

Gender Assessment

FP084: Enhancing climate resilience of India's coastal communities

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Gender Assessment and Proposed Gender Action Plan

I. Introduction

Both men and women in rural areas in developing countries are more vulnerable to the impact of climate change due to fewer avenues for coping mechanisms and high dependence on local natural resources for their livelihood. Women are more vulnerable to the effects of climate change than men—primarily as they constitute the majority of the world’s poor and are more dependent for their livelihood on natural resources that are threatened by climate change. They face social, economic and political barriers that limit their coping capacity.

This gender assessment intends to outline the gender situation in India, with a specific focus on the coastal area of Odisha, Andhra Pradesh and Maharashtra. It also aims to identify the structural and cultural factors contributing to the gender issues that are relevant to the project, and to analyze potential gender mainstreaming opportunities. This gender assessment is largely based upon the stakeholder consultations organized by UNDP; studies conducted by the Government of India; research and academic institutions; multilateral and donor agencies; and impact assessment reports of similar projects implemented both in India and worldwide. The assessment includes:

1. Conducting a desktop review of relevant government policy documents and research conducted by the multilateral agencies, donor agencies, universities and research institutions and aligning approaches in this proposal with the national priorities of India.
2. Incorporating information and lessons learned from implementation and evaluation assessment of the similar projects managed by UNDP in Sindhudurg district of Maharashtra and in coastal region of Andhra Pradesh.
3. Integrating findings from stakeholder consultations conducted at the various levels including relevant government departments, civil society organizations, other multilateral agencies, and community members.
4. Centralizing gender concerns to the project design by incorporating gender issues raised into project activities, targets, indicators, monitoring and evaluation.

Resilience of communities in the coastal areas of Odisha, Maharashtra and Andhra Pradesh to climate variability and extreme events

Developing countries are the most vulnerable to climate change impacts because they have fewer resources to adapt: socially, technologically and financially. Climate change is anticipated to have far reaching effects on the sustainable development of developing countries, including their ability to attain the new 2030 Agenda for Sustainable Development. India has experienced substantial changes in mean and extreme climate during the period of 1951- 2013¹.

Approximately 650 million people in India are dependent on rain-fed agriculture for their livelihoods. India has been identified as one amongst the 27 countries which are the most

¹ Climate Change and India –Adaptation Gap a Preliminary Assessment. Garg et.al. 2015. Indian Institute of Ahmedabad

vulnerable to the impacts of global warming related accelerated sea level rise². Observations suggest that the sea level has risen at a rate of 2.5 mm per year along the Indian coastline since 1950s. A report issued by the World Bank suggests that India's economic progress could be severely hampered, with an additional 45 million pushed into poverty, due to the effects of climate change³.

India is highly vulnerable to various natural hazards including droughts, floods, heat-waves and cyclones. According to studies around 76 percent of India's coastline is prone to cyclones and tsunamis, while 59 percent of the country is vulnerable to earthquakes, 10 percent to floods and river erosion, and 68 percent to droughts⁴. Around 250 million Indians live along 7500 km of coastline that is at high risk due to sea level rise and extreme weather events; many of the approximately 10,000 Indian glaciers are receding at a rapid rate; and deforestation is happening. The vulnerability of the coastal zone depends on underlying physical and socio-economic characteristics of coastal areas. Total area under the 9 coastal states constitutes about 42 percent of the total area in India and includes 66 coastal districts⁵. India's coastline is divided into East and West zones; the two coasts are different in many aspects. Odisha and Andhra Pradesh are part of the east coast while Maharashtra falls under West coast.

The east coast is known for flat terrain dotted with beaches, rich in coral reefs, coastal sand bars-dunes, river basins, backwaters, deltas, lakes (Chilika Lake-Odisha), salt pans, mangrove and mudflats (it constitutes 7 percent of total worlds mangrove area). On the other hand, the western coast has narrow rolling plains, estuaries (Western Ghats), creeks, few sandy beaches and plenty of natural inlets coupled with rocky outcrops. Along with this variety of natural and physical structures, both the coasts have a greater differentiation in terms of economic activities, population, industry and infrastructure.

Majority of the coast consists of urban population. According to Census (2011), 17 percent of the total population in India belongs to the 66 coastal districts of the nine coastal states⁶. There are 77 cities in the coastal region of India, including some of the largest and densest urban agglomerations like; Mumbai, Kolkata, Chennai, Kochi and Visakhapatnam. The population density per km² in most of the districts is higher than the density of the respective state and country. The Project success can impact at least 42 percent population of the country. The high population density increases the risks and vulnerability of the coastal states, as more people become vulnerable to climate change issue.

The east coast region comprising Odisha and Andhra Pradesh is more vulnerable to the frequency of storms. Odisha and Andhra Pradesh, together, had faced six major cyclone and flood in last one decade; 1999 super cyclone of Odisha and 1977 cyclone of Andhra Pradesh led to loss of more than 10,000 lives each⁷. A total of 7.1 million people are found to be at risk, representing 4.6 percent of the total coastal population. Maharashtra is the most affected because of their high density of coastal population, and the dependence in rural stretches of the

² Climate Change and coastal ecosystem in India. Issues in Perspectives. Senapati & Gupta. Vol 5. No 3. International Journal of Environmental Sciences

³ Shock Waves: Managing the Impacts of Climate Change on Poverty. 2016. Hallegatte et al. The World Bank

⁴ Climatic vulnerable of India's coastal regions. Issues of India. Retrieved from

<https://socialissuesindia.wordpress.com/2014/01/06/climatic-vulnerable-of-indias-coastal-regions/>

⁵ Climate Change and India –Adaptation Gap a Preliminary Assessment. pp.3. Garg et.al. 2015. Indian Institute of Ahmedabad.

⁶ Census 2011. www.census2011.co.in/

⁷ Disaster Data & Statistics. National Disaster Management Authority of India. Retrieved from www.ndma.gov.in/en/disaster-data-statistics.html

coast on monsoon-fed agriculture. In terms of land use, cultivated land is the most affected in Odisha, and Maharashtra, as temperatures increase and the monsoon pattern becomes less predictable, with more intense rainfall events, and longer dry spells. In terms of settlement land, Maharashtra and Gujarat are the most vulnerable states. Considering the impact at district level, Mumbai is found to be highly vulnerable to land loss with a consequent effect on its population.

