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Fostering Economic Resilience
Policy Brief

Introduction to resilience

What is resilience? There are several definitions of resilience. They all describe the ability for a system to withstand a crisis and the common outcome to "bounce back after a shock". We may talk about the resilience of an ecosystem to survive after a wild fire, or the resilience of a child to recover from an emotional shock. For a community or society, resilience refers to ***"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***".[1]

Resilience to what? Resilience, as well as its opposite, vulnerability, is related to a specific hazard, in a given context. Hazards include natural or human induced s*hocks,* which may or may not be foreseeable[2]. They also include *trends,* which are longer-term changes that affect the conditions of life. Trends include:

- Climate change, intensification of agriculture, environmental degradation, natural resources depletion, biodiversity decline;
- Population growth, migration, rapid urbanization, economic globalization, dependence to and rarefaction of fossil energy;
- Economic volatility, food insecurity, pandemics (AIDS, cholera, Ebola, etc.), civil conflicts.

At the meeting point between hazard and resilience, is the *risk,* which is *"the probability of harmful consequences or expected losses resulting from interactions between natural or human induced hazards, the vulnerability conditions and the capacities of the group concerned*".

How to strengthen resilience? Increasing people's resilience means addressing the factors that underlie their vulnerability. *Being shock-resistant* was once the main quality of a resilient system. Hence the importance of the Disaster Risk Reduction field of research and action. But in a world constantly changing, *adapting to changes* is a quality thought today as equally

[1] UNISDR (United Nations Office for Disaster Risk Reduction) - 2007
[2] See a typology of hazards and stresses in Annex A.

important to support resilience. In addition, poverty being antithetical to resilience, *reducing poverty and inequality* is considered an indispensable condition for building resilience. Thus, livelihood strengthening is an integral part of promoting resilience.

What are livelihoods? A livelihood comprises the resources (including skills, technologies and organizations) and activities required to make a living and have a good quality of life. Understanding livelihoods does not mean just looking at people's main source of employment or income, but at all the different activities and choices within the household and community which provide food, health, income, shelter and other tangible and intangible benefits, such as comfort, safety, respect and fulfillment.

Livelihood activities can include agricultural production (crops, vegetables, livestock, fish) for home consumption or for sale of produce; nonagricultural home production such as tailoring, pottery, food processing, and so on; wage employment locally or migrating to another area to work; harvesting forest products. Activities such as caring for children and the elderly should also be recognized as important roles often played by women.

The livelihood options available to individuals and households depend on the diversity of resources, skills and technologies they are able to access. The security of their livelihood also depends on the security of their available resources.

Why are livelihoods important to building resilience? With access to diverse, secure and well managed resources, resilient households can pursue a number of different strategies to provide food throughout the year, income for regular needs and to save for times of emergency. In this way they are often able to avoid exposure to hazards. When hazards are unavoidable, people with diverse livelihoods will be able to draw on a range of resources and skills to pursue positive coping strategies, ride through the difficult times, and continue to move out of poverty.

Livelihoods can be affected by hazards and stresses. In turn, many hazards and stresses result from certain livelihood choices (for example cultivation of steep slopes which can lead to landslides).

How can we define economic resilience? Based on the definition of resilience mentioned above, economic resilience – aka the resilience of the beneficiaries' livelihoods – is therefore "***the ability of a livelihood to resist, absorb, cope with and recover from the effects of hazards as well as to adapt to longer term changes in a timely and efficient manner".***

How to strengthen economic resilience? A livelihood is resilient when it can thrive despite hazards, stresses and shocks, and when its assets (human, natural, financial, physical and social) are protected now and in the future. Resilient communities enable resilient livelihoods.

