

ADDRESSING THE SOCIAL DIMENSIONS OF CLIMATE CHANGE THROUGH ADAPTIVE SOCIAL PROTECTION¹

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Considered a crucial development challenge of the present times, climate change increases the vulnerability of the poorest and most disadvantaged groups as in the experience of farmers, fisherfolk, indigenous peoples, women and children. With the risks associated with the phenomenon that the country is now facing, from flooding to geologic dangers, destruction of 'weather-dependent' livelihoods to health-related impacts, relevant policies and plans at the national and local governments were devised mainstreaming climate change and disaster risk reduction and management (DRRM).

The Philippines for instance has now advanced pieces of legislation to enhance, strengthen and rationalize social protection policies and programs, to further lead articulation and integration of climate change and DRRM concerns into current and future interventions. Aimed at contributing to the process, this 'think paper' addresses the social dimensions of climate change through espousing a rights-based, transformative, gender-responsive, participatory and sustainable approach to social protection.

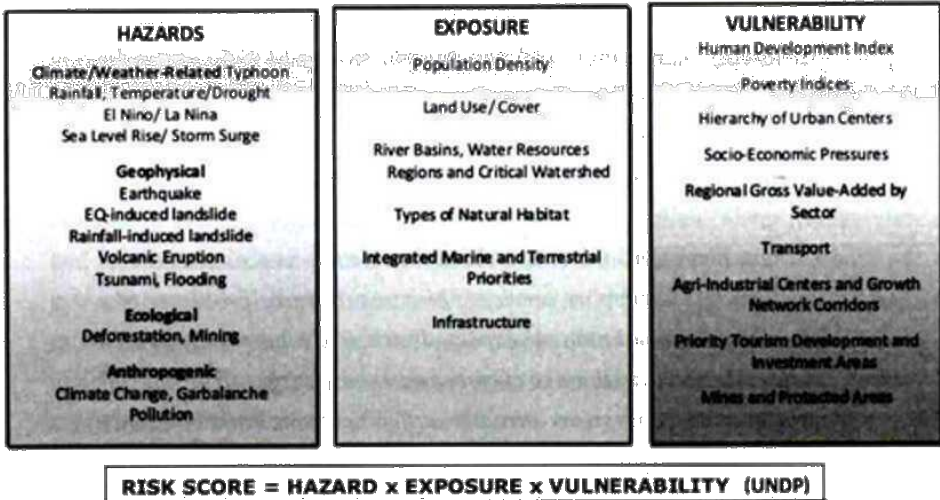
This study likewise integrates the broad meanings of social protection to include economic justice, as in the rights to an adequate standard of living or in the redistributive aspect of using and owning land and water resources. It connects social protection to various conceptions of justice: gender justice, reproductive justice, environmental justice and climate justice.

Social protection to enhance adaptation and DRR benefits can be done through protective and preventive strategies of coping, as well as through promotive and transformative strategies for building adaptive capacities. The actual ability of a system to adjust (or adapt) to climate change can also be enhanced by building resilient communities through active participation of citizens, CSO and grassroots engagement, access and use of disaster information, disaster preparedness and management planning, and good governance.

Climate change is considered to be the most crucial development challenge of our times. It is a challenge which requires a most urgent and concerted response, considering that the future of the next generations hangs in the balance. If the challenge is not adequately met, most of the efforts expended to meet the Millennium Development Goals (MDG) will come to naught. Poverty, inequality, and injustice will worsen immeasurably, and the human rights of the poorest and most vulnerable peoples in the world will be trampled upon as they struggle to survive and adapt in a “climate change apartheid”, where only rich countries generally have the wherewithal to defend themselves against the problems which are mostly their creation to the detriment of the less developed ones. (Human Development Report, 2007, p. 166).

The literature on the social dimensions of climate change invariably emphasizes the increasing vulnerability of the poorest and most disadvantaged groups to risks, defined as “chances of danger, damage, loss, injury, or other undesirable consequences from risky events” associated with such change (Heltberg, et al., 2008, p. 4). An individual or household is considered to be vulnerable to risks associated with climate change if these will result in a loss of well-being that pushes the individual or household below a benchmark or threshold level of well-being” (Heltberg, et al., 2008, p. 5). One way of estimating risk is through the HEV formula developed by the United Nations Development Program (UNDP) (La Vina, 2008, p. 104), where “Risk (R) is an approximation of the compounding effect of Hazard (H), Exposure (E) and Vulnerability (V)” (Villarin et al., 2008, p. 29).

Fig. 1. Diagram representation of the HEV formula



Source: United Nations Development Plan in La Vina, 2008

This formula could be enhanced further, according to the World Bank, by exploring Capacity (C) as denominator (Villarín, et al., 2008, p. 29).

The nexus between poverty and the environment cannot be over-emphasized in any discussion on vulnerability to climate change. Destruction of the natural resource base as a result of environmental degradation aggravates the poverty of coastal, upland and lowland communities who are consequently and increasingly deprived of their sources of livelihood. The desperate poor resort to slash and burn agriculture, dynamite fishing, and other destructive means of survival which in turn further harm the environment. Erosion of watersheds, coupled with torrential rains attributed to climate change, lead to flooding and landslides which again intensify the poverty and suffering of the affected vulnerable poor.

What are the risks associated with climate change that we now face?

The country is ranked highest in the world in terms of vulnerability to tropical cyclone occurrence, and third in terms of people exposed

to such seasonal events. An average of 20 typhoons traverse the country yearly, causing physical and economic devastation. Climate variability increasingly induces drought during El Niño episodes and floods during La Niña. Consequently, the Philippines faces increasing disaster risks with geologic/seismic dangers closely interacting with such meteorological hazards.

Climate change also threatens the ability of the country's ecosystems to provide life-support services. In coastal areas, problems like flooding and inundation are expected to increase due to accelerated sea level rise, in addition to cyclones and storm surges. With coastal and marine ecosystems already suffering from anthropogenic problems like pollution, over-exploitation and uncontrolled development, the country can ill afford to cope with additional stresses (Climate Change Commission, 2010, pp. 5-6).

The scale, impact, and implications of climate change-related phenomena in the Philippines were amply demonstrated by the devastation wreaked by Typhoons Ondoy and Pepeng in 2009, which left 961 dead, and two million families (or ten million people) affected by floods and landslides. The cost to the country was USD4.98 billion or almost three percent of the GDP (NDCC, 2009, quoted in Polotan dela Cruz, Ferrer & Pagaduan, 2010, p. 1).² This is just portentous of things to come as there are predictions based on Geographic Information System spatial analysis that approximately 67 percent (20 million hectares) of the country will be severely affected by flooding, drought, and/or landslides (Godilano, 2009, pp. 10-11). Furthermore, "climate migrants" within and across countries will multiply by the millions, resulting in humanitarian crises for which national and international mechanisms have not yet been put in place (Asian Development Bank, 2011).

Among the most affected by climate change is agriculture, and the outcome is greater food insecurity.³ An important "underlying risk driver" is "ecosystems degradation" dramatized by the fact that "Of the 27.5 million hectares in the late 1500s, the country's forest lands currently stand at 7.2 million hectares or only

14.17% of the country's total land area" (Climate Change Commission, 2010, p. 11). Furthermore, "over 80 percent of original mangroves in the country have been cleared, increasing sediment outflow onto reefs" (Climate Change Commission, 2010, p. 11). Fishing communities are affected, resulting in the same outcome, with more frequent fish kills, red tide, coral bleaching, etc.⁴ The destruction of "weather-dependent" livelihoods not only in agriculture and fishing but also in forestry has a disastrous effect on the rural poor. Their productivity and incomes consequently decline as food supplies likewise decrease and food prices increase.⁵ The result is increasing poverty and hunger (a trend already well recorded by surveys done by the Social Weather Stations), which are exactly the main problems the MDG seek to minimize. Achieving these goals amidst climate change is now even more difficult to achieve.

The urban poor are also very much affected since they are usually located on river banks and other areas highly vulnerable to flooding and damage caused by typhoons. Because of their vulnerability, exposure, and incapacity to adapt, they bear the brunt of climate change impacts. Their ranks are likely to increase as "climate migrants" stream in from rural areas, compounding the risks they face.