Table 4: Damage due to Cyclonic Storms/Heavy Rains /Flash Floods/Landslides in three coastal states of India- Odisha, Andhra Pradesh, and Maharashtra (2010-2011 and 2011-2012)

States	2010-2011				2011-2012			
	No. of human lives lost	No. of Cattle Lost	No. of Houses Damaged	Cropped area affected (Lakh hectare)	No. of Human lives lost	No. of Cattle lost	No. of Houses Damaged	Cropped area affected (Lakh Hectare)
Andhra Pradesh	171	17230	38152	20.86	-	-	-	-
Maharashtra	8	5	9	-	106	-	-	-
Odisha	10	260	5339	4.17	87	1493	290780	4.19

Source: Indiastat.com⁸

Sex disaggregated data for the death of these cyclones and floods are not available; however, various studies conducted in different countries found discriminatory impact of extreme climatic events like cyclone, flood etc. on poor and vulnerable groups specifically women due to lack of coping mechanism and unfavorable socio-cultural norms.

II. Existing gender inequality in India and specifically in Odisha, Andhra Pradesh and Maharashtra

The Constitution of India enshrines gender justice and equality in its preamble, directive principles, freedom of duties and freedom of rights. India has also ratified many UN conventions promoting women's rights including UN Convention on the Elimination of All Forms of Discrimination against Women (CEDAW). Though India has addressed gender parity in primary school enrollment and almost bridged the gap in tertiary and secondary education to achieve the Millennium Development Goals (MDGs), the country is still behind in many sectors including labor force participation and maternal mortality rate. A 33 percent reservation in the Panchayati Raj System has not achieved its goal in ensuring better representation of women in the upper house and lower house of the parliament. India ranks lower in Gender Inequality Index (GII) (ranked 125 among 188 countries) in comparison to neighbouring countries Sri Lanka (87), Nepal (115) and Bangladesh (119).

In the following paragraphs inequalities and discrimination against women and other social groups are described in detail which have implications on building women's coping capacity against climate change impacts and extreme climatic events.

Poverty

⁸ www.Indiastat.com

India has witnessed rapid economic growth in the past decade, and it has now become one of the emerging economies in Asia. However, according to the recent “The State of Food Insecurity in World” report by the Food and Agriculture Organization (FAO), India is home to 194.6 million undernourished people, the highest in the world. The Global Hunger Index (GHI) released by the International Food Policy Research Institute ranks India 97 of 118 countries⁹.

One significant fact about poverty in India is that while the poverty ratio has been declining, the absolute number of poor has remained more or less the same. The poverty ratio was 36 percent in 1993- 94 which means 320 million people were below the poverty line. Though the poverty ratio declined by 8.5 percent between 1993-94 and 2004-05 the absolute number of poor was estimated at 302 million persons.

In India the concept of poverty has been approached in the absolute sense; a measurement system which is most suitable for developing countries. Instead of income or consumption expenditure distribution, it is about minimum standard of living. The most recent official methodology used in India to define poverty not only takes normative levels for adequate nourishment, clothing, house rent, conveyance and education, but also considers behaviorally-determined levels of other non-food expenses¹⁰. According to this methodology, the energy requirement as calculated by Rangarajan is 2,155 kcal per person per day in rural areas and 2,090 kcal per person per day in urban areas¹¹.

The Rangarajan Committee report on Measurement of Poverty (2014) estimated that the 30.9 percent of the rural population and 26.4 percent of the urban population were below the poverty line in 2011-12, and the overall poverty ratio in India in 2011-12 was 29.5 percent . In other words, 260.5 million individuals in rural areas and 102.5 million in urban areas with a grand total of 363 million were under the poverty line in India. This means that three out of every ten Indians are poor¹².

Among the targeted states, Odisha is one of the poorest states. In 1999/2000 Odisha has become India's poorest state, surpassing Bihar. Orissa's poverty headcount stagnated around 48-49 percent between 1993/94 and 1999/2000, while at all-India level the headcount declined and in Andhra Pradesh poverty halved¹³. However, as per estimates made by the Tendulkar Committee appointed by Planning Commission, poverty in Odisha declined by 24.6 percentage points from 57.2 percent in 2004-05 to 32.6 percent in 2011-11; this was the highest poverty reduction by any major state in the country.

Poverty in India is largely rural in character, where landless labourers and casual workers are the worst off economic group. In particular, Scheduled Castes and Tribes, women and female headed families and old people face more deprivation than others. They have been suffering more from poverty due to landlessness, unemployment, inaccessibility of resources, primary healthcare and education, transportation, market etc.

⁹ Global Hunger Index.2015. IFPRI. www.ifpri.org/topic/global-hunger-index

¹⁰ Counting the poor: Measurement and other issues. 2014. Rangarajan & Mahendra Dave. Madras School of Economics

¹¹ ibid. Pp 6

¹² Three out of every 10 Indians are poor, says C Rangarajan panel. 2014. Mail today Bureau. Retrieved from www.businesstoday.in/current/economy-politics/c-rangarajan-panel-submits-report-on-poverty-line-index/story207896.html

¹³ Disparities within India's poorest regions: Why do the same institutions work differently in different places, A. Hann; 09/12/2004; World Development Report 2006

Poverty in India varies according to social groups, regions and gender. Average per capita income of SC/ ST at all India level is about one-third lower than that among other groups. In 1999-2000, headcount poverty among general groups were 16 percent while for Muslims it was 30 percent , for Scheduled Caste 36 percent and 44 percent for Scheduled Tribe. The recent poverty reduction rate experienced by India as a whole has minimum ramifications in the poverty reduction among other social groups.

Female headed household are often linked with the feminization of poverty. These households are found to be poorer in comparison to male headed households due to discrimination and the gender division of work in the market as women are usually ascribed less paid jobs, lack access to assets, poor education. However, feminization of poverty is not about female headed households only; according to studies due to decreasing sex ratio in urban areas and specifically in richer families, number of women in the poorer families has increased over the years. And thereby, the proportion of poor women in the total population has increased leading to feminization of poverty¹⁴. The urban poor females have increased from 37.8 million in 1993-94 to 40.3 million in 2004-05¹⁵.

Access to and control over resources specifically land

Besides income, access to and control over assets plays a crucial role in deciding economic and social status. Landlessness and poverty are significantly correlated. Women's access to family inheritance and productive assets is limited or absent due to a patriarchal form of society setup. (Agarwal, 1999). This puts female headed households at a greater risk of poverty especially where women are primary earners.

Dreze and Srinivasan (1997), Meenakshi and Ray (2002), and Gangopadhyay and Wadhwa (2003) have conducted studies in India that show that female headed households are poorer compared to male headed households¹⁶. Women have lower average earnings compared to men, less access to remunerative jobs and productive resources such as land and capital. These all contribute to the economic vulnerability of female-headed households.

In India, according to the Agriculture Census 2010-11, only 12.69 percent women have some kind of land ownership; with absolute ownership, it also includes data on leased land. Women's position within the household and wider society is negatively affected by lack of access to land ownership, despite far-reaching legal rights to own land, and recent provisions for joint land titling in state provided *bhutan* and forest land. Due to patriarchal norms women's land ownership is meagre in Odisha, Andhra Pradesh and Maharashtra like other states in India. Women in Maharashtra still have better access to and control over land as the land norms followed by Mumbai court prior to the Hindu Succession Amendment Act 2005 has adapted the rights of women to inherit land.

