizing in ways that maintain its essential function, identity, and structure, while also maintaining the capacity for adaptation, learning, and transformation. (IPCC, AR5)[9]

For purposes of the NGO Disaster Preparedness Program (NGODPP), Give2Asia and IIRR have outlined their definitions in terms of program work. Disaster Preparedness activities are directed at saving lives and property during hazard events such as floods, earthquakes, droughts, storms, and more. This includes setting up early warning systems, emergency evacuation planning and drills, organizing emergency response teams and information, or education campaigns on what to do in case of emergencies.

Disaster Risk Reduction (DRR) seeks to resolve the underlying causes of disaster risk, such as poverty, economic and food insecurity, and rapid urbanization. It is closely linked to development work. DRR is based on the premise that unsustainable development patterns reduce the capacity of people to cope with hazards, thereby causing disasters. Together, these two approaches build Disaster Resilience – the ability to emerge from hazard events with minimal damage and disruption.

[7] https://www.evex.com/news/the-international-development-buzzword-of-2012-80011
[8] UNISDR Terminology on Disaster Risk Reduction, UNISDR, 2009

[9] IPCC Assessment Report 5 Glossary of Terms, IPCC, 2014

Starting Points: The Capacities of Resilient Communities

Figure 1 is a graphical representation of the above definitions. The dotted lines represent three categories of responses to a hazard event.

Figure 1. Resilience Diagram

Line (a) represents a response of resisting and absorbing the negative effects of the hazard. This can happen if the community has enough resources and abilities to absorb the hazard without creating any changes from the pre-hazard state. We would call this a resilient community.

Line (b) represents a response of recovering and transforming from the hazard. This happens when the community is able to quickly recover and they learn from experience resulting to adjustments in the pre-hazard state.

Line (c) represents a community that is not able to recover from the stresses of the hazard resulting in a longer state of disaster.

From this perspective, building community resilience begins by creating or enhancing any, or all, of the four necessary capacities for community resilient hazards and effects of climate change. As the diagram shows, these include the capacity to:
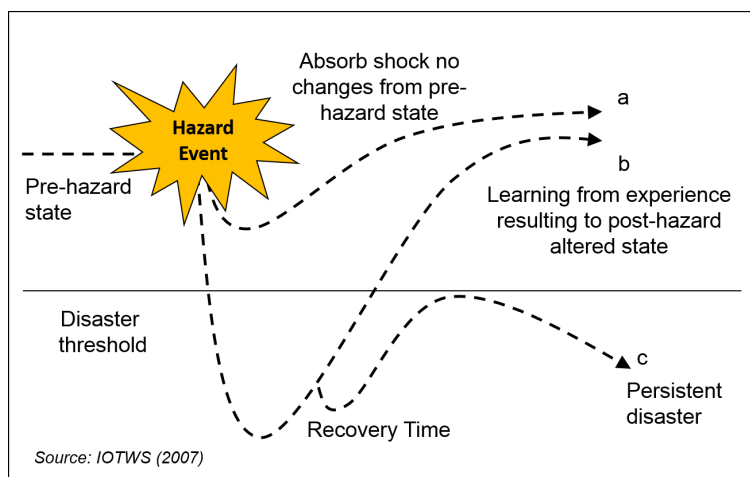
1. Sustain a functioning community system (sustainable development)
    o   Example: Resilience building can be integrated into programs related to health system improvement

2. Reduce the negative effects of hazards (resist and absorb)
    o   Example: Earthquake drills and simulations in schools lead to increased safety and preparedness

3. Recover from the hazard in a timely and efficient manner (recover)
    o   Example: Implementing cash for work programs that are directed at building new community

assets to make them better prepared for future risks; case in point presented with IIRR's Typhoon Glenda Recovery Project.

4. Learn from experience (building back better)
   o Example: Supporting communities to capture and document important lessons that can be adopted into government policies and programs.

