



**GREEN
CLIMATE
FUND**

Meeting of the Board
12 – 14 November 2019
Songdo, Incheon, Republic of Korea
Provisional agenda item 14

GCF/B.24/02/Add.12

22 October 2019

Consideration of funding proposals - Addendum XII

Funding proposal package for SAP008

Summary

This addendum contains the following seven parts:

- a) A funding proposal titled “Extended Community Climate Change Project-Flood (ECCCP-Flood)”;
- b) No-objection letter issued by the national designated authority(ies) or focal point(s);
- c) Environmental and social report(s) disclosure;
- d) Secretariat’s assessment;
- e) Independent Technical Advisory Panel’s assessment;
- f) Response from the accredited entity to the independent Technical Advisory Panel’s assessment; and
- g) Gender documentation.

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Simplified Approval Process Funding Proposal

Project/Programme title:	Extended Community Climate Change Project-Flood (ECCCP-Flood)
Country(ies):	Bangladesh
National Designated Authority(ies):	Economic Relations Division, Ministry of Finance, The People's Republic of Bangladesh
Accredited Entity:	Palli Karma-Sahayak Foundation (PKSF).
Date of first submission:	<u>[2018/01/16]</u>
Date of current submission/ version number	<u>[2019/06/24]</u>
If available, indicate GCF code:	<u><i>This code is assigned to each project upon first submission of a Concept Note or Funding Proposal and remains the same throughout the proposal review process. If you have submitted this project/programme previously please indicate the GCF code here.</i></u>



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Contents

Section A **PROJECT / PROGRAMME SUMMARY**

This section highlights some of the project's or programme's information for ease of access and concise explanation of the funding proposal.

Section B **PROJECT / PROGRAMME DETAILS**

This section focuses on describing the context of the project/programme, providing details of the project/programme including components, outputs and activities, and implementation arrangements.

Section C **FINANCING INFORMATION**

This section explains the financial instrument(s) and amount of funding requested from the GCF as well as co-financing leveraged for the project/programme. It also includes justification for requesting GCF funding and exit strategy.

Section D **LOGIC FRAMEWORK, AND MONITORING, REPORTING AND EVALUATION**

This section includes the logic framework for the project/programme in accordance with the GCF Results Management Framework and Performance Measurement Framework, and gives an overview of the monitoring, reporting and evaluation arrangements for the proposed project/programme.

Section E **EXPECTED PERFORMANCE AGAINST INVESTMENT CRITERIA**

This section provides an overview of the expected alignment of the projects/programme with the GCF investment criteria: impact potential, paradigm shift, sustainable development, needs of recipients, country ownership, and efficiency and effectiveness.

Section F **ANNEXES**

This section provides a list of mandatory documents that should be submitted with the funding proposal as well as optional documents and references as deemed necessary to supplement the information provided in the funding proposal.

Note to accredited entities on the use of the SAP funding proposal template

- The Simplified Approval Process Pilot Scheme (SAP) supports projects and programmes with a GCF contribution of up to USD 10 million with minimal to no environmental and social risks. Projects and programmes are eligible for SAP if they are ready for scaling up and have the potential for transformation, promoting a paradigm shift to low-emission and climate-resilient development.
- This template is for the SAP funding proposals and is different from the funding proposal template under the standard project and programme cycle. Distinctive features of the SAP funding proposal template are:
 - *Simpler documents*: key documents have been simplified, and presented in a single, up-front list;
 - *Fewer pages*: A shorter form with significantly fewer pages. The total length of funding proposals should **not exceed 20 pages**;
 - *Easier form-filling*: fewer questions and clearer guidance allows more concise and succinct responses for each sub-section, avoiding duplication of information.
- Accredited entities can either directly incorporate information into this proposal, or provide summary information in the proposal with cross-reference to other funding proposal documents such as project appraisal document, pre-feasibility studies, term sheet, legal due diligence report, etc.
- Submitted SAP Pilot Scheme funding proposals will be disclosed simultaneously with submission to the Board, subject to the redaction of any information which may not be disclosed pursuant to the [GCF Information Disclosure Policy](#).

Please submit the completed form to:

fundingproposal@gcfund.org

Please use the following name convention for the file name:

“SAP-FP-[PKSF]-[2019/05/01]”

A. PROJECT/PROGRAMME SUMMARY			
A.1. Has this FP been submitted as a SAP CN before?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
A.2. Is the Environmental and Social Safeguards Category C or I-3?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
A.3. Project or programme	<input checked="" type="checkbox"/> Project <input type="checkbox"/> Programme	A.4. Public or private sector	<input checked="" type="checkbox"/> Public sector <input type="checkbox"/> Private sector
A.5. Result area(s)	<p><u>Mitigation:</u> Reduced emissions from:</p> <input type="checkbox"/> Energy access and power generation <input type="checkbox"/> Low emission transport <input type="checkbox"/> Buildings, cities and industries and appliances <input type="checkbox"/> Forestry and land use <p><u>Adaptation:</u> Increased resilience of:</p> <input checked="" type="checkbox"/> Most vulnerable people and communities, including women and girls <input checked="" type="checkbox"/> Health and well-being, and food and water security <input checked="" type="checkbox"/> Infrastructure and built environment <input type="checkbox"/> Ecosystem and ecosystem services		
A.6. Total investment (GCF + co-finance)	<u>13.33</u> (million USD)	A.7. Total GCF funding requested	<u>9.68</u> (million USD)
A.8. Type of financial instrument requested for the GCF funding	<input checked="" type="checkbox"/> Grant <input type="checkbox"/> Loan ¹ <input type="checkbox"/> Equity <input type="checkbox"/> Guarantees <input type="checkbox"/> Others:		
A.9. Division of GCF funding by thematic funding window (if applicable)	_____ USD or _____ % Mitigation _____ USD or _____ % Adaptation		
A.10. Implementation period	4 years (December, 2019 to November, 2023)		
A.11. Total project/ programme lifespan	10Years	A.12. Expected date of internal approval	4/15/2018
A.13. Executing Entity information	PKSF is the executing entity (EE) for the project.		
A.14. Scalability and potential for transformation (Eligibility for SAP, max. 50 words)			

1. The project expects that 90,000 beneficiaries will enhance their resilience to climate change through adopting and practicing climate adaptive activities. They will be able to identify the impacts of climate change on their lives and livelihoods and prepare plan for addressing those impacts through 1,000 climate change adaptation groups (CCAG). 45,000 targeted beneficiaries in flood prone areas will be able to protect their homesteads and household resources from flooding through raising homestead plinths and re-construction of these houses. They will cultivate vegetables round the year on the raised plinths. Raised plinths will also be used as flood shelter during flood. 2500 (500 tube wells i.e. 5 beneficiaries per tube well) targeted households covering 11250 beneficiaries will adopt and practice safe drinking water technology i.e. shallow tube wells on raised plinths in flood prone areas. In addition, 2810 households covering 12645 beneficiaries be provided with climate resilient sanitary toilets. Ninety thousand (90,000) targeted beneficiaries will adopt and practice climate resilient livelihood options including cultivation of stress tolerant crop varieties and goat/sheep rearing in slatted house.
2. The proposed activities are selected based on the experience of earlier implemented community climate change project (CCCP). While implementing the CCCP, PMU staffs have frequently visited the project areas and found these activities effective in terms of increasing resilience of the vulnerable communities. In addition, mid-term and final evaluation by independent consultants, Aide Memoire by the World Bank (the fiduciary manager of the project) have rated these activities satisfactory and effective. Hence Extended CCCP has chosen these activities. As the activities are demand-driven and found effective, it is expected that these activities have high potential to be scaled up for creating transformation.

A.15. Project/Programme rationale, objectives and approach (max. 250 words)

3. *Climate rationale of the project/programme:* The impacts of climate change in Bangladesh are visible. It has altered the nature and magnitudes of natural disasters like flood, flash flood, salinity, tidal surge, drought etc. Both frequency and intensity of these disasters are increasing. The scientists argued that these will be manifold in the future climate regime (details in section B1). The poor community will be hit the hardest. The women and children will be affected harder than any other groups of people in the community due to their distinctive role and low capacity to cope with that. The poor and marginalized community living in flood prone areas generally depends for livelihood on agriculture including crops, livestock, poultry, and fisheries etc. which are highly sensitive to climate change. It affects shelter, water availability and sanitation etc. The proposed project will make sure the resilient shelter and livelihood will ensure safe drinking water and sanitation.
4. *Purpose and activities of the project/programme:* The goal of the project is to increase resilience of the poor, marginalized and climate vulnerable communities towards the adverse effects of climate change in flood prone areas of Bangladesh. Major activities are cluster based homestead plinth raise, reconstruction of resilient houses on raised plinths, construction of climate resilient sanitary latrines, installation of tube wells, goat/sheep rearing in slatted house, climate resilient crop cultivation etc.
5. *Climate impacts of the project/programme:* Bangladesh Bureau of Statistics (BBS) carried out the impacts of various disasters for the period of 2009-2014. The report shows that about 42% HHs of Rangpur division (which is the main working area) were affected by flood whereas national average is 34.48%. Over this period, 26.93% of the households did not have any work due to flood, meaning they did not earn money for their livelihood. It is also important to note that 10.62% of the households did not have work for 8 to 15 days and 9.39% HHs did not have work for 16 to 30 days due to climate change related extremes.
6. *Rationale for use of GCF funding:* Climate change is an additional threat for the socio-economic development of Bangladesh. The country is in the process of switching from an LDC to a lower middle income country by 2025, which requires huge investment in regular development intervention. Hence, the country is not in a position to invest additional resources for shocks like climate change for which the country is not responsible. So, GCF funding is important to address the additional threat from climate change to enhance resilience of the climate vulnerable people.
7. GCF's involvement is critical in two ways: (i) climate change threat and long term projections. Flood will likely increase in frequency and intensity. It will require additional investment to reduce the impacts of and vulnerabilities to these climate variability and extreme events; and (ii) Extreme climatic threats also require additional finance to increase the scale of climate risk reduction investments to protect the livelihoods and settlements (people and their main assets – the homes) from flood as well as improve the methods and application of a good practices. GCF involvement will considerably enhance the ongoing government programmes, employing best practices and scaling-up achievement of successful pilots and good international practice. As a result the proposed investment will be transformational.
8. *Short justification for chosen instrument to be financed by the GCF:* The project proposed grant finance from GCF. Because, the people living in the riverine char areas are highly vulnerable to climate change particularly flood. Their homesteads are subject to regular inundation by normal flood. Their livelihoods depend on subsistence agriculture and agriculture wage labour which is also very sensitive to flooding. They loss their crops almost every alternative years. The women in char areas are particularly vulnerable to flood because they have to look after children and old members of the household in addition to collect drinking water, cooking food, looking after poultry and livestock and other household activities. Adolescent girls and women are also vulnerable to sexual harassment during flood because they have to stay on the embankments or flood shelters. These poor communities

always struggle to meet their daily necessary commodities and have least capacity to address additional threats from climate change including frequent and intensive flooding in their locality.

9. The experiences gained from this pioneering adaptive social protection intervention, at scale with GCF resources will ultimately contribute in the reform process in Bangladesh so that climate change risks are systematically taken into account. The GCF resources will benefit communities by improving their adaptive capacity in flood affected northern part of Bangladesh, thereby reducing their overall vulnerability to climate change risks. Effective implementation of the project will provide important evidence to the Government of Bangladesh of the benefits of incorporating publicly funded investment for adaptation into social protection (SP) expenditures. In this way, the GCF contribution will institutionalize adaptation into key government social protection programmes, effectively extending the results of the project far into the future.
10. A coordination mechanism is built in the project document through engagement of various levels of stakeholders. The project will coordinate government and other development partners including GCF's MIEs working in Bangladesh before selecting unions and villages. The project will carefully avoid duplication of areas where climate change projects are being implemented. Major climate financing projects in adaptation sector in Bangladesh are financed by Bangladesh Climate Change Trust Fund (the public fund created by the government of Bangladesh) and the GCF. In addition, The World Bank, DFID, USAID, IUCN, UNDP, WFP, FAO etc. development partners are implementing climate change projects in the country. The project will engage all these stakeholders through workshops, seminars etc. during implementation of the proposed activities for avoiding duplication. Before sending this project document to GCF, it should pass through the advisory committee of NDA. Where the representation of government, non-government, development partner, UN agencies, academia and the experts are ensured.

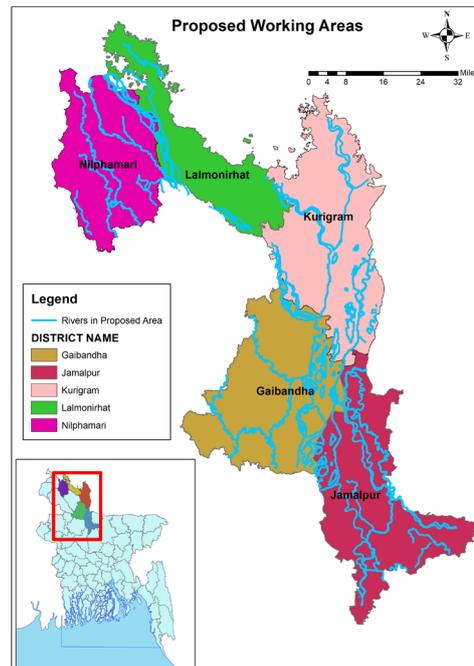


Figure 1: Proposed working area

11. *Working area:* The project will be implemented in 5 flood vulnerable districts namely Nilphamari, Lalmonirhat, Kurigram, Gaibandha, and Jamalpur. The districts have been selected based on two criteria i.e. intensity and frequency of flood and density of poverty.

12. *Number of beneficiaries and selection criteria:* The total Vulnerable population due to flood are 1.3 million in the targeted 5 districts. Due to fund limitation of SAP, the project will select only 90,000 beneficiaries (considering double-counting of benefits it is 211,500) for the proposed project. The project will directly impact 90,000 vulnerable people in the selected 5 districts with high level of flood risks, high level of poverty, water scarcity, food insecurity etc. They account for 0.01% of the total population of the selected 5 districts and 0.07% of the flood vulnerable population. The following table shows the calculation of the project beneficiaries:

Categories of population	In Million	%(in the selected district only)
Total Population (Bangladesh)	160	
Total Population (Selected 5 district)	9.84	6.15
Male	4.86	49.39
Female	4.98	50.61
Flood vulnerable population	1.30	13.22
Total beneficiaries will be	0.19	1.9% of the total population and 14.6% of the flood vulnerable population

13. Criteria for beneficiary selection

- i. Those who are living in riverine char and low-lying flood vulnerable areas;
- ii. Priority on women headed households and other disadvantaged groups.
- iii. Poor and ultra-poor households (as defined in the Household Income and Expenditure Survey (HIES 2016) of the Bangladesh Bureau of Statistics (BBS-2017)²);
- iv. Daily income is less than USD 1.75;
- v. Those who are not receiving any support from other project or organization;

14. The beneficiary selection process will follow intensive consultations at districts, upazila (sub-district), union and community level. **The most vulnerable district will select first for this process.** The district consultation with government and non-government representatives will identify the most vulnerable upazila. Similarly the upazila consultation meeting will identify most vulnerable unions and consultations at union level will identify most vulnerable villages. At the village level, the community people will identify the vulnerable people as per the criteria. Thus, when the selection process will reach 90,000 beneficiaries, then it will be stopped. These 90,000 beneficiaries are direct beneficiaries and will represent 20,000 HHs (average family size is 4.5). One representative from each HHs will form 1000 Climate Change Adaptation Groups (CCAGs). For measuring the poverty, the project will use Poverty Probability Index (PPI). In addition to these direct beneficiaries, the proposed project expects that approximately another 100,000 beneficiaries will be benefited by the project interventions particularly during flood emergency by taking shelter on the raised plinths, drinking water from the tube wells, using sanitary latrines and gathering knowledge on climate resilient crop production. They are indirect beneficiaries as they will not participate in the project activities directly.

15. Male-female ratio in the selected districts is 0.98:1. Hence, we consider that among the direct beneficiaries, 50% is male and 50% is female. But the proposed project is gender-sensitive. So, we put emphasis on women, women heads and other disadvantaged groups while forming the CCAGs. Because the CCAG members will take all decisions at the community level regarding activity location, activity distribution, quality of implementation etc. About 80% of the CCAG members or 16,000 beneficiaries will be women, women heads and other disadvantaged groups. Among women beneficiaries, 10% (nationally women headed households are about 12%) or 1600 will be women heads. Because empowerment of women is the key to sustainable development in the country. Napoleon Bonaparte stated that "Give me an educated mother, I will give you an educated nation." The project adopted this approach. The women will be educated on climate change issues in their localities because mother is the best teacher of a child. The children will learn about climate change from their mother. This will have long term impacts in the society. The new generation will grow in a climate resilient environment. The CCAGs will include mostly female members because enhancing capacity of a women on climate change issues means enhanced capacity of the whole households. The activities are designed in a way that the women will be mostly benefited economically and socially. Besides, necessary female staffs will be ensured at the field level so that women members can easily express their opinions and actively take part in the project activities.

16. The female headed households will receive priority while selecting the beneficiaries. As per experience of CCCP, there will be female headed households. The consultation meetings during beneficiary selection will identify the female headed households. Level of vulnerability is the main distinction between a women in married households and a female heads of the households. The female heads are more vulnerable because their income source is very limited, they cannot go outside of their locality, women's labour rate is also low. These limitations makes them more vulnerable than the women in married households.

² This document defined extreme poor as the person having purchasing power parity (PPP) below 1.25 USD a day and PPP below 1.90 a day is called poor.

B. PROJECT/PROGRAMME DETAILS

B.1. Context and baseline (max. 500 words)

Theory of Change

Baseline scenarios

17. Bangladesh is a country which is prone to hydro-meteorological hazards. Many of such hazards such as floods and high intensity cyclones occur in disastrous proportions, causing significant losses of lives and physical assets including infrastructure and inflicting upon heavy economic losses (Rahman et al., 1990³; Ahmad et al., 1994)⁴. Many of these hazards are recurring and linked with climate variability and change. In recent decades, Bangladesh has been doing well, exhibiting high economic growth and attaining macroeconomic stability, even defying global scale recession. However, many believe that the country could have achieved much faster economic growth had it not been repeatedly affected by climate variability and change related disasters.
18. Flood is perhaps the most common hydro-meteorological hazard in Bangladesh. The country's 88% landmass falls in the floodplains of three major South Asian river systems, namely the Ganges, the Brahmaputra and the Meghna (GBM). All these rivers are located in the Eastern Himalayan region, which is overwhelmingly influenced by monsoon-related rainfall runoff. The country and its floodplains occupy only 7% of the combined GBM catchment area, however it has to drain over 92% of the combined GBM flows – a mismatch which brings regional water that constitutes the second largest outfall in the world. Moreover, such a spatial dimension of regional water is compounded by acute seasonal distribution. South Asian monsoon occurs only during June and September, generating over 80% water flow in about four months, every year. This brings an extremely large volume of water to Bangladesh, which the rivers often cannot transport to the ocean (Mirza et al., 2003⁵; Rahman et al., 1990). This is why floods occur in the country so frequently (Mirza and Ahmad, 2005⁶; Mirza and Ahmed, 2009⁷).
19. Furthermore, the country is sitting on the largest delta on earth, and its topography is flat. The GBM river system brings large quantity of sediments, which get deposited on the river bed while the flow volume decreases during the lean season (especially between November – February). This is how the river beds gradually lose discharge capacity, and seasonal regional flows spill over the river banks. Just because the elevation and the gradient to the ocean is low, the backwater effect often decelerates outflow – further aggravating floods (Ahmed, 2005⁸; MOEF, 2012⁹).

³ Rahman, A.A., S. Huq and G.R. Conway (eds.), 1990. Environmental Aspects of Surface Water Systems of Bangladesh, Dhaka, University Press Limited, p. 258.

⁴ Ahmad, Q.K., N. Ahmad, and K.B.S. Rasheed (eds.), 1994, Resources, environment and development in Bangladesh, with particular reference to the Ganges, Brahmaputra and Meghna basins, Dhaka, Academic Publishers.

⁵ Mirza, M.Q., A. Dixit and A. Nishat (eds.), 2003. Flood problem and Management in South Asia, in M.M.Q. Mirza and Q.K. Ahmad (eds.), Climate Change and Water Resources in South Asia, Leiden, Balkema Publishers.

⁶ Mirza, M.M.Q., 2005. Hydrologic Modeling Approaches for Climate Impact Assessment in South Asia, in M.M.Q. Mirza and Q.K. Ahmad (eds.), Climate Change and Water Resources in South Asia, Leiden, Balkema Publishers.

⁷ Mirza, M.M.Q. and Ahmed, A.U., 2009. Global Warming, Changes in Hydrological Cycle and Availability of water in South Asia, in A.P. Mitra and C. Sharma (eds.), Global Environmental Changes in South Asia: A Regional Perspective, New Delhi and Kolkata, Capital Publishing Company, pp. 222-232.

⁸ Ahmed, A.U., 2005. Adaptation options for managing water related extreme events under climate change regime: Bangladesh perspectives, in M.M.Q. Mirza and Q.K. Ahmad (eds.) "Climate Change and Water Resources in South Asia", Leiden, Balkema Press, pp. 255-278.

⁹ MOEF/GOB, 2012. Second National Communication: Adaptation, contribution to Second National Communication (SNC) of GOB, submitted to Ministry of Environment and Forest, GOB, November 2012.

20. Despite the fact that Bangladesh has long been belonging to the group of Least Developed Country (LDC), it has invested quite heavily to protect its population and hinterlands from recurring floods. Since late 1960s, vast proportion within the floodplains is protected from floods by erecting earthen embankments, supplemented by hard engineering structures. The national mandated agency to manage these structures is Bangladesh Water Development Board (BWDB), which spends billions of dollars annually towards maintenance of this critically important infrastructures.
21. In the first two decades since the beginning of protection works, the aerial extent of flooding decreased, with significant reduction of sufferings of affected population – particularly that of women, elderly and children. However, a careful analysis of flood occurrence in the country reveals that, the high intensity floods are occurring more frequently in the recent decades, despite having flood protection embankments (Ahmed, 2008). Researchers indicated that, the climate variability and change induced (monsoon) rainfall throughout the eastern Himalayan region and also within the country has been causing an increase in flood-proneness of the country. The increase in flood extent and the frequency of occurrence of high intensity floods despite the embankments may be better captured in Figure-2 which is self-explanatory. The areas under flood is plotted against time (year), which indicates that, soon after the flood protection initiatives taken by the BWDB, smaller floods were controlled, however due to a multitude of factors explained in the above paragraphs, including the regional rainfall runoff that is induced by climate variability and change, the system can no longer offer protection of the lands and high intensity floods are occurring at a smaller time intervals.

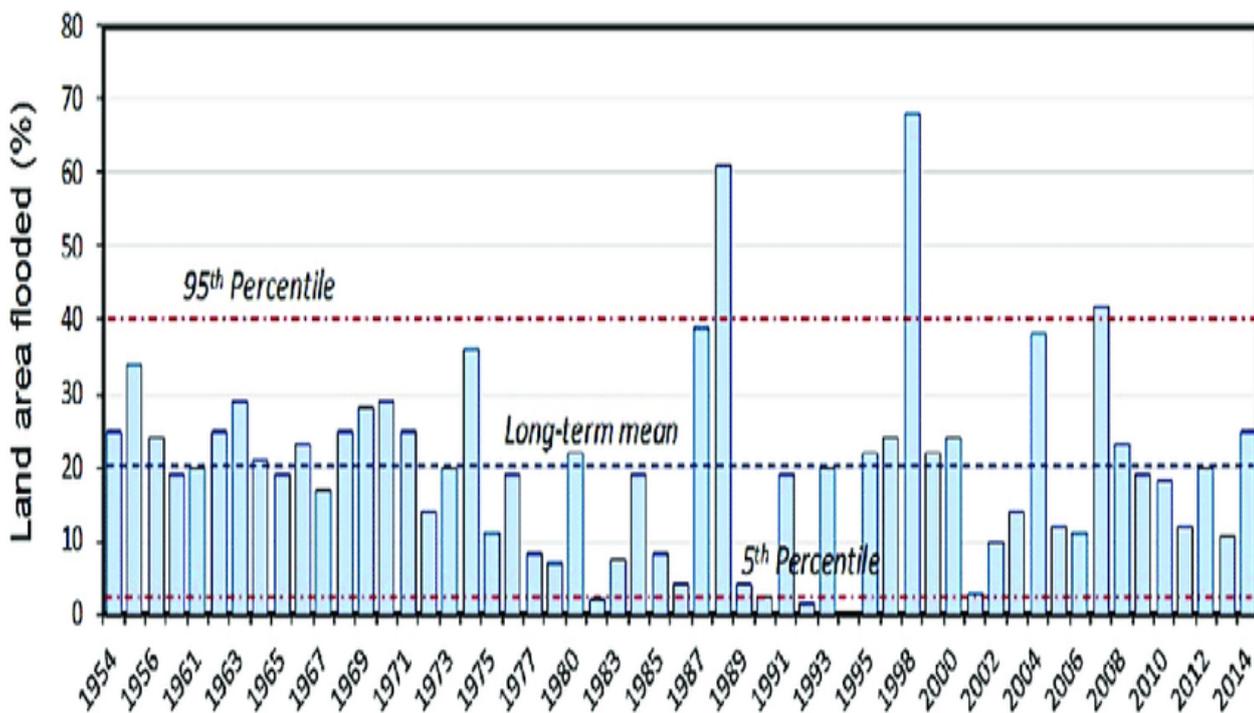


Figure-2 Area affected by floods in different years in Bangladesh

22. A systematic analysis of daily rainfall between the years 1958-2007 is presented by Shahid (2011)¹⁰, where rainfall gauge data collected and published by Bangladesh Meteorological Department (BMD) is used for the analysis. The Mann-Kendall trend test has been performed to analyse the trends of rainfall indices

¹⁰ Shahid, S., 2011. Trends in extreme rainfall events of Bangladesh, The Applied Climatology, Vol. 104, pp. 489-499.

(Mann, 1945¹¹; Kendall, 1975¹²), while the Sen's slope method has been applied to estimate the magnitude of change (Sen, 1968¹³). Shahid used 90%, 95% and 99% confidence levels as thresholds to classify the significance of trends. It is found from the trend study that, indeed, the annual average rainfall shows a positive (i.e, increasing) trend at 90% confidence level. Sen's trend analysis method reveals that the rate for annual average rainfall over the said timeline has been +6.58mm/year over Bangladesh. The study also indicates that, generally the northern regions of the country are exhibiting higher extents of increasing annual rainfall. Since the monsoon seasonal rainfall dominates the annual rainfall (over 80% of annual rainfall occurring in monsoon), the results may be extended to indicate that the monsoon rainfall is increasing over Bangladesh. A further analysis based on seasonal rainfall suggests that the pre-monsoon rainfall is also showing significant positive change (on an average 3.78mm/year), which however is increasing at slower rate than in the monsoon.

23. The number of rainy days in majority of the stations are found to increase over the same time period. The rainfall intensity of the country is also found to increase in most of the stations covered under the study. The same analysis also reveals the trends regarding extreme rainfall over Bangladesh. At 90% confidence level, it is reported that the average number of heavy rainfall days are increasing by 0.12 days/year. Again, the maximum increase in average heavy rainfall days is observed in Rangpur¹⁴, located in the northern region, by 0.22 days/year at 99% levels. Since the landmass of Bangladesh has a gentle slope towards South and most rivers are flowing North to South, an increase in the northern territories means greater flood susceptibility in the central and southern regions of the country.
24. Now the critical question is where climate change is occurring in Bangladesh and whether the increase in rainfall over the country is somewhat related to climate change. A number of research initiatives in the recent past have shed adequate light on occurrence of climate change over Bangladesh. Choudhury et al (2003)¹⁵ reported an increase in surface average temperature over Bangladesh by 0.74°C between 1950 and 2000. The Government of Bangladesh (GOB) in its Second National Communication reported that the mean annual maximum and minimum temperatures over the period 1977-2008 has risen by 0.02 and 0.012°C/year, respectively (MOEF, 2012). Choudhury et al (2003) also claimed a rising rainfall trend, which has been later echoed by Shahid (2011). The Second National Communication by the GOB reported that, the mean seasonal rainfall is found to be maximum during the pre-monsoon and monsoon seasons by around 100mm over the past half century (MOEF, 2012). Clearly, climate forcing has been responsible to change the in-country rainfall and consequential runoff, which aggravates floods, as explained in the earlier paragraphs.

Mirza extensively studied the implications of climate change on floods in Bangladesh (Mirza, 1997¹⁶; Mirza, 2005). The indications emanating various modelling works clearly indicate the positive correlation between climate change and increased flooding in Bangladesh. With greater climate forcing, there will be higher levels of evaporation from the Indian Ocean to cause heavier rainfall and subsequent runoff in the

¹¹ Mann, H.B., 1945. Nonparametric tests against trend, *Econometrica*, Vol. 13, app. 245-259.

¹² Kendall, M.G., 1975, Rank correlation methods, Griffin, London.

¹³ Sen, P.K., 1968. Estimates of the regression coefficient based on Kendall's tau. *J Am Stat Assoc*, vol 63, pp. 1379-1389.

¹⁴ The target area of the proposed project corresponds to the greater Rangpur region, where the said station is located.

¹⁵ Chaudhury, A.M., Auadir, D.A., Neelormi, S. and Ahmed, A.U., 2003. Climate Change and Its Impacts on Water Resources of Bangladesh, in A. Muhammed (eds.), *Climate Change and Water Resources in South Asia: Proceedings of Year End Workshop*, Kathmandu, 7-9 January, 2003, Islamabad, AgroDev International, START and Fred J Hansen Institute for World Peace, PP. 21-60.

¹⁶ Mirza, M.M.Q., 1997. Modelling the Effects of Climate Change on Flooding in Bangladesh, PhD Thesis, International Global Change Institute (IGCI), University of Waikato, Hamilton, New Zealand.

eastern Himalayan rivers, leading to much greater runoff volumes to enter into Bangladesh and greater probability of flooding (Mirza and Ahmed, 2005).

Choudhury et al., (2004) studied future flood-related hazards under climate change using HadRM2, a regional climate model validated for Bangladesh. From the modelling analyses, it is found that the monsoon rainfall is expected to increase by 10-11% by 2050 under a moderate scenario (assuming 2°C by 2100), which suggests that the surface runoff will increase by 20% in the corresponding year. It is also concluded that high intensity floods, under such aggravated inundation regime, will occur more frequently and the depth-duration matrix for future floods will cause much greater impacts than usual. Already Bangladesh has suffered the worst flood in recorded history in 1998, which inundated over 68% of the landmass for a consecutive 72 days, resulting in an economic damage worth USD4.3 billion!

