
Gender Assessment

FP131: Improving Climate Resilience of Vulnerable Communities and Ecosystems in the Gandaki River Basin, Nepal

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**GREEN
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Improving climate resilience of vulnerable communities and ecosystems in the Gandaki River Basin, Nepal

Annex 8a: Gender Analysis and Gender Action Plan

Part I: Gender Analysis/Assessment: Guide (Project/Program Level)

As an AE, IUCN will follow its gender policy named "Gender Equality and Women's Empowerment Policy: Mainstreaming gender-responsiveness within the IUCN programme of work" available [here](#).

Gender issues to be addressed

Maternal mortality: In Nepal the maternal mortality ratio is 258 deaths per 100,000 live births, which is quite high (MoH 2017)¹. The government's Second Long-Term Health Plan (1997–2017) gives high priority to improving neonatal and maternal health outcomes and includes many initiatives to improve access for the poorest and socially excluded, including a safer motherhood program, and a female community health volunteer program, which are quite successful.

Major health problems specific to women - are prolapsed uterus, under nutrition and anemia due to heavy workloads, combined with inadequate access to nutritious food during menstrual cycles and post-delivery. This situation is prevalent in the far western areas, as well as in some parts of the Terai, where patriarchal and gender discriminatory norms are stronger, and the overall poverty level is very high. One study estimated that more than 600,000 women in Nepal are suffering from uterus prolapse (ICIMOD, 2011)².

Child mortality: The child mortality rate is broken into three different stages i.e. neonatal, infant and under five mortalities. Whereas the neonatal mortality means the probability of a child dying within the first month of life, infant mortality means the probability of the child dying within the first year of life and under five mortality means the probability of a child dying within the first five years of life. The ratio of neonatal mortality is 21 deaths per 1000 live births, infant mortality is 32 deaths per 1000 live births and under-five mortality is 39 deaths per 1000 live births in the five year of period from 2011-2016.

Neonatal and infant mortality: In GRB, neonatal mortality is 15 deaths per 1000 live births, infant mortality 23 deaths per 1000 live births and under five mortalities is 27 deaths per 1000 live births for the ten-year period (2007 – 2017) (MoH 2017). The under five mortality rates for both boy and girl children is the same - 34 % - which reflects a better survival status and non-discrimination for girl child in terms of survival in this area (Table 1).

¹ Ministry of Health, Nepal, New ERA and ICF. 2017. Nepal Demographic and Health Survey 2016. Kathmandu, Nepal: Ministry of Health, Nepal

² ICIMOD, 2011. *Gender Experiences and Responses to Climate Change in the Himalayas*. [Online] Available at: http://lib.icimod.org/record/27008/files/attachment_781.pdf

Table 1: Key sex disaggregated socio-economic indicators of the Gandaki River Basin

Indicators	Mountain (upstream)	Hills (midstream)	Terai (downstream)	Total
Area (km ²)	7363	21013	4400	32776
Population				
Male	32,229	1,757,681	582,762	2,372,672
Female	31,061	2,087,469	640,730	2,759,260
Total	63,290	3,845,150	1,223,492	5,131,932
Population Density people/sq km	9	183	278	157
Literacy Rate (per cent)				
Male	73	80	82	78
Female	56	64	67	62
Total	65	72	74	70
Economically Active (per cent)				
Male	75	60	64	67
Female	69	59	53	60
Total	72	60	58	63
Under five mortality (per cent)				
Male	29	33	40	34
Female	24	32	45	34
Total	27	33	43	34

Source : CBS, 2011³

Population growth: Out of GRB's total human population of about 5.13 million 46 % are male and 54 % female. The male to female ratio is 0.85:1. The population increased at an average annual rate of 0.41 % over the past decade (CBS, 2011)⁴. The average family size is 4.21 which is less than national average of 4.88. Two mountain districts, Manang and Mustang, have the lowest number of households and female population.

Education: The share of total enrolment for girls is 50.4 % at primary level, 50.5 % at lower secondary, and 50.4 % at basic levels. This clearly demonstrates that the gender parity has been achieved in basic education, including primary and lower secondary education (1.02 at primary level, 1.02 at lower secondary level and 1.02 at basic level) (WEF, 2016)⁵. There is a huge disparity among boys and girls in terms of dropout rates from secondary school education. Early marriage is a main cause of girls dropping out of school, and economic condition and poverty is the main reason boys drop out. Both boys and girls from the well-off families get chance to go to school but in very few cases of school enrolment are found among the poor families.

Literacy: However, in terms of adult literacy rate, there is wide gender gap where 75 % of males and only 57 % of females are literate. As per 14th plan the literacy of 15-24 age groups of 88.6 %. This may be due to the situation of early school dropout rate is higher in case of girls and women. Mostly girls and women only completed the secondary level of school and after that they will marry or the parents are not willing to invest more in daughter education, so they cannot continue their education further at higher level. The male literacy rate is remarkably higher (78 %) than the female literacy rate (62 %) in the GRB, this sex-based difference in literacy is, however, lower than national average difference which is 75 % for male and 57 % for female.

³ Central Bureau of Statistics Nepal 2011. Population Census Report.

⁴ CBS . 2011. *Nepal Living standard survey, Statistical report*, Kathmandu: Central Bureau of Statistics/ National Planning Commission Secretariat, Government of Nepal

⁵ WEF . 2016. *Global Gender Gap Index Report, Switzerland* , s.l.: s.n.

Poverty: According to the latest 2018 Multidimensional poverty report of the GoN/National Planning Commission (NPC) 28.6 % of Nepal's population is multi-dimensionally poor. However, Nepal has halved its Multidimensional Poverty Index (MPI) from 59 % in 2006– to 29 % in 2014. Under-nutrition and completion of up to five years of schooling are two key indicators which contributed to the improvement of the MPI. For the first time this report enables the MPI to be disaggregated by the recently formed seven provinces of Nepal, whereby Province 6 and 2 have the highest rate of multidimensional poverty – with every second person being multi dimensionally poor (50 %) – followed by Provinces 5 and 7 (approximately 30 % being poor) (NPC, 2018)⁶. Some of the GRB is in province 5. See Figure 1 for the location of the Provinces.



Figure 1: Map of Nepal showing location of provinces

Income level: The overall per capita income in the basin is NRs 49,362 per annum, which is lower than the national average of NRs 51,879. The average human poverty index (HPI) of the GRB is 30.27, compared to the national average of 31. In 2014, the Human Development Index (HDI) for all ethnic groups in the basin was 0.482, compared to national average of 0.490. The HPI of ethnic communities in the GRB is higher than the GRB average, and the HPI in five districts - Dhading, Rasuwa, Nuwakot, Mustang, and Gorkha - is very high (42.24 in Dhading). Kaski is the richest district with the lowest HPI of 16.50, followed by Chitwan with a HPI of 4.80. Rasuwa is poorest amongst 19 districts with the highest HPI of 42.24, followed by Nuwakot with a HPI of 35.66, Dhading with a HPI of 33.38 and Mustang 31.16 (NPC & UNDP, 2014)⁷.

Nutritional status: The situation of under nutrition and malnutrition of girls is not as severe as in far western districts in province six. Comparatively, the districts of GRB are more accessible for roads and markets and have better food security. Nevertheless, there are pockets of poverty and certain caste groups including Chepang (in Dhading and Chitwan), Majhi, Bote, and Tharu who are generally poor, not educated and live in remote areas. Girls get lower less priority in terms of nutritious food, are often subject to child marriage /early marriage, and are not given any priority for education beyond primary level, or health care.

In terms of under nutrition/malnutrition, a 2017 article in the daily newspaper Kantipur reported that in some areas of province 6, girls are highly undernourished compared to boys and even dying due to gender-based discrimination in food distribution and lack of timely health care for girl children. Very heavy workloads of rural and mountain-based women due to male out-migration, gender inequality in the household division of labour, and difficult mountain terrain, women have no time to take care of their children and themselves. This situation is contributing to the poor health outcome for women and girls (Kantipur Daily 2017, Dec.23 Saturday).

Gender Gap Index (GPI): The GGI for Nepal is 0.661, and Nepal ranks 110 out of 144 countries measured. Nepali women are progressing in terms of political representation they rank 68 out of 110. In health and survival, they rank 92. However, in terms of economic opportunity (115) and educational attainment (123) they are ranking far behind their global women counterparts.

