

Gender & Human Rights implications of Climate Change: the Imperative for Gender Responsive Rights Based Response in the Asia- Pacific Region

Ms. Karabi Baruah

Climate change adaptation and mitigation is becoming an increasingly prioritised policy objective –across the globe and in the Asia-Pacific region. Focus is on the pursuance of growth centric development and consequent disparate development that is taking place across the region and within countries- the constraints emanating thereof including trade-offs between economic growth and destruction of the natural environment. With prediction of the region taking the centre stage in the unfolding of ‘human drama of climate change’ the focus is also on the socio-economic and human rights implications for human security and challenges on efficient adaptation planning and response efforts sustainable development.

An emerging issue that is slowly gaining traction in the climate change debate is the differential impact of climate change and adaptive capacity of women and men- whose needs are different but require equal opportunities. The power structures and power distributions underlying gender relations are attributed as the root causes of much of the differences and marginalization, of the poor women and men in the society. The complexities of constraints posed by poverty and gender inequality will tend to compound the adverse impacts of climate change, especially on poor women and men’s health, access to food, clean water, or other resources compromising their livelihood and food security. Poor women are likely to be worse off –on face of persistent challenges and inequalities they endure in performing their critical role towards alleviating food insecurity and thus human security in the region. Attention from the international community on the differential impacts of climate change on women and men and the measures needed to be taken up in adaptation planning and response efforts has been at best sporadic or fundamentally ignored.

This paper reflects on the need to take into account the immense contribution of women in sustaining the region’s food security when designing adaptation policies and strategies. It argues that to leave women out of the climate change adaptation and mitigation decision making process perils the human security of the region and tantamount to failure in addressing the social consequences of climate change. The paper calls for a gender responsive, human right based approach including intersectional analysis to research to support sustainable solutions and effective response to climate change.

Introduction

“Irrespective of whether or not climate change effects can be construed as human rights violations, human rights obligations provide important protection to the individuals whose rights are affected by climate change or by measures taken to respond to climate change”¹.

The Intergovernmental Panel on Climate Change (IPCC, 2001)² has predicted that “climate change impacts will be differently distributed among different regions, generations, age classes, income groups, occupations and genders”³. The developing countries are generally at higher risks of adverse impacts from climate change because of poverty and depending upon geo-political and socio-economic conditions determining their adaptive capacity. Climate change, in fact, is intrinsically linked with inequalities, and right from the start but of the climate change debate, discussions and negotiations, there has been call for a fair and just response to climate change policies. The issue of equity has figured prominently and constitute as a central element in discussions/negotiations. On the equity debate the focus revolved around the existing disparities in development between North and South under the ‘polluter pays’ principle and in ‘equitable distribution of the burdens of reducing climate change risks’ etc.⁴ While there is wide recognition and acceptance of the vulnerability of developing nations and disparities in development, gender equality concerns are still to gain much traction in the climate change dialogue, action and policy. Differential gendered impacts and opportunities of climate variability and change and consequent responses are either overlooked or remain of peripheral interest. Leading up to the climate change debate to where it stands now gender advocates has been persistent in their efforts to bring focus on gender issues into the climate change debate. Practitioners in the field of climate change and adaptation are recognizing, albeit slowly, the gendered differentiated impacts and the different risks and vulnerabilities of women and men, accordingly the need for developing responses to climate variability and climate change. The emergence of the link between climate change and human rights in the discourse strengthened the imperative for gender responsive responses conducive to the differential gendered needs of the impacts of climate change.

Implicit in considerations of the gendered dimension of climate change and variability reflect justice, human rights and human security. Integrating rights based approaches in climate change intervention is of paramount importance since such an approach in addition to being gender sensitive also aims to protect and promote rights, reduce inequality and harness the substantive participation of those who are most affected. The Male’ Declaration on the Human Dimension of Global Climate Change⁵ stated that

“climate change has clear and immediate implications for the full enjoyment of human rights including inter alia the right to life, the right to take part in cultural life, the right to use and enjoy property, the right to an adequate standard of living, the right to food, and the right to the highest attainable standard of physical and mental health”. Also affirmed in March 2009, by the Resolution 10/4, at the Human rights and climate change’s 41st meeting that “human rights obligations and commitments have the potential to inform and strengthen international and national policymaking in the area of climate change, promoting policy coherence, legitimacy and sustainable outcomes”⁶.

In the projected scenario for the Asia -Pacific region by IPCC, the consequences of global warming are expected to be felt through the manifestation of millions of people exposed to water stress compromising agriculture and food security-especially complex, localized negative impacts on small holders, subsistence farmers and fishers, biodiversity with possible loss of key species and habitats, and adverse impact on human health from extreme inclement weather especially in population with low adaptive capacity.⁷ Even historically, more people in Asia -Pacific have been affected by floods, droughts, and storms than in any other region of the world: 83% of all people affected by droughts, 97% of all people affected by flood, and 92% of all people affected by storms over the period 1960–2007 resided in East Asia, the Pacific, and South Asia⁸.

The Asia -Pacific is such a region that would require integrating the ingenuity and collective efforts of all practitioners and stakeholders, both women and men, to counter the adverse impact of climate change that is likely to intensify the existing social, economic and environmental disparities. The region displays diversity in terms of natural spatial variations as well as impacts emanating from anthropogenic factors such rapid industrialization and economic activities leading to disparate development. The ultimate challenge lies in finding adaptive and mitigation measures to enhance gender , age, ethnicity, class, and culture specific coping and adaptive capacity of the most vulnerable, which are just and based on the principle of equity and equality.

Climate Change and the Complexities of the Asia-Pacific Region

At the helm of the debate on climate change and related issues of adaptation and mitigation in the Asia-Pacific region are enormous economic transformation of the region. Rapid urbanization, industrialization, technological developments and enhanced communication including easy flow of goods and services are some of the parameters behind the economic growth of the region. In this, China and India are two countries that are leading the way and have also been successful in reducing poverty.

According to the 2011 Millennium Development Goals Report-2011, in China, for instance the poverty rate is expected to fall under 5% by 2015, while in India the projection is a fall from 51% in 1990 to 22% in 2015. The combined total of people living in extreme poverty between 1990 and 2005 in the two countries declined by an estimated 455 million and an additional 320 million people are expected to join the ranks by 2015.⁹ These changes in development contributed greatly to the growing optimism of the region achieving the first MDG target, namely, of halving the proportion of people living in poverty by 2015.