PRACTICAL ACTION[3] and OXFAM[4] have produced similar conceptual frameworks which identifies five pillars that strengthen economic resilience:

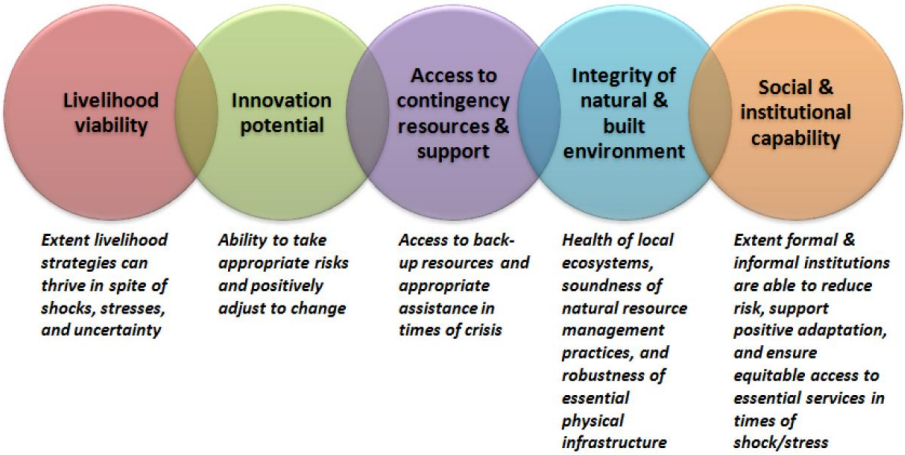
[3] PRACTICAL ACTION (Pasteur, K.), *From Vulnerability to Resilience – A framework for analysis and action to build community resilience*. 2011

[4] OXFAM (Bushell, H. & Hughes, K.), *A Multidimensional Approach for Measuring Resilience*. 2013
OXFAM (Fuller, R. & Lain, J.), *Measuring Resilience*. 2015

- Improving the diversity and security of their livelihoods means that they have more options available, and can chose to live or work in areas less exposed to hazards, or at least have more resources to draw on in order to cope and recover when they are affected by negative events.
- Improved understanding of long term trends, including climate change, means that people can draw on their available resources in appropriate ways in order to adapt to such changes over time.
- Being better prepared for hazards and stresses can significantly reduce exposure.
- Shoddy infrastructure and degraded natural resources and ecosystems are further both less able to absorb shocks and may rule out critical adaptation opportunities. Hence, developing resilient physical infrastructure, ensuring ecosystem protection, and promoting sustainable natural resource management practices are also integral to resilience promotion.
- And finally, by creating a more enabling governance environment, people will be able to access or influence processes of decision making, service provision, and resource allocation.

OXFAM Multidimensional Approach to Measuring Resilience is detailed below.

Conceptual framework for strengthening resilience



1. Livelihood viability. Livelihood viability depends on extent livelihood strategies that can thrive in spite of shocks, stresses and uncertainty. If a shock happens, for instance, a household dependent on just one precarious livelihood activity will likely be more negatively affected than another that has one or more less sensitive alternatives to fall back on. Where longer-term climatic trend prediction information exists, it is also important to assess how viable current livelihood strategies would be given the range of likely future climatic scenarios.

2. Innovation potential. Innovation potential refers to the ability to take appropriate risks and positively adjust to change, whether anticipated or not. With an understanding of long term trends, including climate change, people can draw on their available resources in appropriate ways in order to adapt to such changes over time. Such potential is dependent on factors such as people's knowledge and attitudes, their ability to take risks, and their access to weather prediction and market information and relevant technology and resources.

3. Access to contingency resources and support. Access to contingency resources and support is the access to back-up resources and appropriate assistance in times of crisis. A preparation to hazards can also significantly reduce exposure. Access to contingency resources and external support – e.g. savings, food and seed reserves, social protection, kin and non-kin support networks, emergency services etc. – are, therefore, likely to be critical in supporting households to cope with shocks and positively adjust to change.

4. Integrity of natural and built environment. Integrity of natural and built environment refers to the health of local ecosystems, soundness of natural resource management practices and robustness of essential physical infrastructure. Healthy ecosystems are better able to cope/adjust to climatic shocks/change than those that are relatively more degraded. Also, the presence of appropriate infrastructure that is resilient to shocks and stresses is also important: if critical infrastructure no longer functions or collapses in times shocks and stress, the livelihoods and/or health of community members can be negatively affected.

5. Social and institutional capability. Social and institutional capability is about whether extent formal and informal institutions are able to reduce risk, support positive adaptation and ensure equitable access to essential services in times of shock-stress. It is reasonable to assume that households are likely better able to successfully adjust to shocks, disturbances, and change when they are part of larger coordinated efforts at the community level and beyond.