⁶ NPC .2018. Nepal Multidimensional Poverty Index: Analysis Towards Action. Kathmandu, Nepal: National Planning Commission, Government of Nepal /University of Oxford

⁷ NPC & UNDP. 2014. *Nepal Human Development Report, Beyond Geography, Unlocking Human Potential*. s.l.: United Nations Development Program, Kathmandu, Nepal

Gender Empowerment Measure (GEM): for Nepal in 2011 was 0.568. Among ecological regions, the Mountains have the lowest value at 0.483, while the Hills have the highest at 0.572. This is due to the low share of Mountain women in Parliament at 18.6 %, compared to 28.9 % for the Hills and 32.9 % for the Terai, as well as low combined income values. Among development regions, the Far Western region (now province 6) has the lowest GEM value of 0.523, primarily due to its low share of women in administrative and professional positions. The Eastern region has the highest GEM at 0.575, followed by the Central and Western regions.

Table 2 shows population, family size, literacy rate, poverty rate and HDI showing the variation in each district of the GRB. The main purpose of this table is to show the indices and factors that are important to consider for vulnerability impact assessment. The NHDR report 2014 strongly emphasizes that inclusive development subsumes non-income dimensions of well-being, and includes distribution not only across individuals, but also across groups differentiated by gender, ethnicity, regional location, and so on. Another key factor is SIA also assesses these indicators to identify climate vulnerable groups in the study area.

Table 2: Population status, literacy rate and poverty index of Gandaki River Basin

SN	District	HHs	Total population ⁸	Male	Female	Family size	Literacy ⁹ rate (%)	Poverty index ¹⁰	HDI
1	Gulmi	64,821	280,160	120,885	158,165	4.32	72.6	27.4	0.464
2	Baglung	61,482	268,613	117,997	150,616	4.36	71.9	27.3	0.478
3	Rasuwa	9,778	43,300	21,475	21,825	4.43	54	42.2	0.461
4	Nuwakot	59,215	277,471	132,787	144,684	4.69	59.8	35.7	0.466
5	Manang	1,480	6,538	3,661	2,877	4.42	74.8	25.5	0.568
6	Mustang	3,354	13,452	7,093	6,359	4.01	66.2	31.2	0.508
7	Gorkha	66,506	271,061	121,041	150,020	4.08	66.3	33.6	0.481
8	Lamjung	42,079	167,724	75,913	91,811	3.99	71.1	27.0	0.507
9	Dhading	73,851	336,067	157,834	178,233	4.55	62.9	33.4	0.461
10	Chitwan	132,462	579,984	279,087	300,897	4.38	70.7	24.8	0.551
11	Syangja	68,881	289,148	125,833	163,315	4.20	76.6	25.3	0.493
12	Tanahun	78,309	323,288	143,410	179,878	4.13	74.8	29.7	0.506
13	Palpa	59,291	261,180	115,840	145,340	4.41	76.2	24.6	0.510
14	Nawalparsi	128,793	643,508	303,675	339,833	5.00	70.8	28.0	0.493
15	Kaski	125,673	492,098	236,385	255,713	3.92	82.4	16.50	0.576
16	Myagdi	27,762	113,641	51,395	62,246	4.09	71.9	28.5	0.490
17	Makwanpur	86,127	420,477	206,684	213,793	4.88	67.9	28.4	0.497
18	Parbat	35,719	146,590	65,301	81,289	4.10	73.8	24.6	0.410
19	Argakhanchi	46835	197,632	86,266	111,366	4.22	72.6	27.4	0.482

Source: CBS 2011; NHDR, 2014 and UNESCO, 2013

Employment: Women comprise 65 % of the workforce in agriculture and related tasks¹¹. Fifty to 80% of the population in the GRB depends on agriculture for their livelihood. The major cereal crops grown are paddy, maize, wheat, millet, barley and buckwheat. Improved varieties of crops are also grown throughout the region (MoFSC, 2016)¹².

In Nepal, rural women play a major role in the collection of various forest products. Supporting their families through the use of such products has become increasingly difficult in the present scenario of a rapidly degrading environment. Nepal is one of the countries worldwide in which women's participation in community forest management has advanced. Compared to other management regimes, the membership and participation of women in community forestry is admirable. The Master Plan for the Forestry Sectors (MPFS) recognizes women as primary

⁸ CBS . 2011- Central Bureau of Statistics National Census Report, 2011. Kathmandu

⁹ UNESCO . 2013- Literacy Status in Nepal (Literacy age group by 5+), UNESCO, Kathmandu

¹⁰ NHDR . 2014- National Human Development Report for Nepal, 2014, UNDP, Kathmandu

¹¹ MAFC . 2007. Gender Strategy. Ministry of Agriculture, Food Security and Cooperatives. Nepal

¹² MoFSC . 2016. Chitwan Annapurna Landscape (CHAL) Strategy and Action Plan 2016-2025, Kathmandu, Nepal: Ministry of Forests and Soil Conservation, Government of Nepal

users of forest resources and has made policy recommendations for the representation of women in the executive committee. It recommended, “one third of executive committee members should be women”. Similarly, Community Forest (CF) Guidelines 1996 and 2001 stipulate that 33 % of the executive committee should be made up of women representatives. The revised CF Guidelines of 2009 even stipulate that at least 50 % of the executive committee should be women. Despite this the representation of women's in Community Forest User Group (CFUG) executive committees at the national level stands at 26.9 %, which is quite low according to policy requirements¹³.

Looking at the employment situation in Nepal the male employer is higher (2.59) than the female employer (1.56). The employment rate of male is more than double (35.73) compared to female employment rate (16.53) but the rate of employment of women over the period is in increasing trend. The population composition in Nepal suggests that around 500 thousand persons are entered in labour market each year. But, due to the limited opportunities youth of Nepal are tending to migrate abroad to secure employment opportunities. The statistics shows that about 4.3 million youths have gone abroad in foreign employment. Similarly, report also suggests that unemployment rate in Nepal is 2.3% and semi-unemployment rate is 30%. Likewise, the youth under employment rate is 35.8%. In a single day around one thousands of Nepalese youth leave the country in the search of job (MoF, 2018)¹⁴. The table three present the employment status of male and female over the period, showing high percentage of self-employment for both male and female between 1981-2011.

Table 3: Employment status of Male and Female over the period in percentage

Employment Status	Male				Female			
	1981	1991	2001	2011	1981	1991	2001	2011
Employer	0.9	0.7	3.9	2.59	0.4	0.4	3.7	1.56
Employee	11.8	27.8	33.7	35.73	3.8	12.0	12.8	16.53
Self-employment	83.2	69.5	56.7	57.63	90.0	83.7	70.6	76.66
Unpaid family labour	1.7	1.5	5.7	0.8	4.0	3.5	12.9	1.97
Not Stated	2.4	0.4	-	3.20	1.8	0.5	-	3.29
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Political participation: Traditionally, Nepali women have played a limited role in political leadership. In recent years the rate women’s political engagement is gradually increasing as the government has allotted a quota for women’s representation, but it is still not sufficient. Nepal is in the new journey of federal state and successfully completed the local, provincial and federal elections in the year 2017. Which is a historic milestone for the country as it was held after almost two decades and also has provision of gender and social inclusion in the political leadership. But still representation of women in political parties is low, especially at the higher levels of power. During the 2017 elections a total of 35,041 local representatives were elected across 753 local units, 6 metropolises, 11 sub-metropolises, 276 municipalities, and 460 rural municipalities. Out of 35,041 elected representatives 40.96 % (14,352) were women, a direct result of the mandatory rule of the election commission (EC), mandating that at least 40.4% of the total political nominees should be female, and a mandatory rule that chief and deputy chief nominations of each political party in each local unit should be gender equal (if the political party nominated a man for chief positions then the deputy chief should be women or vice versa). From this rule 91% of the deputy positions (deputy mayors in municipalities and vice chairpersons in rural municipalities) were won by women, but men won 98% of chief positions (mayors and chairpersons) which means women were nominated for chief post in only 25% of the total positions. Furthermore, there were no quota for women for local level positions i.e.