The areal extent of flood in Bangladesh indicates where the water generally inundates the landscape. The Figure-3 shows the average extent of a monsoon flood in Bangladesh (the shaded areas indicated). When flood water engulfs an area, not only the standing agriculture gets severely affected, thereby adversely affecting poor people’s main livelihoods, it also affects homesteads including dwelling units, water supply system (by inundating tube wells), the rural markets which are generally located in low lying areas, industries and commercial activities and disrupts, if not destroys, physical infrastructure including health care facilities.

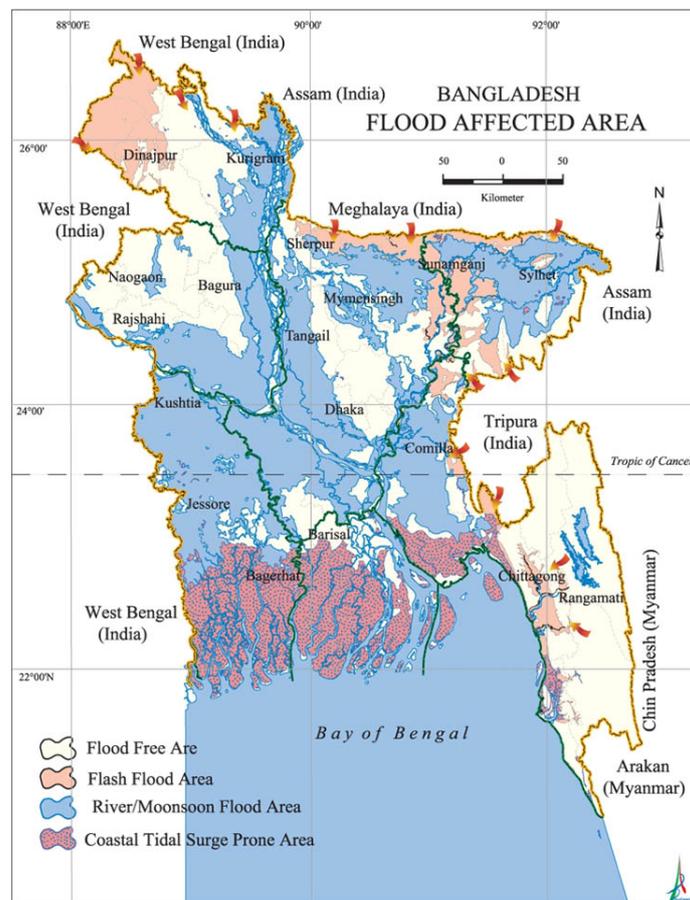


Figure-3: The flood vulnerable areas of Bangladesh

In 2017, floods have occurred three times in different parts of the country. The first one in March and April, 2017 which was severe flash flood; the second one was in July, 2017 and the third one was in August, 2017. It has affected 8 million people, causing deaths and injuries, loss of livestock and food supplies, and damage to housing and infrastructure. According to official estimates, July flood affected 1.6 million people (some 338,500 households), damaged over 100,000 houses and destroyed schools, roads, bridges and embanks. Floods in August 2017 affected 31 out of 64 districts of the country. Floods adversely affected the livelihoods of about 6.8 million people and caused significant damage to housing and infrastructure. Floods caused loss of 1.1 million cows and buffalos; 270,000 goats and sheep and 3.2 million ducks and hens and 220,000 tons of fish. But the final estimates may be increased more. Again in July-August 2019, a major flood takes place in Bangladesh, particularly in the northern districts including the target districts under this project, where large scale social and economic damage occurred involving the affected population.

The above-mentioned future climate risks in terms of increased occurrence of high intensity floods will have severe implications on household welfare across the floodplains. For both climate variability and climate change, around 80% of total losses fall directly on household consumption (cumulative total consumption losses of US\$441.7 billion and US\$104.7 billion for climate variability and climate change respectively). Per capita consumption will fall for both farm and nonfarm households. It is argued that, women in the affected villages are the primary victims of indigenous coping strategies being employed during floods: they suffer from malnutrition as a result of drastically reducing their food intake when the opportunity for selling labour of the dominant male in the household is decreased during a high flood (Etzold et al., 2014¹⁷; Ahmed et al., 2012¹⁸). This is more prevalent in greater Rangpur region (particularly in Kurigram, Nilphamari and Gaibandha districts – all of these are project target areas), where the extent of poverty is still very high. Kurigram is a case in itself. It is argued that, the District is criss-crossed by at least 16 rivers and is very highly susceptible to flood, which is why the region faced acute poverty (Ahmed et al., 2012).

25. It is clear from the above analysis that homestead and livelihood sectors of the poor community i.e. agriculture, livestock, water and sanitation etc. are the most vulnerable sectors to climate change and associated extreme events. In the flood prone char areas, the poor people build their houses in low-lying areas which are regularly inundated by floods. During floods, they leave their houses and take shelter on nearby roads or embankments or any flood shelter. This lead to lose their household resources including livestock and poultry, make them sick leading increased treatment cost, insecure women particularly adolescent girls etc. The poor and marginalized community living in these climate hotspot areas generally depends on agriculture including crops, livestock, poultry, fisheries etc. which are highly sensitive to climate change and related extreme events as stated above.
26. The above analyses clearly suggest why the recently exacerbated floods are linked with climate variability and change and why it is urgently needed to address the vulnerabilities of rural poor people affected by floods.

¹⁷ Etzold, B., Ahmed A.U., Hassan, S.R., & Neelormi, S., 2014. Clouds gather in the sky, but no rain falls. Vulnerability to rainfall variability and food insecurity in Northern Bangladesh and its effects on migration. *Climate and Development*, 6(1), 18-27.

¹⁸ Ahmed, A.U., Etzold, B., Hassan, S.R. and Neelormi, S., 2012. Rainfall, Food Security and Human Mobility: Case Study Bangladesh, CARE International and United Nations University, Bonn.

Economic loss of the targeted households without the project

27. The economic loss of the targeted beneficiaries without the project is significant particularly for the poor and vulnerable community. The flood affected community faces multidimensional loss during flood. A household living in riverine char areas of the selected districts would cost BDT. 50,000-60,000 annually, if affected by flood (estimated in consultation with flood affected people). This cost includes house repair, crop and vegetable damage, loss of livestock resources, loss of income, transport cost for going to and returning from shelter, diseases etc. This cost would be double if the household is affected twice in a year.
28. **Incremental cost:** Most of the activities are designed considering present and future impacts of climate change in targeted areas. Without climate change, the project would not propose homestead plinth raise, slatted houses for goat/sheep rearing, tube wells and sanitary latrines on raised plinths, flood resilient crop production etc. So, the total estimated cost as grant from GCF is considered as the incremental cost. So, the total incremental cost of the project will be US\$9.68 million.
29. **Situation with and without project:** With implementation of the project, homesteads of the selected households will **not** be inundated by flood water. They will continue their daily necessary works as usual. They will be able to produce fruits and vegetables on the raised plinths. They will also be able to protect their livestock and other household resources during flood which they cannot do now. They will have access to safe drinking water and sanitary toilets facilities through the year including flood season. This will reduce the medical cost for the water borne diseases and lack of maintenance of hygiene. They will cultivate flood tolerant rice variety and harvest good crop which will enhance their resilience in terms of food availability as well as cash income. They will build strong houses on the raised plinths which will reduce their recurrent reconstruction cost. Most importantly, they will learn how to tackle climate change and related disasters by their own which they are not capable to do now. The project will also facilitate other flood affected people to take shelter on the raised plinths during flood with their livestock and household resources. Without the project, the targeted beneficiaries had to suffer from flood almost every alternative year. They had to repair their house every year. They could not grow fruits and vegetables in their homestead areas. They had to take shelter on the embankment or flood shelter during flood. They had to sell their livestock resources at very low price due to lack of rearing place. Most importantly, women and adolescent girls would have at high risk of sexual harassment. Without the project, there were least change of getting crops each year. Thus this community would be pushed intense poverty as they are now.

Barrier and challenges

30. The project identified three types of barrier and challenges to be overcome by implementing its components. These are- Institutional barrier, social barrier and financial barriers.
31. **Institutional barriers:** At the local or community level, there is no specialized institutions to address climate change issues. Local government institutions mainly deal with regular development activities. Besides, the MFIs and other development NGOs are specialized in implementing regular development projects and credit programmes. But climate change adaptation projects are comparatively new and critical in terms of addressing additionality of climate change. This project will enhance capacity of the selected existing MFIs (potential IEs) through facilitating specialized staff recruitment and training. In addition, Climate Change Adaptation Groups (CCAGs) will be formed at community level. These CCAGs will be trained on climate change issues by facilitating both class room and on-the-job training. At PKSf level, PKSf as Executing Entity will establish Project Management Unit (PMU) where specialized staffs will be recruited.

Social barriers:

32. *Lack of awareness on climate change:* The key barrier in implementing climate change project is the people's perception. The affected people are well aware about the disaster but they very often think about

climate change. They lack in understanding present and future impacts of climate change. Presently they are highly reactive to any shocks but could not address long term climate change impacts. The project will create awareness among the selected community in monthly group meetings of the CCAGs on climate change issues. The issues of climate change will be repeatedly discussed in the groups so that they understand well and to address it properly.

33. *Lack of equal opportunity for men and women to participate climate change adaptation project:* The society of Bangladesh is primarily dominated by male members. This social characteristic restricts women in participating projects and programmes particularly in the rural areas. The project will select mostly the women members of the society to increase their participation particularly in the climate change adaptation project and its activities.
34. *Seasonal migration:* Many of the flood affected people migrate to nearby or distant cities and urban areas for work because, they do not have work due to climate change induced floods in their locality. The women and children in their houses suffer from food inundation and to get daily necessary commodities.
35. *Poor and vulnerable community:* The project will select poor and ultra-poor people in the flood vulnerable areas. These people live in low-lying riverine char areas which are highly sensitive to flood.
36. **Financial barrier:** Finance is a challenge both at central level and community level, particularly for addressing climate change issues. General Economics Division (GED) of Bangladesh estimated that implementation of SDG will require additional USD 928.48 billion from FY 2017 to FY 2030 which is already a burden for a country like Bangladesh. In addition, the World Bank estimated that inland monsoon flooding the cost will be \$26.71 billion and the annual recurrent cost will be \$54 million up to 2030. It was also estimated that Bangladesh will need to invest \$44 billion from 2015 to 2030 in order to implement identified adaptation measures to address adverse impacts of climate change for tropical cyclone, monsoon flooding and climate related diseases. In addition, the selected community are mainly poor and ultra-poor and living on subsistence agriculture and wage labour. They do not have enough financial capacity to address additional threat from climate change. The GCF finance could help the government as well as the community in addressing climate change related problems in the selected community.

37. A diagram of theory of change is presented below:

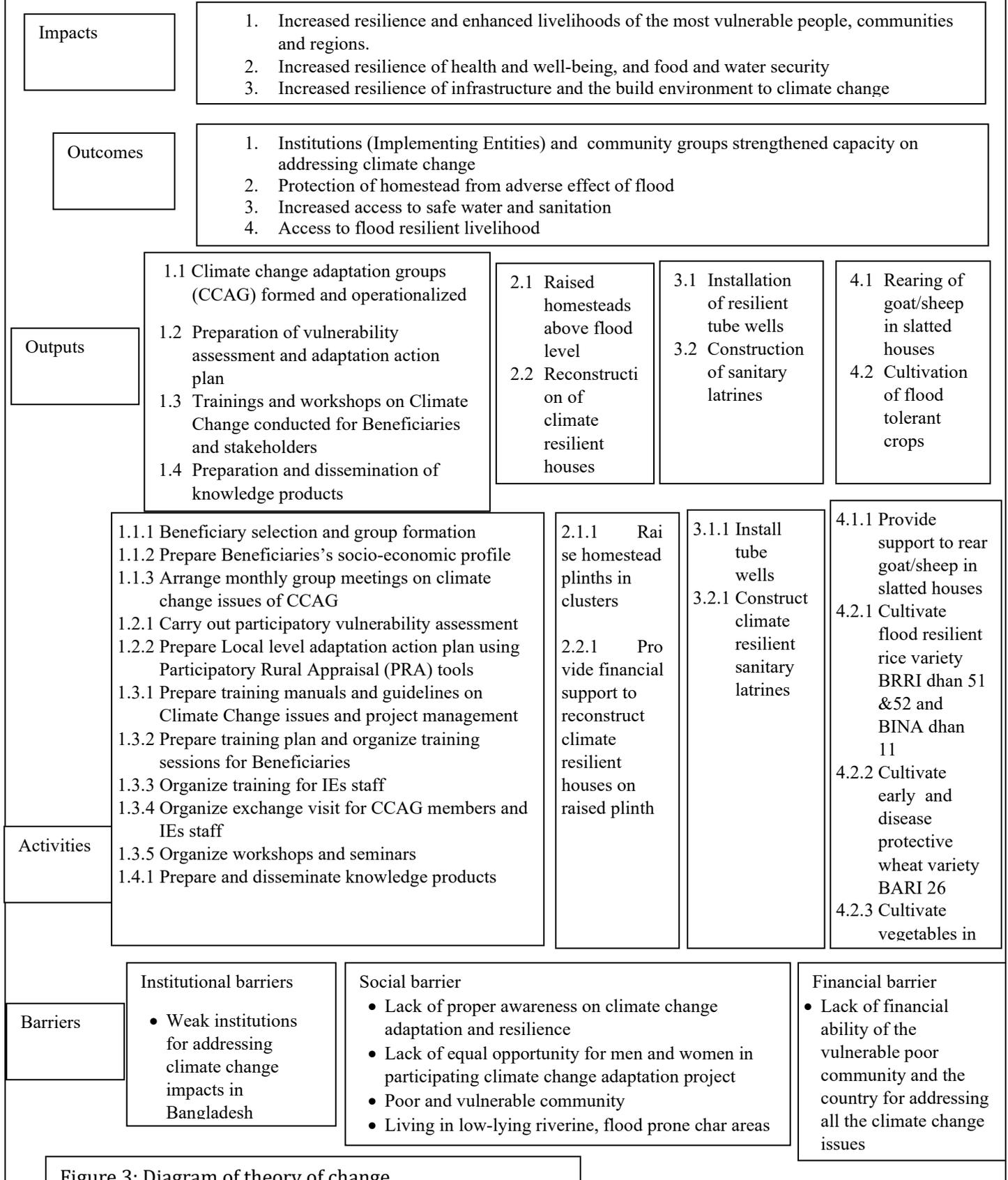


Figure 3: Diagram of theory of change

B.2. Project/programme description (max.1,000 words)

38. The main objective of the project is to increase resilience of the climate vulnerable community in flood prone areas of Bangladesh. This will be achieved through four outcomes i.e. (1) Institutions (Implementing Entities) and community groups strengthened capacity on addressing climate change, (2) Protection of homestead from adverse effect of flood, (3) Increased access to safe water and sanitation and (4) Access to flood resilient livelihood. **Under outcome 1**, the project will enhance capacity of 10 organizations (IEs) to implement climate change adaptation projects at community level. It will also increase capacity of 90,000 beneficiaries in the flood vulnerable areas on climate change vulnerabilities and impacts through class room training, meetings and group exercises. The project will produce and document lessons and share these lessons in different levels of stakeholders. The project will also generate information and knowledge on effective implementation of community based adaptation projects through GIS and result based monitoring system. **Under outcome 2**, the project will raise plinth of 45,000 vulnerable people in cluster basis with alluvial sand above flood level in the riverine char land of Brahmaputra and Teesta river. The project will also facilitate the plinth dwellers to cultivate vegetables and plant trees round the year on the raised plinth. **Under outcome 3**, the project will install 500 flood resilient shallow tube wells for safe drinking water and 2810 sanitary latrines for hygiene. Necessary awareness sessions on health and hygiene will be conducted in the monthly group meetings of CCAGs. **Under outcome 4**, the project will enhance resilience of livelihoods of 45,000 beneficiaries against flood. The project will have both grant and loan financing. GCF will provide grant support whereas PKSF will provide both loan and grant (in kind) support. This is mainly because, the project will be implemented in remote climate vulnerable areas. In many cases, the government waves loan of the vulnerable community particularly due to affected by natural disasters including flood. That means, providing loan to the vulnerable community is very risky investment and difficult to recover the loan. That's why, the project does not propose loan from GCF.

39. **Project Impacts:** The project will address three impact areas of GCF i.e. 1) increased resilience and enhanced livelihoods of the most vulnerable people, communities and regions; 2) increased resilience of health & well-being, and food and water security and 3) Increased resilience of infrastructure and the built environment to climate change.

40. Overall, the project expects that 90,000 selected beneficiaries from 5 flood vulnerable districts of Bangladesh increased their resilience through adopting proven adaptation technologies including homestead plinth raising, flood resilient crops, goat/sheep rearing in slatted house, drinking water and sanitation, and improving knowledge on climate change. They will be well aware about the impacts of climate change on their lives and livelihoods and reduced loss and damages of their resources including crop, livestock, water and sanitation sector etc. They also build climate resilient homesteads to secure their household resources and health.

Expected outcomes contributing to the impacts

Outcome 1: Institutions (Implementing Entities) and community groups strengthened capacity on addressing climate change

41. Addressing climate change impacts at the community level requires specialized institutions. Local government institutions in Bangladesh mainly deal with regular development activities. Besides, there are experienced NGOs who have strong and long term relationship with local communities due to credit programmes. These organizations would play crucial role in promoting climate change adaptation activities at community level. The proposed project will select 10 NGOs as Implementing Entities in the proposed working areas and enhanced their capacity through training and practicing adaptation activities. This will significantly contribute to achieve the objectives of the project.

42. PKSf always works with poor and vulnerable people in group based/community based approach. For climate change adaptation projects, these groups are termed as “Climate Change Adaptation Groups (CCAGs).” One representative from each selected HHs will be the members of the group. About twenty (+/-) participants together will form a group. The objective of forming this group is to deliver the support services in groups in order to minimize the delivery cost as well as to ensure participation and collective decisions of the affected community in implementing the proposed interventions. It will help transfer of knowledge on climate change issues among the society because they will discuss about climate change in a regular periodic interval typically fortnightly or monthly in groups. Thus, they will be able to internalize climate change impacts on their lives and livelihoods. The groups will receive training on climate change issues and how to deal with these problems. They will be able to identify climate change problems on their lives and livelihoods and prepare plan accordingly to reduce the impacts of climate change. They will also look after community infrastructures beyond the project period. Besides, the group approach reduce the management cost of the project. Grant finance from GCF will be used for carrying out all activities under this outcome.

Outcome 2: Protection of homesteads from adverse effect of flood

43. The homestead will be protected from flood through raising homestead plinths above flood level in cluster basis. Alluvial sand will be used to raise selected homestead plinths. The homestead plinths will be equipped with tube wells for safe drinking water and flood resilient sanitary latrines (outcome 3). The cluster dwellers will be able to cultivate vegetables round the year which they cannot do it now. They can also prepare seed bed on the raised plinths for planting crops immediate after recession of the flood water. This component/outcome will include both grant and loan. Grant from GCF will be used to raise homestead plinths and loan from PKSf will be used to reconstruct the houses.

Outcome 3: Increased access to safe water and sanitation

44. Scarcity of drinking water is occurred due to flood. Drinking water sources are inundated by flood water during monsoon season. Similarly, latrines are inundated by flood water. The proposed project will install 500 tube wells and 2810 sanitary latrines on raised plinths. Grant from GCF will be used to implement all activities under this outcome.

Outcome 4: Access to flood resilient livelihood

45. Most of the climate vulnerable poor people depend on subsistence agriculture and agriculture wage labour which are highly sensitive to climate change, variability and extreme events. Hence, the project will provide technological support and capacity training to the selected beneficiaries in promoting flood resilient technologies and practices particularly in agriculture sector. Goat/sheep rearing in slatted houses and cultivation of flood resilient crop varieties are such technologies that the project will support to the beneficiaries to increase resilience of their livelihoods. This outcome will have both grant and loan. The loan from PKSf as co-finance will be used to purchase goat/sheep and grant from GCF will be used for promoting climate resilient crop, making goat/sheep houses etc.

Description of activities contributing to the impacts by outcome

Outcome 1: Institutions (Implementing Entities) and community groups strengthened capacity on addressing climate change

Output: 1.1: Climate change adaptation groups (CCAG) formed and operationalized

Activity 1.1.1: Beneficiary selection and group formation

46. The project will select 20,000 households covering 90,000 direct beneficiaries in consultation with local government institutions and community people. For measuring the poverty, the project will use Poverty Probability Index (PPI). At this stage of selection, we will first select the 20,000 HHs based on the following selection criteria

- i. Those who are living in riverine char and low-lying flood vulnerable areas;
- ii. Priority on women headed households and other disadvantaged groups;
- iii. Poor and ultra-poor households (as defined in the Household Income and Expenditure Survey (HIES 2016) of the Bangladesh Bureau of Statistics (BBS-2017)¹⁹);
- iv. Daily income is less than USD 1.75;
- v. Those who are not receiving any support from other project or organization;

The selection will be based on order of the selection criteria up to exhaustive to select 20,000 HHs.

Selection criteria for the selection of Beneficiaries under Activity 2.2.1:

- i. Those who have raised plinth above flood level;
- ii. Women headed households and households with disadvantaged members will be given priority;
- iii. Poor and Ultra-poor Households (as defined in the Household Income and Expenditure Survey (HIES 2016) of the Bangladesh Bureau of Statistics (BBS-2017));
- iv. Those who do not have financial capacity to reconstruct their house.

The selection will be based in order of the selection criteria from amongst the targeted households in the Project Area. When the selection process reaches 10,000 households, it will be stopped.

Selection criteria for the selection of Beneficiaries under Activities 3.1.1, 3.2.1, and 4.1.1:

- i. Women headed households and other households with disadvantaged member will be given priority;
- ii. Poor and Ultra-poor Households (as defined in the Household Income and Expenditure Survey (HIES 2016) of the Bangladesh Bureau of Statistics (BBS-2017));
- iii. Those who do not have financial capacity to set up a tube well (Activity 3.1.1), sanitary latrine (Activity 3.2.1), and slatted house for goat/sheep rearing (Activity 4.1.1);
- iv. Those who have raised plinth above flood level.

The selection will be based in order of the selection criteria from amongst the targeted households in the Project Area. When the selection process reaches 10,000 households, it will be stopped.

Selection criteria for the selection of Beneficiaries under Activities 4.2.1, 4.2.2, and 4.2.3:

- i. Having cultivable land at least 0.20 hectare;
- ii. Women headed households and households with disadvantaged members will be given priority;
- iii. Have the ability to run/manage crop cultivation;
- iv. Poor and Ultra-poor households (as defined in the Household Income and Expenditure Survey (HIES 2016) of the Bangladesh Bureau of Statistics (BBS-2017)).

¹⁹ This document defined extreme poor as the person having purchasing power parity (PPP) below 1.25 USD a day and PPP below 1.90 a day is called poor.

The selection will be based in order of the selection criteria from amongst the targeted households in the Project Area. When the selection process reaches 10,000 households, it will be stopped.

47. The project will form 1000 groups having 20 (+/-) persons in each group for delivery support. These groups are named as Climate Change Adaptation Groups (CCAGs). One beneficiary from each household will represent in the CCAGs. So, 20,000 beneficiaries from 20,000 selected household will form 1,000 CCAGs. Each group will meet at least once in a month and discuss about climate change and its impacts on their lives and livelihoods. They will adopt and practice climate adaptive technologies that will be promoted by the project. The objective of forming this group is to deliver the support services in groups in order to minimize the delivery cost as well as to ensure participation and collective decisions of the affected community in implementing the proposed interventions. It will help transfer of knowledge on climate change issues among the society because they will discuss about climate change in a regular periodic interval typically monthly in groups. Thus, they will be able to internalize climate change impacts on their lives and livelihoods. The groups will receive training on climate change issues and how to deal with these problems. They will be able to identify climate change problems on their lives and livelihoods and prepare plan accordingly to reduce the impacts of climate change in future. They will also look after community infrastructures beyond the project period. Besides, the group approach reduce the management cost of the project. The IEs' project staffs will conduct necessary consultation at local level and select potential beneficiaries. The PMU of EE will oversee the process of beneficiary selection and group formation. Grant finance from GCF will be used to carry out this activities.
48. About 80% of the CCAG members will be women i.e. 16000 of the direct beneficiaires will be women. 10% of these 16000 women beneficiaries i.e. 1600 will be women headed (national average of women headed household in Bangladesh is around 12%). Because empowerment of women is the key to sustainable development in the country. Nepoleon Bonaparte stated that "Give me an educated mother, I will give you an educated nation." The project adopted this approach. The women will be educated on climate change issues in their localities because mother is the best teacher of a child. The children will learn about climate change from their mother. This will have long term impacts in the society. The new generation will grow in a climate resilient environment. The CCAGs will include mostly female members because enhancing capacity of a women on climate change issues means enhanced capacity of the whole households. Women head will be given prority while forming the CCAGs. The activities are designed in a way that the women will be mostly benefited economically and socially. Besides, necessary female staffs will be ensured at the field level so that women members can easily express their opinions and actively take part in the project activities.
49. The female headed households and other disadvantaged groups will receive priority while selecting the beneficiaries. As per experience of CCCP, there will be female headed households. The consultation meetings during beneficiary selection will identify the female headed households. Level of vulnerability is the main distinction between a women in married households and a female heads of the households. The female heads are more vulnerable because their income source is very limited, they cannot go outside of their locality, women's labour rate is also low. These limitations makes them more vulnerable th the women in married households.

Activity 1.1.2 Prepare Beneficiaries' socio-economic profile

50. Detailed socio-economic profile of the selected households will be prepared before providing any support. The purpose of the profile is to keep the record of existing situation with project intervention. This information will be used to compare short term progress achieved by project interventions. The IEs' project

staffs will carry out the socio-economic profile. The PMU at EE level will provide necessary technical support including developing tools and guidelines. This activity will use grant finance from GCF proceed.

Activity 1.1.3 Arrange monthly group meetings on climate change issues of CCAG

51. The IEs will have field level staffs to directly coordinate with the beneficiaries. S/he will assist the groups in organizing meetings, discussion on climate change and other environment and health issues. The meeting notes will be preserved in a register book. The groups will take necessary decisions in addressing climate change impacts by the project interventions. They will decide who will get what types of support from the project, based on their needs. Thus, community level informal institutions will be shaped and carry forward by these group members. PKSf will co-finance this activity as in kind grant.
52. The experience of CCCP shows that the CCAGs are functional where they are engaged in financial services. Most importantly, the CCAG members are continuing most the activities as they are getting benefits from it. This project plans to engage the CCAG members in financial services (credit, savings, enterprise loan etc.) by the partner organizations of PKSf beyond the project period. This will ensure the sustainability of the CCAGs.

Output 1.2: Preparation of vulnerability assessment and adaptation action plan

Activity 1.2.1 Carry out participatory vulnerability assessment

53. Though the project has identified activities in consultation with vulnerable communities, but a systematic participatory vulnerability assessment (PVA) will be carried out in each community for long term planning in adaptation sector. This will be done as part of capacity building training to the vulnerable community to address future climate change impacts and vulnerabilities by themselves. 1,000 groups will carry out this exercise in their respective communities. The IE's staffs with technical support from PMU will develop necessary tools. The field level staffs of selected IEs will be provided training on PVA so that they can facilitate the CCAGs to carry out this exercise. This will increase understanding of the vulnerable community about climate change impacts on their lives and livelihood. Through this process, the selected community will internalize the perception on climate change so that they are able to address it in the long run. The whole assessment will focus on gender and climate change issues in the selected communities. PKSf will co-finance this activity as in kind grant.

Activity 1.2.2 Prepare Local level adaptation action plan using Participatory Rural Appraisal (PRA) tools

54. This activity will depend on completion of activity 1.3.1. The PMU will guide IEs' staffs in developing adaptation plan matrix (APM). The respective field staffs will discuss this matrix with the CCAGs and facilitate to identify necessary actions to address climate change in their locality. 1,000 CCAGs will prepare 1,000 adaptation action plan for their own locality. This will enhance their knowledge and understanding on adaptation activities for their own and help reducing loss and damage to their resources and productions. Thus, this activity will contribute to enhance their resilience to climate change. PKSf will co-finance this activity as in kind grant.

Output 1.3: Trainings and workshops on Climate Change conducted for Beneficiaries and stakeholders

Activity 1.3.1. Prepare training manuals and guidelines on climate change issues and project management

55. The PMU of EE will prepare a training manual to deliver TOT to the IEs' staffs on climate change issues and project management. Approximately 50 staffs from 10 selected IEs will receive this TOT. This will significantly contribute in strengthening institutions in addressing climate change issues at community level.

Besides, another training manual on climate change will be prepared for providing training to the CCAG members. PMU will prepare the training manual and IE staffs will deliver the training. The project will also prepare necessary guidelines including activity implementation guideline, monitoring and evaluation guideline, environmental and social management guideline, procurement guideline, accounting and financial manual etc. This activity will use grant finance from GCF.

Activity 1.3.2. Prepare training plan and organize training session for Beneficiaries

56. Each selected IE will prepare a training plan to deliver training to the selected CCAG members. This training plan will require approval from the PMU. PMU staffs will closely monitor the training sessions as per plan. Grant finance from GCF will be used to carry out this activity along with activity 1.1.3, 1.2.1 and 1.2.2.

Activity 1.3.3 Organize training for IEs' staff

57. PMU will organize and deliver the training sessions. About 50 staffs will receive this training in 2 batches (number of training will be around 10). This will enhance capacity of the newly recruited IEs' staffs. They will learn about climate change and adaptation as well as management of adaptation project. They will contribute to the organizations in practicing climate change related activities within the organization. This activity will use grant finance from GCF.

Activity 1.3.4 Organize exchange visit for CCAG members and IEs' staff

58. The project will organize 6 exchange visit by inter-community in the vulnerable areas. They will learn from each other and encouraged to adopt climate resilient technologies and practices. It is a type of in country training and sharing of knowledge/technology for the beneficiaries and IE's staffs. It will be conducted in the project areas or in other areas of the country under implementation of same kind of activity areas). This type of visit will be helpful for the smooth and successful implementation of project.