This framework provides the foundations to a tool developed by Handicap International: ***the Economic Resilience Index***, aimed at evaluating and measuring the various aspects of economic resilience of vulnerable communities and households in disaster prone areas[5]. The tool is also meant to be used at community level, as it is important to analyze the household resilience in light of what exists (or not) at community/system level. The index uses the five pillars that strengthen economic resilience, divided in subcategories:

1. LIVELIHOOD VIABILITY

- Household livelihoods diversity: *How does the household supply for its needs?*
- Stability and control of the main activity: *How is the household main activity organized?*
- Sufficient income: *Can the household income cover for its needs?*
- Sound financial management: *Does the household save money and make positive investments? Does the household have debts?*
- People safety and working capacity: *How do the household members take care of their health at work and at home? Do persons with disabilities and parents of children with disabilities encounter barriers to work independently?*

[5] The Economic Resilience Index, released in May 2016, was field tested in Haiti and Sri Lanka.

2. SOCIAL AND INSTITUTIONAL CAPABILITY

- Social networks membership: *Are the household members part of group/network?*
- Governance participation: *How are the household's priorities taken into account in the community? Is diversity represented within local governance systems?*

3. INTEGRITY OF NATURAL ENVIRONMENT AND RISK AWARENESS

- Environmental impact of the activity: *What natural resources does the household main activity use? What waste does it generate?*
- Knowledge of risks and trends: *What are risks and trends (related to the environment or not) that threaten the household activity? Do people with disabilities have access to relevant information?*

4. INNOVATION POTENTIAL

- Capacities of adaptation and innovation: *How will the household adapt its livelihoods to the risks and trends that threaten it?*
- Access to alternative livelihoods: *How could the household change its livelihoods if needed? Are options accessible to persons with disabilities?*

5. ACCESS TO CONTINGENCY RESOURCES AND SUPPORT

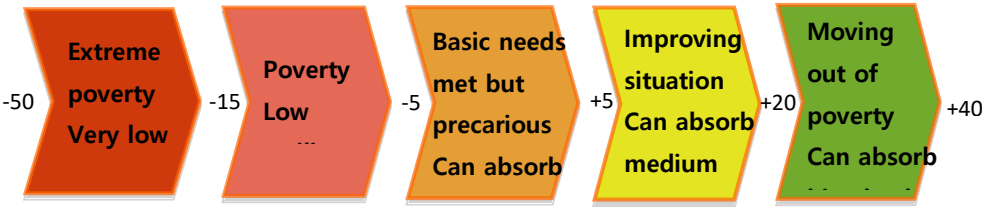
- Contingency plan: *How would the household minimize losses in case of a disaster? Do persons with disabilities participate to disaster preparedness?*
- Coping mechanisms and safety nets: *How would the household survive and resume its activity after a disaster? Can persons with disabilities access existing safety nets?*

For each sub-category, resilience assets and resilience gaps are listed.

The tool comprises a Community Resilience Index and a household Economic Resilience Index. See the user-guide to learn how to apply them.

A household is given a total index score, which is the sum of the score of the community and the score of the household livelihoods. This total index score can be placed on a resilience scale (which has to be adapted to the context if subcategories' weights have been adjusted).

Example of resilience scale:



Subcategories with several gaps identified can be addressed with specific activities (listed in document "*Economic Resilience - Activity List*").