¹³Kalpana, G. and Uprety, D. 2011. What does research into use actually mean: a view from the reality of practice? Paper for SAEP workshop, Hyderabad. India from 7-9th Jan.

¹⁴ Ministry of Finance . 2018. Economic Survey 2017/2018. Government of Nepal

ward members. As a result, out of 13,484 ward members positions only 2% were won by women (Election Commission 2017)¹⁵.

Life expectancy of Nepalese people is gradually increasing. The 14th Plan of Nepal has shown life expectancy of 71 years. According to the latest WHO data published in 2018, life expectancy in Nepal is 70.2 years. Specifically, male life expectancy is 68.8 years while female life expectancy is 71.6 years. Nepal ranks 117th position in the world¹⁶ for life expectancy.

Legal Status of Women in Nepal

Internationally, Nepal has made strong commitment to human rights, and ratified almost all major international human rights conventions, including CEDAW in 1991. Nepal signed the United Nations Framework Convention on Climate Change (UNFCCC) at the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in June 1992. Nepal ratified the Convention on the 2nd of May 1994, and the Convention came into force in Nepal on the 31st of July 1994. Therefore, it is a duty of the Government of Nepal to implement the provisions of these conventions. Moreover, Nepal has domesticated international commitment in national protection mechanisms as per the article 9(1) of the Nepal Treaty Act, 1990.

Nepal has been making legal and institutional improvements for the promotion of women's rights, by establishing protection mechanisms such as National Human Rights Commission and National Women's Commission. However, the status of Nepali women still remains vulnerable due to weak enforcement of laws, policies and plan of action, and poor performance of state mechanisms. It is partly happening due to lack of infrastructure, resources and responsible governance, but mostly because of state's unwillingness to invest enough resources for the protection of women and their rights (NAWHRD 2018)¹⁷.

The Gender Inequality Index of the 2018 UNDP indicates that the inequality between men and women achievements are known as reproductive health, measured by maternal mortality ration and adolescent birth rates; empowerment, measured by proportion of parliamentary seats occupied by females and proportion of adult females and males aged 25 years and older with at least some secondary education; and economic status expressed as labour market participation and measured by labour force participation rate of female and male populations aged 15 years and older in which Nepal ranks in 118th position out of 160 countries in global scenario in terms of Gender Inequality Index, 2018. Similarly, the Gender Development Indicator (GDI) shows that Nepal falls under the category of medium human development ranking 149th position out of 189 countries in the world with lowest GDI among South Asian countries.

Still, the status of Nepalese women lags far behind that of men- low levels of access to education, economic, social, and political opportunities and they are socially excluded. Among others, discriminatory social institutions, social norms, and practices are the main hindering factors in restricting women's access to opportunities, resources and power (Basnet, 2013)¹⁸. Gender discrimination and social exclusion in Nepal starts right after the birth and it continues throughout the life cycle in different forms (Pokharel, 2008)¹⁹ and entrenched in the political, economic, and social fabric of Nepal (ADB, 2010)²⁰.

¹⁵ Election Commission. 2017. "Gender-based Elected Representatives' Numerical Description." Available at <http://result.election.gov.np/GenderWiseElectedSummary.aspx>.

¹⁶ World Health Organization (WHO) .2018. Statistics of Nepal. World Health Organization. Accessed from: <https://www.who.int/countries/npl/en/>

¹⁷ NAWHRD. 2018. Nepal CEDAW shadow Report

¹⁸ Basnet, L. D. (2013). *Gender discrimination and children's right to education in Nepal: Perspectives of parents and children*. Master's thesis, Norwegian University of Science and Technology Faculty of Social Sciences and Technology Management Norwegian Centre for Child Research, Trondheim, Norway.

¹⁹ Pokharel, S. 2008. Gender discrimination: Women perspectives, *Nepalese Journal of Development and Rural Studies*

²⁰ ADB. 2010. *Overview of Gender Equality and Social Inclusion in Nepal*, Manila: ADB

The population census conducted in 2011 has shown that 21% of the households in Nepal are women-headed as compared with the total households living in poverty (25.16%). The percentage of women-headed households is 23.8% (MOPE, 2017)²¹ with approximately 47% of these households deriving their income from agricultural wages.

Despite this central role in agriculture, women face structural constraints in relation to land tenure rights. CEDAW²² reports that women's access to land in Nepal is consequently limited. Women account for only 6 % of total landowners and hold a combined share of only 4 % of arable land. In addition, female-headed households average only 0.50 ha of farmland, compared to 0.78 ha for male-headed households. Women's land ownership varies across the country: 21 % of households in the Eastern Region, 25.5 % in the Tarai's Mid-West Region, and over 30 % in urban areas²³. The recent Government strategy of granting a concession in registration fees when land is recorded in the name of a woman has increased the number of such transactions²⁴.

For instance, in all communities of Nepal land is inherited from the father to the son. In the 2001 Census, only about 11 % of households reported any land in female legal ownership. Only seven % recorded female ownership of livestock. Overall, less than one % of households have female ownership of all of the three assets: house, land and livestock (WB and DFID, 2006)²⁵. Thus, women are discriminated against when it comes to inheritance as well as property rights in general.

Recent amendments to the Country Code of Nepal have also improved women's access to property other than land. Unmarried daughters now have the right to ancestral property (other than land) irrespective of age, whereas previous conditions required that they be above the age of 35. However there are ongoing restrictions in relation to women's independent use of their property: women are often required to receive permission from a male relative before disposing of any immovable property²⁶.

The Gender Equality Act (2006) advanced the property rights of women even further and gives equal property right on ancestral property to son and daughters. It removed and amended discriminatory language. As per latest census data female ownership of fixed assets is 19.71 % of households, land or house or both in the name of female member of the household (CBS, 2012)²⁷.

Most households in the GRB have landholdings of less than 1 ha. Moreover, only 3 % of households have landholdings of more than 2 ha. This shows that the land highly fragmented. Furthermore, except Dhading, Gorkha and Manang, all districts have landless households with Syangja is having the highest landless households.

²¹ Ministry of Population and Environment (MoPE) . 2017. National Population Report 2017. Singha Durbar, Kathmandu

²² CEDAW. 2003. Consideration of Reports Submitted by States Parties Under Article 18 of the Convention on the Elimination of All Forms of Discrimination against Women: Nepal, Combined Second and Third Periodic Reports of States Parties, CEDAW/C/NPL/2-3, CEDAW, New York, NY.

²³ Wiley et al. 2009. Land Reform in Nepal: Where is it coming from and where is it going? The Findings of a Scoping Study on Land Reform for DFID Nepal. Kathmandu. Nepal.

²⁴ Asian Development Bank, Department for International Development UK and the World Bank. 2012. Gender and Social Exclusion Assessment, Vol II. Agriculture. ADB-UKAID-WB. Nepal.

²⁵ WB and DFID. 2006. Unequal Citizens: gender, caste and ethnic exclusion in Nepal: Summary (English), Kathmandu. The World Bank.

²⁶ Social Institutions and Gender Index. 2012. OECD. Retrieved from World Wide Web: <http://www.genderindex.org/country/Nepal>

²⁷ CBS, 2012. CBS/NPC/Government of Nepal 2012. National Population and Housing Census 2011 (National Report), Kathmandu, Nepal, Kathmandu: Central Bureau of Statistics, National Planning Commission Secretariat, Government of Nepal.

The Gender Development Index (GDI), score for Nepal for 2017 was 0.925. The female GDI value is 0.552 in contrast with 0.598 for males. In the year 2011, among the ecological regions, the GDI value based on the geometric mean is the highest for the Hills at 0.515, followed by the Terai at 0.458 and the Mountains at 0.430. Gender disparities in health, education and income remain major challenges across Nepal. Nationally, the average income of women is 57 per cent lower than the average for men, whereas 80.1 per cent of women are economically active, which is a paradox that reflects the lower economic status of women. In Nepal, 29.6 % of parliamentary seats are held by women, and 27.3 % of adult women have reached at least a secondary level of education compared to 43.1 % of their male counterparts.

Beliefs, Perceptions and Stereotypes related to Gender

In the project area across mountains, hills and Terai (plains) beliefs, perception and stereotypes related to gender are similar. However, there are location specific differences. In the mountain area there is more equality between the sexes and women are engaged in tourism related activities, hotel business, livestock raising and agriculture. Men share household activities of cooking and child care.