Activity 1.3.5 Organize workshops and seminars

59. The project will organize 20 workshops at national and local level. The workshop will include project inception, project closing, quarterly progress review workshops, annual learning sharing workshop, training workshops etc. In addition to NDA, representatives from other government agencies including, Ministry of Agriculture (MOA), Department of Agriculture Extension (DAE), Ministry of Environment, Forests and Climate Change (MOEFCC), Department of Environment (DOE), Bangladesh Climate Change Trust (BCCT), Ministry of Water Resources (MOWR), Water Resources Planning Organizations (WARPO), Bangladesh Water Development Board (BWDB), Flood Forecasting and Early Warning Centre (FFWC), Local Government Engineering Department (LGED), Ministry of Women and Children Affairs (MOWCA), Bangladesh Rice Research Institute (BRRI), Bangladesh Agriculture Research Institute (BARI), Bangladesh Institute of Nuclear Agriculture (BINA), Bangladesh Agriculture Development Corporation (BADDC), Department of Public Health Engineering (DPHE), Department of Livestock, Department of Disaster Management etc. will be invited to attend the workshop. Besides, AE representatives, IE staffs and PMU staffs will be invited in these workshops. PMU will organize all these workshops. All the workshops and seminars will be organized with grant finance from GCF.
60. The project will identify best practices and lessons through out the project period. These best practices and lessons will be shared in these workshops. The government representatives will learn and be sensitized about the best practices and lessons of the project. This will help the relevant stakeholders incorporating

these lessons in their development works. They will also apply the technical know-how of the ECCCP-Flood in the existing and future projects.

Output 1.4 Preparation and dissemination of knowledge products

Activity 1.4.1: Prepare and disseminate knowledge products

61. The PMU will develop and publish quarterly newsletter on project progress and learning. This newsletter will be circulated in different stakeholders including GCF, Bangladesh NDA and other government organizations. Published newsletter will also be uploaded in PKSf's website. Grant finance from GCF will be used to carry out this activity.
62. The project will carry out lessons that have been learnt throughout the project period. Program Officer (Capacity building and knowledge management) of PMU will carry out the lessons and develop a booklet for publication. The knowledge documents will be distributed among the relevant government agencies (as mentioned above), international and national NGOs including partner organizations of PKSf. They will use the information from the knowledge documents in designing their future projects, management of adaptation projects and measuring short and long term impacts of adaptation project. They will consider effectiveness of raised plinths, slatted houses, flood resilient water and sanitation system as well as resilient agriculture and livelihood to be documented in the knowledge documents. This will also contribute to strengthening institutions at national and local level in designing and implementing adaptation project in the country. This activity will use grant finance from GCF.

Outcome 2: Protection of homestead from adverse effect of flood

Output 2.1: Raised homesteads above flood level

Activity 2.1.1: Raise homestead plinths in clusters

63. Climate-vulnerable people mostly live in low-lying areas. As a result, their houses easily get damaged by floods water. During flood, these people have to take shelter on roads and embankments. The baseline survey conducted by the CCCP found that 92% of the households needed elevated homestead plinths to become resilient to flood. Primarily driven by increased monsoon precipitation in the GBM basin, models on average demonstrate increased future flows in the three major rivers into Bangladesh (as much as 20%). Larger changes are anticipated by 2050 compared to 2030. The exact magnitude is dependent on the month. Given that most GCMs predict both an increasing trend of monsoon rainfall and greater inflows into Bangladesh, it follows that the flooding intensity will worsen. On average, models demonstrate that the flooded area increases in the future (over 10% by 2050). This is primarily in the central part of the country at the confluence of the Ganges and Brahmaputra rivers and in the south. Flood area estimates separate from the background variation primarily in August and September at the height of the monsoon.
64. The proposed project will raise homestead plinths of 45,000 beneficiaries above flood level in Brahmaputra and Teesta river char lands of the selected 5 northern districts. The women headed households and disadvantaged people will be given priority for raising plinths. The Brahmaputra is a mighty trans-boundary river which flows through China, India and Bangladesh. Bangladesh is located at the lowest part of the river. It is the 9th largest river by discharge and 15th by longest in the world. It is 8-12.9 km wide from bank to bank. It has a number of branch rivers like Teesta, Jamuna etc. The mean peak discharge of Brahmaputra is 67,200 m³. Brahmaputra River in Bangladesh transport 721 million tons of sediment each year (Mohammad Rezwanul Islam et al., 1999 in the article on 'The Ganges and Brahmaputra Rivers in Bangladesh: Basin denudation and sedimentation'). The plinths will be raised with these alluvial sand. On an average, roughly

6,000 cft. (cubic feet) alluvial sand may be required for a household. A cluster based approach will be adopted for raising plinths which was successfully implemented in recently concluded Community Climate Change Project (CCCP). The height of the plinths will depend on the local situation and be determined in consultation with the local community. Past highest flood level will be determined in consultation with the community people and 1 ft. will be added considering future uncertainty. The project will consider a hundred year flood height for raising homestead plinths. The beneficiaries will be encouraged to cultivate vegetables on the raised plinths round the year which they do not do now. This activity will be implemented in flood prone char areas of Nilphamari, Lalmonirhat, Kurigram, Gaibandha and Jamalpur districts. This activity will use grant finance from GCF.

65. Women in the flood vulnerable areas perceive that they are the most benefited groups among the flood affected communities due to raising homestead plinths. They think that they have to cook food for their family members. If the homestead inundates, they have to struggle for cooking food and collecting drinking water. The women think that male member of the household usually works outside. At home, they have to look after children, elderly, poultry and livestock resources and so on. If their homestead inundates, they have to move to embankment or flood shelters with all these belongings which intensify their sufferings in manifold.
66. Raising homestead plinths with tube-wells and sanitary latrines significantly reduces their sufferings. Some women think that they have to face sexual harassment during staying in flood shelter or embankment during flood. But if they can stay at their house, the probability of such harassment would be almost zero. Women's perception on slatted house for goat/sheep is positive. They think that this will increase their household income through protecting their goat/sheep from flood risk. This will help them in playing role in decision-making for their households.

Output 2.2: Reconstruction of climate resilient houses

Activity 2.2.1: Provide financial support to reconstruct climate resilient houses on raised plinth

67. It was a learning from the CCCP that after raising plinths, it requires reconstruction of houses on the raised plinths. The reconstruction works require financial support to make it climate resilient. PKSf will provide financial support as credit to reconstruct the climate resilient house of the selected beneficiaries. It is to be noted that it is the part of the earlier activity. Considering the future climate variability and extremes, the houses will be reconstructed on raised plinths with enough strong to resist nor 'wester. This activity not only considers the flood risks but also other climate related extremes like Nor 'wester, strong wind etc. Hence, the project will support to reconstruct storm resilient houses on the raised plinths using storm resilient materials like RCC pillars, iron angles, corrugated tin etc. will be used in re-constructing the houses. This activity will use loan from PKSf.

Outcome 3: Increased access to safe water and sanitation

Output 3.1: Installation of flood resilient tube wells

Activity 3.1.1 Install tube wells

68. The flood affected community severely affected by scarcity of safe drinking water due to inundation of drinking water sources including tube well. As the frequency and intensity of flood increasing and future flooding areas would be increased (described in section B1), the sufferings of the people from safe the scarcity of safe drinking water would be enormous. The problem was identified during implementation of CCCP and addressed by installing tube wells on raised plinths.

69. The final evaluation of earlier CCCP found that about 70% of the beneficiaries had been supported through tube-well facilities. Installation of tube-wells has increased access to safe drinking. It saved their time and distance required for collecting drinking water. This has become further effective as tube wells were provided following cluster based approach where at least 4 to 10 families are using and maintaining a tube-well. All the tube-wells have been installed above maximum flood level in flood prone areas. Installation of tube-wells also considered utilization of used water from the storage tank in the vegetable garden. The project will install 500 tube wells in the selected five districts which include Nilphamari, Lalmonirhat, Kurigram, Gaibandha and Jamalpur. This 500 tube wells will cover approximately 2500 households covering a total population of 11,250 beneficiaries. Women heads and disadvantaged groups will get preference while selecting the beneficiaries. The IE staffs will consult with the communities about site selection for tube wells installation. They will receive necessary technical advice from local offices of the Department of Public Health and Engineering (DPHE).
They will follow appropriate procurement method as per procurement guideline to be developed by EE. This activity will be implemented with grant finance from GCF.
70. Tube well is treated as social resource in the country. Women are comfortable using tube wells in groups. Regular maintenance of tube wells are very easy and least cost task. There are male members in the community can repair the tube wells. But if the problem is something big, the male members hire mason from nearby union or upazila headquarters. Maintenance of tube wells requires small amount which is affordable to the communities.

Output 3.2: Construction of sanitary latrines

Activity 3.2.1 Construct climate resilient sanitary latrines

71. Like tube well, sanitary latrines are also highly vulnerable to floods. The latrines are flooded and surroundings are contaminated with stool and other human wastes. This quickly spread over diseases in the affected community. The future vulnerabilities would be more severe due to increased frequency, intensity and areas of floods in Bangladesh. The project will provide 2,810 climate resilient sanitary latrines in the selected flood risks districts. This will directly benefit 2,810 HHs covering 12,645 direct beneficiaries. Women heads and disadvantaged groups will get preference while selecting the beneficiaries for latrines. These latrines are resilient to floods because these will be installed on the raised plinths. Water supply system will be ensured for maintaining hygiene which is not the current practiced in rural Bangladesh particularly in the remote char areas. The latrine was designed and demonstrated under CCCP which created huge demand of climate resilient hygiene latrines at the community level. Necessary hygiene sessions will be conducted in monthly group meetings. Individual household will be the owner of the latrine.
Number of sanitary latrines
72. The CCCP successfully promoted good practices for health and hygiene among the beneficiaries. Only 9% households had access to sanitary latrines at the beginning of the Project. Due to CCCP interventions, access to sanitary latrine has been risen to 51% in the intervention areas. The project provided about 6,615 sanitary latrines currently used by around 21 thousand families, and 31 community latrines used by around 3,000 people. Latrines are well maintained by the users. The final evaluation of CCCP has rated the activity highly effective. The evaluation found that the latrine model is unique as it is women, aged and child friendly 2nd generation latrine. The IE will have technical officer for implementing this activity. This activity will be implemented with grant finance from GCF.

Outcome 4: Access to flood resilient livelihood

Output 4.1: Provide support to rearing of goat/sheep in slatted houses

Activity 4.1.1 Provide support to rear goat/sheep in slatted houses

73. Goat and sheep rearing is traditional livelihood activities for rural communities in Bangladesh. But traditional system of goat and sheep rearing is sensitive to floods, heat waves and cold waves. The goat is easily affected by different disease during rainy season due to living on wet floor, cold injury during winter and heat stress during hot period. Growth and reproduction of goat/sheep hampered by the above circumstances. As a results total production has reduced. But only slatted housing systems of goat and sheep can overcome these adverse situation.
74. Flood has become more localized and frequent which increases the vulnerability of goat and sheep. The CCCP has demonstrated improved technology and management to reduce these vulnerabilities. It was found in CCCP that goat and sheep rearing in slatted house reduces vulnerabilities of the animal and their impacts derived from flood leading increased productivity. The proposed project will promote slatted houses to protect goat and sheep from frequent floods and associated impacts. It will support the crop loss due to climate change related events. 10,000 women will be selected and trained for rearing goat and sheep in slatted houses. Women headed households and other disadvantaged groups will get preference while selecting beneficiaries for goat/sheep rearing. The total household members of the selected 10,000 women i.e. 45,000 are direct beneficiaries.
75. Training provided under the CCCP has further strengthened knowledge base together with good management practices. It was observed that incidence of different goat diseases (e.g. PPR, Goat Pox, Pneumonia etc.) reduced from 20% to 6.5% in the CCCP working area. As the goat/sheep population became healthier and more productive, the number of goat population increased by over 50%. Goat rearing has become a popular livelihood activity. One very important lesson here is that technological support is more effective and sustainable than only financial support. Another feature is that sheep are more resistant to climate change than goat. Hence, priority will be given on sheep rearing particularly in the char areas. This activity will be implemented in Nilphamari, Lalmonirhat, Kurigram, Gaibandha and Jamalpur districts. The IE staffs in consultation with the community people will implement the activity. PMU will guide and oversee the activity.
76. Both grant and loan financing will be use to implement this activity. Grant will be shouted from GCF for making slatted houses and training to the beneficiaries and loan from PKSF will be used for purchasing goat/sheep. This is a micro credit activity. The targeted beneficiaries including women are capable to repay the loan. As per loan policy of PKSF, poor and ultra-poor beneficiaries enjoy a 6 months grace period. The installment is also monthly basis. So, this loan is affordable to every beneficiaries as it is practical for them to repay. This loan will have different impacts on women in married households and women headed household. Because, women in married household may receive support from their husband to repay the loan but women heads will note have this type of support. Though impact is different, women heads will not face much challenge because they will repay the loan from earning from goat/sheep and from other income sources.

Output 4.2: Cultivation of flood tolerant crops

Activity 4.2.1 Cultivate flood resilient rice variety BRRI dhan 51 & 52 and BINA dhan 11

77. Climate change primarily affect the crop sector. Table 1 and 2 of section 1 has shown the impacts of climate change and related shocks on crop production. Elevated CO2 concentrations can have a significant positive

effect on yields for all crops and locations. Considering only temperature, precipitation, and CO₂ changes, *aus* and *aman* median production increases by 2% and 4% by 2030 and 2050 respectively. Wheat also increases reaching a maximum of 4% by 2050. These distributions range approximately +/- 2%. **Boro** (winter) rice production declines under climate change scenarios, around 8% by 2080. These changes are conservative as it is assumed that farmers have limitless access to irrigation. Mean shifts in floods are estimated to reduce production of *aus*(summer rice) and *aman*(rain fed) rice between 1% and 4%. The narrow model distribution of flood impacts projected by different GCMs suggest a robust change, although changes are small in comparison to year-to-year variability.

78. Considering all climate impacts, the median of all rice crop projections show declining national production, with *boro* showing the largest median losses. However, for *aus* (-1.5%) and *aman* (-0.6%), the range of model experiments covers both positive gains and losses and do not separate convincingly from zero. Most GCM projections estimate a decline in ***boro***(winter rice) production with a median loss of 3% by 2030 and 5% by 2050. Wheat production increases out to the 2050s (+3%). In each sub-region, production losses are estimated for at least one crop.

6,000 farmers representing a total of 27,000 beneficiaries will cultivate flood-resilient rice varieties BRRRI dhan 51 & 52 and BINA dhan 11. These varieties can survive 15 days in water in submerged condition. Flood water in the selected areas usually recedes by 15 days unless it is an extraordinary flood. The IE staffs in consultation with CCAG members will select the farmers for cultivating these varieties. 50% of the farmers i.e. 3000 will be female of which 300 will be female heads. As one of the key responsibilities of women is to prepare food for the household, they have to suffer to manage food if there is a crop failure due to climate change related disaster like flood. In Bangladesh, women usually do not work in the crop field. Male members of the household or hired agriculture labour work in the crop field. Women take part in the pre-cultivation (seed storage etc.) and post-harvest period. In absence of male members, women can hire agriculture wage labour for crop cultivation and management.

The PMU staffs will provide technical guidance to the IE staffs. They will monitor the activity to ensure effective implementation. The activity will be implemented in selected all five districts. This activity will be implemented with grant finance from GCF.

79. The CCCP experienced that during flood in 2014, the selected varieties remained submerged for 17 days but still produced almost normal yield. However, few plots were damaged due to excessive sand deposition. In 2014 and 2015, the sub-project demonstrated 150 plots of flood-tolerant rice varieties -- BINA-11, BRRRI dhan 51 and BRRRI dhan 52. Among them, 10 plots had BINA 11, 83 plots had BRRRI dhan 51 and 57 plots had BRRRI Dhan 52. All the plots, except 2 plots of BRRRI dhan 51, were affected by the flood. The crops on 67 plots (BINA 11 on 6, BRRRI dhan51 on 38 and BRRRI Dhan52 on 23 plots) survived. The survival rate of BINA-11 was 60.00%, BRRRI Dhan-51 46.91% and BRRRI Dhan 52 40.35%. The production rate of BINA 11 was 6.113 MT/ha, BRRRI Dhan 51 2.788 MT/ha and BRRRI Dhan 52 2.933 MT/ha. It is to be noted that the main reason of damaging the other plots is extensive sand deposition on the plots, it is not the flood water

Activity 4.2.2 Cultivate early and disease protective wheat variety BARI 26

80. The higher temperatures and changing rainfall patterns coupled with increased **flooding**, rising salinity in the coastal belt, droughts in the northwest and southwest, and drainage congestions are likely to reduce crop yields and crop production (MoEF, 2009). Decision Support System for Agro Technology Transfer

(DSSAT) model result shows that yield reduction will vary by types of crops and their growing season. IPCC estimates that, by 2050, rice production in Bangladesh could decline by 8 percent and **wheat by 32 percent (IPCC, 2007)**. So, potential reduction of wheat production due to climate change in Bangladesh is significant. The project will promote BARI wheat 26 which is a short duration/early and disease protective variety cultivated in *Boro* season. Due to short life cycle, this variety can escape early flood in the selected districts. Because, early flood may occur in the month of April to May due to intensive precipitation in the Himalayan as well as inside the country.

81. The IE staffs in consultation with CCAG members will select 2,000 the farmers representing 9,000 beneficiaries. Like activity 4.2.1, 50% of the beneficiaries i.e. 1000 will be women, of which 100 will be female heads. They will provide training on management of this variety, provide seeds and other technical supports including compliance of IPM. PMU of EE will provide necessary guidance and approval for implementing this activity and monitor. This activity will be implemented with grant finance from GCF.

Activity 4.2.3 Cultivate vegetables in sand bars

82. In Brahmaputra char areas, lots of land remain fallow due to sand carpeting by flood each year. These lands can be brought under cultivation. Pit system vegetable cultivation (mainly pumpkin) technique provides the opportunity to cultivate vegetables in this area. In this system, farmers dig small holes measuring about 8 cubic feet (2ft X 2ft X 2ft) with a distance of 2.5 ft in between. Then they mix minimum 10kg of cow dung with sub-soil. Thus, after preparation of the pits, they sow the pumpkin seeds in the pits. Three to four seeds are sown in one pit so that at least one plant exists. They also use vermi-compost and a little quantity of chemical fertilizer as per IPM. The farmers use sex pheromone traps to control insects. This is a proven technology and implemented under CCCP.
83. IEs field level staffs in consultation with CCAGs will select farmers to promote this technology. A total of 2,000 women farmers representing 9,000 beneficiaries will be selected of whom all are women. PMU of EE will oversee and provide necessary guidance to the IEs staffs. This activity will be implemented using grant finance from GCF.
84. Each of the outcome, output and activities are closely interlinked. The first outcome i.e. strengthening capacities of institutions and community groups on climate change issues will direct achieving other outcomes to achieve because it will increase knowledge and awareness of the local institutions and communities on how to address climate change impacts and vulnerabilities. For example, this outcome will help community people to take decision on raising their homesteads above flood level which is the second outcome i.e. The targeted beneficiary protected their homestead from adverse effect of climatic change. Unless progressing the second outcome, the third outcome will not be possible to implement because the tube well and sanitary latrines will be installed on the raised homesteads plinths. Because, the households on the raised plinths will certainly require water and sanitation facilities to live a healthy life. But more importantly, these people live on agriculture which is highly vulnerable to climate change induced floods as described in section B1. Hence, the project will promote climate resilient crop production system as well as flood resilient livestock rearing system to make their livelihoods resilient to climate change. Thus, each of the component/outcome is interlinked.

B.3. Implementation/institutional arrangements (max. 750 words)

Implementation arrangement at PKSf level

85. **Role of PKSf:**PKSF will play dual role in this project because PKSf is Accredited Entity (AE) as well as Executing Entity (EE) for the project.
86. **Role of PKSf as AE:** PKSf's governing body will approve the FAA before signing. It will also provide necessary direction and guidance to the AE for quality implementation of the project.PKSf will arrange

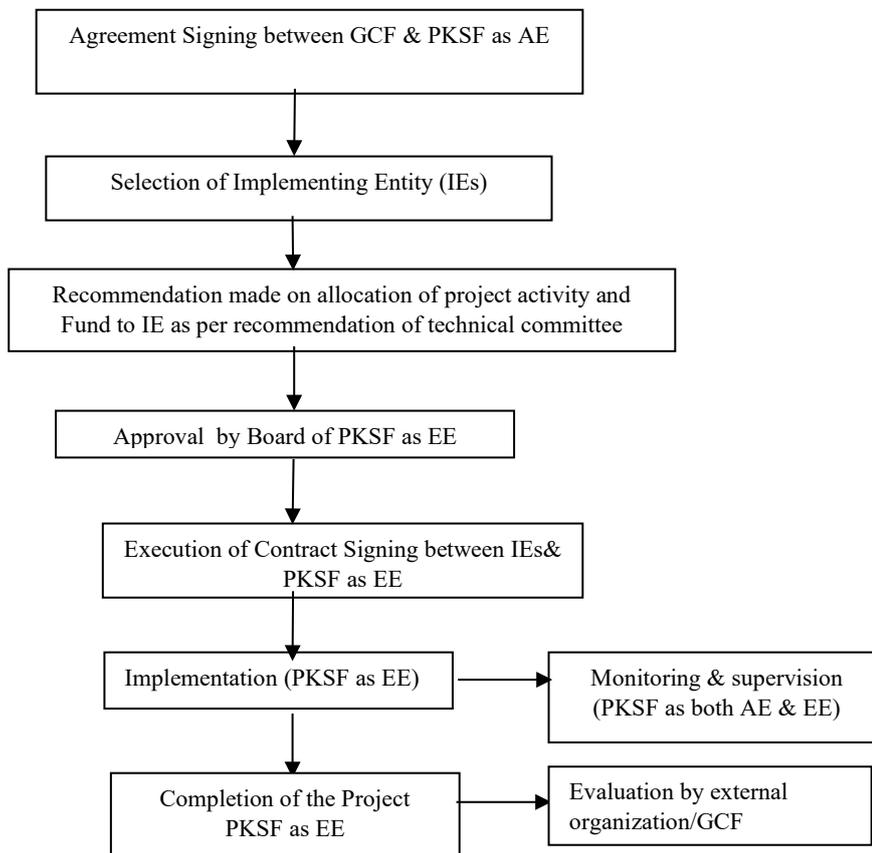
signing ceremony Funded Activity Agreement (FAA) and project launching workshops. PKSF will facilitate developing ToRs for procurement of various services including audit, PMU staff recruitment, mid-term and final evaluation etc. The AE will oversee the appraisal process for selecting the IEs. It will disburse funds to EE's project account. In addition, PKSF as AE will review progress reports, unaudited financial reports, evaluation reports etc. which will be submitted to the Secretariat of GCF. The AE will also ensure all compliances related to the project implementation including fiduciary standards, ESS, gender, tribal people etc.

87. **Role of PKSF as EE:** PKSF will establish a Project Management Unit (PMU) to manage the GCF-funded project. A Project Director/Coordinator (PD/C) will head the PMU and be in charge of the overall implementation of the GCF-funded project. He/she will directly report to a senior official of PKSF and be the Contact Person at PKSF for the GCF Secretariat and NDA. The PC will report to the GCF in a manner approved by PKSF.
88. The PMU will engage project personnel who will liaise with the selected IEs and monitor the implementation of their projects. The project personnel will be the PKSF contact points for IEs and will report to the PD/C.
89. A team of technical reviewer will be engaged in using their services when required to appraise projects. These technical experts will review the project locations.
90. The PD/C, after ensuring compliance to all fiduciary requirements, will submit the Sub-Projects (SPs) through PKSF as AE to the Governing Body for final approval. As Member Secretary of the Governing Body, the PKSF Managing Director will present the proposal.
91. PKSF as EE will monitor the implementation activities of IEs through both off-site and on-site monitoring systems. PKSF will adhere to Results-Based Monitoring (RBM) system to ensure reaching the project goals efficiently and effectively.
92. PKSF always implements its projects through its partner organizations, which it selects through PKSF's procurement policies and procedures. All these organizations are pre-qualified and enlisted through a transparent and fair technical procedure. The following four guiding principles will be applied to select the IEs:
 - (i) The project would adopt a strategic and holistic approach that targets clear climate change scenarios. Each of the demand of investment funded under the project would fit within the abovementioned scenarios;
 - (ii) Any organization receiving sub-project must demonstrate how it will contribute -- through the community-level interventions -- to advancing the skills and knowledge required to adapt to extreme climate variability and climate change. Organizations requesting funds for community-based adaptation must have an established presence in the relevant areas where the project will be implemented. The climate change programme would preferably build upon the foundation and social capital of other projects that the organization is already implementing;
 - (iii) The projects would include community leadership and local government bodies while ensuring gender sensitivity; and
 - (iv) Emphasis would be placed on transparency, information monitoring and learning to ensure sustainability of the programme and replication of those in other similar regions of Bangladesh.
 - (v) CCAGs will play significant role in ensuring transparency and accountability of the project at community level.
93. The project under implementation will be subject to monitoring both by the IEs, and PKSF as AE and PMU (PKSF as EE). The basis for monitoring is the result based framework of the project as mentioned

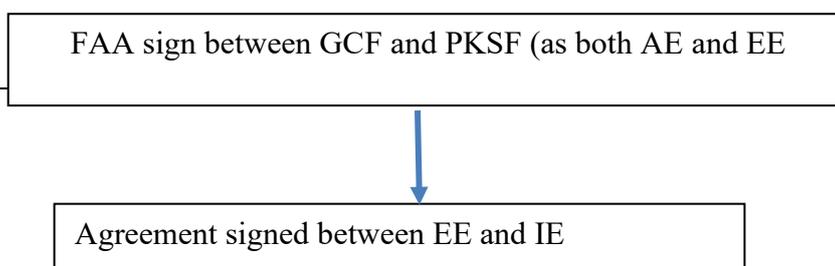
in section D. A detailed Monitoring and Evaluation Manual consistent with PKSf’s overall Results-Based Monitoring System and Results Framework will guide the monitoring practices of PKSf and IEs.

94. The monitoring process under the PMU will have three functions. First, through monitoring by PKSf and PMU will ensure accountability of the IEs to deliver the Outputs and outcomes. This implies that the resources are used efficiently for the proposed activities. Second, the monitoring will establish proper documentation of the implementation process and achievements at different levels (Output, Outcome and Impact). Third, the monitoring will help gather learning from the process. Since adaptation experiences are highly contextual, documentation of learning under different context will add to the knowledge and subsequently to the wisdom for future actions. In short, the role of accountability is significant in case of Output, whereas learning becomes a core issue for monitoring at the Outcome and Impact-level achievements.

95. The following flow chart including 7 steps characterizes the institutional arrangement of the proposed project :



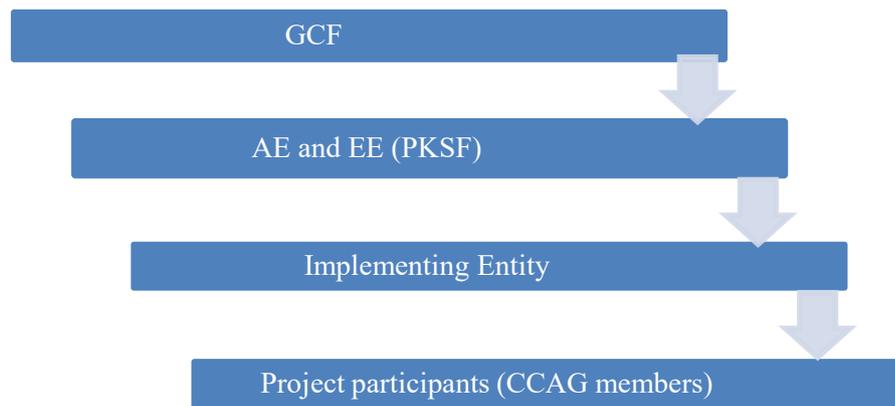
96. Contractual Arrangement for the project



97. Fund flow of the project:

For this project, PKSF is AE as well as EE. The fund will be directly disbursed to PKSF from GCF. PKSF will receive the GCF Proceeds in a special account in its name for this Project held in the Bangladesh Central Bank (“**GCF Account**”) from which the GCF Proceeds will be transferred to PKSF’s Project specific account in a commercial bank in local currency. PKSF will reimburse the fund to the implementing partners based on satisfactory performance. The implementing entities will make necessary expenditure for the beneficiaries to increase their resilience. One of the criteria for selecting the IEs is that they must have established offices in the project area. This office mainly operates credit programme financed by PKSF for output 2.2 and 4.1. The loan under the proposed project will be disbursed through **PKSF’s mainstream credit programme to the IEs** (as they are also partner organizations of PKSF). In addition, the IE will establish a project management unit at their respective offices. This PMU will operate the grant part and the credit officers will operate the loan part. This is the operational procedure of blending projects/programmes of PKSF.