Annexes

Annex A. Typologies of hazards and stresses

Source: UNISDR	Source: diverse	Source: Centre for Research on the Epidemiology of Disasters
Atmospheric Heavy rainfall Hail / snowfall / blizzard High winds / hurricanes Extreme temperatures **Geological** Earthquakes Volcanoes Landslides **Hydrological** Floods Drought Cyclones **Biological** Human epidemics (HIV and Aids) Plant pest outbreaks Animal disease outbreaks **Technological** Oil spillage Radiation Infrastructural accidents (building / bridge collapse) **Socio-political** Conflict War Land evictions Riots **Economic** Exchange rate crises Hyper-inflation	**Natural hazards** Climatological hazards (typhoons, flood, drought, sandstorms, landslides, cold wave, heat wave, etc.) Other natural hazards (earthquake, volcanic activity, wildfire, tsunamis, etc.) **Biological hazards** Epizootic diseases & pests Epidemics **Man-made hazards and socio-economic risks** Industrial pollution Conflict and mass population displacement Theft, looting, arson attack or malicious damage Volatile national economy (reduction or disappearance of the market) Political turmoil, social unrest, demonstrations, general strikes that would disrupt markets and the economy **Environmental hazards and trends** Reduced availability and quality of natural resources: land, water, pastures, forests, biodiversity, water resources, and fossil energy.	**Geophysical :** Earthquake, Mass Movement, Volcanic activity **Meteorological**, Extreme Temperature, Fog, Storm **Hydrological**, Flood, Landslide, Wave action **Climatological**, Drought, Glacial Lake Outburst, Wildfire **Biological** , Epidemic, Insect infestation, Animal Accident **Industrial accident,** Chemical spill, Collapse, Explosion, Fire, Gas leak, Poisoning, Radiation **Transport accident,** Air, Road, Rail, Water **Miscellaneous accident,** Collapse, Explosion, Fire

Annex B. Link with other conceptual frameworks

1. DFID Sustainable Livelihoods Framework

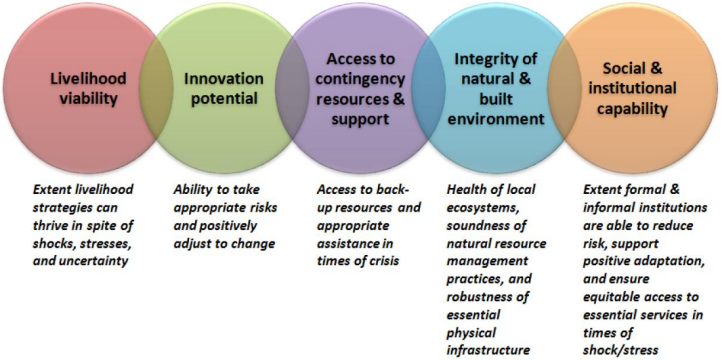
DFID Sustainable Livelihoods Framework intends to highlight all the factors that affect people livelihoods and the interactions between these factors in order to better understand the reasons why people struggle to move out of poverty and define concrete strategies to support them.

It is depicted as an asset pentagon, representing 5 types of capital or livelihood building blocks, which are inter-related:

- **Human capital (household members, active labor, education, knowledge and skill):** Health, Nutrition, Education, Knowledge and skills, Capacity to work, Capacity to adapt.
- **Natural capital (access to land, forests, water, grazing, fishing, wild products):** Land and produce, Water & aquatic resources, Trees and forest products, Wildlife, Wild foods & fibers, Biodiversity, Environmental services.
- **Social capital (kin networks, group membership, socio-political voice and influence):** Networks and connections: patronage, neighborhoods, kinship, Relations of trust and mutual support, Formal and informal groups, Common rules and sanctions, Collective representation, Mechanisms for participation in decision-making, Leadership.
- **Physical capital (livestock, equipment, vehicles, houses, irrigation pumps):** Infrastructure : transport - roads, vehicles, etc., secure shelter & buildings, water supply & sanitation, energy, communications, ; Tools and technology : tools and equipment for production, seed, fertilizer, pesticides, traditional technology.
- **Financial capital (savings/debt, gold/jewelry, income, credit, insurance):** Savings, Credit/debt - formal, informal, NGOs, Remittances, Pensions, Wages.

DFID Sustainable Livelihoods Framework reflects a household's potential of moving out of poverty, when OXFAM's framework reflects its potential of resilience, stressing capacities such as the ability to adapt and the existence of a disaster risk reduction strategy.

Suggested correspondence chart:

						
OXFAM						
DFID	**Human capital**	+++	+++	++		+
	Natural capital	++	+		+++	+
	Social capital			+++		+++

	Physical capital	+++	+++		++	
	Financial capital	+++		+++		

2. *Sendai Framework for Action*

The Sendai Framework for Disaster Risk Reduction 2015-2030 was endorsed by the UN General Assembly as the successor instrument to the Hyogo Framework for Action (2005-2015). It aims for the following outcome: "The *substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries*." It recognizes that the State has the primary role to reduce disaster risk but that responsibility should be shared with other stakeholders including local government, the private sector and other stakeholders.