This pattern is similar in hilly areas. Women in hilly areas are more literate and due to relatively easy access to roads, electricity, mobile phone, radio and television, to some extent internet, and proximity to urban cities and exposure to the outside world hence they are much aware about their disadvantaged position. However, within the hills there are remote areas and poverty pockets where women are discriminated against.

In the Terai certain caste groups (e.g. Chepangs, Tharus, Mahji, Mushars, and Madhesis) practice early and child marriage, and dowry systems. It is a commonly held perception in the GRB that women are caretakers and nurturers and their role is more appropriate within the household. However, with the new political system, and exposure to the outside world due to radio, FM, TV, and mobile phone, even illiterate women are becoming more aware. Their engagement in various community groups helps them to understand about climate change risk and adaptation.

Division of Labour

In Nepal, the division of labour is based on socially prescribed gender roles. Men do more of the outside work, political work, trading and marketing, and paid jobs, whereas women are more engaged in household work, care work and agriculture work.

The historical gender roles, spaces and stereotypes of the 'public' male breadwinner (provider) and 'private' female care-giver are taken in the current changing situations. A patriarchal culture dominates in Nepal, which from birth to old age gives preference to men. Women's work is given little status while the ability of men to earn money brings respect, and their traditional role of provider gives them higher economic and social status. Women's decision-making role and control over resources is negligible in most households. Issues concerning property, marriage, expenditure and education are men's business and women can exert little or no influence over the outcomes (Helvetas, 2015)²⁸. This is due to the household status of women's as they are engaged or spend most of the time in the household and agricultural activities and is often unpaid. Men are predominantly the ones who interact with the outside world while women's major sphere of operation is within household. Women's role in the society is mainly in care sector, predominantly their reproductive work, bearing, rearing, and nurturing children and household maintenance. Women have important roles as primary land, water and natural resources manager. Therefore, in Nepal most conservation and management of natural resources is the responsibility of women and control over the resources is the responsibility of men. The large portion of unpaid work is assigned to women and girls, especially collecting

²⁸ Helvetas .2015. *Empowering Women*. Kathmandu; Helvetas

firewood, water, and fodder, and caring for livestock, crops, and households (child care, cooking and cleaning).

Due to migration of mostly male members in search of better employment abroad, rural labour force is getting feminized. It has further increased burden of household chore on women's shoulders. Due to migration of male-labours and declining agricultural productivity, agricultural lands are abandoned. As women are taking care of the households and agriculture, women and their dependents (children and elderly people) living in rural area deriving their income from agriculture has become more vulnerable.²⁹

In some ethnic groups and social classes, women's roles in the economy goes beyond the domestic sphere as when Thakali women are Involved in the hotel and catering business, or when educated Gurung women have positions in the private and public sectors or when women from labouring households and from the so called occupational castes work as field labourers or porters for others.

In the poor households, ploughing, roofing, climbing the trees to lop the fodder, threshing rice, sowing, making bamboo baskets and bamboo mattress, manufacturing agricultural implements, etc. are the major tasks of the males whereas transplanting millet and paddy, grinding maize and millet, husking and winnowing of crops, cooking rice and washing utensils are the female's works. Digging, wedding, harvesting and carrying load are common for both sexes. Mothers usually nurse the infants. Mothers have major role for infants' caring which is also supported by grandmother, sister or elder children (retrieved from https://en.wikipedia.org/wiki/Women_in_Nepal).

Participation in Formal and Informal Economy

The Gross Domestic Product (GDP) of Nepal is USD 20.88 billion and GDP per capita USD 2,313 (NLSS -2011)³⁰. The average annual economic growth rate from 2012-2016 was 1.40 %. The Gini Coefficient which measures income inequality was 32.8 in 2014 (ADB, 2017).

In Nepal's 14th 3-year periodic plan (2016-2019), an average annual growth rate of GDP of 7.2 % was projected. Among other objectives in this plan, is a focus on cross-cutting issues such as gender equality, an inclusive society, environmental protection and capacity development of different institutions.

Agriculture and tourism are the two major sectors of the economy. Remittances are significantly contributing to the economy in the GRB, as number of migrant household from this area is highest in the entire country. Climate change has impacted the farming systems in the GRB.

Nepali girls and women work for more than boys and men, spending 25 % to 50 % more time on households' tasks, economic and agricultural activities. Yet, due to the nature of women's work which is often unpaid, on the one hand, and the flawed definition of economic activity, on the other hand, women's economic participation remains statistically invisible. Women in the more orthodox Hindu communities who are largely confined to domestic and subsistence production display a much less significant role in major household economy decision than those in the Tibeto-Bunnan communities where women participate actively in the market economy.

The role played by women in the care sector, predominantly their reproductive work, bearing, rearing, nurturing children and household maintenance are activities that fall outside the national accounting systems. While these activities are crucial for household members' well-

²⁹ Ministry of Population and Environment (MoPE). 2017. National Population Report 2017. Singha Durbar, Kathmandu

³⁰ *Nepal Living Standards Survey 2010/2011.GoN. 2011.* Thapathali, Nepal: Central Bureau of Statistics. National Planning Commission Secretariat.

being and effective participation in different spheres – economic, social and political, they continue to remain non-economic activities. By virtue of women performing these roles which are statistically not counted as economic and hence not monetarily valued, women's roles and their contribution is assigned low status.

In GRB 60 % of females are economically active compared to 67 % of males. The proportion of economically active women in Nepal is quite high compared to other South Asian Countries. According to the National Labour Force Survey, 80.1 % of women are economically active compared to 87.5 % of men (NLFS, 2014)³¹. This is in part due to the predominance of women in subsistence agriculture, where women are highly active following high levels of male outmigration. Of those employed, 89 % of women are engaged in agriculture and forestry compared to 70 % of men. However, the wages of women lag well behind those of men. In non-agricultural wage employment, women are concentrated in low-paying and less-productive jobs of low capital intensity. Female migration is also increasing, with official figures reaching 11,007 in 2008 (of a total of 266,666 migrants in that year), although this probably understates the volume given the numbers migrating without official permission (ADB, 2010). It has been estimated that 11 % of total remittances are from women migrants. The Foreign Employment Act, 2007 aims to protect the rights of workers and professionals.

Situation of Women and Men in the Specific Sector of Intervention

In Nepal, agriculture accounts for nearly 70 per cent of total employment and contributes nearly one-third of Nepal's gross domestic product (GDP). Women in Nepal constitute 72.8 per cent of the agricultural labour force, (MOAD, 2017)³². Government agricultural services are provided only through groups. According to UNFPA³³ women participation in farmer groups had reached 30 % by 2006 and 30-40 % in its training programs; livestock training was even higher, at 57 %. The benefits of agricultural extension and training have still largely accrued to men. For example, extension agents are more likely to contact men rather than women, and gendered norms make it difficult for women farmers to seek out male extension agents.

As high as 80 per cent of women are involved in agriculture and livestock sector in the GRB, and a trend of "feminization of the agricultural sector" is emerging as an outcome of high male outmigration. The role of women and their informed and meaningful engagement in the sector is critical for food security. This issue needs to be taken in to account seriously by the project when designing adaptation activities and interventions. The paradox is despite their substantive engagement in the sector, they are not treated as farmers and they don't have the same access to land, water, seeds, training and credit as men. Only 10 % of the total farms of Nepal are owned by women or jointly owned (MOAD, 2015)³⁴.

Nepal is one of the countries worldwide in which women's participation in community forest management has advanced. Compared to other management regimes, the membership and participation of women in community forestry is admirable. Women are considered as primary users of forests in Nepal. They have a broad and differentiated knowledge in relation to the use of forests in terms of burning, quality of woods, best fodder species, decomposition and quality of leaf litter, medicinal value of herbs, nutritional value of forest fruits and vegetables, amongst others. In rural areas of Nepal, women play a major role in the collection of various forest products. Supporting their families through the use of such products has become increasingly difficult in the present scenario of a rapidly degrading environment.

³¹ *Nepal Living Standards Survey 2013/2014.GoN. 2014.* Thapathali, Nepal: Central Bureau of Statistics. National Planning Commission Secretariat.