Patterns of landownership highlight disparities between groups (and arguably are at the root cause of other disparities); besides women other vulnerable groups like Scheduled Caste and Scheduled Tribes also form a major proportion of the landless population in India. While average cultivable landholdings in Orissa are relatively small, particularly in coastal areas,

¹⁴ Women and Poverty: Rural-Urban Dimensions. 2006. pp 2. Preeti Rustagi. Institute for human development. New Delhi

¹⁵ ibid. Pp 4

¹⁶ Female headed households and Poverty: Analysis using household level data. Jhulka & Das. November 2015.

Scheduled Castes are particularly bad off, with average landholdings just over half that of others. Similarly in the coastal district of Andhra Pradesh, comprising on average 16 percent SC population and 6 percent ST population, scheduled caste and scheduled tribes form the majority of the landless community.

Education

By the end of the deadline for Millennium Development Goals in 2015, India managed to meet only four out of eight goals and ensuring primary school enrollment is one of the four¹⁷. India managed to achieve gender parity in the primary school enrollment and almost achieved gender parity in secondary and tertiary education¹⁸. Article 45 of the Indian Constitution also made primary education compulsory. Various Government programs implemented to achieve the MDGs like Sarva Shikha Abhijan helped to increase male and female literacy rate consistently.

Female literacy rate improved from 8.9 percent in 1951 to 65.5 percent in 2011, but it is still below the world average of 79.9 percent¹⁹. According to the Census 2011, the male literacy rate is 82.1 percent while female literacy rate is 16.6 percentage points lower at 65.5 percent. The gender gap in the literacy rate is still existing consistently. Women's participation in the secondary and tertiary education is still very low with 26.6 percent²⁰ and 44.4 percent²¹ respectively.

The literacy rate in Maharashtra is 82.34 percent (men 88.38 percent and women 75.87 percent) which is much higher than the national literacy rate of 74.04 percent. Similarly, the rate of women's literacy in Maharashtra (75.48 percent) is much higher than the national women's literacy rate of 65.46 percent. Better educational outcomes of Maharashtra compared to other states is the result of state government's progressive policy initiatives. Maharashtra State, for the first time in the country, published a Policy Statement of Educational Reconstruction in February 1970, announcing a programme of long-term perspective planning for educational reconstruction linked with social and national goals.²²

Despite significant growth in increasing the literacy rate of women; the gender gap has been reduced meagerly. Female literacy in Odisha has been lower than male and has consistently been below the Indian level. The gender gap also remains at 18 percent (Male- 82.40 percent and female - 64.36 percent, 2011 Census) an indication of gender bias²³. Even in progressive state like Maharashtra, education has a similar gender gap in literacy rate of 12.66 percent . There is a wider gap in Scheduled Tribe (ST) literacy as girls in many rural tribal areas remain out of school.

¹⁷ U.N. Economic and Social Commission for Asia and the Pacific

¹⁸ Millennium Development Goals: India's achievement is a mixed bag. Ishan Bakshi. 2015. The business Standard. New Delhi

¹⁹ www.indiawomenstat.com

²⁰ www.indiawomenstat.com

²¹ All India Survey on Higher Education 2011-12. Government of India. Ministry of Human Resource Development, Department of Higher Education. New Delhi. 2013.pp2

²² Government of Maharashtra, Fifth Five Year Plan, 1974 - 79, Bombay, 1973, pp. i-ix.

²³ Women of Odisha: Status and Challenges. Asha Hans & Amrita Patel. March 2012. Odisha Review

Ensuring quality education still remains a big challenge for Indian government. The Global Monitoring Report 2012²⁴ only ranked India 102 out of the 120 countries on the Education for All (EFA) Development Index, based on progress in universal primary education, adult literacy, gender parity and the quality of education.

Political Participation

India is ranked 149th in the World Rankings of Women in national parliaments, compiled by the Inter-Parliamentary Union (IPU) and is one of the lowest ranked countries in the region, falling significantly below neighbouring countries - Nepal (47), Afghanistan (53), China (73), Pakistan (90) and Bangladesh (92)²⁵. In 2011, with only 10.8 percent women representation in the lower house and 10.3 percent in the upper house, India ranked 98th in the world²⁶. In the recent years India's performance in ensuring political participation of women has gone down. Currently, India only has 59 women representatives out of 545 members in Lok Sabha, while there are 25 female MPs in the 242-member Rajya Sabha²⁷.

Women in India got equal rights to vote and contest in the Constitution. The percentage of women voters has risen constantly from 37.04 percent in 1952 to 68.17 percent in 1984 - when the percentage of women voters was 4.16 percent higher than the men voters. After 1984 there was a dip in the number of women voters in 1989 (57.32 percent) and 1991(47.11 percent). The recent elections has once again shown a rise in women voters; in some cases women voters have an even better turnout than men.

However, the number of women voters is not reflected in the number of women who contested or are elected in the election process or the number of women members in the cabinet. In the first Lok Sabha, out of 499 seats, only 22(4.4 percent) women members were elected to the house in 1952. In the subsequent elections their number has fluctuated. In 1984 the highest number of women members, i.e.44 (8.1 percent) out of 544 members entered the Lok Sabha. The 15 Lok Sabha in India (2009) comprised 61 women members, only 11.2 percent of the total Lok Sabha membership. While it has increased from 9.02 percent in 1999, it is almost half of the world average of 22.2 percent .

Even in the Rajya Sabha, the women's share is marginal in comparison to men. 29 (11.8 percent) women sworn in as members of Rajya Sabha was highest number of women member in Rajya Sabha in history. The above table clearly shows that only a few women have succeeded in getting into the Union Cabinet. In 1962 there were six women members and in succeeding years the number went down before rising to nine in 1991. The Rajya Sabha does not fare much better, with 27 women members comprising 11.5 percent of the total membership in 2013. Again, while this is an improvement from the 1999 figure of 7.76 percent , it is far below the world average of 19.6 percent ²⁸.

At the state level the assembly's representation of women is equally poor. No woman from Odisha are represented in the current Lok Sabha. In the Assembly there are only seven women

²⁴ UNESCO (2014), Education for All Global Monitoring Report 2013-14, United Nations Educational Scientific and Cultural Organization, Paris

²⁵ Women in national parliaments: Situation as of 1 June 2017, <http://www.ipu.org/wmn-e/classif.htm>, Accessed on 19 July 2017

²⁶ Women's participation in Politics: India ranks 98th. The Hindu. 2011

²⁷ ibid.