Vector-borne and other infectious diseases such as dengue fever, malaria and cholera are also expected to increase, and will be added burdens to the health sector. Other health-related impacts mentioned by the Integrated Panel on Climate Change Fourth Assessment Report include "malnutrition and its consequences on child development, increased injuries, illness and deaths due to heat waves, floods, droughts, storms and fires," and "increased incidence of diarrhea and cardiovascular diseases" (Ebi, 2008, cited in Garcia Rincon & Virtucio, 2008, p. 21).⁶ Groundwater sources may also be contaminated by sea water, thereby affecting supply of potable water⁷ (Casis, 2008b, pp. 13-14). If sea water levels rise due to climate change, it is predicted that even well-maintained aquifers will turn salty and undrinkable (Villarin et al., 2008, p. 21).⁸ Furthermore, "Any decline in groundwater yield will heighten water-related disputes and expose people to water-borne diseases such as cholera and typhoid fever" (Villarin, et al., 2008, p. 24).

As mentioned earlier, the adverse effects of climate change have a differential impact on people, and generally it is the poor who are most vulnerable. In the Philippines, the National Statistical Coordination Board (NSCB) estimated the number of poor families at 3.67 million and the number of poor people at 22.2 million in 2006 (NSCB, Feb. 8, 2011). Typhoons Ondoy and Pepeng in 2009 were expected to increase poverty by three percentage points in the most disaster-stricken areas in Luzon, and .5 percent nationwide, meaning an increase in the number of poor people by 480,000 (Special National Public Reconstruction Commission and the World Bank, 2009). The latest NSCB release on the highlights of the 2009 poverty statistics showed that the number of poor families increased to 3.86 million, and the number of poor people to 23.1 million (a difference of 970,000 Filipinos), with the disaster-stricken areas showing higher incidence. But the poor are not all the same because among them, there are also differentiating factors such as gender, age, ethnicity, geographic location, resource access, employment, health, and migrant status.

For example, women and girls whose social roles make them more in need and in charge of water procurement will be most affected if they have to walk further to reach water sources in rural areas or to queue longer in water lines in urban areas. When disasters strike and they are brought to evacuation centers, their special health, safety, and sanitation requirements are often not considered, and they suffer consequently. There have been reports of women and children being sexually harassed or even raped in evacuation centers. Women's multiple burdens multiply when disasters strike, because they are in charge of providing food and fuel, taking care of the young, the elderly, and the sick, while at the same time not having enough access to resources, to information, to time, and to decision-making bodies (Barrameda, 2010). This is particularly true of rural women as well as of women in fisheries.⁹

Indigenous peoples are also at enormous risk, because they live off the land and the resources found on their ancestral domain. As they themselves explain, "Our rights, cultures, livelihoods, traditional knowledge and identities are based on the profound and intricate relationships we forged with our lands, waters, and

resources over thousands of years. Thus, when our lands and resources disappear or are altered by climate change, we suffer the worst impacts” (Corpuz & de Chavez, 2009, p. vi). Expectedly, indigenous women are “more disproportionately affected,” as they suffer the following impacts: loss of life, livelihood and food security; high health risks; loss of traditional knowledge; water conflicts, violation of gender rights, migration and displacement, less mobility and further marginalization, and loss of identity. (Corpuz & de Chavez, 2009, pp. 109-112).

Older people are more affected by heat stress due to climate change, while children are more vulnerable to malnutrition, dengue and other vector-borne diseases aggravated by climate change. The number of children affected by disasters resulting from climate change is expected to increase to up to 175 million in the next ten years compared to 66.5 million in the 1990s (Tanner, 2010).

The social vulnerability of the groups mentioned earlier may already be addressed by existing resources and assistance, but their access and entitlements to these resources remain problematic. Thus their ability to deal with the impact of external stress on their livelihood, security, and well-being may still be impaired, necessitating the “mainstreaming climate change and disaster risk reduction in relevant plans at the national and local levels” (NEDA, 2011).

It is therefore important to note that the MDG-F 1656 on Strengthening the Philippines’ Institutional Capacity to Adapt to Climate Change is already in place “to pave the way to mainstream climate change adaptation in the country’s development planning process” (NEDA, 2011 p. 2). A joint program of the Government of the Philippines, UN agencies, and the Spanish Government, MDG-F 1656 “demonstrates adaptation strategies which involve the scientific assessment of current vulnerabilities of specific sectors of the country to climate change impacts, use of appropriate technologies, information on traditional coping practices, diversified livelihoods, improved capacities and current government and local interventions” (NEDA, 2011 p. 2)¹⁰

Policy and Program Context

The Philippines now has very advanced legislation on climate change and disaster risk reduction and management (DRRM). It is also enhancing, strengthening, and rationalizing its social protection policies and programs, and this process can lead to further articulation and integration of climate change and DRRM concerns into current and future strategies and interventions. This “think paper” intends to contribute to the abovementioned process.

The **Climate Change Act of 2009** affirms the sustainable human development framework of Philippine Agenda 21, and “adopts the principle of protecting the climate system for the benefit of humankind on the basis of climate justice.” It also highlights the vulnerability particularly of the poor, women, and children to the dangers of climate change, mandates the integration of disaster risk reduction into climate change programs and initiatives, as well as the systematic integration of “the concept of climate change in various phases of policy formulation, development plans, poverty reduction strategies and other development tools and techniques by all agencies and instrumentalities of the government.” What is noteworthy is that aside from a national climate change action plan to be formulated in accordance with a national framework strategy, local government units (LGUs) are tasked to be “the frontline agencies in the formulation, planning and implementation of climate change action plans in their respective areas.” (Sections 13 and 14). The Climate Change Act is for the synergy of adaptation and mitigation.¹¹ Key result areas (KRAs) for adaptation are enhanced vulnerability and adaptation assessments, and an integrated eco-system-based management with emphasis on river basin management,¹² building the resilience of coastal and marine ecosystems and communities (including tourism industries), mainstreaming biodiversity adaptation strategies, participative water governance and resource management. They also include securing food and water resources as well as livelihood opportunities through climate-responsive agricultural and health sectors, climate-proofing infrastructure and disaster risk reduction. KRAs for mitigation include energy efficiency and conservation, building the country’s renewable energy capacity, developing environmentally sustainable transport

systems¹³ and infrastructure, reducing emissions from deforestation and degradation (REDD) of our forests and enhancing their potential to serve as a “carbon sink,” and full implementation of the Ecological Solid Waste Management Act.

The Climate Change Act provided for the **National Framework Strategy on Climate Change 2010-12** which serves as the basis for “climate change planning, research and development, extension and monitoring of activities, programs, and projects to protect vulnerable communities” (NEDA, 2011p. 2). In its Preface, the Framework “aggressively highlights the critical aspect of adaptation meant to be translated to all levels of governance alongside coordinating national efforts towards integrated ecosystem-based management which shall ultimately render sectors climate-resilient” (p.1). In its Guiding Principles, the Framework reiterates its adoption of the Philippine Agenda 21 for Sustainable Development, “to fulfill human needs while maintaining the quality of the natural environment for current and future generations” (p.4). The National Climate Change Action Plan is also being developed through a consultative process to provide details to the strategies contained in the National Framework, and to guide local government units in the making of their respective plans (p.6).

The Philippine Disaster Risk Reduction and Management Act of 2010 reinforces the Climate Change Act in the following provisions of its Declaration of Policy:

(d) Adopt a disaster risk reduction and management approach that is holistic, comprehensive, integrated, and proactive in lessening the socioeconomic and environmental impacts of disasters including climate change, and promote the involvement and participation of all sectors and all stakeholders concerned, at all levels, especially the local community;

(g) Mainstream disaster risk reduction and climate change in development processes such as policy formulation, socioeconomic development planning, budgeting, and governance, particularly in

the areas of environment, agriculture, water, energy, health, education, poverty reduction, land-use and urban planning, and public infrastructure and housing, among others;

(j) Ensure that disaster risk reduction and climate change measures are gender responsive, sensitive to indigenous knowledge systems, and respectful of human rights.

The DRRM law signifies a shift from reactive emergency response to a proactive and integrated approach to address, reduce, and prepare for disasters. This shift is embodied in the law's definition of Disaster Risk Reduction as "the concept and practice of reducing disaster risks through systematic efforts to analyze and manage the causal factors of disasters, including through reduced exposures to hazards, lessened vulnerability of people and property, wise management of land and the environment, and improved preparedness for adverse events." In this context, DRRM is defined as "the systematic process of using administrative directives, organizations, and operational skills and capacities to implement strategies and policies" related to DRR.