98. Fund flow diagram

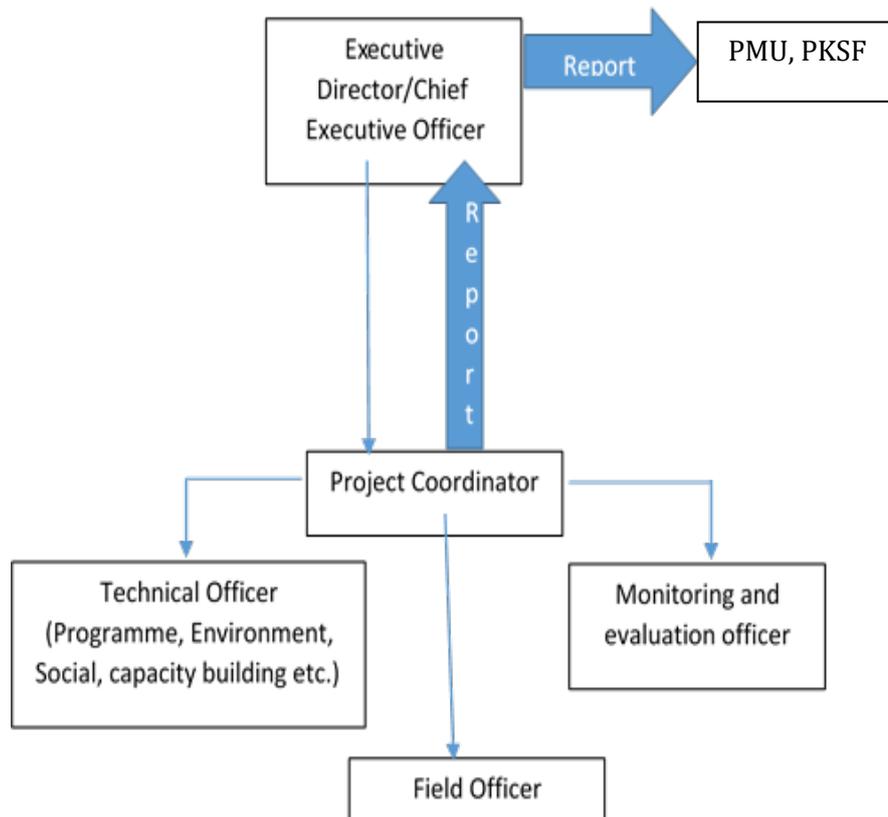


99. Implementation arrangement at IE level

The partner organizations who will qualify to implement this project at the community level are the IEs, which have been procured through PKSF’s applicable procurement policies and procedures, are further described below:

- 100. The participating entities will mainly implement the activities at the community level. They will monitor the output, outcome and impacts of the activities as well as impacts on environment and society. They will also ensure gender participation at the organization and community level. They will also report to PMU of PKSF on the progress and impacts of the project.
- 101. The IEs will employ a dedicated monitoring officer who will report to the Chief Executive or senior official, not directly entrusted with the implementation of the programme. He/she will implement the Monitoring Framework as envisaged in the project proposal and will produce quarterly activity

monitoring reports based on the Activity to Output Monitoring (ATOM) agreed upon by both parties. The Monitoring Officer will undertake the outcome-level monitoring half-yearly based on the agreed Outcome Assessment Sheet (OAS) and impact-level monitoring annually based on the agreed Impact Assessment Sheet (IAS) which will be prepared taking indicators of Impacts and Outcomes into account. He/she will post the information in the assigned fields of the PIPs and in the PKSf server online as well.



102. Selection of Implementing Entity: A procurement committee will be formed as per PKSf’s procurement policy. The committee will invite Expression of Interest (EOI) through 4 national dailies (both Bengali and English) from the potential IEs. The eligible criteria for submitting the EOI are:

- a) Permanent existence of the organizations in the project areas.
- b) At least five years of experience in implementing climate change related projects or programmes.
- c) A good track record of financial transaction (At least BDT 1 crore annually for the last three years)
- d) Must be extra ordinary, excellent or at least good as per PKSf’s assessment using defined assessment criteria which include financial efficiency, economic efficiency, operational efficiency, growth indicators, financial strength & risk management, accounting & internal control system, social performance, human capacity and governance.
- e) Valid legal documents including registration.
- f) Organizations will be ineligible on the grounds of involvement in Money Laundering and Terrorist Financing.

103. It is to be noted that PKSf has set criteria for periodic evaluation of the performance of its partner organizations. The criteria includes financial efficiency, economic efficiency, operational efficiency, growth indicators, financial strength & risk management, accounting & internal control system, social performance, human capacity and governance. Each of the criteria has several indicators to assess performance of the POs. Based on the performance criteria, the organizations are categorized as extra ordinary, excellent, good, average, and sub-standard and requires special attention (RSA). These criteria will also be considered for eligibility. PKSf will ensure completion of AML/CFT due-diligence with satisfactory results in the selection process for IEs and Service Providers.

104. The procurement committee will evaluate the submitted EOIs and prepare a short list of the potential IEs. Then the selected IEs will be invited to submit technical and financial proposal. A highly technical evaluation committee will evaluate the proposals. Quality and Cost Basis (QCBS) method will be used to evaluate the proposals. Thus, the competitive IEs will be selected.

C. FINANCING INFORMATION					
C.1. Total financing					
(a) Requested GCF funding (i + ii + iii + iv + v + vi)		9.68	million USD (\$)		
GCF Financial Instrument		Amount	Currency	Tenor	Pricing
(i)	Senior loans	Enter amount	Options	Enter years	
(ii)	Subordinated loans	Enter amount	Options	Enter years	Enter %
(iii)	Equity	Enter amount	Options		Enter % equity return
(iv)	Guarantees	Enter amount	Options		Enter %
(v)	Reimbursable grants	Enter amount	Options		
(vi)	Grants	9.68	million USD (\$)	4 years	
(b) Co-financing information		Total amount		Currency	
		3.64		million USD (\$)	

Name of institution	Financial instrument	Amount	Currency	Tenor	Pricing	Seniority
Palli Karma-Sahayak Foundation (PKSF)	Subordinated Loans	3.30	million USD (\$)	years	13.5% at flat rate	Options
Palli Karma-Sahayak Foundaton (PKSF)	<u>In kind</u>	0.34	million USD (\$)	4 years	Enter %	Options
Click here to enter text.	Options	Enter amount	Options	Enter years	Enter %	Options
Click here to enter text.	Options	Enter amount	Options	Enter years	Enter %	Options
(c) Total investment (c) = (a)+(b)	Amount		Currency			
	13.32		million USD (\$)			
(d) Co-financing ratio (d) = (b)/(a)	1:0.38					
(e) Other financing arrangements for the project/programme (max ½ page)	<p>Please explain if any of the financing parties including the AE would benefit from any type of guarantee e.g. sovereign guarantee, MIGA guarantee, etc.</p> <p>Not applicable</p>					

C.2. Financing by component

Outcome	Output	Indicative cost (USD)	GCF financing		Co-financing		
			Amount	Financial Instrument	Amount	Financial instrument	Name of institutions
Outcome 1: Institutions (Implementing Entities) and community groups strengthened capacity on addressing climate change	1.1 Climate change adaptation groups (CCAG) formed and operationalized	233,500	41,500	Grant	192,000	in Kind	PKSF
	1.2 Preparation of vulnerability assessment and adaptation action plan	20,000	0		20,000	in Kind	PKSF
	1.3 Trainings and workshops on Climate Change conducted for Beneficiaries and stakeholders	703,500	703,500	Grant			
	1.4 Preparation and dissemination of knowledge products	49,600	49,600	Grant			
	Sub-total	1,006,600	794,600	Grant	212,000		
Outcome 2: Protection of homestead from adverse effect of flood	2.1 Raised homesteads above flood level	4,194,000	4,194,000	Grant			
	2.2 Re-construction of climate resilient houses	1,500,000		Grant	1,500,000	Loan	PKSF
	Sub-total	5,694,000	4,194,000	Grant	1,500,000		

Outcome 3: Increased access to safe water and sanitation	3.1 Installation of resilient tube wells	405,600	405,600	Grant			
	3.2 Construction of sanitary latrines	1,130,000	1,130,000	Grant			
	Sub-total	1,535,600	1,535,600	Grant	0		
Outcome 4: Access to flood resilient livelihood	4.1 Rearing of goat/sheep in slatted houses	3,259,200	1,459,200	Grant	1,800,000	Loan	
	4.2 Cultivation of flood tolerant crops	1,095,040	1,095,040	Grant			
	Sub-total	4,354,240	2,554,240	Grant	1,800,000		
Total Activity Cost		12,590,440	9,078,440	Grant	3,512,000		
Contingency (Lump sum)		250,000	250,000	Grant			
Project Management Cost (PMC)		485,300	352,900	Grant	132,400	In Kind	PKSF
Grand Total		13,325,740	9,681,340	Grant	3,644,400		

105. 'Outcome 1: Institutions (Implementing Entities) and community groups strengthened capacity on addressing climate change' is an important component for the project because successful implementation of the project will mainly depend on this outcome. The estimated budget for this outcome is USD 1,006,600 which is 8% of the total project cost or 10% of GCF budget. Outcome 2, 3 and 4 are related to technology transfer. The total estimated amount for these three components is USD 11,583,840 which is 87% of the total project cost or 120% of GCF budget. In addition to grant from GCF, the technology transfer components include a loan of USD 3,300,000 from PKSF as co-finance.

C.3. Justification for GCF funding request (max. 500 words)

Rationale for GCF finance

106. Bangladesh is one of the most vulnerable countries in the world to the effects of climate change, which poses a significant risk to the economic development of the country. According to the Climate Change Vulnerability Index of 2015, Bangladesh's economy is more at risk to climate change than any other country. The economic losses due to climate change in Bangladesh is around 1 to 2 percent of GDP (currently it is around 3 billion USD (Nationally Determined Contribution of Bangladesh, 2015)). The World Bank study in 2009 suggests that climate change has broader economy-wide implications. This will cost Bangladesh US\$26 billion in total GDP over the 45-year period 2005-2050. This is equivalent to US\$570 million overall lost each year to climate change, or alternatively an average annual 1.15 percent reduction in total GDP. Average loss in agricultural GDP due to climate change is a third of the agricultural GDP losses associated with existing climate variability. Agricultural GDP will be 3.1 percent lower each year as a result of climate change (US\$7.7 billion in lost value-added). Uncertainty surrounding GCMs and emission scenarios means that costs may be as high as US\$1 billion per year over 2005-2050 under less optimistic scenarios. Moreover, these economic losses will rise in later years, thus underlining the need to address climate change related losses in the near-term.

107. The proposed project under SAP will address two impact areas of GCF i.e. A1.0 Increased resilience and enhanced livelihoods of the most vulnerable people, communities and regions and A2.0 Increased

resilience of health and well-being, and food and water security. These impacts of the project will be achieved through undertaking appropriate adaptation measures including cluster based homestead plinths, flood resilient water and sanitation system, climate resilient agriculture and flood resilient goat/sheep rearing. GCF will finance to these activities because these will particularly address the threats of climate change. For example, the normal development do not consider the future impacts of climate change, but the activities analyzed the future vulnerabilities and hence proposed interventions. The plinth raise activity will consider 1 ft. higher than 100 years flood height considering the future vulnerabilities and uncertainties which is not considered in the conventional development process. The project will promote flood resilient crop varieties because model results shows that flooding area will be increased in future (detail in section B1). Analysis also shows that intensity and frequency of flood will increase in future. All these are additional losses due to climate change which are considered in the WB's study as stated in the earlier paragraph. Besides, tube wells and sanitary latrines will be installed on raised plinths to protect them from floods. Thus all the proposed activities are related to additional threats from climate change to which GCF is mandated to finance.

Incremental cost

108. Most of the activities are designed considering present and future impacts of climate change in targeted areas. Without climate change, the project would not propose homestead plinth raise, slatted house for goat/sheep rearing, flood resilient cropping, training on climate change issues etc. So, the estimated cost for all these activities are considered as incremental cost. Thus, the total incremental cost of the project is equal to the amount of grant requested from GCF which is US\$9.68million.

Typology of the country and its economic status

109. Bangladesh is a LDC with high demand of grants to address the climate change vulnerability. Bangladesh government tries to respond to disaster risks in related all sector. Bangladesh Government developed Bangladesh Climate Change Strategy and Action Plan (BCCSAP), National Adaptation Programme of Action (NAPA) etc. to address climate change. The country is currently preparing National Adaptation Plan (NAP). Moreover, the government integrated climate change in all other development strategies including Perspective Plan of Bangladesh 2010-2021, 7th five years' plan, Country Investment Plan (CIP) etc. NDC of Bangladesh estimated that implementation cost for adaptation activity would be USD 40 billion up to 2030. So, GCF contribution to this project will be in need for building resilience to climate change of the climate vulnerable people of the country.

110. The Bangladesh government tries to minimize the losses and damages caused by the impacts of climate change. The table below summarizes strength of government initiative and areas where GCF support would provide needed value.

Climate Change and Development Strategies	Strengths of current Government support	GCF value Added
Seventh Five Year Plan FY 2016-FY 2020	7th Five Year Plan focuses on issues related to development of rural areas including increasing local production, solving energy problems, reducing poverty	Climate change is the priority in the 7 th Five Year Plan due to limited finance government cannot address all the adaptation issues of climate change. Hence, the GCF investment is important to address climate change impacts to secure the development of the country as well as reducing vulnerabilities.

<p>Perspective Plan of Bangladesh 2010-2021</p>	<p>Bangladesh government has prepared a long term development goal for poverty reduction and ensuring basic needs of its population which is known as ‘Vision 21’. A perspective plan has been prepared for the period of 2010-2021 to achieve the vision.</p>	<p>Again, climate change issues are addressed here but due to lack of finance government cannot address all the adaptation issues. The proposed project aims to enhance resilience of the climate vulnerable community where GCF funding will address some of the adaptation issues of Bangladesh.</p>
<p>Bangladesh Climate Change Strategy and Action Plan (BCCSAP), 2009</p>	<p>Bangladesh prepared and subsequently adopted the “Bangladesh Climate Change Strategy and Action Plan 2009” to address the adverse impacts of climate change as well as protect global warming. The government developed Bangladesh Climate Change Trust Fund (BCCTF) from its own revenue and Bangladesh Climate Change Resilience Fund (BCCRF) from development partners to implement BCCSAP. The government allocated BDT. 3500 crore(420 million USD) to BCCTF. The BCCRF raised USD 190 million of which 130 was received and implemented.</p>	<p>Under NDC it is estimated that Bangladesh needs 40 billion USD to meet its adaptation needs from 2015 to 2030. BCCTF and BCCRF together could not raise this amount. As the proposed project comply several programmes of the BCCSAP, GCF funding would be valuable contribution for this project.</p>
<p>National Adaptation Programme of Action (NAPA)</p>	<p>As a response to the decision of the Seventh Session of the Conference of the Parties(COP7) of the United Nation Framework Convention on Climate Change (UNFCCC) Bangladesh prepared the National Adaptation Programme of Action (NAPA, 2005, revised 2009)</p>	<p>National Adaptation Programme of Action (NAPA) has identified 45 urgent and immediate adaptation project/programmes adaptation needs. Only three projects has been implemented/under implementation. Implementation of NAPA is constrained again by limited financial resource from LDCF.</p>
<p>National Determined Contribution (NDC, 2015)</p>	<p>The government calculated the adaptation cost up to 2030 will be around 42 billion USD.</p>	<p>Bangladesh is already under stress to meeting basic needs and services of its huge population. Climate change puts extra pressure on the country’s revenue budget. Thus, the country requires external funding sources to address the climate change issues.</p>

Gender consideration

The project is well aware about gender mainstreaming in the project activities. Hence, the proposed project has taken a gender responsive and transformative approach to climate change vulnerability, considering gendered differences in access to resources, ability to pursue adaptive livelihoods and institutional support and capacity building, and this has fundamentally shaped all of the activities and outputs of the project. The proposed project recognizes women’s essential contributions as leaders and agents of change in the face of a changing climate and resource constraints. The project will select 20,000 households covering 90,000 direct beneficiaries for transferring knowledge and adaptation technologies proposed under this project. 50% of the total direct beneficiaries i.e. 45,000 will be women. It is already mentioned that the project will form 20,000

CCAGs. Considering the gender sensitivity of the proposed project, 80% of the CCAG members i.e. 16,000 will be women beneficiaries (among the beneficiaries under PKSf, around 90% are women). Among 16,000 women CCAG members, 10% or 1600 will be women heads. The project will select mostly women because they usually teach their children at home. They will also teach their children about climate change issues what they will learn through training and meetings. Thus, climate change concepts and practices would transmit to the next generation which will have long term implication of addressing climate change in this country. Besides, necessary female staffs will be ensured at the field level so that women members can easily express their opinions and actively take part in the project activities. Considering gender integrity, the project proposes more sanitary latrines (#2810) than tube wells (#500) to outreach maximum number of women. Allocated budget for female beneficiaries also very high which is estimated US\$9.33 million.

111. Besides, CCCP experiences showed that women were benefitted both economically and socially due to engage them with CCAG. In flood prone areas, women usually are not willing to go to flood shelter during flood. They prefer to stay at home because they feel safe at home than at shelter. Most important lesson was that they could talk about climate and disaster in their locality. They also felt empowered because they contributed to family income through vegetable cultivation, goat rearing etc. We expect the similar outcomes in the proposed project. The CCCP faced some challenges to engage the CCAG with the women members of the families. Initially, the women in the vulnerable areas were not much supportive due to shyness and hesitation. Besides, climate change was new issue to them. However, motivation through disseminating proper information helped to overcome this challenge.

The activities are designed in a way that the women will be mostly benefited economically and socially. The important livelihood option selected for the proposed project is goat and sheep rearing in slatted houses. The proposed project will select only women participants for implementing the activity because traditionally, all most all women in rural areas of Bangladesh including flood zone commonly rear livestock animal including goat and sheep. But the traditional process of management is a constraint of achieving expected benefit of rearing goat and sheep. The proposed project will provide support technological support and capacity building training to make it climate resilient and sustainable livelihood adaptation to climate change

The ECCCCP-Flood project considers not only the benefits of women, but also considers the inter-sectional vulnerability to changing conditions, of those beneficiaries facing additional marginalization due to poverty, and social exclusion. The project design recognizes to build adaptive capacity in regards to changing climatic conditions, by supporting climate resilient livelihoods, resilient homestead and better integration into local value chains, in which women are already playing a growing role.

The ECCCCP-Flood project will accommodate GoB's policies and strategies on women's resilience and their critical role in preparedness and recovery from disasters and the necessity of shifting livelihoods towards adaptive options, efforts remain limited compared to the actual and acute needs of women. The Gender Assessment expands on the information provided throughout the proposal, by providing additional information on the national and local gender context, particularly in regards to women's access to resources, their role in decision-making and the gendered aspects of local livelihoods, and provides the basis for, and lessons on which, the Gender Action Plan (which is reflective of the overall project design)

has been built. The activities of the proposed project have been selected considering that women can easily implement to enhance their capacity and increase their resilience to climate change.

112. For promoting women's empowerment through the project interventions, we will consult not only with the women members of a family, but also with the male members and other guardians. This will help eliminate hesitation and shyness. Besides, IEs will build good rapport by disseminating appropriate information with the vulnerable community.

Contribution to GCF's Environmental, social and IP policies

113. The project will comply GCF's environmental, social and IP policies through using environmental screening tools of GCF and preparing environmental and social action plan. The screening results and ESAP in GCF's template is provided in Annex 12. The project will also carefully consider the values of the IP in the project areas in consistent with GCF's IP policy. The project did not receive free, prior consent from the IP community because there is no IP in the proposed project areas.

Grievance Redress Mechanism

114. Grievance Redress Mechanism (GRM) will be established at central (PKSF) and IE level to deal with any complaints/grievances about environmental issues. At the IE level, the Union Parishad (U/P) Chairman or his/her nominated representative from the U/P will be the Local Grievance Redress (LGR) focal point. At the PKSF central level, the Programme Officer (Environment) or any other person/staff nominated by the Project Coordinator of PMU will be Central Grievance Redress (CGR) focal Point. The aggrieved persons or entities will submit the complaints/grievances in sealed envelopes to the selected IE's office duly entered in the Grievance Register (GR) and will collect a receipt with entry reference to the GR. IEs will not open the envelopes, but inform the LGR focal point about receipt of complaints and schedule hearings as per his/her advice. In open meetings, the selected implementing entities will facilitate the LGR focal Point to hear and discuss the complaints and resolve them in view of the applicable guidelines. The aggrieved person, if female, will be assisted by a female U/P member in hearing, and if from a tribal community, by a tribal representative. LGR focal Point with the help of IE will ensure sending a copy of the complaint by postal mail, email or other means to the Project Coordinator at the PKSF headquarters.

115. The IEs will forward the unresolved cases with all proceedings to the Central Grievance Redress (CGR) focal point within 7 days of taking decision by the LGR focal point. Unresolved cases forwarded by IEs will be registered in the office of the CGR focal point and disposed within 15 days. If any decision made by CGR focal point is unacceptable to the aggrieved persons, he/she will forward the complaints with all proceedings to the PKSF Managing Director (MD). The MD will review and resolve the cases which will be final for PKSF. The MD may seek advices from the PKSF Chairman for any critical issues as per his discretion. A decision agreed by the complainants at any level of hearing will be binding on the concerned IEs and PKSF. The GRM will, however, not preempt an aggrieved person's right to seek redress in the courts of law.

116. The aggrieved persons or entities will have the option to lodge the complaints directly to the Central Grievance Redress (CGR) focal point if they are against the IE, to the PKSF MD if they are against the PKSF project management. or directly to the Governing body/chairman of PKSF if there is any issue related to PKSF itself. The institutional arrangement of Grievance Redress Mechanism is illustrated below:

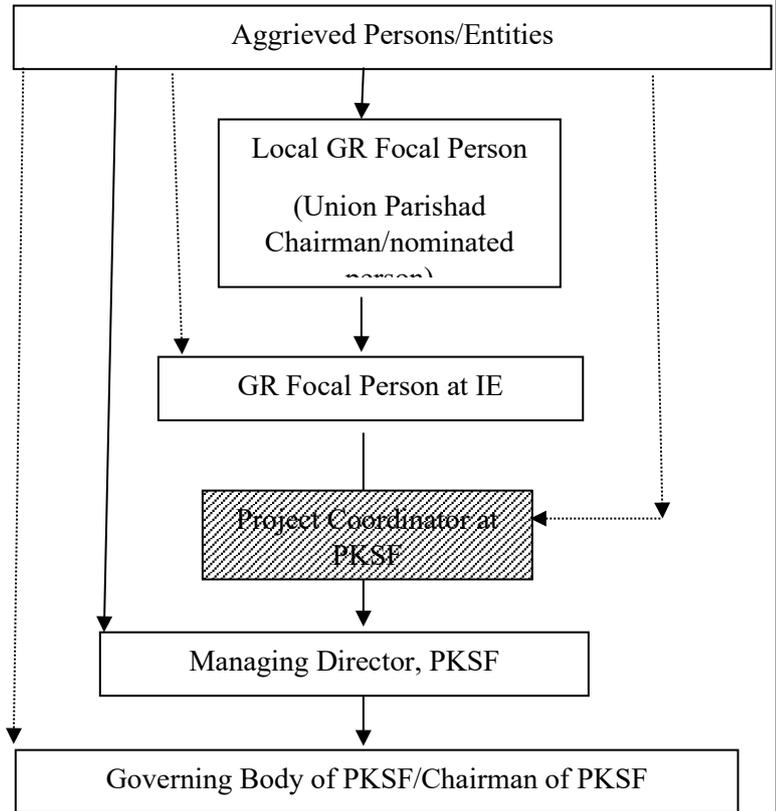


Figure: Institutional Arrangement of GRM

C.4. Exit strategy and sustainability (max. 250 words)

117. The project will form community group and build their capacity by providing training, awareness and linking to different stakeholders related to project interventions. The community will be well capable to prepare their action plan and demonstration to the locality. To ensure successful exit strategy, community will prepare and demonstrate community level adaptation action plan as per their needs. They share their indigenous knowledge and experience in their own community and perform the best practices to overcome the adverse climatic effects. So, community can take responsibilities to continuing project activities in the long run. Plinth raising at household level and resilient water and sanitation activities will be maintained by communities themselves.

118. Community will involve in various process particularly in monitoring process. The IEs will be handed over the responsibilities to the community. After project completion the community will effectively communicate with local government institutions to continue the support for different safety net program as well as enrollment of IEs Micro finance program. IEs, being a national based NGOs and having permanent set up at the community, will continue to working with the community through their core micro-

credit programmes. IEs staff will follow-up and conduct meetings with the community people to discuss different issues related to project activities and prepare action plan to overcome the potential extreme situation.

119. During the project, IE will enhance the capacity of the community people by the way of knowledge, awareness and skills to safeguard their investments and assets. Further Implementing IEs have already an on-going long term working relationship through community, which cover the target areas and so, on completion of the programme, the core activities will continue to be supported by implementing partner.
120. The project will arrange phase out workshop to share outputs and outcomes that are achieved through this project intervention. Major challenges and other findings will be shared with the relevant stakeholders. Feedback/opinion and recommendation from the phase out workshop will be noted that will help the project for future development. All assets to be demonstrated will be accompanied by comprehensive skills through training and financial support.
121. Community will prepare action plan and will demonstrate their plan as their need. They will share their indigenous knowledge within the community and performed the best practices to overcome the adverse climatic effects. So, community can take responsibilities to continuing project activities in long run. Plinth raising at household level and installation of WASH related activities will be maintained by own initiative and community infrastructure like repairing of community place and raised bazaar & school will be managed and maintained by them. Community contribution in most of the activities will help the beneficiaries to own it and it will strongly ensure the proper management of the project provided by the IEs will be continued. An operation and maintenance plan is presented below:

Name of Structure	Timeframe	Responsibility	Source of fund	Remarks
Plinths	Annual	Plinth owners	Plinth owners	IEs will ensure implementation of the plan as they will continue their financial support to the beneficiaries from their core programme (Please see section C4 of the response document).
Tube wells	Quarterly	Climate Change Action Group	Climate Change Action Group	
Climate resilient sanitary latrines	Daily	Latrine user HH	Latrine user HH	
Slatted house of goat/sheep	Daily	Owner of the house	Owner of the house	

122. The project will disburse around 25% of the total finance as credit and the IEs will be responsible to recover the loan amount. Through this process the existence of IEs in project areas will be ensured. The IEs will coopt the beneficiaries after project period for financing in the long run.

C.5. Financial management/procurement (max. 300 words)

Financial Management and Audit

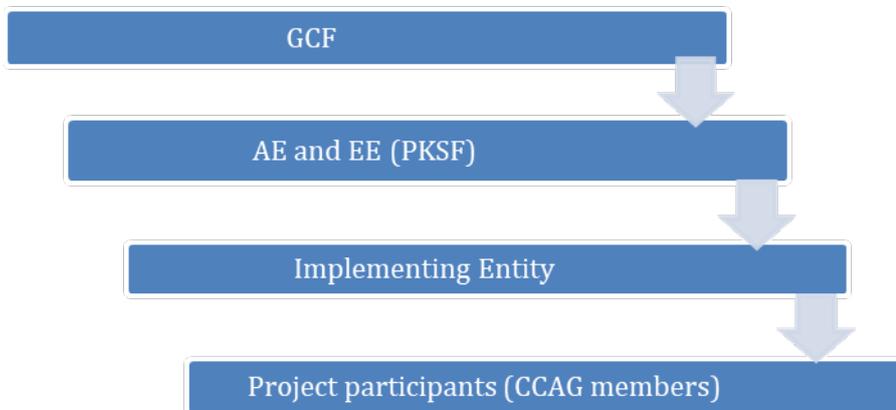
123. The project will follow AE's guidelines on Financial Management and Procurement. PKSf, having long experience in managing projects supported by the donor and other development partners, has developed efficient Financial Management and internal control systems. PKSf has an established finance division headed by a Deputy Managing Director for Finance. In order to monitor the activities of its partner organizations, it also has in place a properly staffed internal audit cell headed by a General Manager who directly reports to the Managing Director of the organization. PKSf has built up a system and capacity for disbursing fund to IEs based on efficient review procedures in coordination with field level monitoring. An independent audit firm carries out external audit of PKSf, and will continue to do so for the PKSf's

financial management of the project. As per GCF guideline PKSF will be provided financial management report and letter to GCF within 06 months of audited period of the AE's fiscal year end. Both internal and external audit is carried out once in a year. External audit is carried out using International Accounting Standard (IAS).

Disbursement and Funds Flow:

124. The funds for the project will flow through a Segregated Designated Account (DA) to be opened by PKSF in a commercial bank. The disbursement is report based; i.e., an advance to the DA is made on submission of Quarterly Financial Reports (QFRs), including a forecast of projected expenditures for the next, two calendar quarters. Further advances as required would be made to the DA based on updated expenditure forecasts for the subsequent two quarters having the balance available in the Designated Account including the balances in the bank accounts of the IEs at the end of the reporting quarter. The amount spent from the DA on eligible expenditures is documented as project expenditures based on claims for documentation in the QFRs, and the advances to the DA is adjusted accordingly.

125. Fund flow diagram:



Books of Accounts and Financial Reporting:

126. The accounts of PKSF are prepared in accordance with International Accounting Standard (IAS) as adopted by the Institute of Chartered Accountants of Bangladesh (ICAB), on a going-concern basis under Generally Accepted Accounting Principles. PKSF's accounts are maintained on accrual basis under historical cost convention. The accounting manual of PKSF has been consistently followed for preparation of software-based final accounts.

Procurement

127. PKSF has own procurement guideline which is fully consistent Public Procurement Act, 2006 and Public Procurement Rules, 2008. PKSF will follow its procurement policy. As per the policy, IEs will prepare and submit procurement plan and get approval from PKSF. First package of goods and services will be subject to prior review. Rest of the packages will be reviewed by the PMU staffs at the field office of the IEs after procurement is over. By this way PKSF will ensure that all procurements conducted as per policy and rules of PKSF.

128. PKSF recruits audit firm as per PKSF procurement rules for auditing all accounts and management of PKSF including each project. This audit firm submit separate audit report for each project. The procurement committee of PKSF carry out the whole procurement activities. The committee calls for Expression of Interest (EOI) in the national dailies in both Bangla and English newspapers. Only the enlisted firm can submit the EOI. The procurement committee evaluates the applications and makes recommendation to select the firm. The Governing Body of PKSF select the firm in its Annual General Meeting based on the recommendation. A detailed procurement plan as per GCF format is presented in Annex 8.
129. Tax Exemption: Value Added Tax and Income Tax will be applicable as per Public Procurement Rules, 2008 of the Government of Bangladesh. PKSF enjoys Income Tax exemptions. Hence, GCF proceeds will not be used to finance any taxes in relation to the Goods and Services to be procured under the Project.

D. Logical Framework

This section refers to the project/programme's logic framework in accordance with the GCF's [Performance Measurement Framework](#) under the [Results Management Framework](#) to which the project/programme contributes as a whole, including in respect of any co-financing.

D.1. Paradigm shift objectives

Increased climate-resilient sustainable development

The paradigm shift objective of the project is to increase climate resilient sustainable development. PKSF has a strong NGO network from national to local level. Currently 278 partner organizations (POs) are working throughout the country with 9,945 branch offices. These organizations will learn good practices and replicate them in their own working areas. As these organizations operate credit programmes at the community level, they will arrange finance by themselves and/or through other programme of PKSF for implementing these activities beyond the project period. PKSF is also integrating climate change in its core programmes. Besides, the project will document and disseminate best practices at national and sub-national levels including government and no-government organizations. They will use the information from the knowledge documents in designing future projects and other decision making process. They will consider effectiveness of raised plinths, slatted houses, flood resilient water and sanitation system as well as resilient agriculture and livelihood to be documented in the knowledge documents. As a government-owned company and representation of government representatives in the governing body of PKSF will also influence the government policy. This will help incorporating these technologies and practices in national policy and strategy documents.