Building Blocks: The Elements of Resilient Communities

In addition to the capacities of the community as a whole, NGO workers indicated that there were necessary building blocks to achieving those capacities, and thus achieving resilience. These elements and their presence, or lack thereof, can tell us a lot about the resilience of a community, and indicate to donors where to allocate support. Later in the paper, we will discuss how to measure these elements. The elements discussed by resilience workers can be summarized as follows:

1. Individual Survivability: Sustain the capacity of people to stay alive pre, during and post- hazard events.

2. Access to Civic Participation as a Foundation of Safety: Basic access to civic participation provided such as access to education, health and shelter. Basic access to civic participation is necessary to empower people to help themselves.

3. Sustainable Livelihoods: Maintain livelihoods that can improve human conditions in a sustainable manner.

4. Healthy Ecosystem: The natural environment is in a state to continuously support human survival, community development, and sustain itself with little to no human interference.

5. Resilient Infrastructure: Physical facilities that can effectively function pre, during and post-hazard event.

6. Institutional Support Mechanisms: Community systems and structures that support communities to survive pre, during and post hazard, such as local government units or faith-based charity systems.

7. Enabling Government Policies: Government programs and laws that support the realization of the elements listed above.

By synthesizing the experience of community workers into the community capacities for resilience and the elements of a resilient community, we can begin to better understand the

local work whose goals are often lumped under the large umbrella of "building resilience." Later in the paper, this understanding will help us identify appropriate resilience strategies and programs for donor support.

Case Story
Integrating Community Resilience Programs into Disaster Recovery

This project was designed mainly to assist affected learning communities of IIRR to recover from the economic impacts of Typhoon Glenda (Rammasun) in the Philippines. The project was implemented in the municipalities of Guinayangan in the province Quezon and in Rosario, province of Cavite. After six months of implementation, IIRR demonstrated the following project results and outcomes of the combination of activities implemented.

Farmers and fishers were able to bounce back in their livelihoods affected by Typhoon Glenda by replacing what they lost and by adding new livelihood assets.

o The cash for work provided immediate livelihood for 428 men and women affected by the typhoon.

o 90 farmers received material support to start new livelihood activities such as production of pineapple, pepper, beans, peanuts and native pigs. This is to augment their coconut-based livelihood activities. They also received training on low-input production technologies to maximize economic benefits.

o A total of 76 fisher folks (7 women, 69 men) from six (6) barangays in Rosario and Guinayangan went back to fishing after receiving boat repair materials.

Established community assets that will contribute in achieving long term livelihood resilience

o The cash for work activity facilitated by IIRR was designed to create addition assets for the community to better cope with future disasters. The cash for work not only provided emergency income for the most affected by the typhoon but also resulted to the following:

o Constructed and fenced 21 rain water harvesting ponds for small rice farmers that collected and saved rainwater for planting during the dry months.

o Planted Kakawate, Napier, Caliandra, Tricantera, Cypress and fenced 13 intensive feed gardens (IFG) to supply the feed requirement for goats and pigs

o Rehabilitated various nurseries for mangrove, fruit trees and hard wood nurseries to supply the needs for mangrove restoration and for watershed management in the uplands.

o Repaired community water systems in 2 communities that provided available supply of water specially during the dry season.

Measures to reduce disaster risks and improved disaster preparedness are identified by the community and integrated into government plans

o Facilitated participatory disaster risk assessments in the affected municipality to identify their vulnerabilities and capacities as well as the measures for disaster risk reduction and disaster preparedness.

o DRR plans formulated that includes the strengthening of the village disaster risk reduction committees as well as the appropriate allocation of the local disaster risk reduction management fund.

Improved capacities of the municipal government in preparing and responding to future typhoons and hazards

o   Installation of the automated weather station (AWS) in the municipality of Guinayangan to enhance the early warning capacity of the municipal government for severe weather and severe climate change impacts such as droughts.

Zooming in on Asia
What Community Resilience Building Programs Already Exist?

Donors and other agencies that want to start investing in and designing community resilience building programs will generally start with this question: "Are there existing programs that demonstrate and serve as models for building community resilience?" This paper will argue that local communities, together with local Civil Society Organizations (CSOs) around the world, including those in most vulnerable countries in Asia, are a rich source of knowledge on community resilience programs – making them an ideal starting point for those donors starting to explore resilience.