³² MoAD. 2017. *Agriculture Diary.* Agriculture Information and Communication Centre, Ministry of Agricultural Development, Singha Darbar, Kathmandu, Nepal

³³ UNFPA. 2007. *Gender Equality and Empowerment of Women in Nepal.* United Nations Population Fund. Kathmandu.

³⁴ MoAD. 2015. *Agriculture Development Strategy.* Kathmandu: Government of Nepal, Ministry of Agriculture Development.

Out of total 19361 Community Forest (CF), about 1072 CFs are managed by women (5.53 %) (DoFSC), however, the community forests handed over to women are usually small in area and either degraded or plantation in nature and male membership dominates in the Groups (FUGs) with a share of 80-85 %³⁵. This is due to the fact that the head of the household is usually registered as the member at the CFUG.

People in the GRB are highly dependent on forest resources for their food, household energy, and livelihoods. As almost three fourths (72.4 per cent) of households solely depend on forest to fulfil their household energy, the pressure on forest is increasing (MoFSC, 2016) and women who are primarily responsible to collect fire wood and fodder must travel longer and further to collect fire wood as well as fodder for their livestock. This gender specific role and need of women must be considered by the project.

A study conducted by Asian Development Bank (ADB) in Nepal revealed that each female water carrier must reserve 1.3 hours per day during the monsoon season and an average of 2-3 hours per day in the dry season to meet their daily household supply but women's participation in water sector is mainly project related and due to intervene of donors. A study by the International Water and Sanitation Centre (IRC) of community water supply and sanitation projects in 88 communities in 15 countries found that projects designed and run with the full participation of women are more sustainable and effective than those that do not involve women as full partners³⁶.

Anticipated differences in Men's and Women's Vulnerability and Adaptive Capacity to Climate Change

The impacts of climate change are not 'gender neutral' – women's high dependence on agriculture means climate impacts on the sector have a disproportionate effect on women. A recently published, first of its kind, national household survey on impact of climate change in Nepal (CBS, 2016)³⁷ reports that the highest percentage of sample households (92.03 %) observed invasive creeper species in agricultural land and that this has contributed to a decrease in their income. This is an area for consideration by the project - to enhance income and employment opportunity for women through eco-tourism and off farm skill development training, in addition women responsive agriculture interventions.

The NAPA 2010, states that women's access to water resources would decrease leading to an increase in their workload, with detrimental effects on their reproductive health. An alarming health issue for rural women in Nepal is uterus prolapse due to heavy workloads and inequitable division of labour. Climate induced resource conflicts increase social violence, violence against women, anxiety and depression in women. Which ultimately increase the vulnerability of women.

Vulnerability in GRB is highly correlated with gender, caste, ethnicity, regional identity, and geographic location and poverty. Women, because of gender based discrimination and ingrained patriarchal socio economic and political system and their lower socio-economic status in comparison to men are more vulnerable to impacts of climate change and natural disasters. The level of social inclusive participation, decision making, and leadership roles played by poor,

³⁵ MFSC. 2010. Approach paper to 3-year interim plan (2011-2013) Forest and Soil Conservation Chapter, MFSC/NPC, Nepal.

³⁶Wijk-Sijbesma, C.A. van, Mukherjee, N. and Gross, B. 2001. Linking sustainability with demand, gender, and poverty: A study in community-managed water supply projects in 15 countries. International Water and Sanitation Reference Centre, Washington, D.C. and Delft. The Netherlands.

³⁷ CBS . 2016. *National Climate Change Impact Survey . A Statistical Report*. s.l.:Government of Nepal, National Planning Commission, Central Bureau of Statistics, Kathmandu

women, marginalized ethnic groups, Dalits and disabled people is more theoretical, than actual practice.

On the other hand, poor Dalits, because of their poverty and caste-based discrimination and their settlement location usually near the landslide prone river banks, are more vulnerable. Similarly, certain poor ethnic groups or indigenous peoples who are primarily dependent on forests and water resources for their livelihoods are highly vulnerable. These three groups are potential target groups for the project. Even within the better off districts of the GRB, there are pockets of poverty in certain geographic and remote areas. These sites are vulnerable to climate change and climate induced disaster.

Some specific groups within the GRB, including small farm holders, cattle herders, poor and marginalized groups, elderly people, children and women are particularly vulnerable due to climate change and are impacted mostly. The poor and socially excluded groups often live in disaster prone areas such river corridors, foothills, near slumps and landslides and as a result, they are more vulnerable than others. For example, the Chepang are the poorest ethnic group in Chitwan district. They live in the hilly areas and because of drought and landslides their land productivity has declined, and they are forced to work in stone quarries for their livelihoods. Quarrying has accelerated landslides and as a result, the Chepang are pushed further below the poverty line.

Existing Gender Inequalities that may be Exacerbated by Climate Change Impacts

Women have the knowledge and understanding of what is needed to adapt to changing environmental conditions and to come up with practical solutions. But they are still a largely untapped resource. Restricted land rights, lack of access to financial resources, training and technology, and limited access to political decision-making spheres often prevent them from playing a full role in tackling climate change and other environmental challenges.

Trafficking of children and women in Nepal is a pressing issue. Around 16,500 Nepali citizens, mostly unmarried women and children, were trafficked in 2014-16, according to a national report released by the National Human Rights Commission (NHRC, 2016)³⁸(cited in e-kantipur). The Nepal Police records indicate 1,233 women and children missing (i.e. likely trafficked) in a three-month period after the Gorkha earthquake. 85 % of rescued trafficking victims had never been to school, which indicates a nexus with gender discrimination, illiteracy and poverty, in this case natural disaster and climate hazard is also a key trigger. The Human Trafficking and Transportation (Control) Act, 2007, provides for the protection and rehabilitation of trafficking victims.

This basin is the biggest of Nepal's four river basins in terms of total glacier area coverage. It contains 1025 glaciers, 338 lakes and is susceptible to frequent glacial lake outburst floods (GLOFs) (Final Report Desakota Part II). There has been increased frequency and intensity of rain, flood and landslides (Shrestha, 2003)³⁹. The basin is particularly vulnerable to water-induced hazards during the monsoon season. Of the 2,719 fatalities that resulted from floods and landslides in Nepal between 2000 and 2014, 939 (35 %) occurred in the GRB, which has only 22 % of Nepal's land area.

Events tend to be more common in the mid hills, especially the districts of Parbat, Syangja, Gorkha, Dhading, and Nuwakot – Dhading had the highest incidence of floods and landslides with 123 events over the 15-year period. However, more families are affected downstream, with Nawalparasi having the highest number of affected families (8,187 out of 22,637) (Ministry of

³⁸ NHRC .2016. *Kathmandu Post*, 2016. *Nepalese trafficked in last two years*. [Online] Available at: <http://kathmandupost.ekantipur.com/news/2016-04-26/16500-nepalistrafficked-in-last-two-years-nhrc.html>

³⁹ Shrestha, K. . 2003. *Change and Water Resources of Nepal, Climate change and water resources in South Asia*, s.l.: Asianics Agro-Dev. International (Pvt) Ltd.

Home Affairs disaster database, 2015 cited in HIAware Research 2017). Although the most common climate induced disasters are floods and landslides, the greatest economic loss in the basin is from forest fires which are worsened by wind in the dry season. The severity of landslides has been further aggravated by the Gorkha Earthquake 2015.

In the GRB, 72.4 % of households depend solely on forests to meet their energy requirement (Subedi, et al., 2015). Because of drying of water sources and degrading forests, the workload of women is increasing in terms of collecting firewood and fetching drinking water.

Inequalities between Different Social Groups

Inequalities in the basis of gender or the economic class is greatly hampered the climate change adaptation. The fourth assessment report on the climate change also mentioned that “socially and economically disadvantaged and marginalized people are disproportionately affected by climate change” (IPCC, 2014)⁴⁰.

Women in Nepal do, in general, have less economic assets, lower wages, poorer education, higher rates of illiteracy, little knowledge of their legal rights, less confidence in public, and are bound to their responsibilities at home. However, there are sharp differences in the empowerment and inclusion levels of women depending on class, caste, ethnicity, religion and age. Furthermore, patriarchal values lead to suppression of women not only by men but also by women e.g. mother-in-law discriminating against daughter-in-law or higher cast women discriminating against lower cast women.