²⁸ Women's Political Participation and Representation in India. Apporva Rathod. April 2014. Delhi Policy Group

out of 147 members (less than 5 percent). Women's inclusion in major political parties in the state ranges from eight in the Biju Janata Dal (BJD) to 15 in Congress but their own strength is emerging as 37 women stood as independents in the last national elections.

However, due to the 1973 amendment in the Constitution and 33 percent reservation for women in the Panchayati Raj Institutions women's political participation are encouraged at the local level governance system. Representation of women in the Panchayati Raj Institutions (37 percent) is a marked improvement over their representation in both the Lok Sabha and Rajya Sabha (11 percent). States like Odisha and Maharashtra amended the rule to reserve 50 percent of seats in the Panchayati Raj Institutions for women.

The Women's Reservation Bill proposes a 33 percent reservation for women in the Lok Sabha and state assemblies for last 15 years. The Bill was introduced in the Parliament in 1996, and subsequently in 1999, 2003, 2005, 2008 and 2010. It was finally passed by the Rajya Sabha in 2010, but is still pending in the Lok Sabha.

Income

India's per capita income rose by 7.4 percent to Rs. 93,293 in 2005-16 from Rs. 86,879 in the year 2014-15²⁹. The country is showing steady economic growth for the last two decades increasing both Gross Domestic Product (GDP) and Gross National Income (GNI); however, dividend of this growth is not reaching all the citizens unvaryingly. India, as has come out in recent International Monetary Fund (IMF) report, not only has one of the highest levels of inequality in the Asia-Pacific region, but it also shows very large increases in inequality since 1990.

India's net Gini index of inequality (based on income net of taxes and transfers) rose from 45.18 in 1990 to 51.36 in 2013. Only two countries in the Asia-Pacific region—Papua New Guinea and China—are more unequal than India. Even India's net Gini is much higher than the average of 43.69 for Latin America, acknowledged as one of the most unequal regions in the world³⁰. According to Credit Suisse's Global Wealth Databook 2014, India's richest 10 percent holds 370 times the share of wealth that its poorest 10 percent hold. Consequently, India's richest 10 percent have been getting steadily richer while India still dominates the world's poorest 10 percent, China dominates the global middle class and the United States the world's rich.

India ranks 135th in the Human Development Index with a score of 33.9, one of the lowest in the South-Asia region. Per capita income has been increasing over the years, however there is an exorbitant gender gap in the gross national per capita income in USD (adjusted for Purchasing Power Parity (PPP) 2011). GNI per capita for male (8,656 USD) is more than four times higher than for females (2,116 USD)³¹.

²⁹ India's per capita income rises by 7.4% to Rs. 93,293. 2016. Livemint. Retrieved from <http://economictimes.indiatimes.com/news/economy/indicators/indiias-per-capita-income-rises-7-4-to-rs-93293/articleshow/52524152.cms> retrieved on 14th October 2016

³⁰ India's staggering wealth gap in five charts. 2016. Retrieved from <http://www.thehindu.com/data/indiass-taggering-wealth-gap-in-five-charts/article6672115.ece>

³¹ UNDP Human Development Report, 2013

Labor Force

Female work participation is considered an important indicator of women's involvement in economic activities. As part of the MDGs India vowed to bring gender parity into the work force; however, according to the UN Economic and Social Commission for Asia and the Pacific, this is one of the goals where India failed measurably³². By the end of 2015, India were only able to achieve 23 percent participation of women in the workforce³³. According to the International Labour Organization (ILO) Global Employment trends 2013 report, India's labour force participation rate for women fell from just over 37 per cent in 2004-05 to 29 per cent in 2009-10. Out of 131 countries, India ranks 11th from the bottom in female labour force participation³⁴. Female employment in India grew by 9 million between 1994 and 2010, but according to ILO this could have doubled if women had equal access to employment in the same industries and occupations as their male counterparts.

Ninety-three percent of India's workforce are engaged in the unorganized sector with farming being the sector providing the highest number of employment opportunities. One-fifth of the non-farm workers are engaged in the organized sector. As per the Census 2011, the majority of working women are engaged in the unorganized sector³⁵.

In the unorganized sector where the majority of women workers are concentrated, no occupational safety and health safeguards are in place. The female labour force constituting one third of the rural workers in India "face serious problems and constraints related to work such as lack of continuity, insecurity, wage discrimination, unhealthy job relationships, absence of medical and accident care". In the unorganized sector they are forced to work beyond work hours, even in advanced stages of pregnancy, have no leave or crèche facilities, and are always under threat of being thrown out. In the coastal districts of Odisha and Andhra Pradesh, engagement of population in the unorganized sector is relatively high with 59 percent and 55 percent respectively; except in the coastal districts of Maharashtra where it is lower at 38 percent³⁶.

Around 80 percent of the female labour force is concentrated in rural areas³⁷. On average, 75 percent or more women in India are in agriculture and many in the unorganized sector such as mining, beedi manufacturing, NTFP collection and construction work. In Odisha, Andhra Pradesh and Maharashtra 70.7 percent, 72 percent and 69.53 percent of females are engaged in agriculture respectively; more than 80 percent of the females are engaged in the agriculture work as agriculture labourers except in Maharashtra. For the year 2011, Maharashtra, Odisha and Andhra Pradesh ranked as 14, 16 and 7 respectively in the state ranking according to females participation in the workforce³⁸.

Out of the total number of women employed in the organized sector in India, the number of women employed in the public sector is more than the private sector. The number of women employed in the public sector has increased from 26.00 lakhs in 1995 to 30.03 lakhs in 2006;

³² Global Employment Trends, 2013. 2013. ILO

³³ India Yet to achieve U. N. Millennium Development Goals. Vidya Venkat. 2015. The Hindu

³⁴ Global Employment Trend.2013. Retrieved from http://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS_204762/lang--en/index.htm

³⁵ Census Data, 2011

³⁶ Indian Census Report, 2011. Government of India

³⁷ NSSO, 2011-12 (68th Round)

³⁸ Statistical profile on women labour in India 2012-13. Labour Bureau. Ministry of Labour and development, Government of India

and also increased substantially and proportionately in the private sector from 16.30 lakhs in 1995 to 21.18 lakhs in 2006³⁹. Progressive reformative action like reservation of 30 percent jobs in the public sector for grade B, C, D in Odisha helped to increase women in the organized sector from 4.1 percent in 1970 to 15.4 percent by 2007⁴⁰.

According to an estimation in 2011-12, in the economically active age group (15-64 years), 151.9 million and 81.8 million were outside the labour force in the rural and urban areas respectively. There are many reasons including low literacy rate, socio-cultural norms restricting access to public sphere, gender division of labour etc. Many studies pointed out that women's engagement in unpaid care jobs limits their participation in the workforce; surveys found that in the period 2011-12, for the females aged 15-29 time spent in domestic work has increased from 54.8 percent to 57.5 percent and for 30-44 year age group it increased from 52.5 to 65.8 percent⁴¹.