Amidst such euphoria of unprecedented growth witnessed by the region, the climate change debate brought back to focus what development scientist had since long contended, i.e. the geographical diversity and the spatial variation in natural resource endowments, including population at disparate socio-economic levels of achievement in the region. Ironically, the remarkable growth makes the existing contradictions all the more incongruous and is, a challenge to sustainable development: Asia-Pacific region as a whole witnessed the increase in the number of undernourished people by over 60 million in 2009 that is to 642 million.¹⁰ Despite a significant decline, the poverty rate in South Asia remains the highest. While East Asia continues to register fastest growth and sharpest reduction in poverty led by China, parts of Southeast Asia such as Cambodia, Lao PDR, and Philippines are lagging behind as also some of the Pacific islands showing signs of further regressing into poverty¹¹. As per the Global Hunger Index (GHI), India alone has 213 million hungry and malnourished people, with 21% of its population undernourished with nearly 44% of children under five are underweight and 7% of them dying before they reach five years.¹²

Added is the projected scenario by IPCC for the Asia-Pacific that the region will experience decrease in freshwater availability by 2050 particularly in large river basins affecting its availability in Central, South, East and Southeast Asia. In the coastal areas the greatest risk is predicted along the heavily populated megadelta regions in South, East and Southeast Asia due to increased flooding from sea level rise, storm surges and river flooding. Climate change is also projected to compound the natural resources associated with rapid urbanization, industrialization and economic development. Furthermore in East, South and Southeast Asia, changes in the hydrological cycle will increase floods and droughts giving rise in morbidity and mortality due to waterborne diseases such as diarrhea, heat waves. Additionally it is expected to reduce water resources in many small islands in the Pacific, consequent to rise in sea level to exacerbate inundation, storm surge, etc threatening infrastructure, settlements, and facilities supporting the livelihood of island communities.¹³

Climate change, Gender, Agriculture and Food Security

BFPA stated that for eradication of poverty based on sustained economic growth, social development, environmental protection and social justice requires the involvement of women in economic and social development and equal opportunities and the full and equal participation of women and men as agents and beneficiaries of people-centred sustainable development'¹⁴

Despite rapid strides towards urbanization and industrialization, agriculture remains the mainstay of the region, with more than 60% of the region's 4.2 billion women and men relying on this climate sensitive sector and sub-sectors for much of their livelihood accounts for 11% of the gross domestic product of its developing countries and over 50% of total employment¹⁵. In fact, the food security of the region is very much dependent on agriculture and its subsectors including crops and livestock production, fisheries and forestry.

The predicted impact of climate change on the sector is quite foreboding: that if the current trend of warming continues, in the next 40 years irrigated production could decline thereby compromising the region's poor and its food security; It is also projected that *'9 million–11 million more children in Southeast Asia alone will become malnourished by 2050, due to the decreasing food production and increasing food prices. This is in addition to the 65 million children already presently malnourished across the region'*¹⁶. Yet agriculture is looked upon as a low- priority sector as evidenced by the *'drop in the share of agriculture in official development assistance, from 19% in 1980 to about 5% today'*¹⁷.

Delving deeper into the sector it may be noted that the agricultural sector accounted for 48.2% of women (with 18.2% in industry and 33.6% in services) as against 38.9% of men (26.2% and 35.0% in industry and services respectively) in 2009; Further sub-regional breakup of distribution of employment shows women's concentration being particularly heavy in the Pacific islands, i.e., 75% (with only 4.5% in industry and 20.6% in services) and South Asia 71% (13.6% in industry and 15.5% in services) compared to men -64.4% (7.0% and 28.6% in industry and services) and 46.4% (21.4% in industry & 32.2% in services) respectively; while in East Asia 41.5% of women worked in agriculture (22.2% in industry & 36.3% in services) and made up 33.6% (31.8% in industry and 34.6% in services). In Southeast Asia the difference in the distribution of women and men who worked in agriculture slight, namely 43.7% of women in agriculture, 14.4% in industry and 41.9% in services, compared to 44.1% men in agriculture, 20.4% in industry and 35.5% in services of men¹⁸.

A common feature in agricultural production across the region is women's contribution in the food crop production and consequently their contribution towards the food security of their nation. In Southeast Asia, for instance, women involved in rice production constitute up to 90% of the labour force. Where male labour is not available, women in Cambodia and Vietnam even take up tasks generally done

by male such as land preparation and irrigation. Similarly in China where the male outmigration is high, women work on both cash crops as also food crops, performing most farming activities including use of machinery. In such situations they also become main decision makers regarding choice of crops, fertilizer use and marketing, although men retain power in public affairs at the community level as evidenced e.g. Southwestern Provinces¹⁹. Men tend to diversify into commercial farming. Another commonality binding women across region together is that they are “...*more likely to be working in low-productivity, subsistence –level agriculture*”²⁰.

Water, along with agriculture, is identified as being ‘*most sensitive to climate change-induced impacts in Asia, with water serving as the principal medium through which climate change is manifested*’²¹. The Asia-Pacific region is said to have the world’s largest share of renewable freshwater resources, but the lowest availability of water on per capita-5,224 cubic metres compared to world average of 8,349 cubic metres²². Agriculture, which is not only the mainstay of the people, but also contributing to food production and security, is one of the predominant consumers of water. Agricultural use of water for irrigation, livestock, fisheries and aquaculture is estimated as the cause of 71% of total water withdrawal²³. About 70% of the world’s irrigated land is in Asia, where it accounts for 35% of cultivated land²⁴.

Subsistence farmers –especially women constituting the majority amongst them and poor men who are the ones most vulnerable and their livelihood ‘*susceptible to frequent and severe losses in farm production due to extreme weather conditions*’ are usually not the beneficiary of such agricultural inputs as irrigation. Women’s need for irrigation water is generally overlooked because of the prevailing perception of being marginal stakeholders in irrigation. Thus women may not have the benefits of irrigation systems for their vegetable gardens or subsistence crops. It is common for rural women to rely on ‘*common water resources such as small water bodies, ponds, and streams to meet their water needs*’. In Southeast Asia, for instance it is through common property that women may have access to water. But women’s ability to ‘*fall back on such common resources*’ are also being compromised as ‘*availability of these resources, especially in the rural communities, has rapidly declined as a result of their appropriation by state*’²⁵. Besides, they are without any land or water rights and are not part of any decision making process related to water resources be it sharing, allocation or distribution of it between different uses; such rights are the prerogative of men or at a higher levels where ‘*economic and political considerations generally play a greater role than social concerns*’²⁶.

