

"No Regrets" Approach to Decision-Making in a Changing Climate: Toward Adaptive Social Protection and Spatially Enabled Governance

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Question Three: How can development agencies help vulnerable countries adapt effectively? What are appropriate roles for development agencies in supporting national-level decision-making processes for a changing climate? Specifically, how can they promote planning and policies that are robust, durable and sufficiently flexible to respond to and prepare for the many challenges posed by climate change, including its uncertainties, long-term impacts and surprises?

There has been a welcome paradigm shift in the development community to focus attention on the causes and cures of human vulnerability. In this context, it is imperative that development agencies move toward a no-regrets, resilience-based approach to spatially enabled adaptive social protection that is globally guaranteed, nationally managed, and locally administered within a territorial land governance framework. This can be achieved by linking the disciplines of climate change adaptation, disaster risk management, and social protection with information technologies, communications, logistics, geographic information services, spatial data infrastructure, and good governance. These actions will empower poor and vulnerable individuals, households and communities to become more resilient to multiple hazards.

Note: The views expressed in this paper/presentation are the views of the author and do not necessarily reflect the views or policies of the World Bank, or its Board of Governors, or the governments they represent.

Introduction: the Global 3-F's Crisis

Since 2008, the ongoing Global Crisis of Food, Fuel, and Finance (the Global 3-F's Crisis), has elevated concerns about hazards/risks and uncertainty and the capacity of existing formal and informal social and political institutions at community, local, national and international levels to manage a wide range of linked hazards and risks. Furthermore, although linkages between natural hazards, climate change, and local, national and international markets for food, fuel and finance are evident, they are not well understood.^[i] Thus, although issues related to hazards, risks, vulnerabilities, capacities, and resilience are at the top of the agenda for the development community, there are still major gaps in conceptualizing and analyzing both the causes and the cures.

In response to the Global 3-F's Crisis, the Joint Statement on Global Food Security from the *L'Aquila Food Security Initiative* of July 2009^[ii] concluded that: "There is an

urgent need for decisive action to free humankind from hunger and poverty. Food security, nutrition and sustainable agriculture must remain a priority issue on the political agenda, to be addressed through a cross-cutting and inclusive approach, involving all relevant stakeholders, at global, regional and national level. Effective food security actions must be coupled with adaptation and mitigation measures in relation to climate change and sustainable management of water, land, soil and other natural resources, including the protection of biodiversity."

In addition, the year 2010 may go down in history as the "Year of Natural Disasters and Climate Change",^[iii] with major headline-grabbing events in Haiti (earthquake), Mexico (floods), Chile (earthquake), Turkey (earthquake), Iceland (volcano), China (earthquake, floods), Pakistan (floods), Russia (forest fires), USA (various record storms), Indonesia (earthquake), New Zealand (earthquake), Guatemala (mudslide). There have also been many less publicized natural disasters as well as industrial hazards and disasters such as the Gulf of Mexico oil rig explosion.

The ongoing impacts of the Global 3-F's crisis and the above "disasters" have contributed to an increasing perception of human vulnerability to multiple hazards that can negatively impact assets and livelihoods among many people in many places around the world. As a result, there is increasing interest in how to build resilience to multiple hazards/risks at individual, household, community, local, national and international levels. In fact, there has been a major paradigm shift in the development community to increasingly focus attention on causes and cures of human vulnerability and on building resilience. This paper highlights the changes taking place in the development community in terms of the convergence of disaster risk management (DRM), climate change adaptation (CCA), and social protection (i.e. adaptive social protection) in the context of spatially enabled government that uses modern information and communication (ICT) technology and geographic information systems (GIS) and spatial data infrastructures (SDI) for territorial planning approaches.^[iv] We refer to this proactive people and place oriented approach to building resilience as a "no-regrets" approach because it focuses on transforming, strengthening and protecting assets and livelihoods, including the provision of basic needs (including security), for all persons.