Violence against women

Violence against women in India is on the rise and has doubled over the last decade. According to the National Crime Bureau report around 2.24 million crimes against women have been reported in the last decade which means the reporting of 26 crimes in every hour in last decade⁴². Cruelty by husbands and relatives top the list among the major types of crime against women with almost 38 percent cases. Assault on women in intent with outraging modesty, kidnapping and abduction followed the domestic violence in the list.

Andhra Pradesh has reported the highest number of crimes against women. The state ranked first in crimes reported for insult to women's modesty, second in crime by husbands and relatives, and fourth in dowry deaths. Violence against women in Odisha is rising with more rape cases reported year by year. The sex ratio in Odisha declined drastically from 1086 in 1921 to 972 in 2001. However, it has improved marginally to 978 as per 2011 Census data⁴³. Maharashtra ranked third among states when it comes to crime against women and minor girls. All these ranking are based upon the number of cases reported; but as per various studies many cases specifically domestic violence against women and rape cases go unreported due to pressure of patriarchal society norms and insensitive societal systems.

Gender Inequality Index

India ranks 130th among 188 countries in the Gender Inequality Index (GII) with a score of 0.563 (2014). India also fares badly in the GII in comparison to its' South Asian Neighbours such as Sri Lanka (72), Bhutan (97), Bangladesh (111) and Nepal (108).

The GII, an inequality index, measures gender inequalities in three crucial aspects of human development - reproductive health, empowerment and economic status. Reproductive health

³⁹ Women workforce participation in the unorganized sector: Globalization and new challenges in the Indian Labour Market. 2015. Chandrasekhar Hajra. International Journal of Novel Research in Humanity and Social Sciences. Vol. 2, Issue 3, pp: (108-113), Month: May - June 2015, Available at: www.noveltyjournals.com

⁴⁰ Odisha Economic Survey 2014-15. 2015. Planning and Coordination Department. Directorate of economics and statistics. Government of Odisha

⁴¹ http://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS_204762/lang--en/index.htm

⁴² Crimes against women reported every two minutes in India. Chaitanya Mallapur.2015.

<http://scroll.in/article/753496/crimes-against-women-reported-every-two-minutes-in-india>

⁴³ Women of Odisha: Status and Challenges. Asha Hans & Amrita Patel. March 2012. Odisha Review

represented by maternal mortality rate, adolescent birth rate while empowerment aspect is represented by political representation in parliament and enrollment in secondary education; and economic status is derived from women's presence in the labour market. India with low female sex ratio, high maternal mortality rate of 190 deaths per 100,000 live births, only 12.2 percent share of seats by women in parliament, 29.6 percentage point gender gap in accessing secondary education and 52.9 percentage gender gap in labour force participation ranks low in the GII⁴⁴.

In the Global Gender Gap Index produced by World Economic Forum, India scores 0.664 and ranks 108 among 145 countries⁴⁵. Like GII, the Global Gender Gap Index measures countries' performance in four areas - economic participation and opportunity, educational attainment, health and survival and political empowerment. Better performance of India among other countries in political participation specifically years with female head of state helped India to reach this score. India's performance in the other three areas of gender equality are relatively poor.

Area	India's Ranking	Score
1. Economic participation and Opportunity	139	0.383
2. Educational Attainment	127	0.896
3. Health and survival	143	0.942
4. Political Empowerment	9	0.433
5. Gender Gap Index	108	0.664

The Organisation for Economic Cooperation and Development (OECD) developed the Social Institutions and Gender Index (SIGII) a composite index that scores countries (i.e. 0 to 1) on 14 indicators grouped into five sub-indices: discriminatory family code, restricted physical integrity, son bias, restricted resources and assets, and restricted civil liberties to measure the discrimination against women in social institutions across 160 countries. The 2014 SIGII value for India is 0.265 suggesting that discrimination against women is High⁴⁶.

III. Legal and Administrative Framework Protecting Women and Protecting Gender Equality

The principle of gender equality is enshrined within the Indian Constitution - in the preamble, fundamental rights, fundamental duties and directive principles. The Constitution did not only grant equality, but enabled states to adopt measures for positive discrimination in favour of women⁴⁷. Articles 14,15,16 under part III; Articles 39,42,44 under part IV; Articles 51-A (c) under part IV A and Article 246 under part XI provide guidance to promote equality and justice

⁴⁴ Gender Inequality Index. Hdr.undp.org/en/composit/GII

⁴⁵ The Global Gender Gap Report 2015. Retrieved from reports.weforum.org/global-gender-gap-report-2015/

⁴⁶ <http://genderindex.org/country/india> Retrieved on 14 December 2016.

⁴⁷ Rights and Privileges of Women in India. Retrieved from mospi.nic.in/mospi_new/upload/women_man_p_20101/rights.doc on 14 October 2016

for women in India⁴⁸. In addition, India has ratified the: Convention on the Elimination of All forms of Discrimination against Women (CEDAW) in 1993; United Nations Convention against Transnational organized crime in 2011; United Nations Conventions against protocol to prevent, suppress and punish trafficking in persons, specially women and children in 2011; and the equal remuneration convention in 1958 which encourages and empowers state to promote women rights and justice. Over this period of time, India has adopted many legal acts for promoting safety and security for women including The Dowry Prohibition Act 1961, the Prohibition of Women from Domestic Violence Act 2005, and the Sexual Harassment of Women at the Workplace (prevention, prohibition and redressal) Act 2013. Other acts like the Maternity Benefit Act 1961, Reservation of women in Local-Self Government, the National Plan of Action for the Girl Child etc. to empower women and encourage them to participate in the workplace. Furthermore in 2016, the Government of India introduced the National Policy for Women 2016 for ensuring the empowerment of women.

The National Commission for Women (NCW) is a statutory body of the Government of India responsible for advising the government on all policy matters. The Objective of the NCW is to represent the rights of women in India and to provide a voice for their issues and concerns.

IV. Gender issues in the resilience of communities in the coastal area to climate variability and extreme events

Gender inequalities exist in all spheres in developing countries like India (e.g. security of human rights, political and economic status, land ownership, housing conditions and exposure to violence, education and health, in particular reproductive and sexual health) and these inequalities make women more vulnerable at all phases of climate disasters – before, during and after.

Vulnerability to shocks and stresses is not purely a physical attribute, but is in fact to a large extent *socially* determined. This is because social, institutional, political and economic factors shape the bundles of rights and claims to resources, which are critical in securing livelihoods and which determine adaptive capacity to respond to climate change.