Climate change is likely to have profound impact on both fisheries and aquaculture, considered as a sub-sector of agriculture. FAO on climate change implications for fisheries and aquaculture stated that:

“Climate change is bringing substantial changes to the world’s capture fisheries, which are already under stress from overfishing and other anthropogenic

influences. Inland fisheries – most of which are in developing African and Asian countries – are at particularly high risk, threatening the food supply and livelihoods of some of the world’s poorest populations. There are also consequences for aquaculture, which is especially significant for populations in Asia. States need to act to ensure that the people who depend on fish for food and livelihoods have the capacity, new policies and resources to adapt to the changing waters²⁷”

The impact of climate change is already affecting the world’s capture fisheries. Data from the International Centre for Water Hazard and Risk Management show that by 2050, some 24%–34% of coral reefs may be lost to coral bleaching, affecting the viability of the fishing industry.²⁸ Also at risk of being adversely disturbed by climate change is aquaculture. In aquaculture, the Asia -Pacific region dominates and ‘accounts for 89 percent of production in terms of quantity and 79 percent in terms of value’²⁹. *Women’s contributions to aquaculture are substantial and of vital importance for its growth and sustainability in the region.* For example, women are reported to constitute 33 percent of the rural aquaculture workforce in China, 42 percent in Indonesia and 80 percent in Viet Nam.³⁰ Furthermore, global estimate indicates that small-scale fisheries contribute more than half of the world’s marine and inland fish catch, employing more than 90 percent of the world’s 35 million capture fishers and they support another 84 million people employed in jobs associated with fish processing, distribution and marketing. *Almost half of the people employed in the primary and secondary sector associated with small-scale fisheries are women*³¹. It has been expressed that in face of industrial fisheries, the fact that small-scale fisheries are thriving in Asia “...is largely because it is subsidized enormously by women’s unpaid and unrecognized labour – labour that maintains the “resilience of small-scale fishing communities”.³²

Women’s contribution to livestock production is also significant. Indian women dairy farmers have been credited with raising the country’s milk production levels to among the highest in the world³³ and women constitute 93% of total employees in India’s dairy production³⁴. It was reported in a study that 6000 out of 7000 dairy cooperative societies in India were women’s societies³⁵. In most cities in Pakistan women provide the dairy needs from their urban and peri-urban plots.³⁶ In Afghanistan, all cattle and 20% of sheep and goats are kept at the homestead and managed by women³⁷. Manure, is considered as the most highly valued animal product in Asia, collected at homestead and used for fertilizer, fuel and building houses. Its value can be ascertained from the fact that old animals are kept even“...when they no

longer produce milk or are strong enough to pull a plough". Women are responsible for the operation of all activities including for procuring and processing the manure³⁸.

The discussion so far underscores women's central role in food production and their towards the food security of the region as a whole. It demonstrates their experience and how they are repositories of valuable source of information and expertise in the sector of Agriculture and food security. With their experience and management of subsistence agriculture, they have earned the right as key stakeholders in any discussion, consultation and decision making process in climate change adaptation policies. The subsequent sections assess how gender and women in particular feature climate change adaptation interventions such as the National Adaptation Programme of Action (NAPA), reviewed in this paper.

A Policy Shift: Adaptation- a complement to Mitigation:

Against the backdrop of the natural complexities of the region multiplied by lopsided development in the region, there has been a growing awareness that,

"Strategies based on the narrow pursuit of economic growth without due regard for equity and related environmental, social and human rights considerations, will both fail in their economic objectives, and risk damaging the planet and the fundamental rights of people,"³⁹.

The demand now is for developing effective responses to adapt to climate change especially for those women and men with the least coping capacities to their changed social, economic and natural systems. At the international level, there has been a shift in the domination of the role of mitigation in the negotiations under the United Nation's Framework Convention on Climate Change (UNFCCC), to accommodate adaptation. The IPCC defines adaptation as the

'Ability to respond and adjust to actual or potential impacts of changing climate conditions in ways that moderate harm or takes advantage of any positive opportunities that the climate may afford. It includes policies and measures to reduce exposure to climate variability and extremes, and the strengthening of adaptive capacity'⁴⁰.

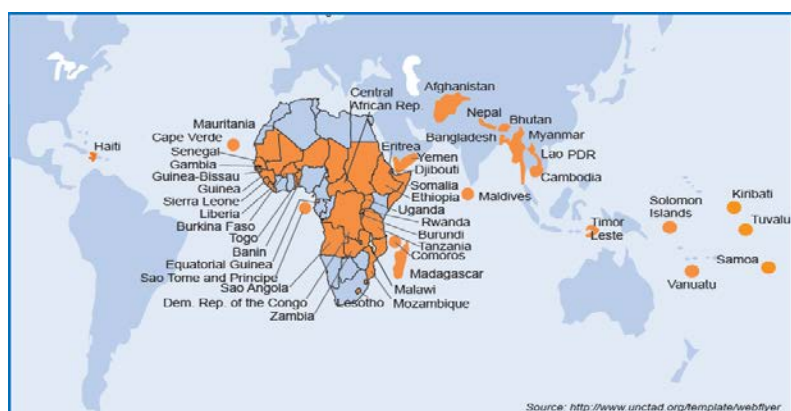
However, negotiations under the United Nation's Framework Convention on Climate Change (UNFCCC), it was the role of mitigation to climate change dominated, i.e. the "*anthropogenic intervention to reduce the sources or enhance the sinks of greenhouse gases*"⁴¹. It was in only in 1992, with the use of the term in the UNFCCC signed in Rio de Janeiro that the importance of the role of adaptations to climate change progressed to the current level of interest.

At the 2010 Climate Change Conference in Cancun, Mexico (COP-16), Parties adopted the ‘Cancun Adaptation Framework (CAF) and affirmed that adaptation must be addressed with the same level of priority as mitigation. The objective of CAF is to enhance action on adaptation, including through international cooperation and coherent consideration of matters relating to adaptation under the Convention. By taking into account the urgent and immediate needs of those developing countries that are particularly vulnerable CAF aims to reduce vulnerability and build resilience in developing country Parties. The Parties significantly advanced the Framework at the COP-17 (Durban-2011)⁴². It is pertinent to note that the “process of adaptation is not new; the idea of incorporating future climate risk into policy-making is. While our understanding of climate change and its potential impacts has become clearer, the availability of practical guidance on adaptation has not kept pace.⁴³”

The National Adaptation Programmes of Action (NAPA):

Following the United Nations Framework Convention on Climate Change (UNFCCC) in 2001, and the Seventh Session of Conference of the Partners (COP 7 or the Marrakech Accords), the National Adaptation Programs of Action (NAPA) for the climate change Work Program, especially for the least developed countries, have been launched. With focus on enhancing the adaptive capacity, the NAPA provide a process for the least developed countries (LDC),⁴⁴ which are most vulnerable to the adverse impacts of climate change, to prioritise and communicate their urgent and immediate adaptation needs. Of the 50 LDCs as shown in (fig-3.), 14 countries are from the Asia-Pacific region namely, Afghanistan, Bangladesh, Bhutan, Maldives and Nepal from South Asia, Cambodia, Lao PDR, Myanmar and Timor Leste from Southeast Asia and the five Pacific islands of Kiribati, Samoa, Solomon Islands, Tuvalu and Vanuatu.