"No-Regrets" Approach: "No-regrets" actions are actions by households, communities, and local/national/international institutions that can be justified from economic, and social, and environmental perspectives whether natural hazard events or climate change (or other hazards) take place or not. "No-regrets" actions increase resilience, which is the ability of a "system" to deal with different types of hazards in a timely, efficient, and equitable manner. Increasing resilience is the basis for sustainable growth in a world of multiple hazards (see Heltberg, Siegel, Jorgensen, 2009; UNDP, 2010).

The International Agenda for Resilience-Based Approaches to Climate Change Adaptation

The Hyogo Framework for Action 2005-2015 which emerged from the 2005 World Conference on Disaster Reduction in Japan set the international agenda for disaster management. Entitled *Building the Resilience of Nations and Communities to Disasters*^[v] it focuses on five priorities for action: i) ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation, ii) identify, assess and monitor disaster risks and enhance early warning systems (EWS), iii) use knowledge, innovation and education to build a culture of safety and resilience at all levels, iv) reduce the underlying risk factors, and v) strengthen disaster preparedness for effective response at all levels. Climate change adaptation is explicitly noted as an issue to be addressed under priority iv).

Since Hyogo, there has been increased recognition that the DRM and CCA agendas should be integrated and mainstreamed into the development agenda using a climate risk management approach (World Bank, 2006; GFDRR, 2007; UNDP, 2009; World Bank, 2009a). Part of the overlap is that many climate-related hazards (e.g.,

increased droughts and floods, stronger hurricanes and cyclones) are increasing in frequency, intensity and severity because of climate change, and thereby represent higher levels of disaster risk. Climate risk management approaches adopted by national governments and development agencies seek to promote sustainable development by reducing the vulnerability associated with climate risks, and thereby increasing resilience. Climate risk management involves proactive 'no regrets' strategies aimed at maximizing positive and minimizing negative outcomes for communities and societies in climate-sensitive areas such as agriculture, food security, water resources, and health (Hellmouth, et. al., 2007; Heltberg, Siegel, Jorgensen; UNDP, 2010). The "no regrets" aspect of climate risk management means taking climate-related decisions or action that make sense in development terms anyway, whether or not a specific climate threat actually materializes in the future, which is achieved by building resilience to changing economic, social and environmental conditions. The World Bank, UN Development Programme, UN International Strategy for Disaster Relief, and Global Facility for Disaster Reduction and Recovery and others in the development community are all promoting a "no-regrets" approach to climate change and disaster management.

The term *resilience* has been increasingly used in the development community to indicate a proactive asset/livelihood approach to DRM and CCA that specifically targets poor and at-risk individuals, households and communities. Examples include: *World Resources 2008: Roots of Resilience: Growing the Wealth of the Poor* published by the World Resources Institute (WRI, 2008), in cooperation with the UNDP, United Nations Environment Programme (UNEP), and World Bank; *Climate Resilient Cities A Primer on Reducing Vulnerabilities to Climate Change Impacts and Strengthening Disaster Risk Management in East Asian Cities* (World Bank, 2008a); *Building Resilient Communities: Risk Management and Response to Natural Disasters through Social Funds and Community-Driven Development Operations*, by the World Bank (2009b); and *Social Dimensions of Climate Change: Equity and Vulnerability in a Warming World* (Mearns and Norton, 2010).

Integration of Disaster Risk Management, Climate Change Adaptation, and Social Protection