Women and female-headed households are disproportionately represented in groups experiencing poverty, and are affected by all kinds of pressures (e.g. HIV/AIDS, regionalizing and globalizing markets, population increase and land fragmentation, localized environmental degradation). In addition, women and female-headed households tend to have fewer resources to cope with and adapt to stresses of all kinds, and rely on more climate sensitive resources and livelihoods.

There are other forms of social differentiation intersecting with gender in each society, and the relative importance of these varies in different situations. Unfortunately, when it comes to climate change impacts and adaptations other vulnerability classifications besides gender like children, elderly, disabled, ethnic groups, caste etc. are seldom explored. Furthermore, it is well established that like women, indigenous communities are dependent upon natural resources for their livelihoods and therefore will be severely impacted by climate change.

⁴⁸ Manaveeyam: Sthree Padhavi Padanam-A Hand Book (Malayalam), State Planning Board, Thiruvananthapuram, 2000, p.77.

Some of the gender issues and patriarchal norms that restrict women's ability to develop resilience towards climate change and extreme climatic events are as follows:

- Women's workload increases in times of hardship, such as low rainfall/drought periods because of the extra work involved in collecting water and firewood, and the need to undertake casual work to buy food and make ends meet. Socio-culturally women and girls are appointed as the water provider in the society. With changing climate and erratic rainfall, the drying up of ground water forces women to travel further to collect water. During the recent drought in India in 2016, women used to travel more than 10-12 kilometer to collect drinking water in many districts of Maharashtra.
- Climate change leads to migration, particularly male migration, leaving women behind in the rural areas to take care of dual job of agriculture and unpaid care work. In India, agriculture is being feminized as more than 79 percent of agriculture/food production is contributed by women. According to an economic survey of India, more than 68 percent of economically active women in India are engaged in agriculture.
- The feminization of agriculture with women's limited access to and control over land and other resources leads to lower agricultural productivity and food production. Female farmers also have limited access to government schemes and programs thereby making the rural economy weaker and vulnerable to climate change.
- Low yields and income insecurity lead to an increase in crime and prostitution, particularly in the critical period (from December to January) when some women turn to prostitution to obtain food for their children and male members are absent, exacerbating the spread of HIV.
- Livelihood choices and hazards - In some cases women are involved in near-shore fishing, whilst men fish in deeper waters, but climate change is thought to be having a greater impact on the former, thus affecting women disproportionately. In the day to day affairs of fishing, women are more affected as climate change is contributing towards a reduction in the near-shore fish population. However, the probability of men fisher folk facing death and hazards is higher during the natural calamities and bigger climatic events. However, in some cases women are not involved in community fishing activities and may be more involved in land-based activities such as gardening; in this case men are more impacted by climatic events than women.
- As livelihoods are threatened and food shortages are faced, women often prioritize the basic needs of their men and children and often go hungry, making them weak and exposing them to malnutrition and other health problems. In India more than 33 percent of married women and 28 percent of men have very low Body Mass Index (BMI); 56.2 percent women and 24.3 percent men suffer from anemia. The worsening fact is around 57.9 percent pregnant women are anemic. A third of women of reproductive age in India are undernourished, with a body mass index (BMI) of less than 18.5 kg/m².
- Across India, roughly 600 million people (more than 53 percent of the population) do not have access to toilets. This will worsen during climate change and its impact on any particular region. This not only raises the risk of disease epidemics but also has an impact on the physical safety of women. Many women in India face rape and sexual harassment while going far away to secluded places to go to the toilet.
- Young girls' lives can be negatively impacted by the extra time spent collecting water in drought affected areas, contributing to the barriers to their education and potentially increasing the impacts on their health.

- Women and children are more vulnerable to the impacts of natural disasters (they may be less able to escape from catastrophic events due to their smaller average size and physical strength). Pregnant and nursing women and those with small children are particularly vulnerable. Women may also be subject to cultural restrictions on their mobility, including dress codes and seclusion practices. Furthermore, women and children account for more than 75 per cent of displaced people following natural disasters and are vulnerable to sexual violence in transit and in refugee camps. Longer-term livelihood consequences may also impact disproportionately on women and girls (e.g. a rise in the number of girls forced off the land to become sex-workers in Dhaka, Bangladesh in 1998 following extreme floods).

The intersection of gender with other social issues increases vulnerability. The experience of gender inequality is mediated by other aspects of social identity in India, especially caste. Caste systems shape exposure and adaptive capacity to climate change. It is found that poor tribal groups have no option but to live in the low-lying, flood-prone areas on the outskirts of the village, making it difficult for them to access relief, or get information on impending disasters. Even scheduled caste communities popularly known as *dalits* in India often live in the outskirts of the village in separate hamlets which often limits them in accessing information, technology and services.

Social rules limit *dalits* and tribal groups' access to many community spaces. Often community spaces like schools and temples are located in high elevation and used as a shelter during the floods and cyclone. In Gujarat, it was found that the village temple provides the only safe sanctuary for people during floods and cyclones, but as the space was limited, mostly the lower-caste groups are denied access because of social practices and beliefs. Often during water and cooked food distribution during drought and floods these social practices forbid the lower social groups access thereto.

Lessons of Gender Mainstreaming from implementing similar projects in coastal areas of Maharashtra and Andhra Pradesh

Findings of the impact assessment of UNDP's Sindhudurg's project on "Mainstreaming Coastal and Marine Biodiversity Conservation into Production Sectors in the Sindhudurg Coast, Maharashtra" using UNDP Gender Equality Strategy, GEF Policy on Gender Mainstreaming, and National Policy for Empowerment of Women which will be incorporated in designing the current project to ensure gender mainstreaming are as follows:

- There is a need to intervene and at least introduce the idea of gender issues (if required) so that people can think at that wavelength. Women consider that they have been given the power of selling the goods/products in the market and hence, are empowered, which could be taken as a parameter but not holistically. They do not want to talk about issues related to gender, rights, violence etc. as their main focus remains skills based trainings and the financial benefits that arise from such trainings.
- Youth of the locality should be engaged and gender sensitized for sustainable social outcomes.
- Opportunities like handicrafts, eco-tourism, scuba diving, tourist guides are present in the project area; more women and girls should be involved in this occupation despite social norms.

- Fisher women are predominantly confined to the markets (for selling goods) but they are definitely interested in learning skills, getting involved in the tourism sector and sustainable methods of living. This diversification of livelihoods will increase their resilience to change.
- Local government implementing bodies consult with women self-help groups for program implementation, but are largely ignorant about the concept of “gender mainstreaming”. Despite the engagement of women, the program implementation is therefore not gender sensitive. There is a need to train local government bodies.
- Eco-tourism can be a very good and lucrative livelihood opportunity for women and girls; even women and girls during discussions expressed their interest for learning the necessary skills.
- Community Watch Groups (CWG) engaging both men and women to sensitize the community on gender issues was found to be a very good strategy. CWG used a range of methodologies from storytelling to movie screening to sensitize the community on gender issues, role of society and family in building the social norms that restrict women’s growth etc.