Since the DRRM law itself is a product of concerted civil society organizations (CSOs) advocacy (Agsaoay-Sano, 2010), it places the burden not on government alone but seeks to "engage the participation of CSOs, the private sector and volunteers in the government's disaster risk reduction programs towards complementation of resources and effective delivery of services to the citizenry." The point is to build not only a disaster-resilient nation but also disaster-resilient communities through community based DRRM, which the DRRM law defined as "a process of disaster risk reduction and management in which at risk communities are actively engaged in the identification, analysis, treatment, monitoring and evaluation of disaster risks in order to reduce their vulnerabilities and enhance their capacities, and where the people are at the heart of decision-making and implementation of disaster risk reduction and management activities."

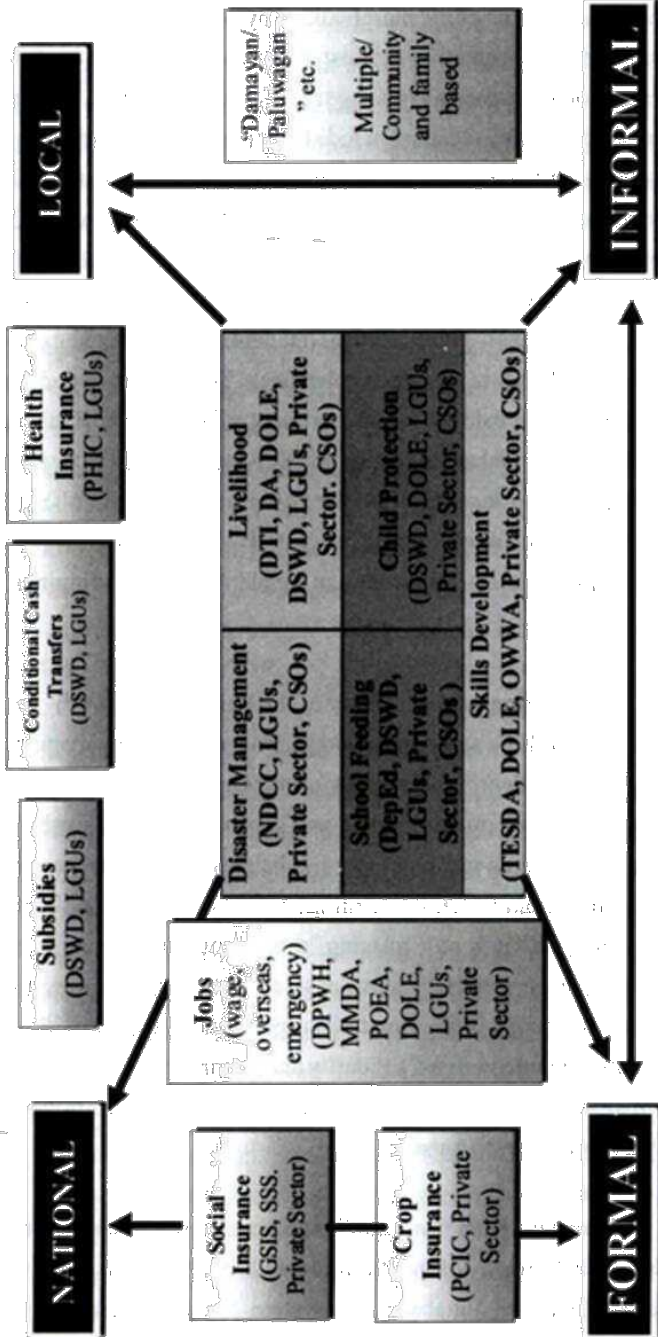
In the Philippine context, **social protection** consists of "policies and programs that seek to reduce poverty and vulnerability to risks and enhance the

social status and rights of the marginalized by promoting and protecting livelihood and employment, protecting against hazards and sudden loss of income, and improving people's capacity to manage risks" (NEDA, 2007). Under this definition, components of social protection include labor market interventions, social insurance, social welfare, and safety nets. It is under the category of safety nets that the following disaster-related programs and projects of the Department of Social Welfare and Development (DSWD) are located: assistance to individuals in crisis situations, core and emergency shelter assistance to victims of disasters, disaster relief operations, food/cash for work assistance, critical incident stress debriefing assistance and the Tindahan Natin Project (food price subsidies). The National Food Authority (NFA) also provides food subsidies. The Department of Health (DOH) also has a program/project on disaster management and preparedness. In addition, the Metro Manila Development Authority (MMDA), the Philippine National Police (PNP), and the Department of Public Works and Highways (DPWH) provide emergency employment but on a peripheral basis (Development Academy of the Philippines, 2009, pp. 24-25).

The Development Academy of the Philippines (DAP) recommends the strengthening of these safety nets and proposes a program scoping diagram (see next page) which identifies the roles of national agencies and local government units, formal and informal schemes, and shows which bodies should take care of social, health and crop insurance, jobs, subsidies, conditional cash transfer (CCT), disaster management, school feeding, livelihood, child protection and skills development. What is still missing in the program scoping is climate change adaptation.¹⁴ Also important in terms of visualization is the connection to the global, since risks associated with climate change cannot be dealt with by one country alone and require international solidarity and action. Even DRRM is now dependent on international cooperation for timely and accurate early warning systems related to weather and other disturbances.

There have been many studies and critiques of social protection programs (Development Academy of the Philippines, 2009; Manasan, 2009). Among these are the fact that "the social security system, the social health insurance scheme

Fig. 2. Proposed Program Scoping



and many of the non-contributory social protection programs provide poor coverage of the informal sector which includes the transient poor and the near poor,” and the fact that “although national government spending on social protection has increased in response to the global financial crisis, national government’s spending on social welfare programs, social safety nets and active labor market programs compares unfavorably with that of other countries” (Manasan, 2009, p. iii).¹⁵ Furthermore, many of the emergency and subsidy schemes do not go beyond doleouts (Homenet SEA, Homenet Philippines and MAGCAISA, 2009).

Today, the critique centers on the relatively huge amount of resources being poured on the 4Ps or CCT Program, compared to other government programs that are just as important in the context of social protection.¹⁶ The CCT now serves as the core of the convergence strategies linking employment generation, livelihood, microfinance, community-driven development, and asset reform. These could include environmental protection and conservation projects as was the case in Kalahi-CIDDS (Manasan, 2009, p. 56), as well as the integration of disaster management in the Family Development Sessions of the CCT.¹⁷ Such convergence strategies are mentioned in the chapter on social development in the **Philippine Development Plan (PDP) 2011-2016**, together with other “cross-cutting social sector strategies” such as attaining the MDGs, closing the universal coverage gaps in health care, accelerating asset reform, mainstreaming climate change adaptation and disaster risk reduction in social development interventions, and strengthening civil society-basic sector participation and public-private partnership (PPP) in the social sector.

The PDP also contains a chapter on Conservation, Protection and Rehabilitation of Environment and Natural Resources towards Sustainable Development, which highlights efforts “to mainstream and integrate Disaster Risk Reduction (DRR) and Climate Change Adaptation (CCA) in national, sectoral, regional and local development plans” (NEDA, 2011 p. 1).

Adaptive Social Protection Using a Social Justice and Human Rights Framework

There is increasing recognition that “Social protection policy needs to learn from and incorporate DRR and adaptation approaches to ensure that programmes continue to effectively support livelihoods and protect the poor and excluded from shocks and risks in the face of climate change” (Davies, Oswald & Mitchell, 2009, p. 205). Put another way, “Social protection holds significant promise for protecting poor and excluded people against current (DRR) and future (adaptation) weather extremes and tackling increasing levels of risk and vulnerability” (Davies, et al., 2009, p. 212). The Philippine policy and program context discussed above shows that there is indeed a need for inclusion of climate change and DRRM concerns as mandated by existing legislation in the country’s social protection strategies.