Figure-I. Map of the 50 Least Developed Countries



Article 4.9 of the UNFCCC, in according recognition of the special situations of the LDC states that, “*The Parties shall take full account of the specific needs and special situations of the Least*

*Developed Countries in their actions with regard to funding and transfer of technology*⁴⁵”. Taking cognition of the Article 4.9, the Decisions 5/CP.7 adopted at COP-7 acknowledged the specific needs and special situations of LDCs and established an LDC work programme that amongst others includes preparation and implementation of NAPAs.

COP Decision 28/CP.7, provides guidance for preparation of the NAPAs, drawing ‘*upon existing information and community-level input*’ and ‘*will not attempt to implement broad national development goals*’ but ‘*build upon national goals and integrate into national plans*’⁴⁶. The annotated NAPA framework guidelines⁴⁷ identify gender equality as one of the guiding elements for NAPAs and state that “climate change will have different impacts on men and women, and in most cases the adverse effects of climate change disproportionately affect women”.

Specifically, while underscoring on a participatory process, which is country driven, and multidisciplinary spanning across all relevant discipline such as agriculture, forestry, health, urban planning and women’s issues, should at the same time be inclusive of all stakeholders. It cites women explicitly as key stakeholders, who are: “... *often the main repositories of vital local and traditional knowledge, and they need to be recognized as key stakeholders in the consultations and in decision-making*⁴⁸”. Additionally Decision 36/CP.7, by invoking the Beijing Declaration of the 1995 Fourth World Conference on Women urges parties to take necessary measures for full participation of women in all levels of decision making relevant to climate change.⁴⁹ Also related to the NAPA process, Decision 29/CP.7 set up an LDC Expert Group (LEG) to provide guidance and advice on the preparation and implementation strategy for NAPAs. Furthermore, the guidelines noted that NAPA team responsible for preparing the document should be multidisciplinary that includes a social scientist familiar with participatory methods.

1. Since the focus of NAPA s are on ‘urgent and immediate needs’ and are designed ‘*upon existing information and community-level input*’ for which no new research is needed, the implications in the preparation of the NAPAs’ from a gender perspective raise some questions:
2. Whether the national focal point (often the environmental agency) for climate change and the NAPA Team (for preparing the NAPA document) are gender sensitive enough to address gender issues when prioritizing “the immediate and urgent needs for adaptation to climate change’ in their project proposals?
3. Whether existing studies/resources are sufficient or tapped for effectively integrating gender/social issues alongside the economy and environment, to minimize the adverse and differential impact and coping capacities of climate change and adopt appropriate adaptation measures.
4. With women being identified as one of the key stakeholders within the context of climate change, whether effective measures are taken to ensure their participation and coordination with organizations working specifically on women and gender issues to incorporate adequate representation, different views and needs in the lead-up to selecting priority adaptation activities for NAPA

NAPA: Inclusivity of Gender and other elements of social dimension

A recent analysis of 32 completed NAPA (worldwide) showed that there were considerable gap between the framework and implementation. For instance 19% of the 32 completed NAPAs, did not for example, prioritize poverty and almost two thirds i.e. 62.5% did not prioritize gender in their adaptation activities⁵⁰. The same study also found that the majority of the NAPA reports and projects were produced by ministries of environment, thus issues perceived as not directly linked such as gender equality, health, and education etc., were often being left out of the needs assessment process. In another study it was reported that of '37 NAPAs submitted by September 2008, less than half included human health-related (48%), or education and capacity-building activities (43%)'.⁵¹

Of the 14 LDCs as identified by UNFCCC from the Asia-Pacific region, in this paper, the NAPA documents of 13 countries (excluding Myanmar) are reviewed from a gender perspective. It is to be noted that all the 13 countries have along with the UNFCCC and the Kyoto Protocol ratified the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW). They have adopted the Beijing Platform of Action (BPFA) at the 4th World Conference on Women (1995) and the Millennium Declaration (2000) thereby committing themselves to achieving set of goals by 2015 and track their progress towards economic and social development. For the countries, therefore, gender equality is intrinsic to achieving national poverty reduction, economic growth and social development goals. Under the BPFA the governments committed to gender mainstreaming across all policies and programmes thus creating an environment conducive to pursuing gender mainstreaming in climate change policies including in NAPA.

All the 13 LDCs that have submitted the NAPA documents have established national focal points for climate change, which for most is the Ministry of Environment or related agency dealing with environment. They are also the primary writer(s) of the NAPA documents and as in case of Afghanistan, the Afghanistan government, the UN and NGOs. Out of the 13 countries and with the exception of three namely, Cambodia, Lao PDR & Kiribati, all mentioned gender in the NAPA documents and all (though in some cases perfunctorily) uses key gender words⁵². However, only 5 countries had prioritized gender that is, Bangladesh, Nepal, Timor Leste, Samoa and Solomon Islands; or similar to the global trend in the Asia - Pacific region 61.5% NAPAs did not prioritize gender⁵³. Nepal is the only country to have included the findings of gender sensitivity analysis through a consultative process including transect appraisal exercise where gender differentiated climate change effects were examined.

This is suggestive of lack of prioritization of gender issues in preparing NAPA and that most countries have either ignored or not made effective use of existing studies/resources on gender or that of social issues prioritized alongside the economy and environment as immediate and urgent adaptation needs.

Furthermore, women were identified as one of the key stakeholders in the NAPA framework guidelines, and stressed on their participation as critical. In the context it is deemed important from the inclusivity perspective the NAPA teams' consultation with or seeking participation of women and gender advocacy groups, ministries of social development, welfare, health and/or women, having greater access to 'data and greater understanding of the country's social-development context'⁵⁴. Of the 13 reviewed NAPA documents, only three countries have specifically mentioned consultation with and contribution from their respective Ministry looking after women and children's affairs, namely, Bhutan (National Commission for women and children -NCWC), Samoa (Ministry of Women, Community & Social Development, -MWCSD), Solomon Islands- of National Council of Women. While Afghanistan's NAPA document notes that given the cultural constraints associated with involving women in public events with a high male presence, as such despite invitation there was no representation/direct participation from the Ministry of Women's Affairs, but received inputs based on questionnaire distributed to and completed by the Ministry/ Department of Women's Affairs at national and provincial levels. In only about 53% of the NAPA documents reviewed show women being included in the consultation process.