Local community members and local CSOs are confronted on a daily basis with issues of disaster risk, climate change, and poverty. The interaction of local knowledge with the technical knowledge of local CSOs has incubated some of the most innovative resilience-building ideas.

As mentioned earlier, in 2014, Give2Asia and IIRR conducted consultation workshops with approximately 140 Asia-based organizations to identify hundreds of programs working towards building community resilience. These programs were largely driven by several factors including the influx of donations following major disasters in Asia (as in the case of Indonesia and India in the aftermath of the Indian Ocean Tsunami in 2004). In Myanmar, local and international organizations initiated their resilience-building program in the aftermath of Cyclone Nargis in 2008.[10] A similar process took place in Bangladesh in the aftermath of Cyclone Sidr in 2007.

The Indian Ocean Tsunami also influenced the adoption of the Hyogo Framework for Action (HFA) in 2005, which calls on government and civil societies to collaborate on disaster risk reduction, preparedness and resilience building. This led to the promotion of programs on community-level disaster risk reduction and management.

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[10] Consultation on the Emerging DRR Needs in Changing Context of Myanmar, 2 April 2012, Yangon, Organized by Myanmar Red Cross Society, French Red Cross, ADPC and UNDP

Another driver for the increasing number of programs in community resilience-building is the regularity of disaster occurrences in an ever evolving "new normal" for many at-risk countries in Asia. This is the case for the Philippines and Vietnam, both of which experience regular floods caused by monsoon rains and typhoons. This "new normal" has forced organizations to make resilience building a necessary component of their education, livelihood, health and other programs.

Typology of Resilience Programs of Local Organizations

Mapping and understanding how these local programs are contributing to building community resilience is an important step in convincing donors and policy makers that it is in their best interest to invest in these programs. Yet, for many donors, disaster preparedness and risk reduction efforts are lumped under the broadest of labels such as *resilience programs,* which does little to help donors understand the interrelated activities, goals, and long-term impact. By using the community capacities and building blocks outlined previously, programs can be categorized and understood in the greater context of resilience. The result is that the context and aim of local programs are made clear to donors.

Table 1 combines the building blocks and community capacities into a framework that will help identify local actions towards community resilience.

Table 1: Typology of Community Resilience Building Programs in Asia

Building Blocks of Community Resilience	Required Capacities to Build Community Resilience			
	Sustain A Functioning Community System (Sustainable Development)	*Reduce the Negative Effects of Hazards (Resist and Absorb)*	*Recover from The Hazard in a Timely and Efficient Manner (Recover)*	*Learn from Experience (Building Back Better)*
Individual Survivability	▪ Micro-insurance to protect the most at risk ▪ Primary health care for community members ▪ Food and nutrition security programs ▪ Child and maternal health care	▪ Information and education campaigns on e.g., mobile knowledge center for hazards ▪ Construction of food banks ▪ Promotion of household disaster preparedness	▪ Food and nutrition security in disaster response ▪ Emergency health services including psycho-social health programs ▪ Safe shelter programs	▪ Post-disaster evaluation and effectiveness reviews ▪ Development of improved operating manuals on disaster preparedness and management ▪ Publication of training manuals ▪ Publication of good practices and lessons learned
Access to Civic Participation As Foundation Of Safety	▪ Shelter programs for the poor ▪ Alternative delivery of basic education e.g. distance education ▪ Adult literacy programs	▪ Preparedness planning for basic services such as hospitals, schools and shelter ▪ Integration of resilience messages in school curricula	▪ Promotion of minimum standards in quality and accountability in disaster response (food, health, shelter and non-food assistance)	
Sustainable Livelihoods	▪ Organizing of self-help groups ▪ Micro-credit programs for the poor ▪ Business development services such as market	▪ Delivery of climate information for agriculture e.g. climate field schools ▪ Climate-smart agriculture ▪ Risk transfer programs e.g crop insurance	▪ Cash for work programs directed at re-establishing or adding new community assets ▪ Direct cash transfer programs ▪ Restoration of local	