The concept of “adaptive social protection”, which has the following features, could therefore be considered by policy-makers:

- *An emphasis on transforming productive livelihoods as well as protecting, and adapting to changing climate conditions rather than simply reinforcing coping mechanisms;*
- *Grounding in an understanding of the structural root causes of poverty for particular people, permitting more effective targeting of vulnerability to multiple shocks and stresses;*
- *Incorporation of rights-based rationale for action, stressing equity and justice dimensions of chronic poverty and climate change adaptation in addition to instrumentalist rationale based primarily on economic efficiency;*
- *An enhanced role for research from both the natural and social sciences to inform the development and targeting of social protection policies*

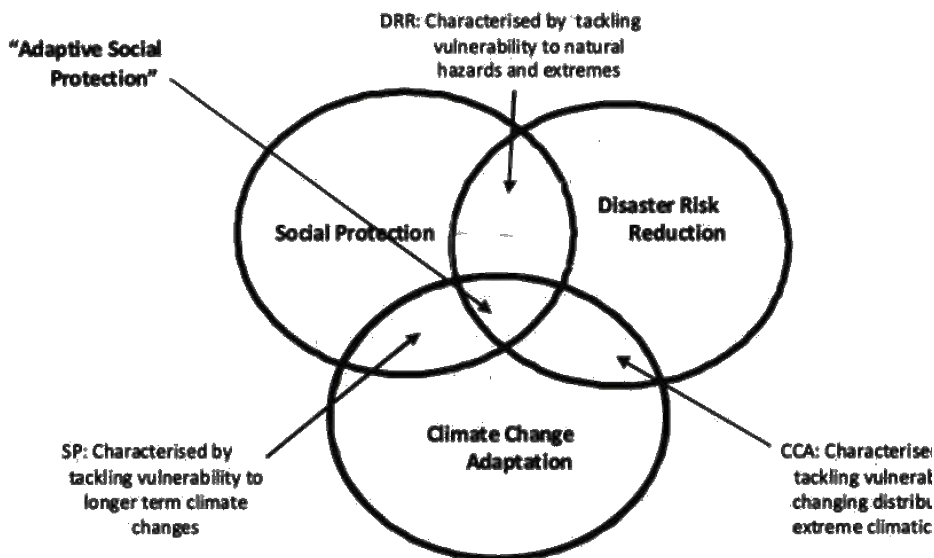
and measures in the context of the burden of both geophysical hazards and changing climate-related hazards;

- *A longer term perspective for social protection policies that take into account the changing nature of shocks and stresses (Davies, et al., 2009, pp. 211-212).*

Adaptive social protection is therefore about rights-based action for equity and justice that emphasizes the role of scientific research and sustainable livelihood in addressing chronic poverty and vulnerability to climate-related and other hazards. To be truly effective, adaptive social protection programs rely on science-based vulnerability assessment reports “to determine who are the most vulnerable; where are they located; what are their vulnerabilities, what are the socio-economic impact of these vulnerabilities and the corresponding adaptation measures needed” (NEDA, 2011, p. 2).

Adaptive social protection seeks the integration of climate change adaptation to tackle “vulnerability to changing distribution of extreme climatic events,” a “preventative and holistic poverty approach to DRR” to address “vulnerability to natural hazards and extremes,” and social protection which is “climate-proofed” in the sense that it can address “vulnerability to longer-term climate changes” with “more reliable and accurate predictions and consideration of vulnerability” (NEDA, 2011, p. 212).

Adaptive social protection also assumes universality of coverage since climate change and its ensuing impacts do not choose victims. Although the poor are the most exposed and vulnerable, other sections of the population can be severely affected and cannot be excluded from crucial forms of assistance for humanitarian reasons.



Source: Davies, et al, (2009) Climate change adaptation, disaster risk reduction and social protection, in *Promoting Pro-Poor Growth Social Protection*, OECD, p. 212.

The need for “adaptive DRR” must also be stressed , “to ensure that all DRR activity is resilient in the face of a changing climate, or as far as possible ‘climate proofed ‘and does not result in the maladaptation of vulnerable communities” (Huq & Ayers, 2009, p. 145).¹⁸

Taking Off from Transformative, Gender-Responsive, Participatory, and Sustainable Social Protection

Based on its features enumerated in the previous section, “adaptive social protection” may be seen as taking off from the concept of “transformative social protection.” This maintains that “social protection can address risks and promote economic growth but poverty and vulnerability are structural and embedded in the socio-political context; social protection must go beyond welfare and support citizens’ claim to social protection from the state as a basic right” (Devereux & Sabates Wheeler, 2007, p. 9). “Institutional transformative social protection” is

a “means to a life with dignity” as it **“addresses power imbalances in the society, creating a policy environment conducive to pro-poor growth, accountable and responsive governance systems, and a social equity-grounded development approach.”** Thus, transformative social protection goes beyond targeted resource transfers; it extends to such arenas as equity, empowerment, as well as economic, social, and cultural rights. It requires legislation, financial commitment, and accountability (Agenda on Transformative Social Protection, 2009).

It also integrates a gender perspective developed by social development practitioners both here and abroad (notably Lund, Srinavas, Kabeer, Luttrell and Moser) which has led to an alternative definition of social protection: “All interventions from public, private and voluntary organization and informal networks to support communities, households and individuals, both women and men in their efforts to prevent, manage and overcome risks and vulnerabilities throughout their life cycle, and to realize their rights as citizens participating fully and equally in all decision-making which affects their access to and control over resources necessary to maintain and sustain a decent and secure life” (Homenet Southeast Asia, Homenet Philippines and MAGCAISA, 2009, p. 2).

Part of the broad meaning of social protection is the right to participate in the affairs of the community to which one belongs in order to ensure access to resources as well as to various forms of justice. Many workers, especially women, youth, and those in the informal economy, have been invisible and are hardly consulted or even informed about housing, land development and other programs that affect them directly. The weaknesses of many existing social protection programs are partly due to lack of dialogue, consultation, and participation by the people. The working people, considered to be the targets or objects of many development programs undertaken in their name, often do not have a hand in the design and implementation of these programs.

As earlier discussed, social protection must also address the environmental crisis which is truly worrisome, since it can be the source of “catastrophic risks” which must in turn be addressed by adequate and participatory DRRM and other

social protection initiatives at the community level. Given the extent of environmental damage and the possibility of even greater damage due to climate change, there is a pressing need to build a decent and sustainable economy based on green industry, agriculture and services, while at the same time creating millions of jobs in renewing forests, protecting coastal resources, reviving poisoned soil, cleaning up air and water sources, segregating and recycling mountains of waste, and last but not least, rebuilding damaged and vulnerable communities. It is in this sense that a **green economy is also a solidarity economy**, relying on the capacity of people to organize and create their own means to survive, prosper, and assist each other through cooperatives, fair trade groups, and other social enterprises. Social protection initiatives, therefore, should be linked to the broader goal of sustainable human development. (Ofreneo, R.E., 2010).

Social, Gender, and Environmental Justice: Some Crucial Links

The notion of realizing rights and entitlements, in social protection literature, is very related to various conceptions of justice –economic and social justice; gender and reproductive justice; and environmental, intergenerational and climate justice. Each of these concepts is important because in human rights discourse, the claim holders (or the citizenry) can always assert various compendiums of rights to the duty bearers (mainly the state) within the ethical ambit of seeking justice, long denied, in any of its current forms.

These interweaving notions of justice are embodied in the **People's Social Protection Agenda (PSPA)**, the product of a participatory and consultative process spanning years of sustained advocacy. It is a consolidation of the different views of various stakeholders – informal workers' associations led by Homenet Southeast Asia, Homenet Philippines and MAGCAISA, trade unions, women's groups and agencies, church-based and business groups, civil-society and community-based organizations, government institutions, academe and others – on how social security and protection can be developed to cover all Filipinos facing various levels of risks and vulnerabilities in life.

Taking a rights-based, transformative, gender-responsive, participatory and sustainable approach to social protection, the PSPA calls for jobs, social security, health care, education and skills, basic services, social assistance, voice, and justice for all. It connects social protection to various conceptions of justice in the context of worsening financial and employment crises, and in the wake of terrible disasters the country just suffered due to climate change.

Social justice has always been the battle cry of trade union, peasant and other class-based movements struggling for more equitable and egalitarian societies. Women have always participated in these usually male-led movements, but their contributions have often been rendered invisible and insignificant in most mainstream histories.

Authors of World Bank publications have actually placed a social justice perspective to various climate change characteristics. They show how less developed countries, poor people, women, and other vulnerable groups have become victims of injustice created by the “correlation of greenhouse gas emissions to wealth and growth,” the differential impact of climate change phenomena on various sectors based on their power and relation to natural resources, the increasing importance of and conflict over carbon assets,” etc. (Mearns, et al., 2009, p. 16).

Economic justice, which is often subsumed under the broader rubric of social justice, involves the exercise of economic rights related to the sphere of work, many of which are enshrined in the Universal Declaration of Human Rights, the International Covenant on Economic, Social, and Cultural Rights (ICESCR), and various ILO conventions, particularly those having to do with core labor standards and decent work. Of particular relevance in these times of financial and economic crisis is Article 11 of the ICESCR, which recognizes the right of everyone and everyone’s family to “an adequate standard of living,” including “adequate food, clothing, and housing, and to the continuous improvement of living conditions” (Balakrishnan, 2006, p. 26).

These rights are also implicated, according to World Bank authors, when natural impacts of climate change in turn impact on human systems, resulting in death, increased poverty, deprivation, ill health, and homelessness, as well as marginalization and exclusion of women, children, older people, indigenous communities and other vulnerable groups (Mearns et al., 2009, p. 14).