Learning from Andhra Pradesh

- Fisher folks but specifically women fisher folks face barriers to the market as they have to pay money, which is illegal, to the middle men to access the market. Steps needed to be taken to ensure easy access to the market by women without any middlemen (Kolleru lake affected community representation).
- Under the project for ensuring sustainable use of natural resources, establishing community based governance system and providing alternative livelihoods- it was realized that skills training is essential to promote alternative livelihoods with women fisher folks who are receiving a meager income from fishing. There is a need for skills training and capacity building for diversifying livelihoods to develop resilience. The diversification of livelihoods enables them to increase their additional income by 1168 INR to 8000 INR depending upon the type of livelihood.

V. Recommendations

Gender Analysis

Climate change impacts both men and women differently; discriminatory structural and cultural barriers make women more vulnerable to changing climate than men. Gender mainstreaming is crucial in project conceptualizing, implementation, monitoring and evaluation for ensuring gender transformative social impacts. Gender mainstreaming is not just about adding women in the project concept: it means looking at men and women and the relationship between them—both as actors in the process and as beneficiaries⁴⁹.

Gender analyses conducted with various stakeholders’ groups in the target areas informed project conceptualization and will be followed throughout the implementation for ensuring gender mainstreaming. Stakeholder consultations were organized at various levels - state, district, and community - in the three targeted states - Odisha, Maharashtra and Andhra

⁴⁹ Asian Development Bank (ADB) and Australian Aid, 2013, ‘Tool Kit on Gender Equality: Results and Indicators’, www.adb.org/documents/tool-kit-gender-equality-results-and-indicators

Pradesh. Besides the consultations, gender transformative impact evaluation studies of previously implemented projects in the target location of Maharashtra and Andhra Pradesh also informed gender mainstreaming in project design. Discussion inputs from the consultations are described below in the stakeholder engagement section and gender action plan and are included in full as an additional annex to this proposal.

The gender analysis based upon stakeholder consultation and evaluation studies enabled:

- Assessment of the gender division of labor existing in the particular society, structural and cultural barriers; differential access to resources, technology, participation in decision making, political participation etc. limiting women's coping capacity to climate change.
- Assessment of different livelihood activities, existing and future prospects, in the coastal region of Odisha, Maharashtra and Andhra Pradesh from gender perspective providing insights about tools, methodologies and technologies to break the existing social, cultural and structural barriers for women and other vulnerable groups.
- Understanding about the interaction of gender dynamics with other social variables such as class, caste, age, and economic status; the influence of external forces, i.e., the technologies and market dynamics impacting the existing social system; existing, reinterpreted and negotiated social (and gender) relations and patterns that have emerged in response to new technologies and changing market dynamics.
- Establishment of the need of gender-disaggregated data and setting up of indicators, measurement yardsticks, priority areas for creating a project baseline.
- Forming recommendations for bringing gender transformative social change outcomes of the project "Enhancing Climate Resilience of India's Coastal Communities"

Project Design and Implementation

This project proposal aims to create gender positive and transformative results on-the-ground and ensures the incorporation of gender dimensions in the project design, implementation plan, monitoring and evaluation. In the coastal economies women play a significant role by contributing to two primary livelihood opportunities - agriculture and fishery; and are also the most impacted by the changing climate and extreme climatic events. Hence, this proposal intends to address women's lack of access to information, lack of disaster preparedness, lack of access to alternative livelihood opportunities, lower productivity due to lack of access to productive resources and government schemes, lack of representation in the public meetings and community based institutions, and the lack of decision making capacity both at family and social level.

Female-headed households in targeted coastal districts of the three states - Odisha, Maharashtra and Andhra Pradesh – vary from 12.6 percent to 20 percent. Maharashtra has the highest female-headed household and Odisha has the lowest number. Female-headed households are socially marginalized, economically vulnerable and have limited access to resources. However, with regards to the feminization of poverty and gender mainstreaming, the project would prioritize – but not be limited to – female-headed household. Women of poor male headed households are also vulnerable to the impacts of climate change; hence, the project considers different kinds of gender and social vulnerability in the project design and implementation.

This project supports many of the Government of India's initiatives including SAPCC (State Action Plan on Climate Change), NMSA (National Mission on Sustainable Agriculture), NICRA

(National Initiative on Climate Resilient Agriculture), and NRLM (National Rural Livelihood Mission). Syncing with the objectives of all of these government initiatives, the project aims to build the resilience of communities and specifically women, by building their entrepreneurial skill to increase their coping capacity. The impact of changing climate and increasing number of extreme climatic events creating huge loss to lives, assets; vulnerable social groups and women are more vulnerable due to an already constrained situation of limited access to resources, low level income and lack of alternative livelihood opportunities etc. Social vulnerabilities and restrictions also limits women and female-headed households access to training and information on disaster preparedness thereby enhancing the probability of their death in the disasters.

Project interventions consider gender perspective in the project design as follows-

- Gender difference in how local resources are allocated; women's access to and control over resources like land, credit etc.
- Gender division of labor in all the livelihood opportunities.
- Women's role as primary care giver and primary income earner in female-headed households.
- Social and cultural norms limiting or providing opportunities for women's economic empowerment.
- Strategies to encourage women and female headed household's participation in the community based institution, local governance and decision making.
- Ensuring participation of women in the training and planning meetings.
- Identification of gaps in gender equality through the use of sex-disaggregated data enabling the development of a gender action plan to close those gaps, devoting resources and expertise for implementing such strategies, monitoring the results of implementation, and holding individuals and institutions accountable for outcomes that promote gender equality.
- Advocacy and targeting of specific at-risk subgroups more explicitly including children and girls, scheduled caste and scheduled tribes, in addition to women. (for instance, children tasked with household duties; neglected.)
- Inclusion of a Gender Specialist position/provision of advice within the project to implement gender related activities.

Further, during project implementation, qualitative assessments will be conducted on the gender-specific benefits that can be directly associated to the project. This will be incorporated in the annual Project Implementation Report, Mid-Term Report, and Terminal Evaluation. Indicators to quantify the achievement of project objectives in relation to gender equality will include men and women who had access to affordable solutions, number of men and women employed from the jobs created by the project, training opportunities, knowledge management and information dissemination.