Building Blocks of Community Resilience	Required Capacities to Build Community Resilience			Learn from Experience (Building Back Better)
	Sustain A Functioning Community System (Sustainable Development)	*Reduce the Negative Effects of Hazards (Resist and Absorb)*	*Recover from The Hazard in a Timely and Efficient Manner (Recover)*	
	linkage and value chain development	▪ Business continuity for SMEs and urban livelihoods	economic systems e.g emergency market mapping and assessment (EMMA) ▪ Provision of lost livelihood materials e.g. seeds, tools, boats	
Ecosystem Services	▪ Mangrove restoration ▪ Forest management ▪ Watershed/river basin management Coastal resources management	▪ Construction of water harvesting facilities to prepare for droughts ▪ Maintenance of natural waterways for drainage	▪ Post-disaster ecological damage assessment ▪ Rehabilitation of damage ecosystems	
Resilient infrastructure	▪ Accessibility of community buildings ▪ Water facilities e.g. pumps, reservoir ▪ Provision of power facilities e.g. solar lamps ▪ Construction of school buildings and health facilities	▪ Leveraging resilient architecture and design e.g. elevated water pumps, solar powered pumps ▪ Small-scale hazard mitigation e.g., embankments and gabions	▪ Integration of resilience principles in reconstructed community buildings	
Institutional support mechanisms	▪ Participatory local governance programs e.g. people's participation in	▪ Participatory and science-based risk assessments ▪ Community early warning	▪ Mainstreaming disaster risk assessment in post-disaster needs assessment	

Building Blocks of Community Resilience	Required Capacities to Build Community Resilience			
	Sustain A Functioning Community System (Sustainable Development)	*Reduce the Negative Effects of Hazards (Resist and Absorb)*	*Recover from The Hazard in a Timely and Efficient Manner (Recover)*	*Learn from Experience (Building Back Better)*
	government planning and budgeting	systems including equipment ▪ Community drills and simulations ▪ Community emergency response teams ▪ Use of social media and ICT for DRR	▪ Disaster recovery planning ▪ Disaster finance monitoring	
Enabling government policies	▪ Community DRR Planning ▪ Mainstreaming resilience in land use and development planning	▪ Community preparedness plans ▪ Capacity building programs for governments on DRR and CCA e.g. training, conferences ▪ Promotion of resilience in urban development planning	▪ Capacity building programs for governments on disaster management e.g., training, exposure visits, fellowships	

Measuring Resilience
How Do We Know We Are Getting There?

In understanding the importance of building community resilience, the focus then turns to measuring community resilience. How do we know that we are on the right track? How do we ensure that what we have invested -- resources, time, and money -- to certain programs will lead to community resilience? How do we evaluate competing potential investments to know that we are realizing the greatest resilience dividend from a given amount of resources?

Measuring resilience and understanding the effectiveness of programs is a contentious point of discussion within the development sector. In the consultation-workshops mentioned earlier, practitioners of community resilience programs also shared and discussed key indicators that needed to be tracked. The indicators suggest that community resilience is a desired state, a change, an outcome that these programs contribute to (The "Destination"). Equally important in tracking the changes that have resulted from programs is the process of achieving those changes (The "Journey").

Current Views on Measuring Resilience

In 2014, the United Nations Development Programme (UNDP) commissioned an extensive review of existing or proposed approaches to measuring disaster resilience. This document presents a summary of how these approaches contrast to one another. The review has the following conclusions about measuring resilience.[11]

- Resilience measurement needs to be clearly and directly linked to set targets. Measurements are not neutral tools, but influence the type of disaster risk management activities.
- Resilience needs to be understood and measured as a process and an outcome.
- Resilience is a complex 'system of systems'; different dimensions of resilience can influence each other. That is why there is a need to capture all relevant dimensions of resilience.