Economic justice also has both participative and (re)distributive aspects. The first refers to the capability to engage in remunerative work and have access to and control of resources to earn an income enough to maintain what has been referred to above as “an adequate standard of living.” The second refers to just compensation, fair prices (as propounded by fair trade advocates), and a reasonable share of the economic benefits derived from the application of one’s labor and talents. It also includes asset reform, especially when referring to use and ownership of land and water resources.

Key policy recommendations of the PSPA are driven by a strong sense of economic and social justice, specifically those categorized under jobs, social security, health care, education and skills, basic services and social assistance for all. Their major concerns are the interests of majority of the working people who are often invisible, vulnerable, and marginalized – the workers in the informal economy.

The concepts of gender justice and reproductive justice have also been deployed to underpin the PSPA. The conception of gender justice can be interpreted as access to entitlements and enabling mechanisms, as absence of discrimination, or as a compendium of positive rights for women’s empowerment. Goetz (2007) defines it as “the ending of—and if necessary the provision of redress for—inequalities between women and men that result in women’s subordination to men” (p. 15). The Asian Communities for Reproductive Justice say that what they are aiming for is “the complete physical, mental, spiritual, political, economic, and social well-being of women and girls, which will be achieved when women and girls have the economic, social and political power and resources to make healthy decisions about our bodies, sexuality and reproduction for ourselves, our families and our communities in all areas of our lives” (Sister Song, 2010, FAQ).

through the wise use of natural resources and by refraining from abuse and despoliation of nature which could further endanger the ecosystems on which all life forms depend for continued existence. More specifically, future generations should not suffer the consequences of environmental degradation now accelerating in the context of climate change and global warming. Social protection when connected to this notion involves preparing and empowering whole communities of women and men, young and old, in preventing and addressing environmental disasters, as well as in mitigating their impact. Investing in green jobs and developing a green economy based on solidarity are also part of the solution.

Climate justice, as a related concept, is premised on the need for global equity, by obligating the industrialized countries most responsible for greenhouse gas emissions to compensate and assist the less developed nations now suffering from typhoons, floods, landslides and other after-effects of climate change resulting from these emissions. Such compensation and assistance should not be in the form of loans that lead to greater indebtedness (Tanchuling, 2010).¹⁹ In fact, countries like the Philippines saddled with a huge debt burden should be given the space to write off some of this burden (particularly what are classified as odious or graft-ridden debts) or at least postpone payment until sufficient growth is achieved to make this feasible without sacrificing economic development and social services. The resources thus freed from automatic debt appropriation could be used for social protection and development. As the People's Social Protection Agenda (PSPA) elaborates, "The money, during these times of crises, should go to social infrastructure, investment in public health, education, child care and other social services, to generate decent jobs for women[and men], and relieve their burdens" (Barrameda, 2010, p. 24).

A people's social protection agenda anchored on human rights and interweaving notions of justice is necessarily a departure from the dominant development paradigm which privileges economic growth at all costs without regard for its impact on the poor, the vulnerable, and the marginalized. Process-wise, it is based on the principles of participatory development, synthesizing the inputs and opinions of multiple stakeholders but providing utmost consideration to those provided

by people's organizations. In terms of vision, it is more in harmony with the tenets of transformative and sustainable human development, which aims to transcend existing social hierarchies based on class, gender, race, ethnicity, etc. through participatory and accountable governance structures as well as cultural institutions promoting alternative lifestyles that simultaneously protect the environment.

Protective, preventive, promotive, and transformative SP strategies

Social protection can enhance adaptation and DRR benefits through protective and preventive strategies for coping, as well as through promotive and transformative strategies for building adaptive capacity. Examples of these social protection instruments and measures which have been found to have this impact by various studies are listed in the next table.

There are important differences between coping strategies (which are short-term responses that relieve the burden of risk once it has occurred) and strategies which build adaptive capacity, which in the context of climate change is defined as "the actual ability of a system to adjust (or adapt) to climate change, variability and extremes, moderating potential damage, taking advantage of opportunities, coping with consequences, as well as expanding its coping range under existing climate variability or future climate conditions." It also refers to "communities' capacity to take advantage of the benefits and opportunities associated with a changing climate" (Jones, et al., 2010, p. 5). Protective measures, in this context, "provide relief from deprivation" and include "social assistance for the chronically poor" (or those with the least adaptive capacity) such as social services, food and cash transfers, pensions, fee waivers and public works. Preventive measures are meant "to avert deprivation," and include "social insurance for economically vulnerable groups," unemployment benefits, social transfers, etc. They also include livelihood diversification and weather-indexed insurance which prevent "damaging coping strategies as a result of risks to weather-dependent livelihoods." On the other hand, "Promotive measures aim to enhance real incomes and capabilities of the poorest and most vulnerable populations..." thereby enhancing "resilience through livelihood diversification and security to withstand

climate-related shocks.” These include social and asset transfers, microfinance, drought- and flood-resistant starter packs, access to common property resources, and public works.” Transformative measures, which are more rights-based, “seek to address vulnerabilities arising from social inequity and exclusion of the poorest and most marginalized groups,” and could include “collective action for workers’ rights, protecting minority ethnic groups against discrimination or HIV and AIDS sensitisation campaigns” (Jones, et al., 2010, p. 12-13).

Table 1. Promoting Adaptation through Social Protection

SP Category	SP Instruments	Adaptation and DRR benefits
Protective (coping strategies)	<ul style="list-style-type: none"> • Social service provision • Social transfers (food/cash) including safety nets • Social pension schemes • Public works programmes 	<ul style="list-style-type: none"> • Protection of those most vulnerable to climate risks, with low levels of adaptive capacity
Preventive (coping strategies)	<ul style="list-style-type: none"> • Social transfers • Livelihood diversification • Weather-indexed crop insurance • Social insurance 	<ul style="list-style-type: none"> • Prevents damaging coping strategies as a result of risks to weather-dependent livelihoods
Promotive (building adaptive capacity)	<ul style="list-style-type: none"> • Social transfers • Access to credit • Asset transfer or protection • Starter packs (drought/flood resistant) • Access to common property resources • Public works programmes 	<ul style="list-style-type: none"> • Promotes resilience through livelihood diversification and security to withstand climate related shocks • Promotes opportunities arising from climate change
Transformative (building adaptive capacity)	<ul style="list-style-type: none"> • Promotion of minority rights • Anti-discrimination campaigns • Social funds • Proactively challenging discriminatory behavior 	<ul style="list-style-type: none"> • Transforms social relations to combat discrimination underlying social and political vulnerability

Source: Davies et al. (2009). *Climate Change Adaptation, Disaster Risk Reduction and Social Protection. Promoting Pro-Poor Growth Social Protection*, OECD, p. 205.

It must be pointed out that protective, preventive, promotive, and transformative measures are not mutually exclusive but are actually mutually reinforcing, constituting various dimensions of an iterative process. The transformative potential of all social protection measures exists from the very beginning of implementation and needs to be progressively realized across time and space.

A sectoral approach can also be used in the formulation of strategies. In the public health sector, for example, adaptation is associated with prevention at primary, secondary and tertiary levels:

Primary prevention aims to reduce exposures projected to occur with climate change, such as by increasing access to safe water and improved sanitation. Secondary prevention also aims to prevent the onset of adverse health outcomes, including through strengthening disease surveillance programs to provide early intelligence of the emergence or reemergence of vector-borne disease, such as malaria along the edges of its current range. Tertiary prevention consists of measures (often treatment) to reduce long-term impairment and disability and to minimize the suffering caused by existing diseases...” (Ebi, 2009, p. 131).²⁰

Resilience against the health impacts of climate change can be cultivated by increased understanding of associated health risks, enhanced policies, programs, and capacities of health care systems, support for community-based adaptation, and a cross-sectoral approach especially in the use of new and untested technologies (Ebi, 2009, pp. 132-139).

It must be pointed out that in the Philippine context, “the current planning environment is moving towards science-based and risk-based analysis to ensure that desired outcomes will not be affected by climate variability and extremes.” (NEDA, 2011, p. 2). It is in this context that social protection measures can be considered adaptation measures, especially if planned in an anticipatory manner.

The current menu of policies and programs under the social protection umbrella can be further analyzed in terms of their adaptive goals and characteristics as well as their transformational potential. This is best done in a participatory manner, inviting multiple stakeholders from both government and civil society organizations, and involving the social protection, DRR and climate change professional communities. Some strategic directions which can be up for discussion are drawn at the last part of this paper.