Stakeholder Engagement

Ensuring the participation of women's organization, gender experts, community representatives from project conceptualization and design through stakeholder consultations ensures better gender mainstreaming. It also ensures the reflection of women and other vulnerable groups' needs and interest in the project objectives, design, implementation plan, monitoring and evaluation etc. Consultations have been conducted at several levels - state, district and local level

– in all of the three targeted states to incorporate community and stakeholder's concern in the project design. All the consultation reports are attached as an annex. Some of the needs and demands arising from the stakeholder consultations are as follows:

- Women make a significant contribution to food production in the coastal areas. They are engaged both in agriculture and fishery. Women are mostly engaged in marketing the fish and contribute majorly in the fish processing. Adding value to fish processing by introducing technology like solar technology for traditional drying can be beneficial for women fisherfolks. These women have less participation in the fishery-related community based organizations.
- In agriculture, rice is one of the major crops cultivated in coastal districts of all three states. Women's labour contribution in the rice cultivation, specifically in the weeding and intercultural operation is high. Very few people have access to small farm equipment like weeders which can reduce the drudgery of women farmers.
- Value addition of agricultural produce through processing centers can be beneficial to the women, elderly and other vulnerable groups.
- Community-based institutions like women self-help groups are operating in villages for many years. These institutions can be utilized for the program implementation.
- Government programs like NRLM (National Rural Livelihood Mission) are promoting women groups for enterprises; linkages with these programs can be created to increase outreach to more number of women in less time.
- Women do have separate needs during the disasters like cyclone and flood, specially related to hygiene and sanitation.
- Skill building programs for women and girls on handicraft products like coir product, golden grass etc. can help them to create alternative livelihood.
- Eco-tourism options engage women; female-headed households especially can take up such livelihood activities which will boost their income while protecting the environment.
- Female headed households often have limited access to disaster preparedness training programmes, different livelihood trainings in the patriarchal panchayati raj system. It was found that often single women are not informed about the different trainings held at the Panchayat level as men are often the communication channel used by the government department to spread awareness about meetings, trainings. Further, single women of female headed households being the sole bread earner of the family face time constraints to attend the meetings. It is essential to set the meeting venue time and venue in consideration of the most vulnerable community.
- Training of different relevant government department staff on gender issues and specific gender needs of women fisher folks for sensitizing them for a gender transformative program implementation
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Monitoring and Evaluation

A baseline has been developed and established with collating data from various sources from the targeted area. Throughout implementation and evaluation, baseline data shall be monitored against the achieved outputs and outcomes. To ensure a gender sensitive monitoring and evaluation process additional indicators, generated from the gender analysis and stakeholder engagement, will be measured.

Quantitative outcomes:

- Number of female headed households benefitted.
- Number of women and other vulnerable groups who participated in the capacity building workshops, government meetings etc.
- Number of women and other vulnerable groups members who have access to institutional credit, government schemes and subsidies etc.
- Number of community based institutions strengthened and number of women who have access to CBOs.
- Number of women who have adapted other livelihood options to diversify their income basket.
- Over a set period, an increase of x percent in household incomes from fish-based activities (such as fisheries or aquaculture or processing) among women-headed households and poor households in program areas.
- Number of women and men holding management or treasurer positions in natural resource management groups.
- Number of women and men participating in training in new methods of fishing or fish cultivation.
- Number of women and men starting new small enterprises in fish processing or marketing.
- Improvements in health and well-being.
- Business development services component targeting rural women entrepreneur groups.

Qualitative outcomes:

- Opportunities created for women and women groups to generate additional income.
- Time-saving for women as a result of lower hours in labour required for agricultural and water management practices prior to the implementation of the project.
- Gender differences in workload as a result of introduced practices or new technology.
- Change in gender division of labor as a result of the project implementation.
- Increase in the asset base of vulnerable groups specifically women to increase coping capacity.
- Women or other disadvantaged groups actively participating in management committees and boards.
- Contribution to improved self-esteem and empowerment of women in the community.
- Expanded involvement in public and project decision-making as a result of initiation of women into active participation in income generating activities.
- Enhanced participation of women in the governance system and change in women's power to incorporate their voice and concern in government schemes and policies.
- Effectiveness of awareness raising.
- Change in attitudes of women and men about changed roles of women in fisheries or aquaculture.
- Community opinions (disaggregated by gender) with changes in level of conflicts over gender.

VI. Gender Action Plan

This Gender Action plan provides suggested entry points for gender-responsive actions to be taken under each of the Activity areas of the project. In addition, specific indicators are also proposed to measure and track progress on these actions at the activity level. This can be incorporated into the detailed M&E plan which will be developed at the start of implementation, and provide concrete recommendations on how to ensure gender (including disaggregated data) continues to be collected and measured throughout implementation. Moreover, a gender-specific budget has been allocated to Output 1,2 and 3 tailored towards conducting the vulnerability assessment of the coast with a gender perspective, training and capacity building of the women on the restoration process, promoting ecologically sustainable livelihood activities with women and other vulnerable communities, training women on EbA, developing gender sensitive knowledge products ensuring inclusion of women needs, concerns and stories in the best practices and making the knowledge products accessible to women, promoting networks of women groups for increased social capital etc.

In the year 1 and 2, comprehensive climate vulnerability assessment will be undertaken to prioritise the vulnerable sites for ecosystem based intervention; it would be essential to incorporate gender and social concerns in the participatory assessment of physical vulnerability and adaptive capacity of the community for ensuring gender sensitized project planning and implementation. In addition, consultant will be hired to conduct the socio-economic vulnerability assessment of the vulnerable community including women, female headed households, differently abled people living in the coastal areas and reflect their interest, concerns in the project activities planning and implementation. Further, it would be essential to take up micro-assessment of the livelihood targeting women and vulnerable communities, development of the gender sensitive Decision-support tools, to increase engagement of the vulnerable group in the project processes and sustainable livelihood promotion.

In the first two years, in the beginning of the project, consultants will be hired to develop knowledge materials, training resources, planning of workshops and consultations for building capacity of women on climate resilient livelihood, understanding blue carbon storage and carbon sequestration process, developing understanding about market for better forward and backward linkages etc. With an interest to minimize any negative impact on the environment or social fabric of the local area, project will invest the beginning two years in detailed assessment, building deeper understanding about the specific challenges experienced by the vulnerable communities, opportunities exist in the local context that benefit to achieve the project outcomes, the project will invest forest two years in the vulnerability assessment, development of the knowledge products, translating it into local languages, design the capacity building consultation. This will ensure effective and efficient implementation of the project.

From 2nd-3rd year onwards workshops and consultations will be organized, dissemination of the developed knowledge products will be done. Strengthening of community based organizations of the women and vulnerable communities like Self-Help Groups, increasing women and women's groups access to services and market will be ensured throughout the project period. During the project implementation it will be essential to ensure active engagement of the women and vulnerable communities in the project activities and reaping benefit of the project for developing sustainable, climate resilient livelihood. In the last year, focus will be on for a gender sensitized impact assessment, building networks with other key stakeholders for replication of the project, documentation of the project success from a gender lens and advocacy with public and private sectors for sustainability and replication of the project model.