In a UN discussion paper on the social dimensions of climate change, it was stated that:

“...the inclusion of social dimensions in climate policy is a prerequisite to ensuring that human rights are respected; climate change and related response measures impact the fundamental security, lives, health and livelihoods of people, especially the most vulnerable⁵⁵”.

To look into the extent of inclusion of social dimensions in the NAPAs from the region is based on the premises that : the probability for inclusion is enhanced, the more the Ministry of Environment facilitates and coordinates with other ministries of social development particularly during the NAPA consultation and preparation process. In the reviewed NAPA documents only two mentioned the involvement of the ministries of social development, welfare. While in case of health 53.8% of the NAPA documents stated working with the Ministry of Health and health related activities in the design and prioritization of projects. In order of project priority, 30.7% accorded top priority, namely, Cambodia, Timor Leste, Samoa and Solomon Islands ranked in order of priority within the range of 1-3. The projects in the health sector ranged from biopesticides, prevention (Malaria Education and Mosquito Habitat Clearance Campaigns), public health, Vector-borne and climate related diseases, water and sanitation to development of health care center.⁵⁶

In highlighting the criticality of other '*soft adaptation actions such as education*' the World Bank notes that "*education will also affect a person's ability to anticipate climate events, make proactive adaptation decisions and reduce losses related to disasters*"⁵⁷, thereby '*strengthening resilience and, by extension, adaptation*' as well. While the involvement of the Ministry of Education was mentioned in 5

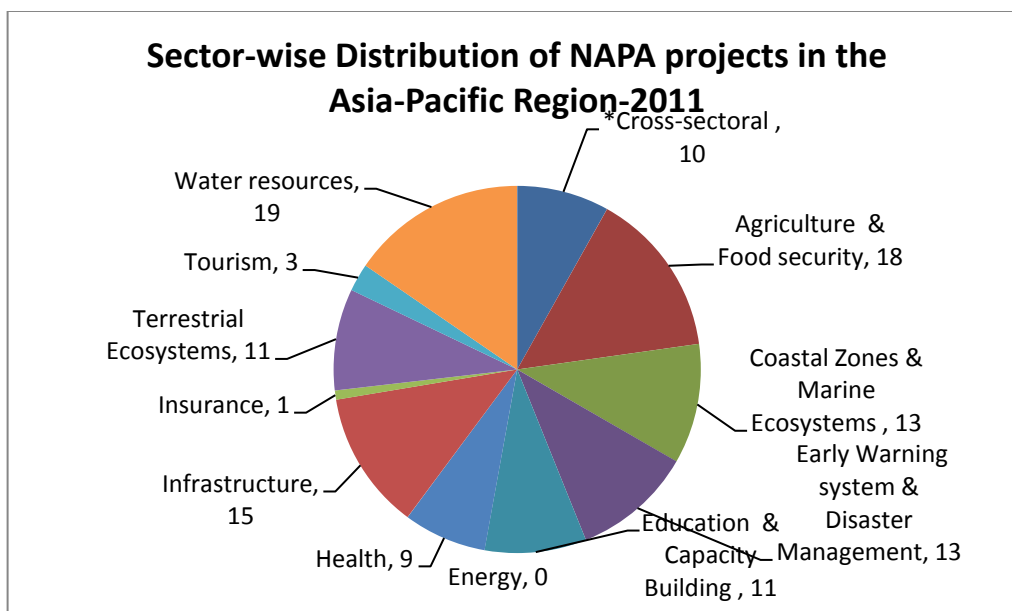
countries the NAPA report included education and capacity development (in some cases as cross cutting activities) activities; only 3 countries namely, Bangladesh (in 2 out of 3 projects), Lao PDR, and Maldives accorded high priority as ascertained from order of priority in the NAPAs, i.e., within the range of 1-3.⁵⁸

It is to be noted that as specified in the NAPA guidelines the criteria for selecting priority adaptation activities/projects are locally-driven. It takes into account existing coping strategies at the grassroots level to identify priority activities, based upon their immediate and urgent needs. It includes amongst others poverty reduction measures to enhance adaptive capacity to counter the adverse effects of climate change pertaining to loss of livelihoods, coastal zones and associated lands, food security and agriculture, water security, human health, and other environmental amenities.⁵⁹ The NAPA process enables countries to identify and implement adaptation needs and activities for women and men, girls and boys including steps to integrate adaptation into their existing and ongoing development, poverty alleviation and climate change strategies and plans. It is interesting to note from the reviewed NAPA documents that while 92.3% mention poverty, only 61.5% prioritize poverty reduction and targeted the poor when selecting projects.

Sector-wise analysis of the projects in the 13 NAPA documents reiterate the importance attached to agriculture and food security in the region as demonstrated in the section under Climate Change and the Complexities of the Asia-Pacific Region. Alongside projects in the Water resource sector where 19 projects have been identified, Agriculture and Food security (which includes fisheries and livestock) closely follow with 18 projects. The number of projects in these two sectors becomes even higher when those in similar categories and cross-sectoral programmes are included. Coastal zones & Marine ecosystems, Infrastructure, Early warning, disaster management and terrestrial ecosystems have projects ranging between 11-15. Whereas none of the countries had any projects under the energy sector health, with only one, namely Bangladesh under insurance and relatively fewer under education (if separated from capacity building) and capacity building have fewer projects (see figure-II).