Offhand, however, it may be pointed out some notable gaps in current strategies. For one, farmers as a sector are not protected from the impact of climate change because they no longer enjoy crop insurance.²¹ Ideally, the provision of such insurance should be weather-indexed (i.e., based on the amount of rainfall) so that it can be immediately accessed by affected farmers as soon as destructive flooding occurs in cropping areas. Secondly, the big-ticket conditional cash transfer program has no explicit environmental perspective and clear connection to DRR and CCA concerns in terms of articulated goals. Whatever DRR and CCA –related activities are integrated in the CCT program (e.g., awareness-raising during the Family Development Sessions, building of dikes and other public works for emergency employment especially of fathers with children in the CCT) do not seem to be part of a systematic strategy included in the overall CCT framework. If managed well, however, and if their transformational potential is fully explored in their program design, cash transfers by themselves “are likely to contribute to adaptive capacity” (Wood, 2011).²²

Building Resilient Communities

Resilience is defined as the “ability of a system, community or society exposed to hazards to resist, absorb, accommodate 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” (UNISDR, 2009). Case studies from the Philippines show that a community’s level of resilience is negatively affected by many factors, among which are “the degree of environmental degradation, people’s [lack of] access and control of different forms of resources

and assets, high levels of poverty and inequality, beliefs, norms and practices that lead to the exclusion of women, children, the elderly and other minority groups, poor and unaccountable formal leadership and governance, lack of public awareness and participation in promoting a culture of safety” (Polotan dela Cruz, et al., 2010, p. 5).

On the positive side, the literature on the subject shows that there are key strategies in developing resilience at ground level, among which are strengthening local governments and communities; promoting consultation and participation; managing resettlement and rehabilitation; enhancing resilience of indigenous peoples in culturally appropriate ways; and filling knowledge gaps.(Ahmed et al, 2009). The overarching strategy for all this is improving the capacity of various communities to adapt to risks posed by climate change and other environmental hazards, and thereby reduce their vulnerability. The companion strategy for this to enhance the resilience of natural systems through various mitigation measures. (NEDA, 2011).

These are strategies validated by local case studies “which underscored different layers or dimensions of resilience” that at the same time revealed its complexity and multi-dimensionality: “active community participation, access and use of disaster information and knowledge, food security, livelihood security, good governance, development of appropriate technology, disaster preparedness and management planning, among others” (Polotan dela Cruz, et. al., 2010, p. 5).

The authors of the case studies conclude that “Community organizing [CO] is the key strategy for building disaster-resilient communities.” CO is built on people’s participation in identifying and solving their problems. It builds on what the people know and are already doing, thus cultivating in them a sense of ownership of the process of learning from their experiences and developing systems of survival.²³ It affirms the belief that communities are not helpless even during disasters, and can, with transient support from “external service providers,” go beyond being disaster victims towards being agents of their own survival and of social change. This is in view of the fact that there are structural barriers to

livelihood security (based on access to and control of productive resources), and there is need to address over the long term “the root causes of people’s vulnerability such as landlessness, natural resource degradation, lack of access to technology and credit, among others, and organizing and mobilizing people in order to challenge and transform these conditions” (Polotan dela Cruz, et. al., 2010, p. 9). The firm belief is that only the organized strength of an awakened people can serve as a counter-force to well-entrenched vested interests which remain in control of major productive assets and which continue to damage and deplete environmental resources. Appropriate technology development in the form of flood-resistant rice varieties and organic rice and vegetable farming can be facilitated by schools, parishes, and local governments. Scientific (or “expert”) knowledge and local wisdom can converge and complement each other, as exemplified by the creation and effective use of home-based rainfall monitoring stations as well as water-level measuring stations along rivers. NGOs and CBOs (community based groups) can adopt “a mainstreaming approach” to broaden citizen participation in local planning, budgeting, implementation and evaluation towards ensuring participatory and gender-responsive good governance.

In the context of the case studies, good governance means that “(1) government at the local (and national) levels is able to provide an effective institutional framework, policies and legislations that promote DRR as a priority; (2) institutions, organizations, and individuals who are responsible for reducing disaster risks exhibit accountability and transparency in their work; (3) funds and other resources are made available and are actually spent on activities that reduce vulnerabilities and disaster risks; and, (4) local communities and their organizations are able to exert influence and are involved in the promotion of a culture of safety” (Polotan dela Cruz, et. al., 2010, p. 7).

Having supportive decision-making mechanisms to facilitate the use of practical tools and technologies for preventing and mitigating impacts of climate change is very important (NEDA, 2011). This is well illustrated in the initiatives of Sorsogon City which are components of MDG-F 1656. These include, among others, the replacement of incandescent bulbs in all public buildings with compact

fluorescent lamp (CFL) bulbs; the modification of shelter designs to withstand disasters; the construction of safer schools, etc. (unhabitat website).

There are other perspectives and case studies which highlight the convergence of climate change adaptation, DRRM, and social protection, while using a gendered and sectoral approach in examining issues and proposing strategies specifically for women in fisheries (Tanyang, 2010 cited in Ferrer & Dalisay, 2010). Examples of specific actions for climate change adaptation in the context of social protection include micro-insurance for men and women in poverty, accessibility of socialized credit for women, simple water provision/impounding systems manageable at the village level, settlements and tenurial security, health and RH [reproductive health] service delivery, men's involvement in preventive health, referral systems responding to gender-based violence even during disasters, conflict and emergencies, promotion of affordable energy sources, and appropriate infrastructure and technology. Specific actions in the area of disaster preparedness include early warning systems reaching women, gender-responsive disaster management planning, and women-inclusive disaster management structures and decision-making.

Beyond climate change adaptation and DRRM, there is still a need to focus on ecological integrity, including environmental protection, in the building of resilient communities (NEDA, 2011). This means preserving and renewing ecosystems so that these will return to their natural state of being self-sustaining, and self-regulating. This includes "rainforestation," rebuilding of watersheds, protection of endangered species, shifting to organic farming, conserving energy while developing clean and renewable sources of energy, promoting environmentally sustainable transport systems, etc.

The Need for an Alternative, Integrated, Coherent, and Multi-Stakeholder Approach

The risks associated with climate change are multiple and require an integrated and multi-stakeholder approach, involving all who are working on social protection, climate change, and disasters. The risks could be direct and can take

the form of disasters or decreased harvest; they could be indirect as in the case of vector-borne epidemics, rising prices and unemployment; they could result in “irreversible damages to life, and human, physical, social/cultural, natural, and political assets.” They could occur more frequently and with less predictability. The scale and frequency may not be possible to address by local household and community strategies and require a broad effort from both state and non-state actors and traversing all levels of interventions from local to global (Heltberg, et al., 2008, p. 25). It is also both unrealistic and unfair to expect individual households and communities to bear the burden of adapting to the adverse impacts of climate change which they had virtually no role in creating.

At the national level, state agencies must build their “institutional adaptive capacity” in terms of scientific knowledge, skills, and attitudes to plan, implement and evaluate strategies in a coherent and coordinated manner to adequately respond to the challenge of climate change. “Measures for institutional effectiveness in reducing vulnerability to climate change” could be considered in such capacity building, including “developing innovative risk transfer mechanisms,” providing incentives to agencies “which target zero casualties”, preparing “anticipatory plans,” investing in “early warning devices and disease surveillance mechanisms,” etc. (NEDA, 2011). This capacity must be built not only at the national level but also at the regional, provincial, municipal, and barangay levels. Inter-agency committees and coordinating councils dealing with social protection, DRRM, and climate change at all levels need to be on the same page in terms of analyses, perspectives, frameworks, and directions. Foregrounding the rights-based sustainable human development framework as mandated by both the DRRM and climate change laws is a necessity in this regard.

The institutionalization of civil society participation at all levels of governance – from the local to the global – needs to be ensured so that grassroots advocacy from below can be met by support from above. Forces for change inside and outside government must be able to effectively work together at micro, meso, and macro levels, building unities while respecting differences. Moving towards a green economy, low-carbon development, organic and other sustainable forms

of agriculture, food security, community-based DRRM, encouraging indigenous yet science-based innovation; e.g., lifeboats made of GI sheets and wood for flood-prone areas, require enormous political will and corresponding resources. The need to provide universal, long-term, transformative and adaptive forms of social protection, including expanding social insurance schemes for emergency needs, climate-proofed shelter and sustainable livelihood, magnifies the resource concerns. The importance of funding and financing mechanisms from both internal and external sources, as well as the transparent, equitable, and accountable handling of such resources cannot be overemphasized.