There has also been increasing attention paid, sometimes explicitly, sometimes implicitly, to the need to integrate the DRM and CCA agendas within a social protection context that addresses multiple hazards by transforming, strengthening and protecting household and community assets and livelihoods and that increase resilience (IDS, 2008; Davies, Oswald, Mitchell, 2009; Davies, et., al., 2009).^[vi] This is because climate change and extreme weather events have many direct and indirect impacts on human well-being, especially for poor households in developing countries. "There will be changes in the mean and variance of rainfall and temperature, extreme weather events, food and agriculture production and prices, water availability and access, nutrition and health status. The most adverse impacts are predicted in the developing world because of geographic exposure, reliance on climate sensitive sectors, low incomes, and weak adaptive capacity. Socio-economic impacts, though generally not well understood, are likely to be profound and will impact humans through a variety of direct and indirect pathways" (Heltberg, Siegel, Jorgensen, 2009; 2010). The key to integrating DRM/CCA/SP is having information about who and where the poor and at-risk households and areas are located, and how natural hazards and climate change impact their assets/livelihoods and well-being (where well-being consists of tangible and intangible indicators, including perceptions of security and hopefulness for the future). Davies, Oswald, Mitchell, 2009 and Davies, et. al., 2009 have coined the term adaptive social protection to provide a conceptual, analytical and operational framework for such integration.

Since 2001, development agencies, including the World Bank^[vii], have increasingly focused on the need to transform, strengthen and protect household assets and livelihoods (Davies et. al., 2009). This has evolved in two directions: first, a focus on

providing basic needs and services (food security, health, nutrition, education, water and sanitation) for the chronic poor; and second, special assistance to the non-poor and poor when there are exogenous hazards and/or disasters that result from climatic factors and/or any economic, social, or environmental factors (e.g., World Bank, 2008b). The attention to both poor and non-poor individuals and households is an important aspect of social protection, even though the primary focus remains on the poorest individuals and households and those classified as "vulnerable groups" such as the elderly, disabled, infirm, orphans, female headed households, socially marginalized minorities and/or refugees. New programs such as community-driven social funds, conditional cash transfers (CCTs), cash transfers to vulnerable groups, attempts at "universal" health care and education, public works programs, health insurance, unemployment programs, micro-finance and micro-insurance, social inclusion programs, and emergency assistance have all opened up new possibilities for decreasing vulnerability and building resilience, with a focus on community-based risk management (see Grosh, et. al., 2008; World Bank, 2009b). This social protection agenda has been expanding globally, drawing on a wealth of experience in helping to lower vulnerability, increase resilience, and help manage multiple hazards (Grosh, et. al., 2008; World Bank, 2008c; Davies, et. al., 2009).

People-centered Early Warning Systems

The key to DRM/CCA/SP is the existence of early warning systems (EWS) that are based on an understanding of hazards/risks, vulnerabilities and capacities. Recognizing this, in 2004 the UN International Strategy for Disaster Reduction (UNISDR) created a Platform for the Promotion of Early Warning (PPEW)^[viii] to promote and support the development of people-oriented early warning and preparedness systems. The PPEW supports the concept of people-centered EWS which comprise of four key elements: i) risk knowledge, ii) monitoring and warning service, iii) dissemination and communication, and iv) response capacity. There is also a strong focus on EWS in several UN agencies, including the World Food Program (WFP)^[ix], Food and Agricultural Organization (FAO)^[x], World Meteorological Organization (WMO)^[xi], and World Health Organization (WHO)^[xii]. These UN agencies are increasingly sharing EWS information and analyses and dissemination as recognition grows of the links between hazards/risks, vulnerabilities and capacities and the resulting need for a more holistic basic needs approach by development agencies. The WFP's Vulnerability Assessment and Mapping (VAM) is carried out in many countries, and has been a leader in the application of GIS technologies for place-specific, people-centered EWS focused on food (in)security which encompasses many aspects of human vulnerability in terms of basic needs such as food, health, nutrition, access to water. These analyses have been crucial in mobilizing pre- and post-disaster emergency assistance in many situations.

The Development Agenda: Spatially Enabled Governance

In addition to the trends to integrate DRM/CCA/SP and mainstream them into the development agenda, there has been increasing attention paid to the need to integrate and mainstream DRM (and CCA) with land administration and governance, using tools such as GIS, spatial data infrastructures (SDI) and information and communication technologies (Murthy, 2009; Childress, Siegel, Barham, 2010, Enemark, 2009; 2010). This attention is to some extent driven by the global trend toward decentralization of governance and the increasing responsibility of local and other sub-national governments to provide public services that were provided by central governments in the past.