The Sendai Framework has seven targets and four priorities for action:

- Priority 1. Understanding disaster risk
- Priority 2. Strengthening disaster risk governance to manage disaster risk
- Priority 3. Investing in disaster risk reduction for resilience
- Priority 4. Enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation and reconstruction

The third priority links Disaster Risk Reduction and economic resilience: "*Public and private investment in disaster risk prevention and reduction through structural and non-structural measures are essential to enhance the economic, social, health and cultural resilience of persons, communities, countries and their assets, as well as the environment*".

3. *Handicap International 13 Domains of Resilience*

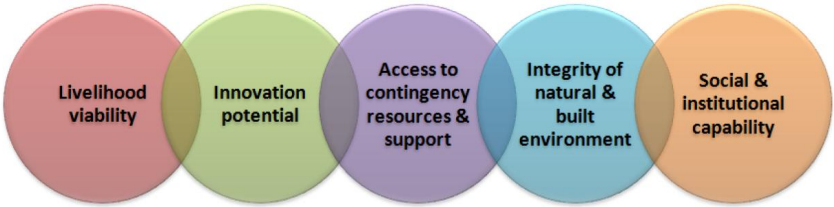
In 2015, Handicap International has produced an internal note about resilience[6]. After internal consultation and literature review[7], 13 domains or characteristics of Resilience were identified. The general definition of resilience given in this note was with no particular focus on economic resilience and with no operational framework and/or tool to be used by programs/projects. The table below shows how the 13 domains/characteristics contribute to the 5 domains of OXFAM's model and apply to *economic* resilience.

Suggested correspondence chart:

[6] La Résilience à Handicap International, V6 : 04/02/2015

[7] The two key references HI used were:

- BAHADUR, A. V. et al, *The resilience renaissance? Unpacking of resilience for tackling climate change and disasters*. 2010
- TWIGG, J. *Characteristics of a Disaster Resilient Community*. 2011

OXFAM					
	Extent livelihood strategies can thrive in spite of shocks, stresses, and uncertainty	***Ability to take appropriate risks and positively adjust to change***	***Access to back-up resources and appropriate assistance in times of crisis***	***Health of local ecosystems, soundness of natural resource management practices, and robustness of essential physical infrastructure***	***Extent formal & informal institutions are able to reduce risk, support positive adaptation, and ensure equitable access to essential services in times of shock/stress***
HI's 13	• Livelihoods • Basic needs • Physical and mental health • Diversity	• Knowledge management • Participation / • Social inclusion	• Risk assessment • Disaster risk preparedness and response • Protection • Participation/ • social inclusion	• Environment / natural resources	• Governance / • governance structure • Cohesion • Participation / • social inclusion • Interaction / • exchanges

Annex C. Bibliography of key documents on economic resilience

BRACED (Myanmar Alliance), *Community Resilience Assessment and Action Handbook*

CARE, *Climate Vulnerability and Capacity Assessment handbook*

DFID, *Sustainable Livelihoods Framework*. 1999

FAO, *Resilient Livelihoods – Disaster Risk Reduction for Food and Nutrition Security Framework Programme*. 2011

GOAL, *Toolkit for Measuring Community Disaster Resilience*. 2015

HALLEGATTE, S., *Economic Resilience - Definition and Measurement*. 2014

HANDICAP INTERNATIONAL (REBUILD project) *Inclusive and Resilient Livelihoods*. 2015

HANDICAP INTERNATIONAL (Reflect Global) *Increasing Community Resilience to Natural Disasters by Reducing Vulnerabilities to Risks*. 2015

OXFAM (Bushell, H. & Hughes, K.), *A Multidimensional Approach for Measuring Resilience*. 2013

OXFAM (Fuller, R. & Lain, J.), *Measuring Resilience*. 2015

PRACTICAL ACTION (Pasteur, K.), *From Vulnerability to Resilience – A framework for analysis and action to build community resilience*. 2011

PRACTICAL ACTION (Turnbull, M., Sterrett, C., Hilleboe, A.) *Toward Resilience –Disaster Risk Reduction Climate Change Adaptation Guide*

SOLIDARITÉS INTERNATIONAL – *Community resilience assessment scale and report*. 2013

TWIGG, J. *Characteristics of a Disaster Resilient Community*. 2011