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[11] Winderl, T., Disaster Resilience Measurements: Stocktaking of Ongoing Efforts in Developing Systems for Measuring Resilience, United Nations Development Program (UNDP), February 2014

- Standardized resilience measurements exist to make comparisons among communities but measurements tailored to a community, area, region or country better reflect the specific context of resilience. A combination of both standard and tailored measurements results in the most complete picture.
- The combination of observational data on actual outcomes following disasters and data yielded from modeled techniques appears to be the most promising approach.

Indicators of Community Resilience

Practitioners of community resilience-building programs in Asia have also exchanged views about measuring resilience. The discussions focused on the building blocks of community resilience, and what the possible indicators for each building block are. These indicators are further categorized according to whether these are measured before or after an event.

This is based on the view that resilience measurements are a combination of both pre and post disaster measurements. Pre-disaster measurements are related to the *process* of building resilience; for example, to what extent there is participation and to what extent government is providing basic services. Post-disaster measurements are related to resilience as a situation that is different from previous disaster events. In measuring resilience, it important to see these types of changes happening.

Table 2 presents a list of these indicators. However, this is not an exhaustive list nor is this an attempt to provide a universal set of indicators. The task of building resilience is complex with many interrelated moving parts, and a standard set of precise indicators and measurements will probably never exist. For donors and organizations however, this list will be useful in designing future programs as well as measuring the value of current resilience programs.

Table 2: Indicators of Community Resilience

Building Blocks of Community Resilience	Indicators of Community Resilience	
	Pre-Disaster Situation	*Post-Disaster Situation*
Individual Survivability	o % of population able to regularly access safe and clean water, formal education, health services o % of population achieving food and nutrition security o % of children who are malnourished	o Mortality rates o Number of injured o Number of houses damaged
Access to Civic Participation as Foundation Of Safety	o % of population with access to voting in elections, the right to own property, fundamental freedoms such as speech, religion, etc.	o % of complaints resolved about quality and accountability of disaster response resolved
Sustainable Livelihoods	o % of population above the country's poverty thresholds o % of population accessing and practicing diversified and improved livelihoods	o % of earning days not affected by hazards o Economic losses o Damage to household economic assets e.g. units of farm products damage
Ecosystem Services	o % of forest cover o % of sea and land allocated to protected conservation areas	o Damage to ecosystems o Ecosystems' ability to sustain human

Building Blocks of Community Resilience	Indicators of Community Resilience	
	Pre-Disaster Situation	*Post-Disaster Situation*
		population compromised
Resilient Infrastructure	o % of community buildings and physical assets following standards on safety, security and accessibility for PWDs	o Damage to critical infrastructure in the community
Institutional Support Mechanisms	o % of population who are members of community organizations o % of population volunteering for community development related tasks o % of community decisions that included consultation with community members o Number and quality of meetings by the village disaster risk reduction committees	o Number on the type of assistance provided by the local authority to disaster survivors o % of population able to receive emergency response services o % of population able to receive actionable early warning
Enabling Government Policies	o % of government policies that integrated resilience elements o % of government budget allocated for	o % of government budget spent for disaster relief and recovery o government develops policies

Building Blocks of Community Resilience	Indicators of Community Resilience	
	Pre-Disaster Situation	*Post-Disaster Situation*
	disaster risk reduction and preparedness	that integrate lessons learned from previous disasters

Community-Led Approaches to Measuring Resilience

During a consultation-workshop in the Philippines, Dong Wana, Program Director of IIRR, provided an example of community resilience by highlighting the work of the Ivatans, an indigenous tribe in the northernmost island of the Philippines, Batanes; where every year their island is battered by numerous typhoons. Their communities have become resilient and their resilience is unique to their context as indicated by the design of their shelter which is different from the other traditional design of Filipino homes. The house of the Ivatans are made mostly of stone while most Filipinos live in *bahay kubo's*, houses made mostly with bamboo and palm leaves.

This is but a single example of how most resilience measurements cannot, and should not, be universally standardized; and that most are context specific. Context specific measurement means that the community will be the starting point in identifying indicators of resilience. There are organizations, including IIRR, that support community-led processes where communities themselves regularly measure their resilience against the indicators they have identified.[12] These measures are also dynamic and change over time, following the path the community has set towards resilience.