For example, Enemark (2009, 2010) proposes a "land governance" approach to spatially enabled government, whereby community-based data and information on the distribution of land rights (ownership and use rights) is used as the basis for GIS and SDI for a wide range of economic, social and environmental variables (and indicators) that provide information for planning and monitoring/evaluation,

including land use planning, natural resource management, disaster risk management and climate adaptation. Others have proposed the use of spatially enabled government to also assist in identifying and targeting beneficiaries of social protection programs, for DRM/CCA, and for participatory monitoring and evaluation, linked to other sets of variables and indicators (Murthy 2009).

In deploying such approaches, the process undertaken by public authorities to identify, evaluate and decide on different options for the use of land is critical. These should include consideration of long term economic, social and environmental objectives, the implications for different communities and interest groups, and the subsequent formulation and promulgation of plans that describe the permitted or acceptable uses.

For national governments implementing such approaches in developing countries, and the development agencies supporting them, integrating DRM/CCA/SP in and of itself should not be the objective. Rather, these development agendas need to be mainstreamed and integrated into land use and natural resource management related planning processes and applied within broader territorial planning approaches. Territories need to be carefully selected, and combine environmental/economic/social attributes with political boundaries (ICLEI, 2008; UNDP, 2010). For example, one logical and often used spatial unit of analysis for territorial planning that integrates DRM/CCA/SP and land governance is a watershed region (or river/water basin). Watershed management approaches, by their very nature, address many drivers related to management of hazards, vulnerabilities and capacities for an integrated approach to risk management, especially when they include early warning and rapid response systems, and proactive disaster risk management.

Moving forward in a changing climate, the role of information technologies, communications, logistics, critical role for geographic information services (GIS) and spatial data infrastructure (SDI) and good governance will be fundamental for linking disaster risk management, climate change adaptation and social protection in a virtuous cycle of increasing resilience based on territorial planning and ongoing monitoring and evaluation (Murthy, 2009; Enemark, 2009; 2010).

The World Bank's Ethiopia Productive Safety Nets Project, is one example of an approach that uses community-based means testing to identify potential SP program beneficiaries and remote sensing technology and GIS to support early warning and rapid response systems, with a contingency fund to finance resilience-building public works (Wiseman and Hess, 2008; Davies, et. al., 2009; Gilligan, Hoddinott, Taffesse, 2008; Hellmouth, et. al., 2009; Hoddinott, 2009). There are other countries with somewhat similar systems, but there is no unique blueprint or "one-size-fits-all" approach.

Community-level spatially-enabled governance in action

Murthy (2009) details how a community-based GIS, using parcel-level data, can be used for multiple purposes for DRM/CCA/SP and planning, monitoring and evaluation for a territorial approach to planning and management. Spatial information generated using remote sensing and GIS techniques, and socioeconomic data are integrated with geo-referenced cadastral maps. Community-level planning can be carried out using spatial/non-spatial information. Participatory GIS (P-GIS) techniques can be used, which draw on participatory livelihood methods. The use of P-GIS can encourage locally designed indicators of vulnerability and indicators relevant for EWS and rapid response and ongoing participatory M&E to facilitate a virtuous cycle of planning and M&E. In addition, it may be possible to install simple community-based weather stations that measure daily high and low temperatures and rainfall, and possibly other basic indicators. Community-based weather stations could be linked to remote-sensing systems, and provide ground-truthing when combined with additional community-level

The Development Agenda: Toward a Risk-Adjusted Social Protection Floor

Several agencies of the United Nations have recently proposed a "Social Protection Floor" as a direct response to the "Global 3-F's Crisis" and the perceived weaknesses and/or absences of formal local, national or international institutions to reduce the negative direct and indirect impacts on poor and vulnerable households and communities (ILO and WHO, 2009a; b). The UN's Social Protection Floor Initiative (which includes a working group of UN agencies and others, including the World Bank) is the most explicit attempt to date to adopt a basic needs approach as a means to increase resilience. The concept of the SP Floor is to guarantee a set of basic social rights, services and facilities (e.g. food security, health, nutrition, education, water and sanitation, employment and/or pension/disability payments) [xiii] for every human being based on the universally accepted UN Declaration of Human Rights. [xiv] Thus, the shift toward a focus on reducing vulnerability and increasing resilience can be viewed as part of a conscious and directed strategy to counter the negative economic, social and environmental impacts (i.e., multiple hazards) associated with globalization.