In the realm of adaptive social protection, and as highlighted by the post-Ondoy and Pepeng needs assessment, much more resources need to be allocated to measures such as cash or food transfers; i.e., in the form of cash or food for work programs, community block grants to “create meaningful work and leverage sweat equity”, trauma counseling, services to meet the specific concerns of women, children, the elder, people with disabilities, etc. Core shelter programs have to be increased, basic services and livelihood opportunities have to be built in relocation areas in a process wherein the affected communities are thoroughly consulted and engaged.²⁴ Employment is a key concern, not only in terms of emergency work and income support for the most vulnerable, but also of “local economic recovery measures, “ “reintegration of displaced peoples, “ and promoting decent work, including social protection. (Special National Public Reconstruction Commission and the World Bank, 2009, pp. 34-35).

Both climate change and DRRM problems and proposed solutions transcend political boundaries and require ever expanding arenas of advocacy and solidarity, especially among the poor, the vulnerable, and other victims of injustice. Their visibility and voice are important at all levels for them to exercise agency in claiming their rights and entitlements in an increasingly insecure, unprotected, divided, and violent world. It is in this sense that adaptive social protection can be considered an instrument of social, gender, and environmental justice in the era of climate change.

Endnotes

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² The impacts on the macro-economy, poverty, employment and livelihood, governance, and vulnerable groups have been well-documented, and the implications on disaster risk reduction and management (DRRM) have been clearly drawn by the Special National Public Reconstruction Commission and the ADB, UN, World Bank Group and other Global Facility for DRR partners in the Typhoon Ondoy and Pepeng Post-Disaster Needs Assessment main report.

³ Official government reports in 1999 stated that the El Niño phenomenon in 1997-98 resulted in a 6.6 percent drop in Gross Domestic Product (Lasco et al. as

cited in Garcia Rincon & Virtucio, 2008, p. 17). It also caused a combined loss of 1.8 million tons in rice and corn production. (PCARRD, 2001 as cited in Garcia Rincon et al., 2008).

⁴ “Reefs in poor condition increased to 40% in the last 20 years due partly to ocean warming.” (Capili, et al., 2005 as cited in Garcia Rincon & Virtucio, 2008, p. 20). Among the other climate-related risks already observed by women in fisheries are sea level rise, “increased water surface temperature affecting fishponds..., increased soil erosion and sedimentation in the coastal areas affecting sea grass, corals, mangrove areas,...disappearance/reduction of migratory fishes “ such as alumahan, banak, and hasa-hasa, and “unpredictability of dry and wet season” (Tanyang, 2010 as cited in Ferrer & Dalisay, 2010, p. 30.)

⁵ An International Food Policy Research Institute (IFPRI) study for submission to the Asian Development Bank and the World Bank projects that by 2050, “irrigated rice yields will fall by 15 percent..., and rice prices will go up by as much as 121 percent with climate change.” “Climate change to affect 25M kids in 2050...” (Inquirer.net, Sept. 30, 2009).

⁶ “Data from the Department of Health showed how malaria cases (more than 1,500 recorded cases) and other diseases increased in 1998, a year when temperature rose as a consequence of El Niño” (Global Health Monitoring 2008 as cited in Garcia Rincon, et al., 2008 p. 21).

⁷ “Saltwater intrusion has been reported to be evident in nearly 28 percent of coastal municipalities in Luzon, 20 percent in the Visayas, and almost 29 percent in Mindanao” (Rellin, et al., 1999 as cited in Garcia Rincon, et al., 2008, p. 20).

⁸ There are predictions that sea water will intrude into Laguna Lake, thereby making it impossible to be a source of fresh water for Metro Manila in the future (Godilano, 2009, p. 16).

⁹ Three reasons are cited for this, in the case of rural women. They have fewer assets to sell when floods or drought ruin crops. Second, they tend to go more into

debt due to climate-induced crop failures. Third, when there is food shortage, they prioritize their men and their children in food allocation (Peralta, 2008). At a more general level, gender advocates in the fisheries sector point out the following: “Gender as a vulnerability category is seldom taken into account in ensuring protection of victims of natural disasters; Gender-based violence continues as a threat to the security and dignity of women even in times of crisis; There is an unmet understanding of male perspectives and masculinities in the context of vulnerabilities and disasters; and gender is seldom taken into account in development programming, particularly in climate change adaptation and disaster preparedness and response” (Tanyang, 2010, cited in Ferrer & Dalisay, 2010, p. 28-32).

¹⁰ The MDG-F 1656 has demonstration areas in Metro Manila, Bicol, Agusan, Benguet, and Sorsogon which “incorporate the ‘learning by doing’ approach and tests innovative climate change adaptation measures and approaches as well as the capacity building of community stakeholders” (NEDA, 2011). In Agusan, for example, the ILO-DTI-DOLE Market Research Report recommended measures to address the vulnerability of small farmers to climate change. In Benguet, efficient farming mechanisms were implemented in accordance with a newly formulated adaptation framework ((NEDA, 2011).

¹¹ Adaptation is defined in the Philippine DRRM Act of 2010 as “the adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.” Mitigation, on the other hand, refers to “structural and non-structural measures undertaken to limit the adverse impact of natural hazards, environmental degradation, and technological hazards and to ensure the ability of at-risk communities to address vulnerabilities aimed at minimizing the impact of disasters, construction and engineering works, the formulation and implementation of plans, programs, projects and activities, awareness raising, knowledge management, as well as the enforcement of comprehensive land-use planning, building and safety standards, and legislation.”

¹⁵ This was P17 billion or 0.3% of GDP in 2007, and P62 billion or 0.8% of GDP in 2008, less than half of the mean spending (1.9% of GDP) by a group of 87 countries in 1996-2006 (Weigand & Grosh, 2008, cited in Manasan, 2009, p. 72).

¹⁶ Marivic Raquiza of Social Watch, during the March 29 ,2011 meeting of the NEDA-SDC Subcommittee on Social Protection, pointed out that while there was an increase in social spending in the current government budget, allocations for agriculture and agrarian reform had gone down. Price support for palay and food subsidy through the National Food Authority (NFA) should not be cut down, since such measures could be considered just as important as the CCT and therefore should not be pitted against it.

¹⁷ This was reported by DSWD Secretary Corazon J. Soliman during a dialogue with the UP CSWCD faculty on March 22, 2011.

¹⁸ One example of maladaptation is the building of dikes to contain floods, but which “began to trap flood waters or actually prolong floods.” Another is the construction of coastal structures that have the effect of eroding nearby coasts. It is in this sense that short-term DRR “does not necessarily contribute to longer-term climate change resilience” (Huq & Ayers, 2009, p. 144).

¹⁹ In fact, the United Nations Framework Convention on Climate Change (UNFCCC), in Article 4,3, provides that this should be in the form of new and additional financing resources (NEDA, 2011).

²⁰ See also Table 8-1 – Examples of Adaptation Options to Address Climate-Related Health Risks in Ebi, 2009, p. 137).

²¹ This was pointed out during the meeting of the NEDA SDC Subcommittee on Social Protection last March 29, 2011, to the surprise of those in attendance because crop insurance is included in the social protection program scoping prepared by the DAP (see Fig. 2 of this paper).

References

- Agenda on transformative social protection as a democratic and human rights response to the crisis.* (2009). Manila, October 12-13.
- Agsaoay Sano, E. (2010). Advocacy and support work for the disaster risk reduction and management (DRRM) law in the Philippines. In L. Polotan-dela Cruz, E. Ferrer & M. Pagaduan (Eds.), *Building disaster-resilient communities: Stories and lessons from the Philippines* (pp. 129-143). Quezon City, Philippines: CSWCD-UP.
- Ahmed, N., Dalal, H. & Forusz, S. (2009). Chapter 10. The social dimension of climate change. In *South Asia Climate Change Strategy* (Draft Report) Retrieved from http://www.lead.org.pk/cc/attachments/Blogs_Discussions/WB_SA_CC_Strategy/5_Social_Dimensions_CC.pdf
- Archer, D. & Rahmstorf, S. (2010). *The climate crisis: An introductory guide to climate change*. United Kingdom: Cambridge University Press.
- Asian Development Bank. (2011). *Climate change and migration in Asia and the Pacific*. Retrieved from http://www.eenews.net/assets/2011/02/10/document_cw_01.pdf
- Balakrishnan, R. (2006). *Why MES with human rights? Integrating macro economic strategies with human rights*. New York: Marymount Manhattan College.
- Barrameda, T. (2010). *Policy brief on disasters and women workers in the informal economy*. Homenet Southeast Asia.
- Brainard, L., Jones, A. & Purvis, N. (Eds.). (2009). *Climate change and global poverty*. Washington D.C.: Brookings Institution Press.