The GRB is inhabited by more than 40 ethnic groups and indigenous communities and in the Terai there are mostly Tharus, an indigenous community, and Khas- Aryan groups. In 2014, the Human Development Index (HDI) for all ethnic groups in the GRB was 0.482 compared to the national average of 0.490. Ethnic groups have comparatively lower literacy levels (66.93 per cent) compared to national average of 69.73%. Likewise, the life expectancy at birth of the ethnic group was 69.86 years compared to national average of 71 years. Average HDI, adult literacy rate and life expectancy values of these districts are also lower than the national average. Average HDI of 19 districts in the GRB is 0.501. Kaski have highest HDI of 0.576 followed by Manang with HDI of 0.568. With an HDI of 0.461 for both Dhading and Rasuwa they are lowest in the rank among the 19 GRB followed by Nuwakot with HDI of 0.466. The overall per capita income for people in GRB is NRs 49,362, while the per capita income for ethnic groups is NRs 37,720 as compared to a national average of NRs 51,879 (NPC & UNDP, 2014).

The average human poverty index (HPI) of the GRB is 30.27, compared to the national average of 31 (NPC & UNDP, 2014). The HPI of ethnic communities in the GRB is higher than the GRB average, and the HPI in five districts - Dhading, Rasuwa, Nuwakot, Mustang, and Gorkha -is very high (42.24 in Dhading). Kaski is the richest district with the lowest HPI of 16.50, followed by Chitwan with a HPI of 4.80. Rasuwa is poorest amongst 19 districts with the highest HPI of 42.24, followed by Nuwakot with a HPI of 35.66, Dhading with a HPI of 33.38 and Mustang 31.16 (NPC & UNDP, 2014).

Some specific groups within the Gandaki River Basin like small farm holders, cattle herders, poor and marginalized ethnic and Dalit communities, elderly people, children and women are particularly vulnerable due to climate change and are impacted mostly. Both gender equity and social inclusion has been strongly advocated and addressed, mostly by the non-government sectors as they have to comply with their donor’s requirement. However, the level of social

⁴⁰ IPCC . 2014. *Climate Change 2014, Synthesis Report Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. s.l.: [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland

inclusive participation, decision making, leadership roles played by poor, women, marginalized ethnic groups, Dalits and disabled people is more on paper and policy, than in practice.

Due to the inequalities that exist between different social groups the impact of climate change is also differs. The poor and disadvantage group are more affected by the impact of climate change as they are more exposed to climate hazards, are more susceptible to damage caused by climate hazards and have low ability to cope with the climate change impacts. Evidence shows that due to the inequality in terms of the financial resources, disadvantages group are compelled to stay in the region that is vulnerable to flooding event (Islam and Winkel, 2017)⁴¹.

Nepal has a high incidence of Gender based Violence. And which everyone, regardless of their sex can be affected, women remain by large the main victims. In 2017, 149 people were killed as a result of GBV in Nepal. Of these victims, 140 were female, 75 of whom were killed because of domestic violence (WB, 2018).⁴² This situation also affect the women's capacity to adapt the climate change so the project will consider the issue and control for not exacerbate the gender base violence by providing the opportunities to engage in the project activities and raising awareness on this.

Women's and Men's anticipated Roles in the Project

Incorporating a gender perspective successfully and effectively requires that men and women understand the process of climate change, and share information on counteracting its negative impacts on an equal basis to both women and men. So the project mainly focused on the awareness raising on the process of climate change and its impacts. It is important that women have equal access to knowledge, awareness, capacity building, resources and technology, which are prerequisites in influencing climate change. Likewise, it is fundamental that women participate more actively in decision-making and policy development at all levels. So in every stage of the project i.e. from beginning to closing of the project activities women will be taken into consideration or be taken as a key important stakeholder. The project also focuses on the benefit of women participants. More specifically, in this project, women are expected to contribute to identify the site specific climate change problems and share with the project their traditional practices being followed to cope with such extreme weather events. Men are expected to support women in household chores and free women for adopting adaptation measures.

Access to Resources

The distributions of the resources in the Nepal are still not well-managed. The major two factors economic and social identities have great impact in the distribution of the resources in Nepal basically in the distribution of land (ADB, 2010). The current land tenure practices happening in the Nepal is traditional customary forms of land tenure. This customary practice is not based on the equality of the resources so there still remains huge inequality in the basis of the distribution of land. According to the statistics, lands are disproportionately distributed among the Dalits, Adivasi, Janajatis and women. Glancing at the data around 95% of Dalits living in terai region of Nepal do not possess their own land and termed as landless while in the case of hilly region 49% of hilly Dalits possess less than 0.25 ha of land (ADB, 2010).

Women in Nepal do, in general, have less economic assets, lower wages, poorer education, higher rates of illiteracy, little knowledge of their legal rights, less confidence in public, and are bound to their responsibilities at home. However, there are sharp differences in the empowerment and inclusion levels of women depending on class, caste, ethnicity, religion and age. Furthermore, patriarchal values lead to subjugation of women not only by men but also by

⁴¹ Islam, S.N. and Winkel, J. .2017. Climate Change and Social Inequality. New York: Department of Economic and Social Affairs: United Nations.

⁴² <https://blogs.worldbank.org/endpovertyinsouthasia/addressing-gender-based-violence-nepal>

women e.g. mother-in-law discriminating against daughter-in-law or higher cast women discriminating against lower cast women.

Due to a patriarchal and patrilineal system, women in Nepal had been denied full access to and control over family property. The legal framework maintained this discrimination until the 11th Amendment of the Civil Code (commonly referred to as the Women's Bill, 2002), which repealed several discriminatory provisions of the Civil Code along with other acts and entitled women to significant rights. The amendment provided equal inheritance rights to unmarried daughters and sons (where previously an unmarried daughter had inheritance rights only if she was over 35 years of age) and removed discriminatory conditions that prevented women from having full access to property. Women were granted the right to their husband's property upon divorce and the provision of receiving monthly or yearly support in lieu of property. Widows were given full rights to their property allowing them to use it even if they remarry (where previously they were required to return property to the deceased husband's household upon remarriage).

Women in Nepal have legal access to bank loans and other forms of financial credit. However, women's access to institutional credit from banks and financial institutions in 2004 was only 1.7 %, and women's access remains marginal compared to men as the land is the most important source of collateral.

In the Gandaki Basin, large sections of the rural and urban population lack minimal access to water for drinking, sanitation and irrigation, their livelihoods depend on agriculture, wage earning, ecosystem services, and rain-fed agriculture, they live in fragile dwellings and have weak social support networks. These people are most likely to be affected by climate change. To address this situation, adaptation and resilience-building requires integrated and holistic management of natural, human, cultural, physical and financial capitals.

Access to Information

In Nepal, from the service provider side there is equal access to information and opportunities provided but due to low level of education, literacy women may not have good knowledge and understanding on the climate change risks and adaptations solutions. The information provided may be high tech to the illiterate women so the vulnerable communities' men and women have not equal access to information and opportunities necessary to participate and benefit fully from the anticipated outcomes of the project. The GRB is comparatively advanced in terms of gender equality compared with the far western region (province 7) and Central –Eastern Terai region (province 2) where gender based discrimination is widespread and many harmful practices like segregation, keeping women and girls out of the home during menstruation (chaupadi) and child delivery is very much alive in the far west, and pardha (veil) system and women's seclusion from men is still practiced in the Terai. Tibeto-Burman ethnic groups and Tharus which are dominant in this region are comparatively more advanced in terms of treating women equally and women are to some extent engaged in enterprise and market-oriented trading activities as well agriculture.

In GRB there is strong presence of women led community organizations like mother's group (aama Samuha), natural resource management and conservation groups e.g. CFUGs, buffer zone conservation groups, farmer's groups, saving credit groups and cooperatives and female community health volunteers group which will be instrumental to reach and deliver project specific services and technologies to women. The project will provide the project related information and opportunities to the vulnerable communities through these networks and institutions as well as individual households. Understanding of climate change impacts and adaptation practices is weak among the various ethnic groups, Dalits and disabled groups and communities.