The SP Floor Initiative recognizes and formalizes an ongoing trend in many countries to provide "social guarantees" to its citizens as a means to lower vulnerability and build resilience, in the context of "rights-based approaches" (World Bank, 2008c; Garcitua-Mario, 2009; Jorgensen and Serrano-Berther, 2009). There has also been use of innovative finance and insurance products to support different social protection approaches to managing hazards/risks and underlying vulnerabilities and capacity constraints, notably different micro-finance schemes and micro-insurance for health and life, and weather-index insurance (Pollner, Kryspin, Nieuwejaar, 2008; Hill and Torrero, 2009; Hellmouth, et al., 2009; Heltberg, Siegel, Jorgensen, 2010). The focus on innovative finance and insurance instruments is for household, community, local, national and international levels, and includes different types of compensatory and contingency funding arrangements involving public and private sectors (Davies, et. al., 2009; Wiseman and Hess 2008; World Bank, 2010b). The World Bank, for example, introduced a new "Insurance for the Poor Program" in 2008 which aims to reduce the vulnerability of poor households by helping them to develop sustainable livelihoods through enhanced access to insurance and related financial services. The major areas of focus are health insurance, life insurance, crop and livestock insurance, and natural disaster insurance.[xv]

The relatively fresh literature on the SP Floor Initiative, primarily within the UN system (ILO and WHO, 2009a; 2009b), is still grappling with many basic conceptual, analytical, and operational issues about benefit levels, targeting beneficiaries, delivery mechanisms, and sources of funding. This debate could be widened to consider a "risk-adjusted SP Floor" that encompasses climate-related hazards (including climate change), and other natural and man-made hazards, and draws upon new ICT/GIS/SDI technologies and innovations in finance and insurance that utilize global risk pooling and transfer mechanisms with objective and transparent triggers for determining benefit payments and beneficiaries.

Concluding Comments: Next Steps for Development Agencies

The term *resilience* has been increasingly used in the development community to indicate a proactive asset/livelihood approach to DRM/CCA/SP that specifically targets poor and at-risk individuals, households and communities. While disaster risk management, climate change adaptation and social protection have a lot in common, they have historically been different disciplines and communities of practice, operating in different institutions and using different conceptual and analytical frameworks and terminologies. All three agendas attempt to manage hazards/risks by transforming, strengthening and protecting assets and

livelihoods, including efforts to improve institutional capacities, and to decrease vulnerability and build resilience and thereby promote poverty-reducing sustainable growth. However, each has a different focus in terms of timing, purpose and target groups. To date, despite some efforts to explicitly link DRM/CAA/SP there has been limited explicit integration of policies and practices. Moving forward, the concept of adaptive social protection (IDS, 2008; Davies, Oswald, Mitchell, 2009; Davies, et. al., 2009) is a good starting point for integration. The growing awareness of the land governance community about the ability to explicitly incorporate geo-referenced data about hazards/risks, vulnerabilities and capacities using modern ICT, GIS and SDI technologies has created new ways to help decision-makers at community, local, national and international levels. Good land governance, in turn, is the key to achieving poverty-reducing sustainable growth and to effective disaster risk management, climate change adaptation and social protection.

As Enemark (2009; 2010) emphasizes: *Place matters! Everything happens somewhere. If we can understand more about the nature of "place" where things happen, and the impact on the people and assets on that location, we can plan better, manage risk better, and use our resources better.* Modern information and communications technology provides tools to better understand people and places and to manage risk. Spatially enabled government, using ICT/GIS/SDI to integrate DRM/CCA/SP using territorial planning approaches offers potential to build the resilience of people and places and strive toward poverty-reducing sustainable growth. Many local governments around the world are increasingly using GIS as key components of their information management systems. Development agencies have a major role to play in technology transfer that includes both hardware and software, especially institution and capacity building. There is experience in these types of efforts from past projects in support of decentralization and land administration.