Agriculture and food security is also the sector that has taken highest priority in the Global Environmental Facility (GEF) funding under the Least Developed Countries Fund (LDCF),⁶⁰ worldwide, followed by coastal zones and marine ecosystems, early warning and disaster management and then water resources. The GEF 'notes that the provision of human needs essential for continued development (e.g. water supply and sanitation, food security and health) will be threatened by the adverse impacts of climate change'

Figure: II



Source: Data obtained from National Adaptation Programmes of Action: Index of NAPA projects by Sector⁶¹, UNFCCC;

Note: *Cross-sectoral projects include: Mainstreaming and policy adaptation, Terrestrial ecosystems, water resources, infrastructure and early warning system, International representation and institutional capacity building, Agriculture & Food security Water resources, Land rehabilitation and Capacity Building, Biodiversity conservation, **Agriculture & Food security includes, agriculture, fisheries & livestock

Why Gender and Human Rights matter in climate change policies

Research have since long affirmed the inclement effect of climate change especially on the marginalized people, already in vulnerable situations due to factors such as poverty, gender, age, minority status, and disability⁶². Women vulnerability is exacerbated as they are exposed to climate change-related risks due to prevailing gender discrimination, inequality and inhibiting gender roles⁶³. But as eloquently expressed by a gender activist, “Climate change and food security is a common problem regardless of gender,” and ‘the challenge lies in lifting certain social barriers, which may be rooted in tradition, religion and culture, so that resources are available to all, regardless of gender’.⁶⁴

With increase in the stakes of climate change, sustained development dictates consideration of gender differentiated risks and vulnerability assessment through intersectional analysis⁶⁵ for adaptation measures to be effective and successful. The International human rights standards and principles, for instance, underscore the need to adequately assess and address the gender-differentiated impacts of climate change⁶⁶. Also in the context of negotiation with the UNFCCC, States have highlighted gender-specific vulnerability assessments as important elements in determining adaptation options⁶⁷.

Notwithstanding the growing visibility on the gender dimension, gender and the supporting social dimensions continue to be largely ignored or receive minimum priority. This is evident from the NAPA

documents reviewed and in that token on human rights posing a threat to human security. 'Human security' in the context of climate change, maybe viewed as necessary options available to all- women and men, boys and girls, regardless of gender, age, class, caste, religion or other social cultural barriers "...to end, mitigate or adapt to threats to their human, environmental and social rights; have the capacity and freedom to exercise these options; and actively participate in pursuing these options."⁶⁸ In that considerations of gender and human rights are fundamental and non-negotiable in climate change policies.

In the analysed NAPA documents from the region, the analysis of the sectors that were accorded high priority by the LDCs included Agriculture and food security brought fore some pertinent questions regarding the rights of the key stakeholders in this sector- the marginalized farmers: as noted with women being the majority women working at the subsistence level but contributing significantly to the food security of their country and the region as a whole. The rights in questions are: that of participation, livelihood support and in to counter the adverse climate impacts the right to alternative livelihoods. The reviewed documents showed that in the NAPA development and consultation process women/marginalized groups appear to occupy the place of minor stakeholders, with minimum participation thus without any guarantee of their vulnerability being properly assessed or incorporated in adaptive measures from which they may also benefit. In general, the fisheries sector, for example that faces is 'erroneously perceived to be a 'male only' domain, apparently offering little opportunity to women' often with the consequences that 'Fisheries and aquaculture development assistance and technical training is targeted at men, women being excluded by their lower literacy, lack of daily time and mobility'⁶⁹.

It follows thereof that women and the marginalized poor are yet to fully realize their entitlement such as right participation in the decision making process concerning their livelihood and other adaptive measures that may arise thereof. Close collaboration and coordination between environmental agencies and those dealing with social dimensions is of vital importance in planning and implementing for inclusive climate change responses. 'Minding the gender gaps' and by giving women the same access as men to agricultural resources could increase production on women's farms in developing countries by 20 to 30 percent – enough to feed up to 150 million more of the world's hungry people⁷⁰

While harm resulting from the physical impacts of climate change cannot be classified as human rights violations, 'addressing that harm remains a critical human rights concern and obligation under international law'⁷¹. In the context, it is but appropriate to invoke the fundamental human rights as enshrined in the Universal Declaration of Human Rights as guide to climate change adaptive measures. The Human Rights Council, at its 10th session, held a panel discussion on the relationship between climate change and human rights on 15 June 2009, pursuant to its resolution 10/4 of March 2009. Under international human rights law, States are legally bound to address such vulnerabilities in accordance with the principle of equality and non-discrimination. In an open letter to Member States the UN High Commissioner for Human Rights, reminded

all of the landmark Rio Declaration (1992) and its 27 principles that put human wellbeing and their right at the centre of concerns for sustainable development and conclude with her reminder that:

States should resolve to work to advance a human rights-based approach to the green economy, based on the principles of participation, accountability (at the national and international levels), non-discrimination, empowerment, and the rule of law in green economy efforts, and to pursue a model of economic growth that is socially and environmentally sustainable, just and equitable, and respectful of all human rights.⁷².

Bibliography:

1. Governing Climate Funds- What will work for Women? Elizabeth Arend and Sonia Lowman; Gender Action, WEDO, GROW & OXFAM, 2011.
2. Livelihoods and Climate Change: Combining Disaster risk reduction, natural Resource Management and Climate Change Adaptation in a New approach to the reduction of vulnerability and poverty; 2003; International Institute for Sustainable Development (IISD), IUCN –The World Conservation Union and Stockholm Environment Institute – Boston Centre (SEI-B)
3. Rural disaster risk-poverty interface. Sabates-Wheeler, R., Devereux, S, et.al. 2008, accessed from http://ids.academia.edu/ThomasTanner/Papers/345845/Rural_Disaster_Risk_Poverty_Interface
4. Nelson, V., Meadows, K., Cannon, T., Morton, J. and Martin, A. (2002). “Uncertain Predictions, Invisible Impacts, and the Need to Mainstream Gender in Climate Change Adaptations”. *Gender & Development* 10(2).
5. UNFCCC on Climate Change- NAPA Database: http://unfccc.int/cooperation_support/least_developed_countries_portal/submitted_napas/items/4585.php
 - Afghanistan: September 2009
 - Bangladesh: November 2005
 - Bhutan: May 2006
 - Cambodia: March 2007
 - Kiribati: January 2007
 - Lao PDR: May 2009
 - Maldives: March 2008
 - Nepal: November 2010
 - Samoa: December 2005
 - Solomon Islands: December 2008
 - Timor -Leste: September 2011
 - Tuvalu: May 2007
 - Vanuatu: October 2007