D.2. Impacts measured by GCF indicators

Expected Result	Indicator	Means of Verification (MoV)	Baseline	Target		Assumptions
				Mid-term (if applicable)	Final	

<p><i>A1.0 Increased resilience and enhanced livelihoods of the most vulnerable people, communities and regions</i></p>	<p><i>A1.1 Change in expected losses of lives and economic assets (US\$) due to the impact of extreme climate-related disasters</i></p>	<p>Quarterly monitoring report, evaluation report by AE and EEs, Bangladesh Bureau of Statistics, situation reports of the Department of Disaster Management etc.</p>	<p>Average 120 Losses of lives Loss of economic assets: US\$13 million (as per BBS, 2015) for the targeted 5 districts</p>	<p>Reduced Losses of lives by 20% Reduction of loss of economic assets for the targeted population by US\$ 1 million</p>	<p>Reduced Losses of lives by 40% Reduction of loss of economic assets for the targeted population by US\$ 2 million</p>	<p>The selected communities particularly the women members of the community understand climate change impacts and practiced the prescribed adaptation options</p>
<p><i>A2.0 Increased resilience of health and well-being, and food and water security</i></p>	<p><i>A1.2 Number of males and females benefiting from the adoption of diversified, climate resilient livelihood options (including, fisheries, agriculture, tourism, etc.)</i></p>	<p>Quarterly monitoring report, evaluation report by AE and EEs, Bangladesh Bureau of Statistics, situation reports of the Department of Disaster Management etc.</p>	<p>Female: 0 Male: 0</p>	<p>Female: 30,000 Male: 30,000</p>	<p>Female: 45,000 Male: 45,000</p>	<p>The selected communities particularly the women members of the community understand climate change impacts and practiced the prescribed adaptation options</p>
	<p><i>A2.2 Number of food secure households (in areas/periods at risk of climate change impacts)</i></p>	<p>Quarterly monitoring report, evaluation report by AE and EEs</p>	<p>0</p>	<p>12,000 HHs</p>	<p>20,000 HHs</p>	<p>These households are willing to accept and practice adaptation technologies in the flood vulnerable areas</p>

	<p><i>A2.3 Number of males and females with year round access to reliable and safe water supply despite climate shocks and stresses</i></p>	<p>Quarterly monitoring report, evaluation report by AE and EEs</p>	<p>Female: 0 Male: 0</p>	<p>Female: 15,000 Male: 15,000</p>	<p>Female: 22,500 Male: 22,500</p>	<p>CCAG meeting on hygiene and sanitation. Enhanced climate sustained (flood resilient) water supply, and capacity building will increase resilience and adaptive capacity of targeted people. Distance between tube-well and latrine will be maintained.</p>
<p><i>A3.0 Increased resilience of infrastructure and the built environment to climate change</i></p>	<p><i>A.3.1 Number and value of physical assets made more resilient to climate vulnerability and change, considering human benefits</i></p>	<p>Quarterly monitoring report, evaluation report by AE and EEs</p>	<p>Homestead and household asset: 0 Latrine: 0 Tube-well: 0</p>	<p>Homestead and household asset: # 6,000 Value: US\$ 1.55 million Latrine: # 1,500 Value: US\$ 0.56 million Tube-well: # 300 Value: US\$ 0.18 million</p>	<p>Homestead and household asset: #10,000 Value: US\$ 3.45 million Latrine: #2,810 Value: US\$1.04 million Tube-well: #500 Value: US\$ 0.30 million</p>	<p>Awareness raising through CCAG meeting on hygiene and sanitation. Enhanced climate sustained water supply and capacity building will increase resilience and adaptive capacity of the targeted people. Will maintain distance between tube-well and latrine</p>

D.3. Outcomes measured by GCF indicators							Indica
Expected Outcomes	Indicator	Means of Verification (MoV)	Baseline	Target		Assumptions	
				Mid-term (if applicable)	Final		
	<i>Number of technologies and innovative solutions transferred or licensed to promote climate resilience as a result of Fund support</i>	Project reports, project data	0 flood tolerant rice varieties 0 short duration and disease protective wheat variety 0 sand bar vegetable cultivation 0 Slatted housing for goat/sheep rearing 0 flood resilient tube wlls 0 Flood resilient sanitary latrine	3 flood tolerant rice varieties 1 short duration and disease protective wheat variety 1 sand bar vegetable cultivation 1 Slatted housing for goat/sheep rearing 1 flood resilient tube wlls 1 Flood resilient sanitary latrine	3 flood tolerant rice varieties 1 short duration and disease protective wheat variety 1 sand bar vegetable cultivation 1 Slatted housing for goat/sheep rearing 1 flood resilient tube wlls 1 Flood resilient sanitary latrine	Beneficiaries adopted and practiced transferred technologies	
A5.0 Strengthened institutional and regulatory systems for climate-	<i>A5.1 Institutional and regulatory systems that improve incentives for</i>	Quarterly monitoring report, evaluation	0 institutional	selected Institutions implemented 2 plans to address	Selected Institutions implemented 3 plans	Local NGOs will participate in the appraisal process. They are capable in	

responsive planning and development	<i>climate resilience and their effective implementation</i>	report by AE and EEs	systems' plans	climate change (established focal persons and recruit specialized staffs on climate change)	(established focal persons and recruit specialized staffs and integrate climate change)	implementing climate change adaptation project. Awareness raising among the targeted beneficiaries through CCAG
			0 CCAG	1,000 CCAGs	1,000 CCAGs	
A7.0 Strengthened adaptive capacity and reduced exposure to climate risks	<i>A7.1 Use by vulnerable households, communities, businesses and public-sector services of Fund-supported tools instruments, strategies and activities to respond to climate change and variability</i>	Quarterly monitoring report, evaluation report by AE and EEs	0% of the selected households and communities use fund supports tools and strategies	10% of the selected households and communities use slightly effective, 60% use moderately effective and 10% use highly effective fund-supported tools instruments, strategies and activities increase to respond to climate change and variability	5% use slightly effective, 50% moderately effective and 30% highly effective	Awareness raising among the targeted person, Raised plinth above flood level, year round vegetables and fruits cultivation on the raised plinth and climate resilient crops cultivation can ensure to strengthen adaptive capacity and reduced exposure to climate change
A8.0 Strengthened awareness of climate threats and risk-reduction processes	<i>A8.1 Number of males and females made aware of climate threats and related appropriate responses</i>	BBS, Quarterly monitoring report, evaluation report by AE and EEs	Female: 0 Male: 0	9,000 people become low aware on climate change, 54,000 moderately aware and 27,000 highly aware	5,000 people become low aware, 50,000 moderately aware and 35,000 highly aware on climate change	Awareness raising through CCAG meeting on hygiene and sanitation. Enhanced safe water supply and capacity building will increase resilience and

				Female: 10,000 low aware, 20,000 moderately aware and 15,000 highly aware Male: 20,000 become low aware, 20,000 moderately aware and 5,000 highly resilient	Female: 5000 low aware, 15000 moderately aware and 25000 highly aware Male: 10,000 become low aware, 25,000 moderately aware and 10,000 highly aware	adaptive capacity of targeted people.
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Logical Framework specific for the project

	Description	Indicators	Baseline	Targets (mid-term)	Targets (final)	Sources and means of verification	Assumptions
Objective related to GCF RMF Impact Areas	Increased resilience of the poor, marginalized and climate vulnerable communities towards the adverse effects of climate change in flood prone areas of Bangladesh	Increased capacity and awareness of local institutions and communities	0	Institutions: 2 slightly increased capacity, 5 moderately increased capacity and 3 highly increased capacity Beneficiaries: 10% slightly increased resilience, 60% moderately increased resilience and 15% highly increased resilience	Institutions: 1 slightly increased capacity, 5 moderately increased capacity and 4 highly increased capacity. Beneficiaries: 5% slightly increased resilience, 50% moderately increased resilience and 30% highly	Quarterly monitoring report, evaluation report	Local communities and institutions are enthusiastic to take part in the project interventions

					increased resilience		
		Practiced climate resilient farming	0	15,000 farmers	20,000 farmers	Quarterly monitoring report, evaluation report	Quality seeds of flood resilient varieties are available. Goat/sheep rearing technology are available. Farmers are well motivated towards flood resilient farming
Outcomes	Outcome 1: Institutions (IEs) and community groups strengthened capacity on addressing climate change	Increased capacity of NGOs to support households in flood protection and dissemination of adaptation solutions	0	2 slightly increased capacity, 5 moderately increased capacity and 3 highly increased capacity	1 slightly increased capacity, 5 moderately increased capacity and 4 highly increased capacity	Quarterly monitoring report, evaluation report	NGOs properly follow guidelines provided by PKSf for implementing the project activities
		Increased capacity of households to apply climate change adaptation solutions	0	10% slightly increased capacity, 60% moderately increased capacity and 15% highly increased capacity	5% slightly increased capacity, 50% moderately increased capacity and 30% highly increased capacity	Quarterly monitoring report, evaluation report	No social or religious barriers for women to take part in the project activities
		Utilization of the knowledge from the knowledge products	0	Institutions: 3 slightly, 6 moderately and 1 highly	1 slightly, 5 moderately and 4 highly utilize knowledge	Quarterly monitoring report, evaluation report	Beneficiaries are well motivated towards climate adaptive

				utilize knowledge from the knowledge products	e from the knowledge product		livelihood and development
				Beneficiaries: 20% slightly use, 40% moderately use and 5% highly use knowledge from knowledge products	Beneficiaries: 30% slightly use, 30% moderately use and 10% highly use knowledge from knowledge products		
Outcome 2: Protection of homestead from adverse effect of flood	Reduced economic losses in animal husbandry	1.26 million USD (annual average in Rangpur division, BBS, 2015)	Reduction of loss by 50% on targeted beneficiaries	Reduction of loss by 90% on targeted beneficiaries	BBS, Quarterly monitoring report, evaluation report	The beneficiaries regularly look after the infrastructure	
	Increased income and nutrition uptake of the communities due to raising homestead plinths	Income: monthly BDT. 3,573 (42.54 US\$) (CCCP baseline) Nutrition: 47.91% sickness due to flood	Increased Income: 20% Nutrition: reduced sickness by 5%	Increased Income: 30% Nutrition: reduced sickness by 10%	BBS, Quarterly monitoring report, evaluation report	The beneficiaries are growing vegetables on the raised plinths	
	Increased women's security during flood	0	10,000 slightly secured, 20,000 moderately secured and 15,000 fully	5,000 slightly secured, 15,000 moderately secured and 25,000 fully	Quarterly monitoring report, evaluation report	Properly maintenance of plinths are ensured	

				secured from sexual harassment during flood	secured from sexual harassment during flood		
	Outcome 3: Increased access to safe water and sanitation	Percentage of population in the targeted areas with access to safe water	72.6% (CCCP baseline)	85% of the targeted beneficiaries	90% of the targeted beneficiaries	CCCP baseline report, Quarterly monitoring report, evaluation report	The selected beneficiaries adopted the technology and practiced Bangladesh standard of water quality.
		Percentage of population in the targeted areas with access to flood resilient sanitation	9.1% (CCCP baseline)	60% of the targeted beneficiaries	80% of the targeted beneficiaries	CCCP baseline report, Quarterly monitoring report, evaluation report	Beneficiaries are well aware about hygiene sanitation Regularly clean the sanitary latrines
	Outcome 4: Access to flood resilient livelihood	Increase in household income in targeted households by practicing GCF funded livelihood technologies	Monthly BDT. 3,573 (42.54 US\$) (CCCP baseline)	30% (increased income)	40% (increased income)	CCCP baseline report, Quarterly monitoring report, evaluation report	Beneficiaries enhance their capacity on flood resilient livestock farming and crop production
Outputs	Outputs related to Outcome 1						
	Output 1.1 Climate change adaptation groups (CCAG) formed and operationalized	Number of climate change adaptation groups formed and operationalized	0	1,000	1,000	Quarterly monitoring report, evaluation report	The beneficiaries regularly attend the meeting and get the training
		Improved capacity of climate change adaptation groups related to knowledge management and information dissemination	low	moderate	high	Quarterly monitoring report, evaluation report	The beneficiaries regularly attend the meeting and get the training

		Impact of the meetings on the decision-making process	Low effective	Moderately effective	Highly effective	Quarterly monitoring report, evaluation report	The beneficiaries regularly attend the trainings and meetings
Output 1.2 Preparation of vulnerability assessment and adaptation action plan	Number of vulnerability assessment and adaptation plans	0	1,000	1,000	Quarterly monitoring report, evaluation report	Beneficiaries actively participate in preparing vulnerability assessment and action plan	
	Percentage of vulnerability assessment and adaptation plans used in decision making and planning by households or IEs	0	40%	60%	Quarterly monitoring report, evaluation report	The beneficiaries change their mind-set towards climate resilient development	
Output 1.3 Trainings and workshops on Climate Change conducted for beneficiaries and stakeholders	Use of the information from the trainings and workshops in decision-making and planning at household or policy level	0	40% of the targeted beneficiaries use the information from the trainings and workshops	60% of the targeted beneficiaries use the information from the trainings and workshops	Quarterly monitoring report, evaluation report	The beneficiaries change their mind-set towards climate resilient development	
Output 1.4 Preparation and dissemination of knowledge products	Quarterly newsletter published	0	7	14	Quarterly monitoring report, evaluation report, guidelines, formats etc.	AE is supportive to the PMU	
	Number of workshops organized	0	10	20	Quarterly monitoring report, evaluation report, guidelines, formats etc.	AE is supportive to the PMU	

	Lessons learnt published	0	0	1	Delivery of a booklet on the lessons learnt	PMU duly completed the project interventions/activities
Outputs related to Outcome 2						
Output 2.1 Raised the homesteads above flood level	Number of homesteads constructed	0	6,000	10,000	Quarterly monitoring report, evaluation report,	Union parishad and other local government agencies are favourable to the project interventions
Output 2.2 Re-construction of climate resilient houses	Number of resilient houses constructed	0	6,000	10,000	Quarterly monitoring report, evaluation report,	Union parishad and other local government agencies and communities are favourable to the project interventions
Outputs related to Outcome 3						
Output 3.1 Installation of resilient tube wells	Number of tube-wells installed	0	300	500	Quarterly monitoring report, evaluation report,	Union parishad and other local government agencies and communities are favourable to the project interventions
	Percentage of tube-wells providing water by ensuring national standards	0	60%	80%	Quarterly monitoring report, evaluation report,	Union parishad and other local government agencies and communities are favourable to the project interventions
	Number of beneficiaries using safe water (gender disaggregated)	Male 0 Female 0	Male 3,000 Female 3000	Male 5625 Female 5625	Quarterly monitoring report, evaluation report,	Union parishad and other local government agencies and communities are favourable

							to the project interventions
		Decrease in water-borne diseases	Annual average 23,374 persons in selected 5 districts become sick due to lack of access to safe water (calculated from BBS, 2015)	50% of the targeted beneficiaries	80% of the targeted beneficiaries	BBS, Quarterly monitoring report, evaluation report	<p>Tube-wells are well maintained by the beneficiaries</p> <p>Distance between sanitary latrines and tube-wells (at least 30 ft.) are maintained</p> <p>Communities use tube-well water for household uses and drinking purpose</p>
Output 3.2 Construction of sanitary latrines	Number of sanitary latrines constructed	0	1600	2,810	Quarterly monitoring report, evaluation report	<p>Local contractors/vendors are available for construction of sanitary latrines</p> <p>The implementing entities select experienced contractor/vendor</p>	
	Number of beneficiaries using sanitary latrines (gender disaggregated)	Baseline 0	Targets (mid-term) 3600 female 3600 male	Targets (final) 6,325 female 6,320 male	Quarterly monitoring report, evaluation report	Communities are well aware about hygiene sanitation	
Outputs related to Outcome 4							

Output 4.1 Rearing of goats/sheep in slatted houses	Number of beneficiaries reared goat/sheep in slatted houses	0	6,000 women beneficiaries	10,000 women beneficiaries	Quarterly monitoring report, evaluation report	Only women beneficiaries participate in these activities Women beneficiaries understand the usefulness and technology of slatted houses for goat and sheep
Output 4.2 Cultivation of flood tolerant crops	Increase in crop production	Baseline to be provided in inception report	30% increase	40% increase	Quarterly monitoring report, evaluation report	Flood tolerant seeds are available Farmers are motivated to cultivate flood tolerant crops Farmers enhanced their capacity on flood tolerant crop cultivation
	Number of farmers cultivating flood tolerant rice crops	0	Female 2000 Male 2000	Female 3000 Male 3,000	Quarterly monitoring report, evaluation report	Flood tolerant seeds are available Farmers are motivated to cultivate flood tolerant crops Farmers enhanced their capacity on flood tolerant crop cultivation
	Number of farmers cultivating short duration and disease protective wheat varieties	0	1,500 beneficiaries	2,000 beneficiaries	Quarterly monitoring report, evaluation report	Wheat seeds are available
	Number of farmers cultivating vegetables in the sand bars	0	1,500 women beneficiaries	2,000 women beneficiaries	Quarterly monitoring report, evaluation report	Beneficiaries are well trained on sand bar vegetable

							cultivation technology	
Activities	Name of activities	Description					Inputs	
	Activities related to output 1.1: Climate change adaptation groups (CCAG) formed and operationalized							
	1.1.1 Beneficiary selection and group formation	The project will select 90,000 beneficiaries in consultation with local government institutions and community people. The field officers of the IEs will carry out this activities. IEs will require approval of the list of selected beneficiaries form the PMU of Executing Entity.					Human resources, Pen, pad, brown papers, marker, local travel etc.	
	1.1.2 Prepare Beneficiaries socio-economic profile	After selection, the IE field levels staffs will visit door to door of the selected beneficiaries and collect their socio-economic information before providing supports from the project. The PMU will prepare the format for collecting socio-economic profile. PMU will share this format with GCF relevant staffs before execution.					Human resources, paper, internet, photocopy etc.	
	1.1.3 Arrange monthly group meetings on climate change issues of CCAG	The PMU will prepare content for monthly group discussion in Bangla. Relevant field staffs of the IEs will facilitate this content in the group meetings.					Human resources, pen, pad, brown papers, marker, local travel etc.	
	Activities related to Output 1.2: Preparation of vulnerability assessment and adaptation action plans							
	1.2.1 Carry out participatory vulnerability assessment	Each CCAG will this PVA. Respective field staffs of the IEs will facilitate them to carry out this activity. PMU will provide training to the staffs in this regard.					Human resources, pen, pad, brown papers, marker, local travel etc.	
	1.2.2 Prepare Local level adaptation action plan using Participatory Rural Appraisal (PRA) tools	Each CCAG will this action plan. Respective field staffs of the IEs will facilitate them to carry out this activity. PMU will provide training to the staffs in this regard.					Human resources, pen, pad, brown papers, marker, local travel etc.	
	Activities related to Output 1.3: Trainings and workshops on Climate Change conducted for Beneficiaries and stakeholders							
	1.3.1 Prepare training manuals and guidelines on climate change issues and project management	The PMU will prepare this training manual. It will be shared with GCF before finalizing this manual. The manual will be used to provide training to the staffs of IEs. A Bangla version of this manual will be developed to provide training to the CCAG members					Human resources, papers, internet etc.	
	1.3.2 Prepare training plan and organize training sessions for Beneficiaries	IE's staffs will prepare this training plan and get approval from the PMU. The IE staffs will organize the training session as per approved plan. PMU will physically monitor the training activities on sample basis.					Human resources, papers, brown paper, flip charts, local travel, venue, internet etc.	
	1.3.3 Organize training for IEs staff	PMU will carry out this activity					Human resources, pen, pad, papers, brown paper, flip charts, local travel, venue, internet etc.	
	1.3.4 Organize exchange visit for CCAG members and IEs staff	PMU will carry out this activity. IE staffs and beneficiaries will take part in this activity.					Human resources, pen, pad, papers, brown paper, flip charts, local travel, venue, internet etc.	

1.3.5 Organize workshops and seminars	PMU will carry out this activities. Government representatives, development partners, civil society representatives, IEs etc. will take part in these workshops and seminars	Human resources, pen, pad, papers, brown paper, flip charts, local travel, venue, internet etc.
<i>Activities related to Output 1.4: Preparation and dissemination of knowledge products</i>		
1.4.1 Prepare and disseminate knowledge products	The knowledge products will include newsletters, evaluation reports, lessons learned documentation, narrative monitoring reports etc.	Human resource, computer, printer, internet, currier services etc.
<i>Activities related output 2.1 Raised homesteads above flood level</i>		
2.1.1 Raise homestead plinths in clusters	Carry out consultations with CCAGs, Select beneficiaries for homestead raise, raise plinth, turfing for protection of erosion etc. IEs will receive approval for implementing this activity from EE's PMU.	Human resources including, labour, finance, photocopy etc.
<i>Activities related to output 2.2 Reconstruction of climate resilient houses</i>		
2.2.1 Provide financial support to reconstruct climate resilient houses on raised plinth	This activity is fully dependent on the earlier plinth raise activity. Once the plinth raise is completed, the beneficiary will hire labour for house reconstruction. The AE will provide loan to the beneficiaries through the IEs if required for house reconstruction.	Human resources, labour, finance etc.
<i>Activities related to output 3.1 Installation of resilient tube wells</i>		
3.1.1 Install tube wells	This activity will depend on raising plinths because all tubewells will be installed on raised plinths. The IE staffs in consultation with CCAG members will select appropriate sites for tube wells. The IE will procure the works as per procurement plan approved by the PMU of EE.	Human resources, finance, local travel etc.
<i>Activities related to output 3.2 Construction of sanitary latrines</i>		
3.2.1 Construct climate resilient sanitary latrines	This activity will also depend on raising plinths because all tube-wells will be installed on raised plinths. The IE staffs in consultation with CCAG members will select appropriate beneficiary households for sanitary latrines. The IE will procure the works as per procurement plan approved by the PMU of EE.	Human resources, finance, local travel etc.
<i>Activities related to output 4.1 Rearing of goats/sheep in slatted houses</i>		
4.1.1 Provide support to rear goat/sheep in slatted houses	IE field officers in consultation with CCAG members will selected interested women for rearing goat/sheep. In addition, IE will procure works for construction of goat/sheep house as per approved procurement plan	Human resources, finance, local travel etc.
<i>Activities related to output 4.2 Cultivation of flood tolerant crops</i>		
4.2.1 Cultivate flood resilient rice variety BRRI dhan 51 & 52 and BINA dhan 11	The IE staffs will select the farmers based on pre-defined criteria in consultation with CCAG members. The selected farmers will receive training on flood resilient rice cultivation.	Human resources, seed, fertilizer etc.

	4.2.2 Cultivate early and disease protective wheat variety BARI 26	The IE staffs will select the farmers based on pre-defined criteria in consultation with CCAG members. The selected farmers will receive training on flood resilient wheat cultivation.	Human resources, seed, fertilizer etc.
	4.2.3 Cultivate vegetables in sand bars	The IE staffs will select the farmers based on pre-defined criteria in consultation with CCAG members. The selected farmers will receive training on vegetable cultivation in sand bars.	Human resources, seed, fertilizer etc.

D.4. Arrangements for Monitoring, Reporting and Evaluation (max. 300 words)

130. The project will adopt result based monitoring framework. The monitoring under the project will have three functions. First, thorough monitoring by PMU will ensure accountability of the IEs to deliver the Outputs agreed in the project proposal which implies that the resources are used efficiently for the proposed activities. Secondly, monitoring will establish proper documentation of the implementation process and achievements at different levels (Outputs, Outcomes and Impacts). Third, monitoring will help gather learning from the process. In short, the role of accountability is significant in case of Outputs, whereas learning becomes a core issue of monitoring at the Outcome and impacts level achievements.
131. The IEs should employ a dedicated Monitoring officer who will report to the Chief Executive or senior official not directly entrusted with the implementation of the project. He/she will implement the Monitoring Framework as envisaged in the project proposal and will produce quarterly activity monitoring reports based on the Activity to Output Monitoring (ATOM) agreed upon. The Monitoring Officer will undertake outcome-level monitoring half-yearly based on agreed Outcome Assessment Sheet (OAS) and impacts-level monitoring annually based on agreed Impact Assessment Sheet (IAS) which were prepared taking indicators of Impacts and Outcomes into account. He/she will post the information in the assigned fields of the IEs and in PKSf server online as well.
132. PKSf's senior management personnel will visit the field level activities as part of AE's mission and guide the PMU (PKSF as the Executing Entity). The AE will review evaluation reports and audit reports carried out by individual consultants. It will oversee procurement and financial management of the project, preparation of project completion report and submit the report to the secretariat of GCF. AE will ensure all compliances including gender action plan, ESAP, IP etc. The AE will also review annual budget in order to enhance the efficient use of resources. The AE will monitoring the audit process, fund disbursement, prepare the financial closing report of the project, project closing documents etc. for submission to the secretariat.

E. EXPECTED PERFORMANCE AGAINST INVESTMENT CRITERIA

E.1. Impact potential (max. 300 words)

E.1.1. Expected tons of carbon dioxide equivalent (t CO ₂ eq) to be reduced or avoided (Mitigation only)	Annual	Click here to enter text. tCO ₂ eq
	Lifetime	Click here to enter text. tCO ₂ eq
E.1.2. Expected total number of direct and indirect beneficiaries, disaggregated by gender	Direct	Total 90,000 Male: 45,000 Female: 45,000 (50%)
	Indirect	Total 100,000 Female: 50,000 (50%) Male: 50,000

	<i>*For both, Specify the % of female against the total number.</i>	
E.1.3. Number of beneficiaries relative to total population	Direct	Total population 9.84 million Beneficiaries: 90,000 (Expressed as %)
	Indirect	100,000 (Expressed as %)
<p>133. The proposed project will contribute to increased climate-resilient sustainable development of the investment criteria. The fifth assessment report of the IPCC has defined resilience as “the capacity of social, economic, and environmental systems to cope with a hazardous event or trend or disturbance, responding or reorganizing in ways that maintain their essential function, identity, and structure, while also maintaining the capacity for adaptation, learning, and transformation.” The proposed project has adopted this definition. The flood vulnerable communities will maintain their essential functions due to being resilient by the project interventions. For example, raising homestead plinths above flood level will help the affected community to stay at home, continue their household activities as usual and reduce loss of resources because flood water will no more affect them. In addition, the affected people can grow vegetables even during flood in their homestead which will support them in maintaining their nutrition status. The selected communities will adopt climate resilient agricultural technologies including cultivating flood resilient crop varieties. The whole socio-economic system of the selected community will be resilient to climate change through the project interventions. The resilience of the community will be measured through result based monitoring system (RBM) at a scale from 0-25 where 0-5 will represent ‘no resilience’ and 21-25 will represent ‘highly resilient’. The other three categories are mildly resilient, moderately resilient and resilient. In particular, the project will directly impact 90,000 vulnerable beneficiaries in the selected areas with high level of flood impacts. 50% of the beneficiaries will be female. Among 16000 women members of CCAG, 1600 will be household head. Number of indirect beneficiaries will be about 100,000, mainly other people of the selected villages who will take shelter on the raised plinths, use water from the tube wells and gather knowledge from farming and non-farming activities of the project.</p> <p>134. The project will enhance resilience of 90,000 beneficiaries through protecting their homesteads, livelihoods and agriculture system from the adverse effects of climate change. The selected participants will continue their daily lives business as usual. They will have access to safe drinking and sanitation facilities throughout the year including emergency situation. They will not require to take shelter on roads or flood shelters rather they will stay at home. The women will be more secure because of staying at home during emergency situation.</p> <p>135. The proposed project will promote climate adaptive livelihood options which are women friendly. The women will get involve in goat/sheep rearing in slatted house and climate resilient cultivar. They will receive necessary training on climate change and improve management system of these livelihood technologies. They will increase their income which will empower them and help them playing role in making decision for their families. 10,000 women beneficiaries and their family members will be involved in these activities.</p>		
E.2. Paradigm shift potential (max. 300 words)		
<p>136. The paradigm shift objective of the project is to increased climate resilient sustainable development. PKSf has a strong NGO network from national to local level. Currently 278 partner organizations (POs) are working throughout the country with 9,945 branch offices. These organizations will learn good practices and replicate in their own working areas. As these organizations operate credit programme at the community level, they will arrange finance by themselves and/or through other programme of PKSf for implementing these activities beyond project period. PKSf is also mainstreaming climate change in its</p>		

core programmes. Besides, the project will document and disseminate best practices at national and sub-national levels. As a government owned company and representation of government representatives in the governing body of PKSF will also influence the government policy. This will help incorporating these technologies and practices in national policy and strategy documents.

137. The project will increase capacity of 10 organizations (IEs) on addressing climate change issues at the local level. In addition, 20,000 CCAG members representing 20,000 HHs having 90,000 beneficiaries (project's direct beneficiaries) will gain knowledge and understanding on identifying climate change problems and required adaptation options through the project interventions. Most of the CCAG members (80%) will be women (one representative from each HH will be selected for CCAG). They will learn about climate change and transfer this knowledge to their children which will have long term impacts on the society. Thus, the project will develop formal and informal institutions in addressing climate change in the long run. The project will also enhance resilience of 20,000 climate vulnerable poor and ultra-poor households including women headed households by implementing climate adaptive technologies and practices. Raising homestead plinths of 10,000 households (45,000 beneficiaries) will protect their household resources including poultry and livestock from flood, continue their daily necessary activities as usual, increase their nutrition status by facilitating vegetable and fruit cultivation round the year, reduce health risks derived from flood water, reduce sexual harassment of adolescent girls and women during flood, increase social bonding etc. Reconstruction of climate resilient houses for 10,000 HHs will reduce their recurrent cost of house repair due to flood each year which will in turn increase income and savings. The houses and plinths will be equipped with flood resilient tube wells and sanitary latrines. 11,250 beneficiaries directly and more than 11,000 people indirectly will be benefited from flood resilient tube wells. They will significantly reduce water borne diseases due to floods including diarrhea, dysentery etc. Similarly, flood resilient sanitary latrines for 2810 households will reduce water pollution as well as ensure healthy WASH practice. This will in turn reduce treatment cost as well as improve working capacity of beneficiaries. Slatted houses for goat/sheep rearing by 10,000 women (1000 women heads) will help them economically empowered and influence in decision making of the households. They will know how to protect livestock from floods and other climatic stresses through improved management system. In addition, the project will promote flood resilient crop production through 10,000 farmers. This will reduce their crop loss due to floods and other climate change related stresses. The other farmers will learn from the project activities and practice by their own. Thus the production system will be resilient to climate change induced floods. It is expected that local institutions and community people of the project area will be sensitized towards mainstreaming climate change in their lives and livelihoods.
138. One of the major expected paradigm shift is to change the mind-set of the community people towards climate resilient development from conventional development. This will be achieved through establishment of community mechanism. Formation of climate change action group (CCAG) under component 1 is the entry point of developing such community mechanism. CCAGs will assess impacts and vulnerabilities and accordingly prepare their future plan through on the job training process. They will discuss climate change issues regularly in the monthly meetings. It is expected that regular exercise of climate change oriented activities for 4 years will help them addressing climate change in the long run. In addition, the visible impacts of the project activities will works as driving force to change the existing mind-set of the vulnerable community.
139. The project will enhance capacity of 10 organizations (IEs) working at the community level in addressing climate change adaptation projects. These organizations will gradually integrate climate change issues in their credit programs and other development sectors.