Access to Education

No, due to the socio cultural norms and traditions the access to education, technical knowledge and skill are different with respect to social groups and also difficult for poor and marginalised women to access education, technical knowledge and skill upgradation. Girls specially the daughters and sisters of the rich family have more access to education and jobs such as school teachers, social workers and the like. Because of reading and writing skills of the well-off families, the local level government and semi- government jobs also fall in their hands, so they have better access to technical knowledge and skill upgradation.

In GRB, there are the Women development officers who are implementing most of the gender issues lack technical skills to implement all the relevant development programs. At the local level skills and technologies are still weak for managing and conserving natural resources. When district forest offices or other relevant agencies have to address gender issues, they set aside this job saying it's not our field and let the WDO take care of this, because they do not have sufficient knowledge. The training programs in the field level are not targeting the women and deprived groups and sometimes they are not communicated for skill development opportunities.

Due to extreme variation in topography and existence of micro-climates in short distances, the geographic domain of one specific technology is small in general in Nepal and have limited knowledge on technology adopted in other topography more particularly in the hills and mountains. Due to this reason the researchers are not well-versed with the impact of climate change and the adaptation technology required in all the context which also hinder in the access to technical knowledge and skill required to women in the GRB area.

Provision to for Women and Men to Access Project supported Services and Technologies

In the Gandaki River Basin various government, non-government and local CBOs are active in implementing the different projects, development activities and government policy to ensure sustainable livelihoods, conservation of resources and to tackle climate change impacts to reduce vulnerabilities. So far, all sectors of programs and policies have considered social inclusion and gender equality as a cross-cutting theme in order to implement the program and mainstream the policies to increase human, social, financial, natural and physical assets. However, the services and technologies provided by the project may not be available and accessible to both women and men equally due to the level of education, participation and socio cultural norms and practices. Therefore, the project will provide equal level of services and technologies to both men and women in the GRB area by applying the Ecosystem based Adaptation approaches. The project will explore and provide the gender friendly technology. Furthermore, the project will value and utilise the traditional knowledge of women and indigenous people for the area. Local people are often not aware of technology that reduces vulnerability and increases resilience to climate change which will provide by this project. likewise, the project will also have trained or build the capacity of men and women on the handling and maintenance of technology and services provided by the project.

Participation in Decision Making

After the promulgation of the constitution in Nepal the participation of the women and men from the vulnerable communities have gradually increased in the decision making processes but still there are constraints that restrict women's active participation in household and community level decision. Although women's involvement in household and community level has been increasing due to out-migration of male members in the society, the voice of women in decision making process is still unheard at the level expected due to domination of male members in the society. There are a wide range of mechanisms for citizens to participate in planning and decision making about climate adaptation. However, women, ethnic minorities, indigenous peoples, Dalits, disabled and others often have limited access to decision making as the caste

based system still exists in the community. The caste system has hampered both male and female in taking part in the decision making process.

In the Nepali context, the empowerment and development of women is inextricably bound to the dominant Hindu social structure, which influences all aspects of social, cultural, and economic life. This structure assigns women restricted roles, which most often involve household and family responsibilities. Nepali women have internalized this system and this makes it difficult for them to envision themselves in roles outside the home. Women participate in the household decision making processes in this area and they play an active role in community management including, drinking water management, natural resource management and conservation. The heavy unpaid workload of rural women and inequitable division of labour is not counter balanced by income, meaningful representation in decision making forums, or an equitable share of benefits. The project will try to apply the norm of equal pay to both men and women and also raise the awareness

The socio-cultural norms and traditions make difficult for vulnerable communities specially women to influence decision-making processes. Some factors that discourage women's and vulnerable communities participation at the community level are lack of recognition in public sphere, lack of knowledge, lack of information and lack of putting their voices properly. Furthermore, within the vulnerable community's women participation in decision making hinders due to high male members in the community level groups and forums and most of the decision making process is dominated by male member of the society. Women, poor, ethnic groups, marginalized peoples and Dalit households do not usually hold influential positions in community institutions, nor do they have the financial means to implement new innovative measures. They also have less access to the services provided by government line agencies.

The GRB are listed within the top 10 districts with migrant household /population, reflecting a high rate of male migration from 41 % of total households in Myagdi to 54 % of total households in Gulmi and Arghakhanchi districts, the highest in Nepal (CBS, 2012). Migration has a direct implication on decision-making roles and responsibilities for women who become the de facto household heads in the absence of men. This brings both opportunity as well as challenges for women to adapt to climate risk and vulnerabilities.

The armed conflict and upper escalating rate of out migration in the country have increased the responsibility of women in agriculture. However, women are still regarded as independent and autonomous farmer by the social practices of the country. They are directly involved in the agricultural practice system of the country but aghast they have not the direct influence in the decision making power regarding the use of land and agriculture production of the country (ADB, 2010).

Barriers to the introduction and implementation of gender responsive climate resilient solutions

There are several key barriers to the introduction and implementation of gender responsive climate resilient solutions as presented below:

- **Lack of sex-disaggregated data, information, monitoring and evaluation**
 - Lack of sex- disaggregated data of climate vulnerability and risk resulting in poor understanding of gender-differentiated risk of climate change and climate induced disaster
 - Non-Inclusion of gender specific indicators in the entire monitoring and evaluation cycle of climate change projects and programs of government and NGOs/INGOs
 - Lack of synergy and capacity across sectors/ministries/agencies to address gender-environment data gaps and gender-responsive M&E

This project aims to address this to some extent.

- **Women's negligible representation in climate change policy, leadership and decision making**
 - Lack of conscious effort to increase representation of women in climate leadership and decision making
 - Lack of opportunity for women and their representative organizations' views being represented in formal climate change policy, leadership and decision-making
 - Lack of planned and quality training on gender and climate change to women and men policy makers, decision makers, and implementers
 - Lack of planned, regular training and awareness raising activities on gender equity, climate risk and locally appropriate adaptation measures, focused on rural women and disadvantaged people

- **Heavy unpaid workload especially of rural women and inequitable division of labour**
 - Women contribute their substantive labour (unpaid) in agriculture and natural resource management which does not reflect in corresponding increase in income, and meaningful representation at decision making forums and committees.
 - Women reported during field visit difficulties in adapting agricultural practices to climate change patterns. The burden posed by the demand for increased agricultural production/ yields amidst changing climate pattern is taking its toll on women, who are managing agriculture and livestock in the absence of males.
 - Due to social norms and inequitable gender division of labour; unpaid work is assigned to women and girls especially collecting firewood, water, fodder, livestock care, farm care, and they are highly impacted by climate change. In addition to this, women must do domestic work like child care, cooking and cleaning, which is the cause of "gendered" vulnerability to climate change.

- **Low level of education /illiteracy/ climate risk awareness and access to information**
 - Women's limited access to climate risk information, early warning systems and training is making them more vulnerable and restricting their capacity to adapt.
 - Women's high level of illiteracy, low level of education and awareness is a barrier

- **Gender discrimination, cycle of poverty, and physical vulnerability of girls and women**
 - Early and child marriage of girls, no opportunity for economic and social advancement, repetitive life -cycle of poverty and disempowerment
 - Climate induced disaster is increasing the vulnerability of girls and young women in terms of safety and security, increasing risk of human trafficking and exploitative work in entertainment sector as seen after earthquake and floods
 - Women-headed households, that have increased following male out-migration, are particularly vulnerable to climate induced disasters with the loss of family support networks. Girls and young boys are vulnerable to school drop outs.

- **Limited livelihood options and access to productive assets**
 - Low access to finance, family property, productive assets and restricted access to markets due to gender norms, restrict women's capacity to livelihood diversification which is a key activity for adaptation.

- **Migration/ increase in fallow land and land degradation**
 - High out-migration of youth/ men after climate induced disaster and poverty leads to a lack of labour, increase in underutilized farm land/ fallow land and land degradation, mostly in rural areas.
 - Implications on food security, health and nutrition of women and children

Due to their high influence in decision making, participation of men and wealthier people in economic development interventions in the project sites is high. In contrast, due to low influential power in decision making, participation of women and ethnic groups in income generation is moderate, and participation of poor households, marginal groups and Dalit households in economic development is low.