ENDNOTES

-
- 1 Report of the UN High Commissioner for Human Rights on the relationship between climate change and human rights; A/HRC/10/61-15th January 2009. P-24
 - 2 IPCC. (2001). *Summary for Policymakers. Climate Change 2001: Impacts, Adaptation, and Vulnerability. Report of Working Group II of the International Panel on Climate Change.* Switzerland: IPCC.
 - 3 *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation.* IPCC Report. Accessed from http://www.ipcc-wg2.gov/SREX/images/uploads/SREX-SPMbrochure_FINAL.pdf
 - 4 *Equity & Global Climate Change: The Complex Elements of Global Fairness-Eileen Claussen, et al.* 1998 (reprinted June 2000)
 - 5 *Male' Declaration on the Human Dimension of Global Climate Change Male', Republic of Maldives, 14 November 2007; accessed from http://www.ciel.org/Publications/Male_Declaration_Nov07.pdf*
 - 6 *Resolution 7/23. Human rights and climate change; Human Rights Council.* Accessed from http://ap.ohchr.org/documents/E/HRC/resolutions/A_HRC_RES_7_23.pdf
 - 7 *Water for People Water for Life. The United Nations World Water Development Report: Executive Summary-2003; weblink- <http://unesdoc.unesco.org/images/0012/001295/129556e.pdf>*
 - 8 Laplante, B. 2010. *Poverty, Climate Change, and the Economic Recession, In Bauer, A., and M. Thant, eds. Poverty and Sustainable Development in Asia: Impacts and Responses to the Global Economic Crisis.* Manila: Asian Development Bank. Cited in *Accounting for Health Impact of Climate Change- 2011 ADB & SIDA p-vii 7 p-1*
 - 9 *The Millennium Development Goals Report-2011 United Nations.* P. 7
 - 10 *Food for All Investing in Food Security in Asia and the Pacific— Issues, Innovations, and Practices; ADB- 2011*
 - 11 *ibid*
 - 12 *Superpower? 230 million Indians go hungry daily, The Times of India January 15th, 2012*
 - 13 *Climate Change 2007: Synthesis Report-Intergovernmental Panel on Climate Change (IPCC); pp-50- 52*
 - 14 *Beijing Declaration and Platform for Action, 4th World Conference on Women 1995, 16.*
 - 15 *ADB: Food Security, Agriculture and Rural Development: Responding to Asia's Food Crisis; see <http://beta.adb.org/sectors/agriculture/overview>*
 - 16 *Ibid women were being left behind, as subsistence producers using 'primitive techniques' in the agricultural sector; as low paid workers in non-farm and urban sectors and as unpaid workers in rural areas, contributing to farm productivity following the outmigration of men.*
 - 17 *In a message from the General of FAO; see Food for All Investing in Food Security in Asia and the Pacific— Issues, Innovations, and Practices; ADB- 2011*
 - 18 *Women and labour markets in Asia : rebalancing towards gender equality in labour markets in Asia . ILO & ADB Asian Development Bank. – 2011. P-7*
 - 19 *Gender and Rural employment: Differentiated pathways out of poverty-status, trends and gaps; FAO-2010; pp-12, 13*
 - 20 *Women and labour markets in Asia : rebalancing towards gender equality in labour markets in Asia . ILO & ADB Asian Development Bank. – 2011. P-7*
 - 21 *Intergovernmental Panel on Climate Change. 2007. Fourth Assessment Report (Working Group II) cited in Addressing Climate Change in Asia and the Pacific: Priorities for Action- April 2010; ADB. P-32.*
 - 22 *Green Growth, resources and Resilience: Environmental Sustainability in Asia and the Pacific. ESCAP, ADB & UNEP. 2012; p-6*
 - 23 *Water Ethics and Water Resource Management by Jie Liu et al; UNESCO Bangkok; p-5*
 - 24 *Water for Food, Water for Life: the Comprehensive Assessment of Water Management in Agriculture 2006 <http://www.iwmi.cgiar.org/Assessment/index.htm> cited in Water Ethics and Water Resource Management by Jie Liu et al; UNESCO Bangkok; p-5*
 - 25 *Kunst, S., Kruse, T., op.cit., 2001 cited in Gender: The Missing Component of the Response to Climate Change by Lambrou Yianna and Piana Grazia; FAO P-14*
 - 26 *World Water Development Report-4; 2012 UNESCO; p-109*
 - 27 *The State of World Fisheries and Aquaculture 2010- FAO- p114*
 - 28 *The Economics of Climate Change-ADB; Publication Stock No. ARM114166 November 2011*
 - 29 *The State of World Fisheries and Aquaculture 2010-FAO; p-6*
 - 30 *Kusabe, K. & Kelker, G., eds. 2001. Gender concerns in aquaculture in Southeast Asia. Gender Studies Monograph No. 12. Bangkok, Asian Institute of Technology, School of Environment Resources and Development; cited in The state of Food and Agriculture: Women in Agriculture- Closing the gap for development: FAO-2010-2011; p-16*
-