In community-led approaches to measuring resilience, the role of the facilitating organization is to assist the community in preparing their action plan based on a participatory risk assessment, which then serves as their baseline. These action plans (pathways to resilience) are

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[12] IIRR, Cordaid. Building Resilient Communities. A Training Manual on Community Managed Disaster Risk Reduction (Booklet 2), Philippines, 2013

implemented to realize the aspired changes (building blocks) for them to be resilient. The focus in measuring resilience by this approach is to track the changes that have happened as a result of the action plan.

Facilitators of the community-led resilience measurements provide the community the tools and methods with which the community can assess: 1) changes the community have observed as a result of their actions; 2) factors that helped them achieve or hindered them in achieving positive changes; and, 3) lessons they learned that can inform future actions. Many of these are based on participatory learning and action (PLA) tools such as the impact tree, ranking, change mapping, focus group discussions, and most significant change stories.

Summary & Recommendations

Since resilience began to emerge as an important concept in international development, donors have shown reluctance to make strong investments specific to community resilience, and they may have good cause for being weary. Not because resilience is not important; indeed, it may be the most important goal of the development sector to date. The challenge with resilience as a component of disaster preparedness is that it is inherently difficult to define and measure, and the donor community at large is relatively averse to risk and uncertainty. Give2Asia and IIRR have proposed a framework for evaluating the resilience-building potential of a given initiative. This framework can be summarized below:

1. *Fund Programs That Integrate Community Resilience Into Current Programming*

   Building community resilience can start with current development programs supported by philanthropic activities. It can be integrated in community development programs such as improving health and nutrition of poor children or providing potable water to communities. Community resilience programs can also be integrated into response and recovery interventions in countries affected by disasters. This paper has provided a typology of programs in Asia that can be a source of project ideas to support and start community resilience programs.

2. *Fund Programs That Carefully Consider The Process Of Achieving Community Resilience*

   To realize the goal of community resilience, it is important to support the programs that establish its building blocks while still recognizing the interconnectedness of the other factors. These building blocks can be improving human survivability and wellbeing to building safe, secure and accessible shelter and facilities. Equally important to supporting these building blocks to resilience is investing in building capacities of facilitators of resilience building. These include local organizations and charitable groups whose mandate is to work with communities. Strengthening these local groups will ensure that the process of resilience building is an empowering process for community people.

3. *Fund Programs That Build On A Good Understanding Of Adaptive Measurements That The Community Practices*

On determining whether programs are effective in building community resilience, this paper proposes a more localized approach. It is important to work with community members themselves to define their indicators of resilience and introduce participatory tools and methods that they can use to regularly track their progress. For local organizations, the list of indicators of community resilience can serve as a tool to design programs.

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About Give2Asia

Give2Asia is U.S.-based international nonprofit organization that connects corporations, foundations, and individuals with charitable projects and social enterprises across Asia. Since 2001, Give2Asia has built a network of over 2,000 grant recipients and 15,000 donors in 25 countries from Afghanistan to Australia. Our work focuses on key issues such as healthcare, disaster preparedness and relief, and poverty alleviation. We believe that local knowledge counts: Give2Asia has a team of local staff, in-country advisors, and partners in every country where we work, ensuring projects are effective, results are transparent, and grant recipients are accountable.

About IIRR

The International Institute of Rural Reconstruction (IIRR) is a community development and hands- on training organization with more than 50 years of experience. IIRR has implemented people- centered, sustainable development programs in Africa, Latin America and Asia; today, maintains a strong presence in East Africa and Southeast Asia. Strategically located in the Global South, IIRR runs its programs from the field. While it is registered as a 501(c)(3) non-profit organization in the U.S. and has its headquarters in the Philippines, all senior decision-makers are located in the field. It is important that IIRR staff hail from the region where they work, allowing its programs to be locally-relevant, tailored, and community-driven.