Opportunities to Promote the Leadership of Women in Local Governance and Institutions

Nepal is going through political transformation and this could be an advantage to mainstream and integrate gender inclusion and poverty reduction issues for better livelihoods through managing and conserving natural resource programs. It is time now to have clear policies outlined in the new constitution to ensure the voices, and access and benefit sharing of women, deprived communities and indigenous people for their livelihoods. It is also an important opportunity for the political leaders to show their commitment to uplift women, deprived groups and indigenous people to empower them in social, economic and cultural aspects. They can play a decisive role to develop programs to empower and enable women and deprived groups securing their livelihoods.

After the promulgations of constitution of Nepal there are lots of opportunities to promote the leadership of women in local governance/political systems and formal/informal institutions. In the local election of Nepal 2017 women also got leadership position in local level due to mandatory rule of election commission of Nepal. Similarly, there are gradually improving the government policies and law for the women leadership position in different sectors. An increase in meaningful participation in the sector of conservation and development will definitely ensure the efficiency of the programs being implemented. Gender mainstreaming and inclusive legal policies of participation will support women and deprived groups to remove the negative socio-cultural norms and enable them to fight for their rights in resource management and decision making of all sectors. One major input will be to eliminate discrimination from resource management and development programs.

Capacity building, empowerment, awareness raising, sustainable development and accountability programs will not only raise the human resource capacity of the central or district level program implementers, policy makers or service receivers. For gender mainstreaming and inclusion programs these programs will support the deprived communities to have their share in participation and encourage them fully participate in all the development and conservation activities.

The project aims to enhance women's participation in formulation of policies, strategies and plans where women will have opportunity to articulate their needs and priorities and ensure that the policy tools are gender friendly.

Differential Needs/Priorities of Women and Men and Project plan to Address

Growing evidence suggests that men and women experience climate change differently and have different priorities and ability to respond to negative climate change impacts. In order to enable men and women to meet their own needs and leverage their strengths and contributions, we must pay close attention to gender-based differences and embed them into the design of climate change policies and programs.

There are several areas where there is disparity in the impact of climate change in Nepal. The main disparities are: differential perceptions of climate change due to low level of education of women compared to men, differential interest of climate smart agricultural enterprise, access to climate information, approach in managing climate risks, etc. Disparities that makes women more vulnerable in Nepal also include high level of poverty and more impact on women due to

low social women are given as compared to men. Women also play roles like caring of children elderly and sick people, fetch water and fuel wood, and work as unpaid family labour. Hence it is important to see how does the project address gender differences in vulnerability and adaptive capacity in order to ensure that the outcome does not put either women or men at a relative disadvantage to the other? And also to see how does the project address any specific gender needs to reduce vulnerability to climate change?

Project Plan to take into Account the Needs of Specific (Vulnerable) Sub-Groups

The project will take account of specific vulnerable sub groups needs and participation in all stages of project. The project focuses on nature-based solutions incorporating local knowledge, skills and innovation in the use of local resources for climate change adaptation. It assumes that if forests, grasslands and agro-ecosystems are protected and managed in a manner that generates desired ecosystem goods and services, diversifies livelihood options and increases gender equality and social inclusion, then vulnerable communities and ecosystems will be more resilient to impacts of climate change.

The project will focus on gender-responsive implementation of activities and promote gender-sensitive development impacts by integrating gender into its operational modalities. There are varying levels of access to resources-knowledge, skills, and finance-that will shape how women and men adapt to climate impacts and they may share the benefits of climate finance differently.

Actively engaging women as “agents of change” in climate solutions yields multiple other benefits, including gender equality, women’s empowerment, and social inclusion. The project will focus on women playing a central role in planning and implementing activities and will seek to ensure that they directly benefited from project interventions and that their workloads and livelihoods are not adversely affected. From the project interventions the livelihood condition will be improved.

It is anticipated that because of increased income and other benefits, communities will have increased access to better education, health, and community services. They will also have increased participation in community decision making thereby enhancing good governance practices for e.g. from the forest restoration and livelihood related activities communities people will earn more income and also save their time which could be utilised for the education and health of their family members.

Proposed Specific Response Strategy for Each Target Group

The project will give due priority to gender and social inclusion in all activities wherever applicable. Firstly, the project will do vulnerability assessment of the gender and based on the results the project activities for gender and social inclusion will be intervened. Because of increased income and other benefits, communities will have increased access to better education, health, and community services. They will have increased participation in community decision making thereby enhancing good governance practices.

Plan to Utilise Specific Knowledge and Skills of Women and Men to Contribute to Project Outcomes

The project will utilise the specific knowledge and skills of women and men, especially from vulnerable groups through the development of indigenous (and local) business opportunities, promotion of indigenous and tradition knowledge and also undertaken the Free Prior Informed Consent (FPIC) process as a part of project initiation and implementation time regarding resource conservation and enterprise development. The project will recognize that local communities usually have significant experience, knowledge and skills in bioengineering on the use of local resources. Such innovation will be identified and used by the project, subject to agreement of local people. The traditional, local and indigenous knowledge and skill of

vulnerable groups will be considered throughout the project cycle for the achievement of project goals.

The project will prioritise enhancing adaptation capabilities of the most vulnerable communities, including marginalized and indigenous communities whose livelihoods are dependent on ecosystem goods and services with a large potential for social co-benefits (lower starting point, higher multiplier effect).

Project Identified Opportunities to Challenge Gender Stereotypes

By involving local people from different segments of population such as women, poor and marginalized communities, different castes, and ethnicity in the project, not only are the involved people being empowered; the intervention will also help to break down different kinds of discrimination including caste-determined social and cultural barriers. Capacity enhancement and shared learning on resilience building will strengthen and increase social capital and behavioural changes with community empowerment and social inclusion and build solidarity within the communities.

Some of the opportunities and actions need to be taken into consideration for the positive gender relations in the project as follows

- **Build gender equity, climate change awareness and adaptation capacity**
 - Develop GESI and climate change mainstreaming strategy for the Eco System Based Adaptation
 - Develop GESI and climate change training manual for implementing partners and local government representatives
 - Plan and provide regular training on Gender Equity, Women's empowerment and climate change at all levels central, provincial, local and community level, for both men and women
 - Increase access of women to information and capacity building training on climate risk and adaptation measures,
 - Ensure women's participation in workshops/ meetings
 - Train women to improve their capacity in weather observation and forecasting
 - Actively engage and train women in fresh water conservation, management and its effective allocation for household use and irrigation

- **Address lack of sex disaggregated climate change data and information**
 - Develop gender-sensitive early warning systems
 - Develop gender-responsive maps and analysis of hazards and vulnerabilities
 - Systematic collection and update of sex disaggregated data of climate vulnerability and risk
 - Use of gender responsive climate change monitoring and evaluation indicators in the entire project cycle

- **Livelihood diversification and alternative livelihood promotion for women and youth**
 - Effective use and promotion of cooperatives, micro finance and other banking facilities for livelihood diversification of women and disadvantaged people
 - Integrate gender analysis and value-chain analysis to improve agribusiness, reduce poverty, and improve inclusive markets
 - Promotion of ecotourism and skill training in bakery, homestay, nature guide, handicrafts, cook amongst youth both female and male
 - Research and introduce new agriculture production practices and technology suitable to women in light of feminization of agriculture

- Introduction of more climate resilient seeds and other farm inputs and extension services appropriate for women
- Introduce and promote micro insurance for crops, livestock, fruits and weather-based insurance scheme
- **Engage women in climate change planning, implementation and monitoring**
 - Promote and adapt bottom up approaches to climate change adaptation planning like LAPA and CAPA, for which Nepal is a pioneer
 - Ensure equal engagement of women, and disadvantaged communities in local adaptation planning, its implementation and monitoring
 - Tackle gender inequality at the broader level-for adaptation financing to be effective and equitable from –legislative, policy, programs, to market level
 - Effective implementation of already existing provisions in constitution, law, sectoral programs and policies related to gender equality, women’s empowerment, social inclusion to enhance resilience
- **Knowledge management and documentation**
 - Systematic documenting of traditional and local knowledge of climate change and adaptation practices of women and disadvantaged people especially Chepang, Majhi, Mushar, Bote, Tharus, Dalits, and indigenous people more dependent on forest and water for their livelihoods.