-
- 31 *The State of World Fisheries and Aquaculture 2010-FAO*;p-7
- 32 Bangkok Statement on Small-Scale Fisheries 2008 cited in Biswas, Nilanjana. 2011. *Turning the tide: Women's lives in the fisheries and the assault of capital*. Occasional Paper. Chennai, ICSF. 41p; p-7
- 33 Herath S. 2007. Women in livestock development in Asia. *Journal of Commonwealth Veterinary Association* 24(1):29–37; cited in *Livestock and Women's Livelihoods: A Review of the Recent Evidence*
- 34 World Bank. 2001. *Engendering development: through gender equality in rights, resources, and voice*. World Bank, Washington D-cited in *Livestock and Women's Livelihoods: A Review of the Recent Evidence*. P-12
- 35 Patel. 1998. *Women and the White Revolution*. *Cooperative Dialogue* 8(1):20–25--cited in *Livestock and Women's Livelihoods: A Review of the Recent Evidence*. P-12
- 36 *Livestock and Women's Livelihoods: A Review of the Recent Evidence*-p-17
- 37 IFAD (undated) *Women Livestock Managers in the Third World: A Focus on Technical Knowledge*. Internet: http://www.ifad.org/gender/thematic/livestock/live_3.htm Cited in *Women's Empowerment in Pastoral Societies* by Fiona Flintan- 2008-; World Initiative for Sustainable Pastoralism (WISP), Global Environmental Facility (GEF), UNDP & IUCN; p- 28
- 38 *Women's Empowerment in Pastoral Societies* by Fiona Flintan- 2008-; World Initiative for Sustainable Pastoralism (WISP), Global Environmental Facility (GEF), UNDP & IUCN; p- 41
- 39 The UN High Commissioner for Human Rights, Navi Pillay, in an open letter to all Member States;
- 40 *Livelihood and Climate Change: Combining disaster risk reduction, natural resource management and climate change adaptation in a new approach to the reduction of vulnerability and poverty-A Conceptual Framework Paper Prepared by the Task Force on Climate Change, Vulnerable Communities and Adaptation*. International Institute for Sustainable Development- 2003; p- 4
- 41 IPCC; Based on Third Assessment Report (IPCC, 2001a,b,c) Glossary of terms, Annex-B P-379
- 42 Cancun Adaptation Framework, see UNFCCC website- accessed from http://unfccc.int/adaptation/cancun_adaptation_framework/items/5852.php
- 43 Lim, B. and E. Spanger-Siegfried (eds) (2005) *Adaptation Policy Frameworks for Climate Change: Developing Strategies, Policies and Measures*. UNDP-GEF. Cambridge University Press, Cambridge.
- 44 LDCs- see map provided in the Annex-I of the paper and details of LDCs on UNFCCC website: http://unfccc.int/cooperation_support/least_developed_countries_portal/ldc_work_programme_and_napa/items/4722.php
- 45 United Nations Framework Convention on Climate Change (UNFCCC) 1992 FCCC/INFORMAL/84 GE.05-62220 (E) 200705
- 46 Annotated guidelines for the preparation of national adaptation programmes of action;- http://unfccc.int/files/cooperation_and_support/ldc/application/pdf/annguide.pdf
- 47 Ibid
- 48 Ibid; Guiding Element-(e) Gender equality-p3
- 49 Ibid, 8th Plenary meeting- 9th November 2001
- 50 Perch L. *Mitigation of what and by what? Adaptation by whom and for whom? Dilemmas in delivering for the poor and the vulnerable in International climate policy*. Brasilia, International Policy Centre for Inclusive Growth, 2011. (Available from: <http://www.ipc-undp.org/pub/IPCWorkingPaper79.pdf>) cited in "The Social Dimension of Climate Change" Discussion paper prepared under the United Nations Task Team on Social Dimensions of Climate Change-2011 - http://www.ilo.org/empent/units/green-jobs-programme/facet/WCMS_169567/lang--en/index.htm
- 51 *The social Dimension of Climate Change-Discussion Draft*-p-9; see link http://www.iom.int/jahia/webdav/shared/shared/mainsite/activities/env_degradation/cop17/SDCC-Social-dimensions-of-climate-change-Paper.pdf
- 52 such as gender, women, men, male, female, boys and girls;
- 53 Methodology for the analysis of the gender inclusivity in the reviewed NAPA document is adapted from that used by Leisa Perch in the article "Mitigation of what and by What? Adaptation by whom and for whom?"; International Policy Centre for Inclusive Growth (IPC-IG); 2011 <http://www.ipc-undp.org/pub/IPCWorkingPaper79.pdf>. Accordingly countries which used gender equality or empowerment criteria in designing/and or selecting projects, and explicitly stated that the projects would benefit women in the NAPAs are identified as those having prioritized gender
- 54 Ibid-p10
- 55 *The Social Dimensions of Climate Change: Discussion draft*

56 Data on prioritization of health under health sector calculated & adapted from Adapted from National Adaptation Programmes of Action: Index of NAPA projects by Sector, UNFCCC; Accessed from http://unfccc.int/files/cooperation_support/least_developed_countries_portal/napa_project_database/application/pdf/napa_index_by_sector.pdf

57 Ibid, cited from World Bank. (2010c). World Development Indicators (WDI). World Data Bank. Accessed from <http://databank.worldbank.org/ddp/home.do?Step=12&id=4&CNO=2>,

58 Data on prioritization of education under education sector calculated & adapted from National Adaptation Programmes of Action: Index of NAPA projects by Sector, UNFCCC; Accessed from http://unfccc.int/files/cooperation_support/least_developed_countries_portal/napa_project_database/application/pdf/napa_index_by_sector.pdf

59 FCCC/CP/2001/13/Add.4- Report of the Conference of the Parties on its seventh session held at Marrakesh from 29th October to 10th November 2001; <http://unfccc.int/resource/docs/cop7/13a04.pdf#page=7>

60 The LDCF was established to support LDCs in the preparation and implementation of NAPAs. As of September 2009, it has supported the preparation of 42 NAPAs, and has committed to implementation of 32 NAPA projects totaling USD 100 million. The Fund relies on voluntary contributions and is open to all LDCs that are Parties to the UNFCCC.

61 Data obtained from National Adaptation Programmes of Action: Index of NAPA projects by Sector, Nov-2011, UNFCCC; Accessed from http://unfccc.int/files/cooperation_support/least_developed_countries_portal/napa_project_database/application/pdf/napa_index_by_sector.pdf

62 IPCC Based on Fourth Assessment Report -AR4 WGII Report, p. 374.

63 Report of the UN High Commissioner for Human Rights on the relationship between climate change and human rights; A/HRC/10/61-15th January 2009. P-15

64 Interview with gender grant recipient Some Laetitia, made by Moushumi Chaudhury and edited by Lisen Stenberg Spot light on Gender and Food Security, Accessed from <http://ccafs.cgiar.org/blog/spotlight-gender-and-food-security-burkina-faso>

65 Note: 'Intersectionality is an analytical tool for studying, understanding and responding to the ways in which gender intersects with other identities and how these intersections contribute to unique experiences of oppression and privilege' while Intersectional analysis 'aims to address the manner in which racism, patriarchy, class oppression and other systems of discrimination create inequalities that structure the relative positions of women. It takes account of historical, social and political contexts and also recognizes unique individual experiences resulting from the coming together of different types of identity' See, Intersectionality: A Tool for Gender and Economic Justice in Women's Rights and Economic Change; No. 9, August 2004

66 Op.cit. A/HRC/10/61-15th January 2009.p-16

67 Op.cit. cited from UNFCCC, Climate Change: Impacts, Vulnerabilities and Adaptation in Developing Countries, 2007, p. 16.

68 Global Environmental Change and Human Security (GECHS) in a Decade that Matters by Karen O' Brien et al. ; IHDP Update Issue 2, Magazine of the International Dimensions Programme on Global Environmental Change- June 2009 <http://www.ihdp.unu.edu/file/>

69 Development, 2008, 51, (176–179) 2008 Society for International Development 1011-6370/08: Choo Poh Sze, et al: Guest Editorial: Gender and Fisheries accessed from <http://www.palgrave-journals.com/development/journal/v51/n2/full/dev20081a.html>

70 See FAO weblink-Gender "Gender Gap imposes large costs on agriculture, economies and society": [http://www.fao.org/gender/gender-home/gender-news/gender-newsdet/en/?dyna_feff\[uid\]=124690](http://www.fao.org/gender/gender-home/gender-news/gender-newsdet/en/?dyna_feff[uid]=124690)

⁷¹ Op.cit. A/HRC/10/61-15th January 2009.p-30

72 Open Letter to Member States from the UN High Commissioner for Human Rights Navi Pillay 30th March 2012;