- Casis, R.J. (Ed.). (2008a). *Experts dialogue on Philippine climate change policy*. Quezon City: Institute of International Legal Studies, University of the Philippines Law Center.
- Casis, R.J. (2008b). Addressing climate change in the Philippines: An integrated adaptation-mitigation approach. *Experts Dialogue on Philippine Climate Change Policy*, 3, 1-85.
- Climate Change Commission, Office of the President of the Philippines. (2010). *National framework strategy on climate change 2010-2022*.
- Corpuz, V. & de Chavez, R. (2009). *Guide on climate change and indigenous peoples*. Baguio City: Tebtebba Foundation.
- Davies, M., Oswald, K. & Mitchell, T. (2009). *Climate change adaptation, disaster risk reduction and social protection. Promoting pro-poor growth: Social protection*. Report prepared by the Development Assistance Committee Network on Poverty Alleviation. OECD.
- Development Academy of the Philippines. (2009). *Review and strengthening of the national social protection and welfare program (2009)*. Prepared for the National Social Welfare Program Cluster and National Economic and Development Authority.
- Devereux, S. & Sabates Wheeler, R. (2007, May 3). Transformative social protection. *IDS Bulletin*, 38 (3).
- Ebi, K. L. (2009). Public health adaptation to climate change in low-income countries. In L. Brainard, A. Jones & N. Purvis, N. (Eds.), *Climate change and global poverty* (pp.130-141). Washington D.C.: Brookings Institution Press.

Ferrer, E. & Dalisay, S. (Eds.). (2010). *Workshop on women in fisheries and climate change*. Quezon City, Philippines: Organizing Committee for the Workshop on Women in Fisheries and Climate Change.

Garcia Rincón, M.F. & Virtucio Jr., F. K. (2008, June 27). *Climate change in the Philippines: A contribution to the country environmental analysis*. (Draft for discussion).

Godilano, E. C. (2009). *Global climate change and its impacts on agriculture and fishery production in the Philippines*. Information Technology Center for Agriculture and Fisheries, Department of Agriculture.

Goetz, A.M. (2007). Gender justice, citizenship and Entitlements: Core concepts, central debates and new directions for research. In M. Mukhopadhyay & S. Navsharan (Eds.), *Gender justice, citizenship and development*. Zuburan/IDRC Accessed February 20, 2010 at http://www.idrc.ca/en/ev-111764-201-1-DO_TOPIC.html

Helpdesk research report: Climate change and social protection. (2008). London: Governance and Social Development Resource Center.

Heltberg, R., Jorgensen, S.L. & Siegel, P.B. (2008). *Climate change, human vulnerability and social risk management*. Social Development Department, World Bank Group. Retrieved from http://siteresources.worldbank.org/EXTSOCIALDEVELOPMENT/Resources/SDCCWorkingPaper_SRM.pdf

Homenet Southeast Asia, Homenet Philippines and MAGCAISA. (2009). *Policy brief on social protection*.

Human Development Report 2007/2008. *Fighting climate change: Human solidarity in a divided world*. UNDP (Main Report).

Huq, S. & Ayers, J. (2009). Linking adaptation and disaster risk reduction. In L. Brainard, A. Jones & N. Purvis (Eds.), (2009). *Climate Change and Global Poverty* (pp.142-154). Washington D.C.: Brookings Institution Press.

- Inquirer.net (2009, September 30). *Climate change to affect 25M kids in 2050, \$7B to ease temperature rise impact on poor*. Retrieved from <http://globalnation.inquirer.net/news/breakingnews/view/20090930-227675/Climate-change-to-affect-25M-kids-in-2050>
- Jones, L., Jaspars, S., Pavanelo, S., Ludi, E., Slater, R., Arnall, A., Grist, N. & Mtisi, S. (2010). *Responding to a changing climate – Exploring how disaster risk reduction, social protection and livelihoods approaches promote features of adaptive capacity*. Working Paper 329, Overseas Development Institute.
- La Vina, A.G.M. (2008). Addressing climate change in the Philippines: An integrated adaptation-mitigation approach. *Experts Dialogue on Philippine Climate Change Policy, 1*, 86-108.
- Luna, E.M. (2004). *Mainstreaming community-based disaster risk management in local development planning*. Paper presented at the Forum on Framework-Building for Investigation of Local Government Settlement Planning Responses to Disaster Mitigation, January 17, 2007 sponsored by the Alternative Planning Initiatives (ALTERPLAN), Quezon City.
- Manasan, R. G. (2009). *Reforming social protection policy: Responding to the global financial crisis and beyond*. PIDS Discussion Paper Series. Makati City: Philippine Institute for Development Studies.
- Mearns, R., Norton, A. & Cameron, E. (2009). *The social dimensions of climate change: Equity and vulnerability in a warming world*. (New Frontiers of Social Policy Series). World Bank Publications. Retrieved from <http://www.fishpond.com.au/Books/Social-Dimensions-of-Climate-Change-Robin-Mearns-Andrew-Norton/9780821378878>
- National Statistical Coordination Board (NSCB). (2011, February 8) *2009 Philippine poverty statistics*.

- NEDA. (2011). Comments on the paper *Addressing the social dimensions of climate change through adaptive social protection*.
- NEDA. (2007). *NEDA Social development committee resolution series of 2007*. Retrieved from www.nscb.gov.ph/poverty/default.asp
- O'Connor, R.K. (2006). *How should the world respond to natural disasters?* San Diego, California: Greenhaven Press.
- Ofreneo, R. E. (2010). *Green jobs and green skills in a brown Philippine economy*. Manila: International Labour Office.
- Ofreneo, R.P. (Ed.). (2010). *People's social protection agenda: Towards social protection for all*. Quezon City, Philippines: CLJ/ACIW and Homenet Southeast Asia. Available at <http://www.socialprotectionasia.org/pdf/People%27s%20Social%20Protection%20Agenda->
- Park, J., Conka, K. & Finger, M. (2008). *The crisis of global environmental governance*. New York: Routledge.
- Peralta, A. (2008, November). *Gender and climate change finance: A case study from the Philippines*. Women's Environment and Development Organization and the Heinrich Boell Foundation. Retrieved from <http://www.wedo.org/prototype/wp-content/uploads/genderandclimatechangefinance.pdf>
- Polotan dela Cruz L., Ferrer, E. & Pagaduan, M. (Eds.). (2010). *Building disaster-resilient communities: Stories and lessons from the Philippines*. Quezon City, Philippines: CSWCD-UP.
- RA09729. *Climate change act of 2009*. 14th Congress. Origin: Senate (SB02583 / HB05982). Approved by the President on October 23, 2009. Also available at http://www.congress.gov.ph/download/ra_14/RA09729.pdf

RA10121. Philippine disaster risk reduction and management act of 2010. 14th Congress. Origin: Senate (SB03086 / HB06985). Approved by the President on May 27, 2010. Also available at http://www.congress.gov.ph/download/ra_14/RA10121.pdf

Sister Song Women of Color Health Collective. (2010). *What is reproductive justice?* Retrieved from http://www.sistersong.net/reproductive_justice.html

Special National Public Reconstruction Commission and the World Bank. (2009). *Philippines typhoons Ondoy and Pepeng: Post disaster needs assessment (Main Report)*. Also available at <http://siteresources.worldbank.org/INTPHILIPPINES/Resources/PDNAVol1MainReport.pdf>

Strengthening disaster risk reduction in the Philippines: Strategic national action plan 2009-2010. (Main Report).

Tanchuling, M. (2010). *Climate justice*. Presentation during the National Workshop on Gender, Informal Work, Climate Change and Participatory DRRM. CSWCD, August 21, 2010.

Tandoc Jr., E.C. (2009, June 25). Climate change shortens fishing season. *Philippine Daily Inquirer*. Retrieved from <http://newsinfo.inquirer.net/breakingnews/nation/view/20090625-212327/Climate-change-shortens-fishing-season>

Tanner, T. (2010). Shifting the narrative: child-led responses to climate change and disasters in El Salvador and the Philippines. *Children and Society*, 24, 339–351 DOI:10.1111/j.1099-0860.2010.00316.x. Institute of Development Studies, Brighton, UK

United Nations International Strategy for Disaster Reduction (UNISDR). (2009). *Terminology on DRR*. Retrieved from www.unisdr.org/we/inform/terminology