Spatially enabled government uses place as the means of organizing information and activities (Enemark, 2009; 2010). New technologies such as Google Earth provide user-friendly information in a very accessible way. Spatial data can be merged with economic, social and environmental data, and information on hazards and vulnerability. This unleashes the power of ICT for a wide range of uses including land ownership, land and property taxation, land use planning and NRM, environmental monitoring and conservation, infrastructure planning, territorial planning, social services planning, and all phases of DRM/CCA/SP. This also includes the design and implementation of a service-oriented ICT architecture for organizing and sharing the spatial information that can improve the communication between the public and private sectors and between civil society and other stakeholders. Such communication will be vital for effective development, disaster risk management and adaptation in a changing climate.

Increasing concerns about multiple hazards that are directly and indirectly linked to natural hazards and climate change provide an opportunity for increased integration of DRM/CCA/SP with the land governance community, and the availability of GIS and SDI and communications technologies have opened new possibility for cooperative efforts. These efforts can aim at improved early warning and rapid response systems, territorial planning and ongoing monitoring and evaluation efforts that improve forecasting of hazard events, and understanding of sources of vulnerability and capacity constraints.

All of this information is critical for proactive actions that promote resilience and poverty-reducing sustainable growth. The integration of DRM/CCA/SP in territorial approaches that are anchored in community-based systems, supported by financing and technical assistance, and benefit from risk pooling and transfer (e.g., insurance) from higher levels of aggregation (e.g., local, national and international governments and markets) are all part of a "no-regrets" development approach.

Thus, it is imperative that development agencies move toward a no-regrets resilience-based approach to spatially enabled adaptive social protection that is globally guaranteed, nationally managed, and locally administered in the context of territorial land governance framework. Of course, there is also a critical need to consider how to operationalize the linkages in practice, given the similarities (and also the differences) and the incentives (and disincentives) to integrate efforts at community, local, national and international levels, among different stakeholders with different objectives, capacities and financial resources. The institutional realities and constraints of such an ambitious approach need to be recognized and dealt with.

A new concept that exemplifies this holistic approach is a "Social Protection Floor", which guarantees basic needs of all persons living in the global community, and also helps them manage hazards/risks. A "SP Floor" is one of many options to help lower vulnerability and build resilience to the ever-changing hazards/risks faced by human beings in the global community.

The UN and its various agencies have a key role to play, but other key stakeholders, especially the World Bank, regional international development banks, multi-lateral and bilateral donors, and leading NGOs (such as the International Red Cross and Red Crescent Society) need to be major stakeholders if the concept of a "risk-adjusted SP Floor" is to become a reality. While the concept of a SP Floor is often challenged by the seemingly high costs, expenditures on DRM/CCA/SP to increase household and community resilience should rather be considered as investments. That is, they are investments in human, social and environmental assets that increase growth potential. Moreover, there are possible cost savings associated with increased human security and a decreased need for expenditures to protect property and person against criminals and terrorists motivated by poverty and other deprivations.

The World Development Report 2010 on climate change and poverty (World Bank, 2009b), emphasized the need to "*act now*", to "*act together*", and to "*act differently*" to achieve "an equitable and effective global climate deal". One way to interpret this appeal is to deal differently with climate change, natural hazards and other hazards using a "no-regrets" adaptive social protection approach to empower poor and vulnerable individuals, households and communities to become more resilient to multiple hazards, using spatially enabled governance for territorial planning and management.