140. The proposed project will develop climate resilient homesteads through raising homestead plinths, climate resilient hygiene sanitation system and safe drinking water. Cluster based homestead raise under outcome 2 will bring another paradigm shift because the affected people will no more leave their homesteads and household resources during flood which they do at present. The social security of the affected woman will be enhanced due to staying at home during emergency situation. In addition, the affected people will continue their daily necessary activities in the flooding situation. Another significant change will occur due to raising homestead plinths. At present, the flood affected community cannot cultivate vegetable round the year due to flood. Raising homestead plinths will create the opportunity of the affected community to grow vegetable round the year. Besides, the project will promote climate adaptive agriculture and livelihood and enhance capacity of the affected communities and partner organizations. It is expected that the people other than the project participants will learn about the benefits of the project interventions through demonstrations and accordingly take own initiatives or through community organization/local government institutions to reduce impacts of climate change on their lives and livelihoods.
141. In addition, the project will document the lessons of the project and disseminate among different stakeholders including policy makers and affected communities. The local government agencies and NGOs will be coordinated during implementation of the project interventions to sensitize them about the outcome and impacts of the project. Besides, the IEs have long term presence in the community. The IEs have ability to long term finance (grant/credit) to the climate resilient livelihoods and enterprises that would be effective for scaling up the project interventions.
142. The project will reduce the vulnerabilities through various adaptation activities, practices and capacity building initiatives which will ultimate increase resilience of the vulnerable community.

E.3. Sustainable development (max. 300 words)

143. Economic co-benefits

- The raised plinths will reduce the damage to houses and household resources and hence reduce recurrent reconstruction cost of the flood vulnerable communities.
- The cluster dweller can grow vegetable on the raised plinths round the year. It saves cost of vegetables and fruits.
- The cluster dweller can continue household based economic activities like goat/sheep rearing etc. as usual which helps them earning cash income

144. Social co-benefits

- Improve health and nutritional status by increased consumption of quality food and by ensuring the Sanitation facility.
- Other flood affected people can take shelter on the raised plinths during flood
- Improve access to education and decrease dropout rate at primary education
- Reduced loss of lives and assets due to flood.
- Reduced the expense of other safety net programs.

145. Environmental co-benefits

- Tree plantation on the raised homestead will increase biodiversity in the project area
- Pit system of pumpkin cultivation will improve microorganism in the soil

146. Gender-sensitive development impact

- Increase economic empowerment of woman through income generation activities of the project.
- Increase leadership and learning skill of woman by receiving training, participation in different training and workshop.
- Increase acceptance in family by creation employment opportunity for woman.
- Increase decision making facility within the family.
- Stop violence against woman.

E.4. Needs of recipient(max. 300 words)

147. Bangladesh ranked sixth among the world's top 10 countries most affected by extreme weather events in the last 20 years, according to the Global Climate Risk Index by think-tank German watch. On an average, a total of 680 people died in 185 climatic events in Bangladesh within the period of 1996 to 2015, the German watch report said. As a result, the country lost 0.7324% of its GDP.
148. According to the 2015 Climate Change Vulnerability Index, Bangladesh's economy is more at risk to climate change than any country. With a per capita gross domestic product, or GDP, of about \$1,220, the economic losses in Bangladesh over the past 40 years were at an estimated \$12 billion, depressing GDP annually by 0.5 to 1 percent.
149. Two-thirds of the country is less than five meters above sea level, and floods increasingly inundate homes, destroy farm production, close businesses, and shut down public infrastructure. The selected 5 districts are most vulnerable to flood.
150. Bangladesh is a LDC with high demand of grants to address the climate change vulnerability. Bangladesh government tries to respond to disaster risks in related all sector. Bangladesh Government developed Bangladesh Climate Change Strategy and Action Plan (BCCSAP), National Adaptation Programme of Action (NAPA) etc. to address climate change. The country is currently preparing National Adaptation Plan (NAP). Moreover, the government integrated climate change in all other development strategies including Perspective Plan of Bangladesh 2010-2021, 7th five years' plan, Country Investment Plan (CIP), National Determined contribution (NDC) etc. The government has estimated that implementation of the NDC will require Us\$ 42 billion from 2015 to 2030. So, GCF contribution to this project will fully support in building resilience to climate change of the climate vulnerable people of the country.
151. The project has selected two climate hotspot areas of the country i.e. the northern flood affected char areas. 12.29% people of the selected 5 districts are particularly vulnerable to climate change induced flood. They are mainly poor households living in low-lying char areas and subject to regular inundation by floods. These people mainly depend on subsistence agriculture and agriculture wage labour. They have lack of financial capacity to make their houses and production systems resilient enough against the existing impacts of climate change induced flood. Hence, external support is necessary to increase their resilience.
152. The project will provide technology and information to increase the capacity of the vulnerable communities. The technologies that have been chosen are proven and many people are already practicing in other areas of the country. So, the selected communities will easily adopt these technologies and continue practices in the long run. Besides, capacity building training and group meetings on climate change issues will enhance their understanding on climate change impacts on their lives and livelihoods. They will consider these issues in their future activities. In addition, community level adaptation action plan (to be prepared during implementation as part of capacity building training) will help them taking future initiatives in addressing climate change. Thus the community will continue climate change adaptation activities in the long run.

E.5. Country ownership(max. 500 words)

Country ownership

153. The project will address the Bangladesh Climate Change Strategy and Action Plan (BCCSAP), 2009 and one of its pillars -- food security, social protection and health. It is the first among the six pillars of the

BCCSAP. The pillar has nine programmes of which seven are directly related to the project interventions. The second pillar--Comprehensive Disaster Management. The pillar has four programmes of which three are directly related to the project interventions. The third pillars—Infrastructure. The pillar has eight programmes of which three are directly related to the project interventions. The forth pillar—Research and knowledge Management has seven programme of which two are directly related to the project interventions. The fifth pillar—Mitigation and low Carbon Development—has ten programmes of which four are directly related to the project interventions. The six pillars— Capacity Building and Institutional Strengthening has six programmes of which three are directly related to the project interventions.

154. The project will address the Bangladesh National Adaptation Programme of Action (NAPA). The National Adaptation Programme of Action (NAPA) for Bangladesh has been prepared by the Ministry of Environment and Forest (MOEF), Government of the People’s Republic of Bangladesh as a response to the decision of the Seventh Session of the Conference of the Parties (COP-7) of the United Nations Framework Convention on Climate Change (UNFCCC). NAPA prepared list of priority activities to mitigate impact of climate change and most of the activities of proposed project qualify with NAPA listed activities. NAPA also developed 45 project concept notes and the nature of activity of the proposed project is partially same with all concept notes. The proposed project directly similar with-- Project No. 4. Climate change and adaptation information dissemination to vulnerable community for emergency preparedness measures and awareness rising on enhanced climatic disasters, Project No. 6. Mainstreaming adaptation to climate change into policies and programmes in different sectors (focusing on disaster management, water, agriculture, health and industry).Project No. 10 Title: Promotion of research on drought, flood and saline tolerant varieties of crops to facilitate adaptation in future, and Project No. 12 Title: Adaptation to agriculture systems in areas prone to enhanced flash flooding--North East and Central Region.
155. Government of Bangladesh under the leadership of Prime Minister Sheikh Hasina adopted the Vision 2021. The Vision 2021 and the associated Perspective Plan 2010-2021 have set solid development targets for Bangladesh by the end of 2021. The vision of the perspective plan is to take effective measures to protect Bangladesh from the adverse effects of climate change and global warming. The plan targets to take all possible steps to protect the vulnerable people from natural calamities. Steps will also be taken to make Bangladesh an ecologically attractive place and to promote tourism in this regard. The objectives of the proposed project comply with that of Vision 2021.
156. This project is strongly aligned with national policies including: Seventh Five Year plan of Bangladesh government, the Bangladesh National Adaptation Programme of Action (NAPA) and Bangladesh Climate Change Strategies and Action Plan (BCCSAP), 2009, National Plan for Disaster Management (NPDM), and Sixth Five Year Plan (SFYP) of GOB boldly articulate the country’s commitment to addressing climate change and equitable development, while the National Plan for Disaster Management (NPDM) 2008-2015 addresses Disaster Risk Reduction (DRR) and climate change adaptation (CCA) comprehensively in all development plans, programme and policies. The forthcoming Seventh Five Year Plan (2016-20) put emphasis on Accelerating Growth, Empowering Every Citizen.

Capacity of the Executing Entity

157. PKSF will play role of Executing Entity for the project. It was established by the Government of Bangladesh in 1990 and registered under the Companies Act 1913/1994 as a “not for profit” organization with the vision of “A Bangladesh where poverty has been eradicated; ruling development and governance paradigm in inclusive, people-centered, equitable and sustainable; and all citizens live health, appropriately, educated and empowered and humanly dignified life”.

158. PKSF provides a wide range of development services including financial, health, educational, capacity development, technology transfer and business development services to disadvantaged segments of the society through appropriate pro-poor institutions. Mobilization of poor people and provision of necessary training with appropriate financial supports have been the initial and continuous interventions. PKSF has a significant pro-poor strategy that looks at poverty alleviation from a holistic way. PKSF constantly redefines and redesigns its interventions, taking into account the concerns and needs of the poor with the changes of times. PKSF believes that appropriate financial support is not the only answer to alleviate poverty and it cannot be achieved with one component only. This requires addressing the needs of education, training, and healthcare, access to resources and equal opportunities for all. Hence PKSF developed 9 core programmes which include inclusive financial services, people centered holistic development programme, enterprise development programme, social protection programme, capacity building programmes, advocacy and knowledge management, research and development (R&D) and Environment and Climate Change programmes. PKSF has established Environment and Climate Change Unit for addressing climate change in Bangladesh. The Community Climate Change Project (CCCP) implemented by PKSF has been highly appreciated by participating donors, the World Bank, the Government of Bangladesh and the civil society and media of the country. The project has successfully established financial mechanism for channeling climate change fund in LDC country like Bangladesh.

159. Quality of Management Team

- a) The top authority of the PKSF is the General Body. The General Body provides the overall policy directives to the PKSF management for undertaking meaningful activities in line with its objective of alleviating poverty. The Body also approves the annual budget and the audited accounts of the organization. Besides, it reviews the annual report presented by the Governing Body of the organization. The General Body meets twice a year. The Members of the General Body selected from government agency, voluntary organisation or private individuals and partner organisation having a record of service in activities of poverty alleviation and income generation and/or are interest on such activities. The Present Chairman of the PKSF is Dr. Qazi Kholiquzzaman Ahmad, one of the world renowned Economists and Climate Change Specialist. The Managing Director of the PKSF who is also a Member of the General Body is the former Chief Secretary of the Government of Bangladesh. So, from the top, the Foundation is led by high profile officials.
- b) The Governing Body, subject to the general control and supervision of the General Body, works to pursue and carry out the goals of the organization. It holds the financial control of the organization, including approval of projects and awarding grants, donations, loans or any other financial assistance to the Partner Organizations (POs). The Governing Body consists of seven members who meet every two months. The Governing Body is composed of i) The Chairman of the Foundation, ii) The Managing Director of the Foundation, iii) Two members from the civil society nominated by government having track record in activities of poverty alleviation and employment generation and iv) Three members representing partner organisations having a record of service in activities of poverty alleviation and employment generation.
- c) PKSF management is essentially responsible to look after the functions of the organization as per the projected activities. It looks after the day-to-day routine activities so that every move is in place to realise the vision and mission of the Foundation.

D) Senior Management Team: The Senior Management Team is comprised of 11 members. The Team is headed by the Managing Director. The other members of the committee are the Deputy Managing Director

(Programme), the Deputy Managing Director (Admin), the Deputy Managing Director (Finance), the Director (Research), Director (Environment and Climate Change) and nine General Managers. The Senior Management Team meets 3-4 times a year. In the meetings, all the functional issues are discussed and take decisions according to the policy directives prepared by the General Body and the Governing Body. The Team scrutinises all the activities to identify whether these are on the right track. It also evaluates the progress based on visible performance.

ii) Panel Leaders' Forum: The Panel Leaders' Forum is comprised of 13 Members and headed by the General Manager (Programme). The members of this committee are a Deputy General Manager (Programme); an Assistant General Manager (Programme); and eight panel leaders of Programme Division of the PKSf. The Panel Leaders' Forum meets at least six times a year. The Forum discusses and compares the panel-wise performance in light of the targets set especially for loan disbursement among the Partner Organizations (POs).

iii) General Coordination Meeting: One of the best and effective tools for monitoring and evaluation of the management plans is to arrange a General Coordination Meeting for all. The meeting is arranged every two months and the Managing Director chairs it. All the officials responsible for different activities of the Foundation attend the meeting. The meeting discusses and compares all the activities of the Foundation in light of the targets mentioned in the Management Plan.

160. Overall strategies

The PKSf works through its Partner Organizations (POs). It has developed a set of guiding policies, rules and manuals for its operations. The overall strategies are describe in detailed:

161. The role of the General Body: The PKSf General Body provides overall policy directives to the PKSf management in order to undertake meaningful activities to fulfill its objective of alleviating poverty of the underprivileged people through employment generation. It oversees and advises on measures and initiatives that seek to establish and ensure the human dignity of the poor. The general body approves the annual budget and the audited accounts of the organization. It also reviews the annual report presented by the Governing Body of PKSf. The General Body meets twice a year: the Annual General Meeting (AGM) would preferably be held during the month of December and the other general meeting during the month of June. The General body may consist of a maximum of 25 members. Out of them, the Government of Bangladesh nominates a maximum of 15 members, including the Chairman. The Chairman must not be in the service of the republic. The General Body, in the AGM, nominates the remaining 10 members from the PKSf's Partner Organizations (POs)/ and or Private individuals. As of January 2017, there were 22 members in the General Body.

162. The role of the Governing Body: The Governing Body, subject to the general control and supervision of the General Body, holds the responsibility to pursue and carry out the goals of the organization. The Governing body holds the financial control of PKSf, including approval of projects and making grants, donations, loans or other financial assistance to the Partners Organizations (POs). The Governing Body consists of 7 members. The Government of Bangladesh nominates the Chairman and two other members from amongst individuals having a record of service in activities of poverty alleviation and inclusive development and /or interest in such activities. The General Body in its AGM elects three other member representing the Partner Organizations and /or individuals having demonstrated contribution in the development sector. The Governing Body in consultation of the Government appoints the managing director who is the chief executive officer of PKSf and an ex-Officio member of the Governing Body and the General Body of PKSf. The Governing Body holds at least six regular meetings in every year. Sixth Governing Body Meetings were held in 2016.

163. **The role of the Chairman:** The Chairman of PKSf sees that the affairs of PKSf are run efficiently and in accordance with the provisions of the Memorandum and Articles of Association of PKSf. He presides the meetings of the General Body and the Governing Body of PKSf.
164. **Duties and Responsibilities of the Managing Director:** The Managing Director is responsible for the day to day management of PKSf. He oversees and supervises all activities related to programme implementation and financial services. The Managing Director calls for different types of periodic meetings including Senior Management Meeting, Loan Committee Meetings, Panel Leaders Forum meeting, bi-monthly general coordination meetings etc. for planning and assessment of achievements. The respective officers present detailed about each projects and programmes including challenges and way forward. The Managing Director provides necessary guidance and suggestions to the projects or programmes for proper implementation and achievement of the goal and objectives of the PKSf.
165. **Monitoring the Programme related Activities of PKSf:** PKSf basically provides collateral free loans only to the enlisted Partner Organizations. So monitoring plays a crucial role to minimize the financial risk of PKSf through ensuring effective fund management for the credit and savings programs of the POs and also serves as a hedge against the financial loss through loan delinquency.
166. In PKSf, monitoring of activities of POs is done at three levels:
- By Operation Division of PKSf.
 - By Internal Audit Division of PKSf
 - By External Auditors of PKSf.

Monitoring accomplished by Operation Division of PKSf:

167. PKSf's Monitoring system is the continuous assessment of its different program interventions. It takes place at all levels of management and uses both formal reporting and informal communications. The Monitoring system allows on-site monitoring once every three monthly and off-site monitoring using different reporting systems of PKSf.
168. Generally, Monitoring is done through following systems such as
1. **On-site Field Monitoring**
 2. **Off-site Monitoring: Quarterly Management Information System (MIS) Report**
169. The on-site monitoring is conducted once in every three month for each Partner Organizations by the designated officials. The on-site monitoring report is one of the crucial monitoring systems of PKSf which is done in customized systematic format. This report is subjective in nature and provides valuable insight about the PKSf's programme at the grass root level.
170. The quarterly MIS evaluation is also conducted and is based on monthly data of the POs which is accumulated over time and evaluated after consolidating to assess the trend and progress of POs activities. Mainly four types of monitoring is done, such as
171. **Progress Monitoring:** In this monitoring system, progress monitoring generally refers to the activity monitoring of the project.
172. **Process Monitoring:** This justifies the delivery mechanism of the project and monitors whether the deliverables are being supplied properly.
173. **Budget Monitoring:** Budget monitoring refers to proper book keeping of the account of the project. This ensures the transparency in financial matters of the project.
174. **Impact Monitoring:** The overall, programme is monitored through impact monitoring. This monitoring is conducted by the research team of PKSf. Sometimes PKSf evaluated its program impact through outside researchers.

Financial Profile:

175. PKSF works through Partner Organizations (POs). These POs are registered as NGOs and CBOs (Community Based Organizations). Presently PKSF directly works with 278 POs which has total 13.24 million members of them 91.07% are women. The POs all together have more than 9,000 branches throughout the country. In FY 2017-18, PKSF disbursed US\$ 33 billion to its POs. The organized members and borrowers of PO of PKSF are thoughtfully guided and advised so that they can make the best use of the opportunities made available by PKSF to enhance their resources, build up their capacity protect the members from sudden economic shocks and to generate their self-prospective employment.

Implementing Entities of the project:

176. The selected Partner Organizations (POs) of PKSF are the Implementing Entities of the project. PKSF has developed credential development organizations at the grass roots level for poverty reduction through people centered equitable and sustainable development. These organizations have long experience in various development activities including climate change and disaster management issues. These organizations provide a wide range of development services including financial, health, educational, capacity development, technology transfer and business development services to disadvantaged segments of the society. Mobilization of poor people and provision of necessary training with appropriate financial supports have been the initial and continuous interventions of the organizations. Currently PKSF has 278 partner organizations throughout the country. Among these organizations, 10 Implementing Entities will be selected for this project. The selection criteria will include:

- a) Permanent existence of the organizations in the project areas
- b) At least five years of experience in implementing climate change related projects or programmes
- c) A good track record of financial transection (At least BDT 1 crore annually for the last three years)
- d) Must be extra ordinary, excellent or at least good as per PKSF’s assessment using defined assessment criteria which include financial efficiency, economic efficiency, operational efficiency, growth indicators, financial strength & risk management, accounting & internal control system, social performance, human capacity and governance.
- e) Valid legal documents including registration
- f) Organizations will be ineligible on the grounds of involvement in Money Laundering and Terrorist Financing.

177. It is to be noted that PKSF has set criteria for periodic evaluation of the performance of its partner organizations. The criteria includes financial efficiency, economic efficiency, operational efficiency, growth indicators, financial strength & risk management, accounting & internal control system, social performance, human capacity and governance. Each of the criteria has several indicators to assess performance of the POs. Based on the performance criteria, the organizations area categorized as extra ordinary, excellent, good, average, and sub-standard and requires special attention (RSA). The project will select the implementing entities among the first three categories of organizations. The selected partner organizations will recruit project staffs for implementing activities at the field level. PKSF will develop project implementation manual and guideline for the partner organizations. The newly recruited staffs will receive training on the manuals and guidelines. PKSF will ensure completion of AML/CFT due-diligence with satisfactory results in the selection process for IEs and Service Providers.

E.6. Efficiency and effectiveness (max. 1 page)

E.6.1. Estimated cost per t CO ₂ eq, defined as total investment cost /	(a) Total project financing	US\$ _____
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<p>expected lifetime emission reductions (Mitigation only)</p>	<p>(b) Requested GCF amount</p> <p>(c) Expected lifetime emission reductions</p> <p>(d) Estimated cost per tCO₂eq (d = a / c)</p> <p>(e) Estimated GCF cost per tCO₂eqremoved (e = b / c)</p>	<p>US\$ _____</p> <p>_____ tCO₂eq</p> <p>US\$ _____ / tCO₂eq</p> <p>US\$ _____ / tCO₂eq</p>
<p>E.6.2. Expected volume of finance to be leveraged by the proposed project/programme and as a result of the Fund's financing, disaggregated by public and private sources (Mitigation only)</p>	<p>(f) Total finance leveraged</p> <p>(g) Public source finance leveraged</p> <p>(h) Private source finance leveraged</p> <p>(i) Total Leverage ratio (i = f / b)</p> <p>(j) Public source leverage ratio (j = g / b)</p> <p>(k) Private source leverage ratio (k = h / b)</p>	<p>US\$ _____</p> <p>US\$ _____</p> <p>US\$ _____</p> <p>_____</p> <p>_____</p> <p>_____</p>
<p>178. The proposed project is the extension of the earlier Community Climate Change Project (CCCP) implemented by PKSf since 2012 to 2016. The unit price of each activity are considered based on the cost of CCCP. Unit rate is considered 10-20% higher than CCCP considering 6% inflation each year. It is expected that the estimated budget will be adequate to successfully implement the project activities in achieving goal of the project. But the exchange rate and inflation may affect the activity cost. The budget has provision of contingency fund of USD 250000 for meeting any challenges or barriers. Besides, provision of inter-component budget revision will be adopted in the financial management system which was adopted during CCCP.</p> <p>179. The proposed project relies on grant finance as (a) The proposed interventions will benefit flood affected vulnerable people who leave their home during the flood and affected diarrheal diseases and vector-borne diseases (b) Make resilient the people and community against flood through ensuring flood resilient livelihood, sanitation and water (C) the activities will not generate any revenue, no provision was made to refund the money to GCF. According to the nature of activities the project is financially sustained as well as economically sound. Because plinth raising helps to reduce shock of flood affected people. Loan will be available for the beneficiaries for the support to maintain the housing/shelter.</p> <p>180. As the project will develop climate resilient homestead and support climate-adaptive livelihoods to the vulnerable people, it will be mainly grant based. The grant will be used for developing climate resilient homesteads which include raising homestead plinth above flood levels, raised and protected community grounds for crop threshing and drying etc. The grant will also be used in providing technology and training for promoting climate adaptive livelihoods including goat/sheep rearing in slatted houses. In addition, grant will be used for demonstrating climate resilient cropping pattern in char lands. Besides, it will be used to enhance access to safe drinking water and sanitation which includes installation of sanitary latrines and tube wells. Furthermore, the grant will cover capacity building and knowledge management and project management cost. Loan will be provided to house repairing and goat rearing income generating activity.</p> <p>181. The project will have four outcomes i.e. 1) Institutions (Implementing Entities) and community groups strengthened capacity on addressing climate change, 2) Protection of homestead from adverse effect of flood, 3) Increased access to safe water and sanitation and 4) Access to flood resilient livelihood. The total amount of outcome 1 is USD 1,006,600 that is 8% of the total budget. It is to be noted that this outcome is very effective for climate vulnerable people of the selected areas. Project will provide financial support as loan for purchasing goat rearing and house repairing which is estimated USD 3.3 million which is 25% of the total estimated budget. The project management cost of the proposed project is estimated USD 485,300 which is 4% of the total estimated budget and 5% of GCF proceed.</p>		

182. Efficiency and effectiveness of CCCP carried out by independent consultant during final evaluation:

Intervention Type Effectiveness and Cause	Intervention Type Effectiveness and Cause
Household Level Interventions	
Household Plinth Raising (12796 households)	<p>Effectiveness: High</p> <p>Cause: This is traditional adaptation practice in flood prone areas has successfully adopted by CCCP with necessary modification. In the salinity and flood risk zones, water inundates houses. Household plinth rising have enabled the households in salinity and flood risk zones to stay at their houses during flood and high tide. This has been implemented by CCCP following cluster approach that makes it more effective. This has enabled the households to produce vegetables in courtyards and also served as flood shelter for people and livestock.</p>
Installation of Tube well (deep and Shallow) (Installed 4066 tube wells)	<p>Effectiveness: High</p> <p>Cause: Drinking water is a major problem in all climate risk zones. About 70% of the beneficiaries of CCCP have been supported through tube-well facilities found in the sample survey. Installation of tube-wells has increased access to safe drinking water for CCCP beneficiary households. This has become further effective as tube wells were provided following cluster based approach where at least 4 families are using and maintaining a tube-well. All the tube-wells have been installed above maximum flood level and also considered continuous availability of water from the tube-well. Installation of tube-well also considered utilization of used water from the storage tank in the vegetable garden especially in drought area. The project has provided one tube-well among 3-20 families based on local situation.</p>
Sanitary Latrine (6615 latrine constructed)	<p>Effectiveness: Medium</p> <p>Cause: Clean drinking water becomes scarce during flood because deep tube-well water cannot be collected due to submerged condition of the affected areas. Tube-well platform have secured safe drinking water in flood risk zone. The household survey found construction of tube-well platforms in all the three risk zones. 15% of the survey households have got support for tube-well platform. Hand tube-wells are major source of drinking water for rural people. In the past huge number of hand tube-wells were installed in the locality by different agencies but most of those were not installed considering flood level and in maximum cases no proper tube-well platform constructed or the quality of the platform was not up to the mark. Construction of tube-well platform can be considered appropriate adaptation option taken by the CCCP project. This is particularly effective in flood risk zone. This is contributing towards improved health and hygiene for the beneficiaries through protecting the ground water from being contaminated.</p>
Income generation interventions	<p>Effectiveness: High</p> <p>Cause: Covered over 28000 beneficiaries of the project through different income generation activities directly contributing to increased family income, household food security and increased adaptive capacity. IGAs were selected carefully considering experience of the beneficiaries on the specific IGA. Beneficiaries contributed more in the initial capital which made these IGAs successful.</p>

Economic and Financial Justification

183. The economic loss of the targeted beneficiaries without the project is significant particularly for the poor and vulnerable community. The flood affected community faces multidimensional loss during flood as experienced during implementation of CCCP. A household living in riverine char areas of the selected

districts would cost BDT. 50,000-60,000 (US\$600-700) annually, if affected by flood (estimated in consultation with flood affected people). This cost includes house repair, crop and vegetable damage, loss of livestock resources, loss of income, transport cost for going to and returning from shelter, diseases etc. This cost would be double if the household is affected twice in a year. The project will one time invest around US\$420 (BDT 35,280) for raising homestead plinths of a HH. The duration of the lifeline of the raised plinth is estimated 10 years. So, it is expected that it will save around US\$600 to US\$700 with one time investment of US\$420.

Outcome wise fund distribution

184. Outcome 1: Institutions (Implementing Entities) and community groups strengthened capacity on addressing climate change

This is an important outcome to achieve the goal of the project. This outcome will enhance knowledge and awareness of the community on climate change impacts and vulnerabilities. This will motivate them integrating climate change issues in their lives and livelihoods. The project estimated that GCF will provide 8% and PKSf will contribute 2% of the GCF proceed.

185. Outcome 2: Protection of homestead from adverse effect of flood

The estimated cost for implementing this outcome is USD 5,694,000 which is 59% of the GCF budget or 43% of the total budget. This outcome will play major role in increasing resilience of the target community. Because, raising cluster based homestead will protect their homesteads. The cluster dwellers will not require to leave their houses during flood. In contrast, they can continue their household activities as usual. Unless protecting their homesteads, the only income earning activities would not improve their livelihood because they have to spend most of their income in repairing their houses due to these shocks.

186. Outcome 3: Increased access to safe water and sanitation

The estimated amount for implementing this outcome is USD 1,535,600 which is 12% of the total estimated budget. Safe water and hygiene sanitation are essential for flood vulnerable community because they severely affected by various water-borne diseases due to lack of safe drinking water and damage to sanitary latrines. These latrines and tube wells will be installed only on the raised clusters under this project. This outcome will help them improve their health and well-being.

187. Outcome 4: Access to flood resilient livelihood

The livelihoods of the small and marginal farmers and disadvantaged women are highly vulnerable to flood. The project will promote various climate adaptive livelihoods including goat/sheep rearing in slatted house, climate resilient crop production etc. The estimated cost for implementing this component is USD 4,354,240 which is 33% of the total budget.

188. The proposed project is designed based on lessons learned and best practices from previous project implemented by PKSf i.e. CCCP. Slatted housing system of goat/sheep rearing is an innovative adaptation activity in Bangladesh. The PKSf has successfully piloted the slatted housing system of goat rearing in **Chuadanga** district first time in Bangladesh with one of the partner organization named Wave Foundation (WF). After successful piloting, PKSf is now disseminating the technology throughout the country.

189. Cluster based homestead plinth raise is another sustainable mechanism of plinth raise due to diversified uses as experienced during CCCP. Beneficiaries can produce year round vegetable on raised plinth and

during flood the affected people can take shelter on the raised plinth. These plinths are enriched with tube wells and improved sanitary latrines which are flood free.

190. The proposed project will demonstrate cropping pattern instead of a single crop in the climate vulnerable areas. Cropping pattern will consider choice of crop varieties, cropping season, life-cycle of crop, timing of disasters, land-type and soil quality etc.