Annex: Similarities and differences between DRM, CCA, and SP:

- **Disaster Risk Management (DRM):** focus on natural hazards (hydro-meteorological, and geo-physical) and extreme events, and emergency responses. Hazard forecasts for future based on past, try to lower vulnerability ("reduce the risks") in short-term to medium-term.
- **Climate Change Adaptation (CCA):** focus on natural hazards and direct/indirect impacts of climate-related factors (extreme weather events and changes in climate variability). Hazard forecasts for future based on past, present, future and try to lower short-term and longer-term vulnerability. Adjustments over time (i.e., adaptation) as climate change takes place (or is expected to take place), with proactive actions.
- **Social Protection (SP):** focus on provision/guarantee of "basic needs" through asset and livelihood enhancement and risk management for multiple-hazards (e.g., environmental, socio-economic, cultural) using mixed quantitative/qualitative methods. Includes public and private sector interventions to strengthen and protect assets and livelihoods of individuals and households and improve access to basic needs, and help manage hazards from economic, social, natural sources. Special focus on "vulnerable groups" (poor, elderly, sick, disabled, unemployed, children, socially excluded). Objective to proactively reduce vulnerability and increase resilience via assets/livelihoods.

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[i] For example, the ongoing debate about impact of bio-fuels on food, fuel and financial markets. See <https://www.ethanolrfa.org/news/entry/world-bank-impact-of-biofuels-on-commodity-prices-not-as-large-as-originall/>

[ii] See

https://www.g8italia2009.it/static/G8_Allegato/LAquila_Joint_Statement_on_Global_Food_Security%5B1%5D,o.pdf

[iii] See <https://www.dailyhotnews.org/323/2010-the-year-of-natural-disasters/> from an April 14, 2010 article called: *2010, the year of natural disasters*. Yes, this article was from April, and think of what has occurred since.

[iv] See Nedovic-Budic and Budhathoki (2006) for definitions of GIS, SDI, ICT and the relationships.

[v] See <https://www.unisdr.org/eng/hfa/hfa.htm>

[vi] DRM/CCA/SP have a lot in common, but they have historically been different disciplines and communities of practice, operating in different institutions and using different conceptual and analytical frameworks and terminologies. They all attempt to help households and communities manage hazards/risks by strengthening and protecting assets and livelihoods, and to build resilience and promote poverty-reducing growth. However, they all have a different focus in terms of timing, purpose and target groups. See Annex for comparisons.

[vii] The World Development Report 2000/1: Attacking Poverty (World Bank, 2001a) focused attention on linkages between opportunity, security, and empowerment. The World Bank Social Protection Strategy from 2001 (World Bank., 2001b) was based on the social risk management (SRM) conceptual framework that examines how society manages hazards/risks and focused attention on the underlying sources of vulnerability and poverty, notably the importance of assets and livelihoods and formal and informal risk management strategies by households, communities, local and national governments, and the international community. A major conclusion was that there needs to be proactive risk management activities before hazard events are realized, to prevent ad-hoc coping that lead to losses of assets and livelihoods and a cycle of poverty and vulnerability (see Siegel and Alwang, 1999), Holzmann and Jorgensen , 2000), Holzmann, Sherberne-Benz, Tesliuc, 2003).

[viii] See <https://www.unisdr.org/ppew/about-ppew/in-brief.htm>

[ix] See <https://www.wfp.org/food-security>

[x] See <https://www.fao.org/gIEWS/english/index.htm>

[xi] See https://www.wmo.int/pages/mediacentre/factsheet/Earlywarning_en.html

[xii] See <https://www.who.int/csr/labepidemiology/projects/earlywarnsystem/en/>

[xiii] The SP Floor Initiative proposes "guaranteed employment" for able bodied persons, not unemployment payments. The "guaranteed employment" would be devoted to strengthening and protecting community assets, which in turn further increase resilience for households and individuals, and also provides benefits to higher levels.

[xiv] See Universal Declaration of Human Rights
<https://www.un.org/en/documents/udhr/>, notably Articles 22, 25, 27.

[xv] See:
https://treasury.worldbank.org/bdm/pdf/Brochures/Catastrophe_Risk_Financing_Brochure.pdf