F. ANNEXES

F.1. Mandatory annexes

<input checked="" type="checkbox"/>	Annex 1	NDA No-objection Letter(s)
<input checked="" type="checkbox"/>	Annex 2	Pre-feasibility study (including Theory of Change, project/programme-level log frame, timetable, map, and summary of stakeholder consultation and engagement plan)
<input checked="" type="checkbox"/>	Annex 3 A Annex 3 B	Budget plan that provides breakdown by type of expense Detailed breakdown of AE cost
<input checked="" type="checkbox"/>	Annex 4	Gender assessment and action plan
<input checked="" type="checkbox"/>	Annex 5	Co-financing commitment letter
<input checked="" type="checkbox"/>	Annex 6	Term sheet and evidence of internal approval
<input checked="" type="checkbox"/>	Annex 7	Risk assessment and management
<input checked="" type="checkbox"/>	Annex 8	Procurement plan

F.2. Other annexes to be submitted when applicable/requested

<input type="checkbox"/>	Annex 9	Economic and/or financial analysis (mandatory for private-sector proposals)
<input checked="" type="checkbox"/>	Annex 10	Legal due diligence (regulation, taxation and insurance)
<input checked="" type="checkbox"/>	Annex 11	Appraisal, due diligence or evaluation report for proposals based on up-scaling or replicating a pilot project
<input checked="" type="checkbox"/>	Annex 12	Environmental and Social Action Plan (ESAP)
<input checked="" type="checkbox"/>	Annex 13	Map of proposed project area
<input checked="" type="checkbox"/>	Annex 14	Example of participatory vulnerability assessment (PVA)

** Please note that a funding proposal will be considered complete only upon receipt of all the applicable supporting documents.*

No-objection letter issued by the national designated authority(ies) or focal point(s)



Secretary
Economic Relations Division
Ministry of Finance
Government of Bangladesh

D.O. No-09.00.0000.105.05.011.17-567

৩০ July 2019

Subject: Funding proposal for the GCF by PKSF regarding the project, 'Extended Community Climate Change Project-Flood (ECCCP- Flood)'

Dear Executive Director,

As the National Designated Authority of Bangladesh, I would like to refer to the project 'Extended Community Climate Change Project-Flood (ECCCP-Flood)' as included in the funding proposal submitted by one of the NIEs, PKSF to us on 14 July 2019.

Pursuant to GCF decision B.08/10, the content of which we acknowledge to have reviewed, we hereby communicate our no-objection to the project 'Extended Community Climate Change Project-Flood (ECCCP-Flood)' as included in the funding proposal.

By communicating our no-objection, it is implied that:

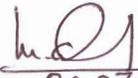
- (a) The Government of Bangladesh has no-objection to the project 'Extended Community Climate Change Project-Flood (ECCCP-Flood)' as included in the funding proposal;
- (b) The project 'Extended Community Climate Change Project-Flood (ECCCP-Flood)' as included in the funding proposal is in conformity with Bangladesh's national priorities, strategies and plans;
- (c) In accordance with the GCF's environmental and social safeguards, the project 'Extended Community Climate Change Project-Flood (ECCCP-Flood)' as included in the funding proposal is in conformity with relevant national laws and regulations.

We also confirm that our national process for ascertaining no-objection to the project 'Extended Community Climate Change Project-Flood (ECCCP-Flood)' as included in the funding proposal has been duly followed.

We acknowledge that this letter will be made publicly available on the GCF website.

olc

Kind regards,


30.07.2019
Monowar Ahmed

Executive Director
Green Climate Fund
Songdo Business District, 175 Art Center-daero
Yeonsu-gu, Incheon 22004, Republic of Korea

Copy to: Chairman, PKSF, E-4/B, Agargoan, Dhaka-1207

Environmental and social safeguards report form pursuant to para. 17 of the IDP

Basic project or programme information	
Project or programme title	Extended Community Climate Change Project- Flood (ECCCP- Flood)
Existence of subproject(s) to be identified after GCF Board approval	No
Sector (public or private)	Public
Accredited entity	Palli Karma-Sahayak Foundation (PKSF)
Environmental and social safeguards (ESS) category	Category C
Location – specific location(s) of project or target country or location(s) of programme	Bangladesh
Environmental and Social Impact Assessment (ESIA) (if applicable)	
Date of disclosure on accredited entity’s website	Click here to enter a date.
Language(s) of disclosure	[_]
Explanation on language	[_]
Link to disclosure	[_]
Other link(s)	[_]
Remarks	Not applicable
Environmental and Social Management Plan (ESMP) (if applicable)	
Date of disclosure on accredited entity’s website	Click here to enter a date.
Language(s) of disclosure	[_]
Explanation on language	[_]
Link to disclosure	[_]
Other link(s)	[_]
Remarks	Not applicable
Environmental and Social Management (ESMS) (if applicable)	
Date of disclosure on accredited entity’s website	Click here to enter a date.
Language(s) of disclosure	[_]
Explanation on language	[_]
Link to disclosure	[_]
Other link(s)	[_]
Remarks	Not applicable
Any other relevant ESS reports, e.g. Resettlement Action Plan (RAP), Resettlement Policy Framework (RPF), Indigenous Peoples Plan (IPP), IPP Framework (if applicable):	
Description of report/disclosure on accredited entity’s website	Click here to enter a date.
Language(s) of disclosure	[_]
Explanation on language	[_]
Link to disclosure	Not applicable
Other link(s)	[_]

Remarks	[]
Disclosure in locations convenient to affected peoples (stakeholders) Not applicable	
Date	Click or tap to enter a date.
Place	[]
Date of Board meeting in which the FP is intended to be considered	
Date of accredited entity's Board meeting	Wednesday, October 23, 2019
Date of GCF's Board meeting	Tuesday, November 12, 2019

Note: This form was prepared by the accredited entity stated above.

Secretariat's assessment of SAP008

Proposal name:	Extended Community Climate Change Project-Flood (ECCCP-Flood)
Accredited entity:	Palli Karma-Sahayak Foundation (PKSF)
Country/(ies):	Bangladesh
Project/programme size:	Small

I. Summary of the Secretariat's assessment

1. The funding proposal is presented to the Board for consideration with the following remarks:

Strengths	Points of caution
Directly targets the poorest and most climate-vulnerable communities	Transparent and fair beneficiary selection is critical, particularly in light of the significant needs of the local area and unmet demand
Interventions holistically address the impacts of flooding worsened by climate change and help people to adapt their assets and livelihoods to these impacts	Interventions are relatively fieldwork intensive and therefore require regular and ongoing training, field visits and monitoring, and thus additional costs
The approach and activities have been successfully implemented in a climate-change-designed precursor project in Bangladesh	

2. The Extended Community Climate Change Project-Flood (ECCCP-Flood), is the first funding proposal submitted by the Palli Karma-Sahayak Foundation (PKSF). It aims to build the climate resilience of 90,000 beneficiaries (20,000 households) in the flood-prone and poverty-stricken areas of the districts selected for the project (Nilphamari, Lalmonirhat, Kurigram, Gaibandha and Jamalpur) in northern Bangladesh. The project sites are riverine char lands¹ and low-lying areas of Bangladesh's Rangpur Division, intersected by the Brahmaputra and Teesta river system. Regular flooding worsened by climate change has already negatively impacted local communities' livelihoods and increasingly jeopardizes their assets, which are largely based on agriculture. The projected impacts of the continued effects of climate change are expected to result in an increased threat of severe flooding.

3. Project activities have been designed holistically to address climate-related flooding primarily through cluster-based plinth raising, which raises the land below the target villages above the high-risk flood zone, as well as complementary activities on flood-resistant crops, and improved water and sanitation. The proposal scales up a project funded by the World Bank, the Community Climate Change Project (CCCP), to support community resilience for vulnerable people in Bangladesh.

4. The project has four components which will be executed by PSKF, as both accredited entity (AE) and executing entity (EE). Ten local non-governmental organizations (NGOs) will serve as procured implementing entities on the ground in the selected districts.

¹ Land tracts surrounded by a water body, created usually by accretion.

5. Component 1 aims to provide the training and strengthened local capacity needed to undertake the core project activities and engage the target communities. Under this component, local groups called climate change adaptation groups (CCAGs) will be established within the target communities. Composed of community beneficiaries, they are the focal points of the project's implementation within the community, especially in relation to the delivery of support services. Eventually, they are expected to take ownership of shared community assets, such as the potable tube wells (output 3.1) and sanitary latrines (output 3.2), beyond the implementation period. This ownership model has proven effective at maintaining communal assets in the precursor project. The project will also undertake capacity-building of the procured implementing entities.
6. Component 2 centres on physical protection from flood impacts provided by raising plinths and reconstructing climate-resilient housing. GCF is requested to provide the funding to raise the homestead plinths in clusters against a 1-in-100-year flood standard, taking into consideration climate change factors and consultations with the local community. PKSf will provide co-financing in the form of micro-loans to rebuild the houses on top of the raised plinth clusters.
7. Component 3 seeks to provide enhanced access to safe water and sanitation through the installation of flood-resilient tube wells and the construction of climate-resilient latrines. Both tube wells and latrines increase climate resilience from a more reliable and accessible water supply. Tube wells and latrines also have clear development co-benefits in terms of health and sanitation.
8. Component 4 plans to increase access to flood-resilient livelihoods by providing support for raising goats/sheep in slatted houses and by the cultivation of flood-tolerant crops. PKSf's micro-loan co-financing will go towards the purchase of goats and sheep, which provide an important secondary asset and source of income, particularly in the context of extreme flooding and crop failure exacerbated by climate change. GCF is requested to provide the slatted housing for the goats and sheep; in the absence of this housing, the goats and sheep are often kept within the family home and thus can cause health and sanitation issues. Component 4 also trains farmers on the introduction of flood-resistant crops, as the farming land will remain exposed to flooding outside of the raised plinths.
9. The proposal requests USD 9.68 million in GCF grant financing. Co-financing from PKSf, the AE and the EE, is USD 3.30 million in the form of micro-finance loans and USD 0.34 million in the form of staff time and related operational costs. This has the total co-financing amount of USD 3.64 million, including partially covering project management costs. The total project size is USD 13.33 million. In terms of environmental and social safeguards (ESS), this proposal has been categorized as a category C project. The review by the Secretariat confirms the environmental and social risk category assigned by the AE. Please refer to the ESS findings section for more information. The project duration is four years.
10. Overall, the proposed project scales up an approach and activities that have been proven in the field under a climate-designed precursor project (CCCP), and thus fits well within the simplified approval process (SAP) modality. The proposal targets the poorest and most climate vulnerable in the local area and addresses a clear climate-change-related threat of worsened flooding. While the impact and paradigm shift for the project's direct beneficiaries is clear, the argument for its wider transformative potential is somewhat less convincing. Transformative potential hinges on the local implementing entities, who will incorporate their increased knowledge of expected climate change impacts into their routine development work, as well as with the wider community not directly selected for the project, who are expected to benefit from the knowledge generated and shared through the project. Transformation potential also hinges on the knowledge products to be developed and shared across the wider network of PKSf's partner organizations and the trainings to be conducted with stakeholders including

government partners. To what extent this engagement and knowledge sharing will influence behaviour on climate change considerations will need to be tested through implementation.

11. The Board may wish to consider approving this funding proposal with the terms and conditions listed in the respective term sheet and addendum XVII, titled “List of proposed conditions and recommendations”.

II. Assessment of the performance against the investment criteria

2.1 Impact potential

Scale: N/A

12. The project is expected to directly benefit 90,000 beneficiaries corresponding to 20,000 households (with an emphasis on female heads of household) across five flood-prone districts, 80 per cent of whom are women. Indirect beneficiaries are calculated at 100,000 people. Direct beneficiaries equate to 8.5 per cent of the total flood-vulnerable population in the five targeted districts, estimated to be 1.3 million people.

13. A key project strength is that the adaptation needs of the communities are built into the project design. A participatory vulnerability assessment will be done for each CCAG to identify climate vulnerabilities and corresponding long-term needs. The holistic approach taken to climate change in the project area considers not only the immediate risks of flooding worsened by climate change, but also the opportunities to build more climate-resilient livelihoods. In practice, this means not only raising clusters of homestead plinths so that houses are no longer at immediate flood risk, but also introducing crops that better tolerate floods and accommodate a shorter growing season, and rearing goat/sheep in slatted houses to diversify and supplement livelihoods.

14. A participatory vulnerability assessment will be conducted for each community, in consultation with each CCAG, to identify localized climate change vulnerabilities and plan accordingly at the community level. A results-based monitoring system will be put in place to track results through the project implementation period.

15. Critical project results are expected to be realized from the start of the implementation period and through the lifetime of the raised plinths, which is expected to be 10 years. During this time period, a beneficiary household could expect to avoid losses on the scale of USD 600–700 per severe flood for a USD 484 investment of GCF funds. These losses, if not avoided, could effectively set the target population back on both assets (e.g. home lost to flooding; sheep or goats lost, stolen or contracting water-borne diseases) and income (e.g. loss of crops) potentially multiple times over the lifespan of the project.

2.2 Paradigm shift potential

Scale: N/A

16. The proposal builds on the CCCP, the predecessor project. It was assessed in its independent final evaluation report to have achieved its stated objectives. PKSf has taken into consideration the recommendations put forward in that report into the design of this proposal, including capacity-building of procured implementing entities and expanding to other districts not covered by the previous project. A key strength is that the activities have been field-tested by the precursor project and are now being scaled up. The proposal argues that the activities are also innovative in the national context, though the innovation can be seen more easily in the integrated approach taking into consideration adaptation needs, rather than the individual activities which have been implemented in various capacities by different aid/development organizations.

17. Crucial to post-project sustainability is PKSF's objective to work with other local stakeholders. Firstly, the project will influence government and its partner NGO network (278 organizations with 9,945 branch offices) to include more climate change considerations in their policies, programmes, and projects. Through the project, good practices will be documented, learned and replicated in their own spheres of influence and areas of work (i.e. policies and strategies for governments and future projects and programming for NGOs). Secondly, it relies on the buy-in of the CCAGs and the communities they represent. The project is expected to build the local capacities of both local NGOs and CCAGs (community groups) to better understand localized climate change impacts and to better inform the climate dimension of local plans and livelihoods. CCAGs will be trained to maintain communal assets (e.g. tube wells) and households will be trained to maintain their assets (e.g. latrines shared between households, slatted housing for individuals). Behaviours are expected to be shifted as climate-resilient practices are introduced primarily through climate change awareness and local impacts as well as through climate-resilient crop demonstrations.

18. The proposal places a strong emphasis on knowledge and learning. Documentation and regular sharing of lessons learned has been incorporated into component 1 and the AE has put a clear emphasis on sharing knowledge locally through workshops and knowledge materials. The AE notes that local partner NGOs that are not selected as implementing entities (IEs) for this project will still benefit from the project's knowledge materials.

19. Project elements respond to the proposed theory of change and are well-aligned with its results chain. The institutional, social, and financial barriers identified are relevant to climate change adaptation.

20. In terms of replication and scalability, there exists a large potential for scaling up the activities in the project. As noted above, this project's direct beneficiaries equate to 6.9 per cent of the total flood-vulnerable population in the five targeted districts, estimated to be 1.3 million people. PKSF could scale this up to reach the remaining flood-vulnerable population; however, it would appear difficult to do so without equally increasing the total costs of implementation. The AE states that the NGOs selected as the project's implementing entities will gradually integrate climate-change issues into their credit programmes and other development sectors, thus mainstreaming climate change adaptation into local level planning and decision-making. Working with other partner organizations on future projects, if the project is to be scaled up further, would be expected to increase this localized mainstreaming benefit.

2.3 Sustainable development potential

Scale: N/A

21. The strongest area of sustainable development potential for the project is the gender-sensitive development impact. The project primarily targets female heads of household as the entry point for the interventions. Emphasis on female heads of household is reflected in the proposal's eligibility criteria. The AE has cited non-climate-change-related, gender-related inequalities, such as safety concerns (i.e. sexual harassment during a stay in an emergency flood shelter or embankment during a severe flood), can be mitigated through the raised plinth and supporting activities by providing a safe space for women in their own homes.

22. Strong economic and social benefits are also expected as a result of the project activities. An emphasis on climate-resilient livelihoods complements the activities to avoid economic losses from regular and severe flooding. Livelihood activities include the cultivation of flood-tolerant crops, cultivation of vegetables in sandbars on the raised plinths, and goat- and sheep-rearing. The formation of CCAGs as the basis for organizing and maintaining them leverages and reinforces strong community dynamics.

2.4 Needs of the recipient

Scale: N/A

23. Bangladesh is a flood-prone, least developed country. The project site, five districts in the Rangpur division, is often flooded. The impoverished and agriculture-dependent population are vulnerable to climate change and among the most economically disadvantaged in the country. A set of beneficiary selection criteria has been defined to include those who are living in riverine char and low-lying flood-vulnerable areas, and thus more at risk from severe floods. Flooding is seasonal and variable in the project area; climate change worsens it. Beneficiary selection criteria also targets those deepest in poverty, with criteria for daily income level and land ownership that reflect national standards of poverty.

24. Institutional needs are addressed through the training and capacity-building of the NGOs procured to implement the project. The training is intended to share knowledge of climate change adaptation tailored to national and local circumstances to supplement the core expertise of the procured implementing entities.

2.5 Country ownership

Scale: N/A

25. The rate of alignment with Bangladesh's climate change policies is high. The proposal has been designed to align with Bangladesh's Climate Change Strategy and Action Plan, and the country is currently preparing its national adaptation plan. The AE notes that the Bangladeshi Government has integrated climate change across its other development strategies, including its Seventh Five Year Plan. The proposal is aligned with other proposals approved by GCF, as this is the first GCF-funded proposal targeting climate-induced flooding adaptation activities in Bangladesh. The project's selection criteria also include a criterion on avoiding duplication of beneficiaries with GCF-funded projects and other efforts.

26. PKSF's implementation capacity as the project's executing entity is assessed to be adequate. This is also evidenced by the experience of PKSF serving in a role equivalent of the executing entity in the predecessor project. It successfully implemented the activities and has an extensive track record of working with local NGO partners across the country. PKSF's capacity and experience with other donor-funded projects are positively noted.

27. The project's implementing entities (IEs) will be procured at project implementation through Bangladesh's public procurement regulations and processes. The IEs are to be selected from the existing pool of PKSF's partner organizations based on selection criteria tailored to project needs. Appropriately, the project relies predominantly on national and local expertise.

28. Stakeholder consultation is a strength of the proposal and will be ongoing throughout the project. The stakeholder engagement plan provided is comprehensive and includes a range of stakeholders from local, regional and national government, local communities and the implementing entities to be selected.

2.6 Efficiency and effectiveness

Scale: N/A

29. The level of concessionality and the proposed financial structure of the project are adequate to meet the project's objectives. PKSF will provide co-financing in the form of micro-loans to rebuild beneficiaries' homes after plinth raising and for the purchase of goats and sheep, and GCF is requested to provide grant financing for the remaining activities. It was clarified during the project review that the proposed financial arrangements (a combination of grants and micro-loans) have been designed to avoid overburdening beneficiaries with personal loan debt. This is relevant when considering PKSF's loans for the purchase of goats and sheep while GCF grant financing pays for the construction of slatted housing for the goats and sheep.

30. For GCF funding, the cost per direct beneficiary of the proposal is assessed to be reasonable at USD 107 (USD 9.68 million over 90,000 direct beneficiaries) for the package of interventions proposed.

31. The economic benefits of the project will mainly result from reduced losses from flooding as a result of the raised plinths and reductions in waterborne diseases owing to tube wells. Although a formal economic model is not required for an SAP proposal, the project demonstrates cost-effectiveness through vegetable cultivation and goat or sheep rearing. PKSF has estimated the average reduced losses from flooding at USD 600–700 per household per year. As the project activities will amount to a one-off investment of USD 484 per household, it is likely to be cost-effective within a few years. These findings are supported by previous evaluation results from the CCCP.

32. The project uses GCF grant financing alongside a loan from PKSF. Grant funding is justified for outputs 1 and 3, as they provide public goods and public infrastructure, respectively. For outputs 2 and 4, no market failure has been identified, but the poverty level of the beneficiaries prevents them from making the investments that will improve their resilience.

33. The proposal leverages co-financing from PKSF, but the catalytic effect to mobilize other resources from other partners and/or domestic resources is not clear. The project does not present a strong case for its ability to catalyse or mobilize resources from other partners in the future as a result of its implementation.

III. Assessment of consistency with GCF safeguards and policies

3.1 Environmental and social safeguards

Does the project comply with the GCF environmental and social policy?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Does the project have minimal to no ESS risks compatible with SAP?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

34. The AE has screened and assessed the project to have minimal or no adverse environmental and social risks and/or impacts. GCF confirms the category C classification and does not require any additional advance information disclosure. The AE has provided an environmental and social screening and action plan which provides for management measures appropriate to the activities under the project. This includes homestead plinth raising, the installation of climate-resilient sanitary latrines and tube wells, construction of slatted goat and sheep houses, and cultivation of vegetables and crops. The IEs are expected to procure from local contractors the required skilled labour for plinth raising, tube wells and flood resilient latrines installations and use locally available materials like sand, bamboo, and corrugated iron sheets among others.

35. The project will not require land acquisition. Instead, beneficiaries will use their own lands for cultivation, with enhancements such as vermi-composting and implement integrated pest management. To ensure that marginalized groups are not excluded from project activities, the AE will adopt clear cut selection criteria and use participatory methodologies to minimize the risk of beneficiary selection bias.

36. The AE has organized stakeholder consultation meetings on the draft project documents with representatives of government and NGOs. The AE has also developed a stakeholder engagement strategy and plans to organize workshops and seminars with various beneficiaries and stakeholders during project implementation. Institutional and project-level grievance redress mechanisms (GRMs) which include processes and responsibilities for receiving, addressing, and monitoring concerns of affected beneficiaries and communities will be set-up at the implementing entities with the project management units executing the community-level GRMs.

3.2 Gender policy

Does the project comply with the GCF gender policy?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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37. The AE has provided a gender assessment and gender action plan; therefore, the project complies with the operational guidelines of the GCF Gender Policy and Action Plan. The gender assessment mostly relied on desk reviews and some consultations with women, but the plan includes an intention to intensify engagement of communities during the socioeconomic study phase as well as through the CCAG.

38. The gender assessment provides information on gender issues in Bangladesh with references to the Constitution, the United Nations Committee on the Elimination of Discrimination against Women, the National Plan for Disaster Management, and National Adaptation Programme of Action, among others, as well as other strategies that support gender equality and the empowerment of women. The assessment highlights the challenges communities in the locations generally face from flooding but emphasizes the additional burdens faced by women and girls. Although Bangladesh has made significant progress in poverty, human development and gender equality indicators over the last few decades, poverty and inequality remain prevalent, and the social status of Bangladeshi women still needs to be improved, especially in rural areas. Some of the challenges women face include poor representation in planning and decision-making processes in climate change policies; limited capacity to engage in political decisions that can impact their specific needs and vulnerabilities; sociocultural norms that shape perceptions on the value of women in addition to putting restrictions on women to take on unpaid domestic responsibilities; their distinctive role with regard to reproduction; their lack of mobility; and their limited access to information. Female heads of households are more vulnerable than married women because they often have a limited source of income, mobility outside of their locality is limited, and compensation for their labour in the market is low.

39. The project is aimed at building the adaptive capacity of the communities in the project locations by supporting climate resilient livelihoods, resilient homesteads (vegetable growing) and value chains, and post-harvest activities in which women are already playing a growing role. While women have roles to play, as indicated above, they face additional challenges, with female heads of households facing even more challenges.

40. The project is expected to directly involve 90,000 people, with one of the selection criteria for inclusion in the programme being a female head of household. The people will be grouped into CCAGs, with 80 per cent of members expected to be women. The CCAG will be used to identify the differentiated needs of women and men to address climate change impacts, develop the capacities of its members, and develop adaptation plans, among others. The project will support the following: 10,000 cluster-based plinth raisings above flood level; loans to repair 10,000 houses; construction of 2,810 climate resilient sanitary latrines (designed with women and the elderly in mind); installation of 500 tube-wells for drinking water (reducing the time and pressure on women who are responsible for fetching water as well as increasing access to safe drinking water); 6,000 farmers identified to cultivate flood resilient rice and wheat varieties; and 10,000 heads of household (all whom will be women) provided access to loans to rear goats/sheep in slatted housing systems.

41. During the assessment, consultations with women confirmed the importance of the investment in the plinths, with women happy with the kinds of activities planned in the project, which will keep homes safe from floods and allow women to maintain their livelihoods through investment in income-generating activities. The project envisages micro-loans (which consider affordability for women and the poor, the latter being given a six-month grace period for repayment) for reconstruction of houses, which is not mandatory, as well as loans for rearing

sheep and goats. The assessment also indicates that men will be supportive of the activities that will be undertaken by the women through the project (experience shows that while women attend trainings men take care of children or accompany their wives to the training venues). The project is gender responsive in that it has activities that are geared towards addressing some of the stereotypes and underlying causes for gender inequalities, and it seeks to address the challenges faced by women in the communities.

42. The AE has provided a sex disaggregated baseline and targets in the funding proposal and gender action plan. The gender action plan provides a baseline (zero), sex disaggregated targets (with targets ranging from 50 per cent, 80 per cent and 100 per cent for women and 10 per cent for female headed households). The action plan includes indicators, budgets for activities, and timelines for implementation. The AE will engage a gender expert to provide capacity support while the project management unit (PMU) is tasked to implement the gender action plan. The AE will have to ensure that the gender expert provides technical guidance to the overall mainstreaming of gender issues as well as implementation support to the project, while the PMU will need to make sure that it has gender competencies in place to effectively deliver the gender action plan.

3.3 Risks

3.3.1 Overall project/programme (medium risk)

43. The funding proposal requests a GCF grant of USD 9.68 million. The total project cost is USD 13.33 million with co-financing by way of loans from PKSF. The project builds on a previous project (CCCP) implemented by the AE. The AE will select the beneficiaries of the project and has provided criteria that includes vulnerability and poverty level of the recipients. However, the estimated direct beneficiaries, 90,000 people, represent 6.9 per cent of the flood-vulnerable population in the project target area. A fair consultative process with the government and communities is necessary for the appropriate selection of the beneficiaries.

3.3.2 AE/EE capability (medium risk)

44. The AE was established by the Government of Bangladesh in 1990 and has a track record of operating in the country through partner organizations (POs). PKSF's main sources of funding are grants and credit lines from external donors, government and loan recoveries. The AE is also taking an EE role. However, the AE's co-financing under the project to the beneficiaries will be done through the POs (AE will provide loans to POs and they, in turn, will provide loans to beneficiaries). The AE has proposed to select 10 POs through a competitive bidding process considering their permanent existence in project areas, years of experience and financial management capacity.

3.3.3 Project-specific execution (medium risk)

45. The beneficiaries under the programme will be provided grants from GCF resources and loans from the AE's resources. Though the AE has identified separate activities to be financed through the grants and loans, these activities are highly interlinked from impact perspective:

- (a) GCF's grant financing under outcome 2 will be used for plinth raising, and the AE's loan will be used for constructing houses on the raised plinth. Similarly, GCF's grant financing under outcome 4 will be used for building shelters for goats/sheep and the AE's loans will be used for the purchase of goats/sheep. Therefore, it is necessary that GCF's grant is only made available to the beneficiaries who are guaranteed to receive the loan funds for the interlinked activities;

- (b) While the beneficiaries will be the poor and ultra-poor inhabitants of the region (daily income less than USD 1.75 as per the AE's selection criteria), they will be provided with loans through the AE's resources at a flat rate of interest of 13.5 per cent. This may lead to the risk of the GCF grant partly cross-subsidizing loans from the AE. It is required that at each beneficiary level, the cost of work (e.g. plinth raising and building shelters for livestock) that will be financed from GCF's grant is separate to that of interlinked activities (e.g. home construction and purchase of livestock). Each cost item needs to be carefully monitored by the AE;
- (c) Construction and operation and maintenance of built assets: the construction of plinth, houses, and shelters will be done by the communities with support from other contractors, if required. The AE is expected to assess the communities' ability to carry out satisfactory construction work. The latrines and tube wells to be built under the project will be owned and managed by latrine users and communities, respectively. These groups need to be properly trained on the maintenance of these assets.
- (d) Economic viability: The funding proposal stated that it would cost USD 600–700 for a household to recover if affected by a single flooding event. The project will invest approximately USD 484 per household for raising homestead plinths, the estimated lifetime of each plinth is 10 years. Thus, supporting the economic benefits to the project beneficiaries.

3.3.4. GCF's portfolio concentration (low risk)

46. In case of approval, the impact of this proposal on GCF portfolio risk remains non-material and within the risk appetite in terms of concentration level, results area, and single proposal.

3.3.5. Compliance (low risk)

47. The project activities, particularly relating to the procurement of implementing entities, may present moderate exposure to the risk of prohibited practices, including money laundering and terrorist financing (ML/TF). However, these vulnerabilities are addressed in the proposed risk mitigating strategy set out in the funding proposal under Section B.3 (specifically in paras 102 and 103). As a precaution, the eligibility criteria for submitting expressions of interest includes ML/TF considerations. The AE will conduct proportionate anti-money laundering/countering the financing of terrorism (AML/CFT) due diligence in assessing the suitability of prospective implementing entities. Furthermore, based on the AE's accreditation assessment, it has a strong AML/CFT institutional framework in place and the required capacity to effectively implement the necessary mitigation measures throughout the project cycle. Taking into account the relatively limited risk of ML/TF in relation to the project outputs, as well as the AE's operational expertise in managing the risks of ML/TF, the overall residual risk exposure is assessed as low.

Summary Risk Assessment		Risk assessment
Overall project/programme	Medium	- AE as a DAE, has a track record of working in the country with other partner organizations. AE will also serve as an EE for the project. - As GCF grant will be financing closely interlinked activities funded by PKSF's loan, GCF grant should be made available when the recipients have certainty of receiving AE's loans.
AE / EE capability to implement the project/programme	Medium	
Project specific execution	Medium	

GCF's portfolio concentration	Low	
Compliance	Low	

3.4 Fiduciary

1. Does the project comply with the GCF AE fee policy?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. In case the EE/EEs is (are) different to the AE, has the financial management capacity assessment of the EE/EEs been undertaken?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>

48. PKSF will act as both AE and EE for this project. PKSF as an AE will:

- (a) Oversee the subproject appraisal process (i.e. selection of IEs);
- (b) Carry out project missions twice a year;
- (c) Provide necessary technical advice to the EE;
- (d) Review progress reports, unaudited financial reports and evaluation reports; and
- (e) Ensure compliance related to project implementation, including fiduciary standards.

49. As an EE, PKSF will establish a PMU to manage the GCF-funded project. A Project Director/Coordinator will head the PMU and oversee the overall implementation of the GCF-funded project.

50. In addition, as an EE, PKSF will monitor the implementation activities of IEs through both off-site and on-site monitoring systems. PKSF will adhere to a results-based monitoring system to ensure reaching the project goals efficiently and effectively.

51. The accounts of PKSF are prepared in accordance with the International Accounting Standard as adopted by the Institute of Chartered Accountants of Bangladesh, on a going-concern basis under generally accepted accounting principles. The accounts of PKSF are maintained on an accrual basis under historical cost convention.

52. PKSF has its own procurement guidelines, which are fully consistent with Bangladesh's Public Procurement Act, 2006, and Public Procurement Rules, 2008.

53. The internal audit division of the AE will carry out an independent audit and annually visit the IEs as per the audit plan of PKSF. In addition, external audits will be conducted annually.

3.5 Results monitoring and reporting

3. Is the project in line with the GCF monitoring and accountability framework for accredited entities?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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54. This proposal addresses adaptation impact on three result areas: 5. Enhanced livelihoods of the most vulnerable people, communities, and regions, 6. Increased health and well-being, and food and water security, and 7. Resilient infrastructure and built environment to climate change threats with expected number of direct and indirect beneficiaries of 90,000 and 100,000 respectively.

55. The logical framework in the revised funding proposal adequately reflects all the comments provided by the Secretariat and is in line with the GCF PMFs. The Secretariat also considers the monitoring and evaluation plan to be satisfactory.

56. The implementation timetable has been revised and indicates the project reporting milestones and deliverables, thus reflecting the comments provided by the Secretariat during the review process.

3.6 Legal assessment

4. Has the AE signed the accreditation master agreement (AMA)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> <u>Date of AMA execution:</u> 19 November 2018
5. Has a bilateral agreement on privileges and immunities been signed with the country where the proposed project/programme will be implemented?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
6. Has a certificate of internal approval been submitted?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

57. The Accreditation Master Agreement was signed with the Accredited Entity on 19 November 2018, and it became effective on 21 December 2018.

58. The Accredited Entity has provided a legal opinion/certificate confirming that it has obtained all internal approvals and it has the capacity and authority to implement the project.

59. The proposed project will be implemented in the People's Republic of Bangladesh, country in which GCF is not provided with privileges and immunities. This means that, amongst other things, GCF is not protected against litigation or expropriation in this country, which risks need to be further assessed. The Secretariat submitted a draft of the privileges and immunities agreement to the Government of Bangladesh on 30 September 2015. The agreement is currently under negotiation.

60. The Heads of the Independent Redress Mechanism (IRM) and Independent Integrity Unit (IIU) have both expressed that it would not be legally feasible to undertake their redress activities and/or investigations, as appropriate, in countries where the GCF is not provided with relevant privileges and immunities. Therefore, it is recommended that disbursements by the GCF are made only after the GCF has obtained satisfactory protection against litigation and expropriation in the country, or has been provided with appropriate privileges and immunities.

- (a) In order to mitigate risk, it is recommended that any approval by the Board is made subject to the following conditions:
- (b) Signature of the funded activity agreement in a form and substance satisfactory to the Secretariat within 180 days from the date of Board approval; and
- (c) Completion of legal due diligence to the satisfaction of the Secretariat.

Independent Technical Advisory Panel's assessment of SAP008

Proposal name:	Extended Community Climate Change Project – Flood(ECCCP-Flood)
Accredited entity:	Palli Karma-Sahayak Foundation (PKSF)
Project/programme size:	Small

I. Assessment of the independent Technical Advisory Panel

1.1 Impact potential *Scale: N/A*

1.1.1. General Background

1. Natural disasters such as flood, salinity, tidal surge and drought have been increasing in both frequency and intensity over the years in Bangladesh. As a result, there have been flood-related disasters in recent years that have had negative impacts on livelihoods in many towns and villages. Poor communities are usually the hardest hit, with women and children always affected harder than any other groups in the community due to their distinctive role and low capacity to cope. Scientists have predicted that climate change is expected to exacerbate the negative impact of these natural disasters, including flooding, in Bangladesh. Furthermore, apart from making homes unlivable, flooding also negatively impacts the poor and marginalized communities living in flood-prone areas. Their livelihoods generally depend on agriculture, including crops, livestock, poultry and fisheries, which are highly sensitive to climate change. In addition to affecting shelter, these disasters, especially flooding also affect water availability and sanitation. The project proposed under this simplified approval process (SAP) has been designed to ensure resilient shelter and livelihoods. It aims to make safe drinking water and sanitation available, even during floods, and enhance livelihoods. The accredited entity (AE) for this intervention, Palli Karma-Sahayak Foundation (PKSF), successfully proved the concept behind this proposed intervention through the implementation of the Community Climate Change Project (CCCP), which was funded by the Bangladesh Climate Change Resilience Fund. The project proposed under this SAP, Extended Community Climate Change Project – Flood (ECCCP – Flood), scales up the activities of the earlier CCCP; the experience and lessons learned from implementing CCCP have been built into this intervention. The main objective of the project, which is to increase the resilience of the climate-vulnerable communities in flood-prone areas of Bangladesh, will be achieved through the following four outcomes:

- (a) **Outcome 1:** capacities for addressing climate change of selected institutions who will serve as implementing entities (IEs) and community groups will be strengthened. Ten IEs will be selected to implement climate change adaptation projects at community level, and this intervention will build the capacities of 90,000 beneficiaries (representing 20,000 households, 4.5 members per average household in Bangladesh) in flood-vulnerable areas on climate change vulnerabilities and impacts. The 20,000 heads of households will be organized into 1,000 Climate Change Action Groups (CCAG), with each group consisting of approximately 20 households per group.
- (b) **Outcome 2:** homesteads will be protected from the adverse effects of flooding. To deliver this outcome, the project will raise plinths above flood level for 10,000 households, on a cluster basis, with alluvial sand in the riverine char land of the

Brahmaputra and Teesta river. The project will also facilitate the plinth dwellers to cultivate vegetables and plant trees year round on the raised plinths;

- (c) **Outcome 3:** provide increased access to safe water and sanitation. To deliver this outcome, the project will install 500 flood-resilient shallow tube wells for safe drinking water and 2,810 sanitary latrines for hygiene. Awareness-raising sessions on health and hygiene will be conducted in the monthly group meetings of CCAGs.
 - (d) **Outcome 4:** provide access to flood-resilient livelihoods. To deliver this outcome, the project will enhance the resilience of livelihoods of 10,000 households whose house plinths has been raised to protect against flooding. Activities that will be funded to deliver flood-resilient livelihoods will include rearing of goats/sheep in slatted houses; cultivation of flood tolerant crops; cultivate early and disease-resistant wheat varieties; and cultivate vegetables in sand bars.
2. The project will have both grant and loan financing. GCF will provide grant support, whereas PKSf will provide both loan and grant (in-kind) support. The total investment in the proposed project of USD 13.32 million will be provided as follows:
- (a) Grant from GCF = USD 9.68 million;
 - (b) Subordinated loan from PKSf = USD 3.30 million; and
 - (c) In-kind contribution from PKSf = USD 0.34 million.

1.1.2. Climate change elements

3. This project will adequately and sufficiently address the climate change adaptation needs of the most vulnerable people in Bangladesh. Given the fact that flooding and its negative consequences will become more exacerbated in coming years due to climate change, the need to build resilience for the poorest people, women and girls who are most impacted in flood prone-areas, and who are well captured by the proposed intervention. First and foremost, the raising of the plinth height and reconstruction of homes will bring the direct and indirect beneficiaries assured safety from debilitating floods. In addition, the provision of tube wells and sanitary toilets and the development of flood-resilient livelihoods will make living through flooding events less distrastrous compared to the business as usual scenario. The proposed project will fit into the climate change action plan of the Government of Bangladesh, which aims to minimize loss and damage caused by the impacts of climate change. This aim is built into existing government policy documents, which explain the national circumstances. These include the Bangladesh Climate Change Strategy and Action Plan (BCCSAP) and the country's national adaptation programme of action (NAPA) and nationally determined contributions, to mention a few key plans.

4. The key expected targets and indicators of this project intervention include building adaptive capacity and enhancing resilience to flooding in Bangladesh; ensuring that the poor, women and girls, who are usually the most vulnerable to such natural disasters, are given preference as beneficiaries of this intervention; and that livelihoods that are usually completely shut down during flooding events are made resilient through the raising of the plinths of the beneficiary homes, the provision of tube wells at the homes, provision and access to sanitary toilets during flooding and access to flood-resilient livelihoods. The achievement of these targets are strongly aligned with the following indicators from the GCF performance measurement framework: impact potential; country ownership; and needs of the recipients/beneficiaries. The alignment with other metrics including paradigm shift, sustainable development potential, and efficiency and effectiveness can be described as strongly medium or weakly high for reasons that will be discussed later in paragraph 22 and 31 in this report. Therefore, if successful, this intervention will deliver a sequence of physical and policy interventions that will reduce the vulnerability of the country to flooding events.

5. From the information provided in the funding proposal, it can be concluded that the estimated total beneficiaries (direct and indirect) as a core indicator of impacts were accurately estimated and calculation methodologies correctly provided.

6. The project design as presented in the funding proposal will yield climate change vulnerability enhancing benefits at the local level especially at the sites where the project will be implemented. However, successful implementation of this intervention, coupled with lessons learned from the earlier CCCP, will have far-reaching implications for replicability in other areas of the country where flooding is a key vulnerability. The implication is that the mechanism for replicating improved adaptive capacity development at will be ensured on a national level.

1.1.3. Time frame of results

7. The critical results expected to be achieved during project implementation period include: building the capacity of 90,000 carefully selected beneficiaries (to develop coping mechanisms for flooding and other disasters through training workshops and training on climate change; raising of the plinths of 10,000 homesteads and reconstructing houses to be climate-resilient to help beneficiaries remain in their homes during flooding events; providing 2,500 households with access to clean and safe water from tube wells that cannot be negatively impacted by the flood (500 tube wells with 1 tube well accessible to 5 households); providing access to clean, sanitary toilets for 2,810 households, taking health and sanitation into consideration and utilizing sound international water, sanitation and hygiene policies; installing raised plinths to establish flood-resilient livelihoods for households within the project implementation period.

8. In the medium- to long-term after the project is implemented, lessons learned from the experiences gathered will be available for replicating the success of the intervention in other parts of Bangladesh.

1.1.4. Potential mitigation/adaptation impacts and degree of lock-in infrastructure

9. According to information included in the pre-feasibility report, which is provided in annex 2 of the submission, the proposed project interventions were reviewed as part of the planning for the earlier CCCP as risk-specific adaptation technologies. For example, the pre-feasibility report states that the main activities in flood-prone areas is “raising cluster-based homestead plinth” in saline-prone areas, “increasing access to potable drinking water through a desalinization plant, pond with Pond Sand Filter (PSF), and a rainwater harvesting system”. In drought-prone areas the main activities are “increasing access to drinking and irrigation water through a shallow tube well and pond re-excavation”. It can therefore be concluded that the proposed project interventions have been assessed to be the most suitable and feasible adaptation options in flood-prone areas of Bangladesh. The lessons learned from the CCCP will be mainstreamed into the proposed project intervention ECCCCP – Flood.

10. The intervention is expected to deliver capacity development and strengthening in climate change adaptation to beneficiaries, thereby building their resilience and ability to cope with flooding. The activities and the direct and indirect beneficiaries that will be covered are estimated to be as follows:

- (a) First and foremost, 20,000 heads of households will be organized into 1,000 CCAGs, with each CCAG having roughly 20 households. Training workshops on climate change which will be delivered through monthly group meetings, participatory vulnerability assessment training, and training on the basics of adaptation action planning. These 20,000 heads of households will be made up of 16,000 women and 4,000 men. They are heads of household and/or representatives of households. Average household size of 4.5

- people multiplied by 20,000 households yields the 90,000 total beneficiaries that will benefit from this capacity-building;
- (b) The programme will involve the raising of the plinths of 10,000 homesteads, which will be selected from the initial 20,000 homesteads that will participate in the climate change capacity-building activities above. The raising of plinths will be financed with grant funding from GCF, while the reconstruction of homesteads to create climate-resilient houses will be funded by loans from PKSf. The total number of direct beneficiaries from the raising of plinths will be 45,000;
 - (c) A total of 500 tube wells will be constructed by this project utilizing GCF grant funding. One tube well will be provided for five households. The total number of direct beneficiaries will be 11,250 while it can be argued – depending on the closeness of the tube wells to the other 7,500 households whose house plinths were raised but which were not clustered for the constructed tube wells – that a maximum of about 33,750 indirect beneficiaries may be covered by this intervention;
 - (d) A total of 2,810 sanitary toilets will also be built in selected houses from those whose plinths have been raised, covering 12,645 direct beneficiaries. In principle, 7,190 houses whose plinths will be raised will not be provided with sanitary toilets; but in principle, if we assume that some of the people living in these houses can have access to sanitary toilets nearby, then indirect beneficiaries with access to these facilities may be up to 32,355; and
 - (e) Outcome 4 of the proposed intervention is expected to provide access to flood-resilient livelihoods through training and empowering selected beneficiaries to rear goats/sheep in slatted houses; cultivate flood-tolerant crops; cultivate early and disease resistant wheat varieties; and cultivate vegetables in sand bars. A review of the budget plan, which is Annex 3A of this funding proposal, indicated that all of the 10,000 households whose plinths were raised will benefit from the flood-resilient livelihood interventions. We can therefore conclude that direct beneficiaries for this outcome will be about 45,000.
11. The project will invest in durable goods such as climate-resilient homes with raised plinths to avoid the usual inconveniences of flooding; tube wells on the raised plinths to supply five clusters of homes with clean, unpolluted water even during floods; sanitary toilets on homes with raised plinths, which are protected from infiltration during floods and remain durable to serve beneficiaries safely and sanitarily even during floods; and a few durable goods associated with agriculture and animal husbandary on the raised plinths even during the flood. These physical interventions clearly came from the long history of Bangladesh as one of the countries with the highest incidences of flooding. Many of these durable goods have been used regularly as frequent floods ravage homesteads in the flood-vulnerable populations in the five districts selected for this project. The procurement of durable goods in CCCP implemented by PKSf in Bangladesh involved extensive proofing of the ideas, and it is expected that lessons learned from this earlier pilot intervention will be mainstreamed into the implementation of the various tasks in ECCCCP – Flood. This is a critical learning effect that will bring in positive outcomes to avoid lock-in systems and ensure climate-proofed results, not only for this intervention, but also for the replication of this success story for other flood-vulnerable populations not covered in this proposed intervention. Other lock-in avoidance mechanisms that are built into the project deliveries include carefully designed tube wells, which have been optimized with the capacity to serve the water needs of five homesteads. Lesson learned from this will be important in, for example, selecting the appropriate economy-of-scale and scope suitable for optimizing the intervention to serve more homesteads during replication in flood-prone areas not currently covered. CCAGs, as stakeholders receiving capacity-building support on climate change adaptation actions, will enhance collective action as an additional lock-in avoidance mechanism built in to the project. The fact that government agencies are

represented in the governance mechanism of PKSf will also engender an institutional learning effect, which is another important lock-in avoidance mechanism built into the project.

12. The independent Technical Advisory Panel (TAP) therefore sees this project intervention as more likely to yield a high impact potential.

1.2 Paradigm shift potential

Scale: N/A

1.2.1. Comprehensiveness

13. The paradigm shift objective of the project is to increase climate-resilient sustainable development in Bangladesh. The project elements include (i) capacity-building and enhancement of relevant stakeholders in the country; and (ii) physical interventions such as raising the plinths of homesteads in flood-prone areas of the country and providing tube wells on raised homesteads. These elements are well aligned with this objective and the proposed theory of change and its results chain.

14. The fact that the interventions covered by this proposed project are not new in Bangladesh, as many of them have been practised in the country in one form or another to adapt to flooding events, can lead to the conclusion that the project is not creating a paradigm shift. However, the fact that the interventions have been successfully piloted in an earlier project (CCCP) will ensure that the comprehensiveness of these interventions will aid in its replication in other flood-prone regions in Bangladesh, thereby enriching paradigm-shift quality of the project.

1.2.2. Innovation

15. Although most of the concepts to be implemented in this project are not new in Bangladesh, lending credence to the fact that the proposed project intervention is status quo and therefore not innovative, it can be argued that the way the different interventions – from capacity-building to the delivery of durable infrastructure to the provision of resilient livelihoods – have been integrated presents innovative ideas. The integration of the proposed interventions (capacity-building and the direct construction of facilities) was proven as a workable concept in CCCP, which was first conceptualized and managed by PKSf. The replication of these efforts in the currently proposed ECCCCP – Flood will further enhance the innovative characteristics of the solutions. The further replication of the integrated intervention in the future in flood-prone areas not yet covered will improve the quality of the delivered interventions and thereby lead to boosting the innovative nature of the approaches. The proposal builds on the previous experience with CCCP, which was also carried out in Bangladesh by PKSf. Experiences from CCCP will be mainstreamed into the implementation of ECCCCP – Flood through evidence-based evaluation, which will continue through the replication of such projects in other flood-prone areas of Bangladesh not covered in this intervention.

16. Therefore, it can be concluded that the innovation is not lacking in the proposal as discussed in paragraph 15 above and as such, the investment proposed will deliver innovative climate change resilience, strengthening interventions to address flooding and other natural disasters that are likely to be exacerbated in the future by climate change.

1.2.3. Enabling environment/sustainability of outcomes

17. PKSf has a strong non-governmental organization (NGO) network from the national to the local level. From these PKSf partner organizations, who have been active in Bangladesh for decades, 10 IEs will be selected for this project. The project will increase the capacities of these 10 IEs on how to address climate change issues at the local level. As these organizations operate

credit programmes at the community level, they will arrange financing by themselves and/or through other PKSf programmes to implement these activities beyond the project period. Through this programme, PKSf will also be mainstreaming climate change into its core programmes. In addition, PKSf is a government-owned company and has government representatives in its governing body, which should help in incorporating the climate change interventions, technologies and practices of this project in national policy and strategy documents. In addition, the 90,000 beneficiaries whose capacity will be built through the project will be equipped with the ability to identify climate change problems and/or their impact on national disasters, such as flooding, and the required adaptation options through the project interventions. All these project-related interventions will create an enabling environment for the sustainable replication of the outcomes of this intervention in homesteads in the flood prone areas of Bangladesh that will not be covered in this proposed project; this will include financial and exit strategies. This will impart a sound paradigm shift on this intervention.

18. All the interventions discussed in paragraphs 17 above will surely lead to changing the behaviours of institutions (e.g. PKSf), modifying government policies, especially those relating to climate change and adaptation, boosting the understanding of climate change issues and strengthening the adaptive capacity of populations living in disaster-prone areas of Bangladesh. It can therefore be concluded that the intervention as proposed will result in the behavioural changes of institution/communities/individuals in Bangladesh, especially on how to engender climate change resilience in the country.

1.2.4. Replicability and scalability/ knowledge and learning

19. The proposed project will be implemented in five selected districts in Bangladesh, with a target population of about 9.84 million (about 6 per cent of the total population of 160 million people). Flood-vulnerable populations in the five selected regions is about 13 per cent of the total population. Since this project will cover only 90,000 beneficiaries in the flood-prone areas of the five regions, there are other flood-vulnerable areas in the country where replication and/or upscaling of the successful intervention can be implemented. Lessons learned and experiences from this project can also be replicated in other countries with similar characteristics to Bangladesh.

20. A clear knowledge exchange for local stakeholders (government parastatals including PKSf; heads of households who will be organized into 1,000 CCAGs) is built into the project plan through workshops and project meetings. Experiences and knowledge will be shared throughout the lifetime of the project intervention, and this will form the necessary body of knowledge that will contribute to successful replication and/or upscaling in other areas in Bangladesh. PKSf should also be encouraged by the Secretariat to ensure that the experiences from this proposed project be shared internationally, at least in the region, to enhance replication of the project in other countries.

21. Traditionally, NGOs have been instrumental in policy formulation on environment and climate change in Bangladesh. They usually serve as a point of connection between the people, especially the poor and marginalized members of the community (women and girls), and the government. Specifically, they are the usual platform for mainstreaming the views of community in policies. This project intervention will rely very highly on the participation of NGOs. NGOs who have strong and long-term relationships with local communities due to credit programmes. These organizations would play a crucial role in promoting climate change adaptation activities at community level. The proposed project will select 10 NGOs as IEs in the proposed working areas and enhance their capacity through training and practicing adaptation activities. Given their traditional role as a bridge between policymakers and communities, their training in practical climate change adaptation issues will enable them to have relevant practical inputs for climate policy-setting. Hence it can be argued that their role in the project as an IE will initiate

the mainstreaming of climate change adaptation measures in policies/laws, sectoral and national strategies, and decision-making processes at national/regional/local levels.

22. Given that all of the interventions (raising of plinths, reconstruction of houses to be climate-resilient, provision of tube wells and sanitary latrines, and the various livelihood-enhancing interventions) have been practised for decades in Bangladesh, the only innovative aspect of the project is the integrated nature of these interventions in the earlier CCCP, which is now being replicated and scaled up in ECCCP – Flood. Therefore, coupled with the fact that only a small fraction of potential beneficiaries in the flood-prone regions of Bangladesh will be reached by this project, a higher paradigm shift may be recorded after a larger replication of this project design is carried out as a follow-up to this project in more flood-prone areas of the regions covered by this project and other regions in Bangladesh. We have therefore ranked this current project as medium to high in terms of paradigm shift.

1.3 Sustainable development potential

Scale: N/A

1.3.1. Environmental

23. The project will result in the raising of plinths of homesteads and the reconstruction of homes to make them more resilient during extreme events, including flooding. Such houses will also be provided with tube wells and sanitary latrines that will be protected from inundation. In the absence of the project, such homes will be flooded, bringing in all the pollution usually associated with such events, with negative health impacts on exposed people. The project will not only enable such inhabitants to continue their livelihood, but they will also be protected from the pollution. In addition, tree planting on the raised homestead will increase biodiversity in the project area. Furthermore, interventions such as Pit System of Pumpkin Cultivation will improve microorganism in the soil.

24. Although a very elaborate monitoring plan (direct onsite and indirect) based on the monitoring system of PKSF, which is a continuous assessment of the different programme interventions, was described in the funding proposal, specifics on what will be monitored, especially in a way that can quantify positive environmental externalities, was not presented in the funding proposal.

1.3.2. Economic/social

25. The project is expected to increase connection among the beneficiaries through their organization into CCAGs, with government policy-setting and formulation progressed through PKSF.

26. The key focus of the project interventions is to improve and strengthen adaptive capacities in the country. It is therefore expected to enhance climate-resilient livelihoods and hence the productivity of beneficiaries, especially during flooding events. This will contribute to sustainable development in the capture region and when scaled up, the intervention will positively affect the sustainable development of more regions in Bangladesh.

27. An emphasis on climate-resilient livelihoods is expected to complement activities to avoid economic losses from regular and severe flooding. It will also induce financial benefits at the homestead level, which would have been impossible in the absence of this project. This is because when flooding occurs, the livelihoods of beneficiaries are usually completely shut down and they incur damages from flooding events. The project is therefore expected to reduce losses from severe flooding regularly experienced in the area of intervention.

28. The project is expected to contribute to the improved health of direct and indirect beneficiaries who will no longer be exposed to polluted flood waters from flooding inundation

because of the raised plinths of homesteads. During flooding events, the beneficiaries living in houses whose plinths were raised higher than flood level will be safer during these events and have reduced risk of exposure to vector-borne diseases.

1.3.3. Gender

29. The project's special consideration given to women started in the design stage. The funding proposal states that in selecting the direct beneficiaries, who will be organized into CCAGs, priority will be given to women and especially women-headed households. Specifically, of the 20,000 CCAG members, approximately 16,000 will be women heads of households. This special emphasis on female heads of household is reflected in the proposal's eligibility criteria. For example, in recognizing the special needs of women in Bangladeshi communities, women will be provided with increased access to sanitary toilets and tube wells on the raised plinth houses. This will safeguard women's safety and guarantee better health compared to status quo ante, especially following flooding events. This demonstrates that very strong gender inclusion, consideration and mainstreaming has been built into the project plan.

30. Other examples demonstrating the adequate consideration of women's needs include the fact that women will be given priority in the distribution of facilities that will address inequalities that are not climate change-related but related to gender, such as sexual health concerns (e.g. sexual harassment during a stay in an emergency flood shelter or embankment during a severe flood). Women's role in the society will also be strengthened through skills acquisition through participation in various trainings and workshops.

31. Given the strong gender inclusion and mainstreaming, the "good" score for the co-benefits of environment and economic/social attributes and the fact that the intervention is aligned with Sustainable Development Goals (SDG) 1, 2, 3, 13 and 16,¹ this project intervention seems to have high sustainable development potential. However, the iTAP has scored the intervention with "medium" sustainable development potential, especially given the scope of regional coverage. If the integrated intervention included in the design of ECCCCP-Flood is successful, more of this type of flood negative impact mitigation will be implemented, and the sustainable development potential will be given a higher score.

1.4 Needs of the recipient

Scale: N/A

1.4.1. Economic and social needs and climate vulnerability

32. All the beneficiaries of this intervention (estimated to be about 190,000) and their productive assets will be exposed to the negative impact of flooding, which is one of the more significant hydro-meteorological hazards facing the country. As presented in the theory of change section in the funding proposal, flooding, like many of the other hydro-meteorological disasters commonly plaguing Bangladesh, is recurring and linked to climate change and variability. The following risks are being targeted by the proposed project: 1) risk of complete destruction of the living abode from flooding events, which, as a result of the of raised plinths and home reconstruction strengthen the infrastructure from expected damage from flooding; 2) health risks, which will arise from the consumption of polluted water during flooding events and will be mitigated through the provision of tube wells at the raised plinth homesteads; 3) health risks from the irregular use of sanitary facilities by women and girls during flooding, mitigated by providing adequate access to these marginalized members of the communities; 4)

¹ SDG 1: End poverty in all its forms everywhere; SDG 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture; SDG 3: Ensure healthy lives and promote wellbeing for all at all ages; SDG 13: Take urgent action to combat climate change and its impacts; and SDG 14: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.

and economic and social risks of losing livelihoods during flooding events, which will be mitigated by carrying out flood-proof livelihood interventions. The project is definitely needed given the fact that Bangladesh ranks sixth among the world's top 10 countries most affected by extreme weather events in the last 20 years according to the Global Climate Risk Index² by think tank Germanwatch. In addition, two thirds of Bangladesh is less than five metres above sea level, and floods increasingly inundate homes, destroy farm production, close businesses and shut down public infrastructure.

1.4.2. Financial needs

33. Bangladesh is a least developed country and as such does not have adequate financial resources to address its myriad development needs. Over the years, the country has depended on bilateral and multilateral grants to address its climate change vulnerability. The Government of Bangladesh recently estimated that it will need about USD 42 billion to meet its nationally determined contribution commitments (mitigation and adaptation) as submitted under the United Nations Framework Convention on Climate Change. Grant funding, such as the funding being requested for this project, will go a long way to assist the country in meeting these commitments, given the limited local and national resources. GCF grant funding will play an important role, to a certain extent, in overcoming financial barriers that may make the achievement of this goal impossible to attain.

1.4.3. Institutional needs

34. The capacity-building component of this project is linked to activities that will be covered in outcome 1 of the project. Specifically, the capacities of selected institutions who will serve as IEs and community groups to address climate change will be strengthened. Ten IEs will be selected to implement climate change adaptation projects at community level, while capacity-building efforts on climate change vulnerabilities and impacts will be carried out for about 1,000 CCAGs formed from the 20,000 carefully selected households in the flood vulnerable areas. PKSf is an entity of the Government of Bangladesh that was established in 1990 and registered under the Companies Act 1913/1994 as a “not for profit” organization. PKSf will act as both the executing entity (EE) and the AE for this project and will be responsible for the overall execution, management and operational details of this project.

35. In this capacity, PKSf will select the 10 IEs from its existing pool of PKSf partner organizations based on selection criteria tailored to project needs. PKSf is the main government institution driving this project and will work with these selected NGOs. The 10 IEs will be selected from a pool of NGOs who have a very strong working history with PKSf and a strong and long-term relationship with local communities due to credit programmes. For this project, the IEs are expected to play crucial roles in promoting climate change adaptation activities at community level. Output 1 of this project will enhance the capacity of these 10 IEs to implement climate change adaptation projects at community level. The IEs that will benefit from output 1 of this project intervention already have some capacities that make them well-suited for the role they are expected to play. Although PKSf is a governmental not-for-profit organization and is the key link to climate change policy formation at governance level, there is only an indirect link to national climate change policy-setting within the proposed architecture of this project. This is an area that will need more strengthening to deliver useful outputs beyond those that will be delivered by outputs 2, 3 and 4.

36. Given the strong economic and social as well as financial needs for addressing climate change vulnerability issues in Bangladesh, as described in the funding proposal and summarized above, the iTAP has concluded that this project should have a high score for need of recipient. This is in spite of the indirect linkage of the project delivery to country policies on

² See <<https://germanwatch.org/en/12978>>.

climate change. PKSF, a government organization, has been able to mainstream the work it is doing in addressing several sectoral issues, and it should be able to achieve the same result for this project.

1.5 Country ownership

Scale: N/A

1.5.1. Alignment with climate change policies

37. The climate change policies of Bangladesh are well articulated in many documents, which include the BCCSAP (2009); its NAPA, prepared by the Ministry of Environment and Forest, as a response to the decision of the Seventh Session of the Conference of the Parties (COP-7) of the United Nations Framework Convention on Climate Change; its Vision 2021 and the associated Perspective Plan 2010–2021; the Seventh Five Year Plan of the Government of Bangladesh; and the the National Plan for Disaster Management (NPDM) 2008–2015. The proposed project is aligned with Bangladeshi climate change policies in the following ways:

- (a) BCCSAP: each of the six pillars of BCCSAP has programmes that are directly related to the project interventions. Some of the relevant focuses of the six pillars of this national climate change strategy and plan include: food security, social protection and health; comprehensive disaster management; infrastructure; research and knowledge management; and capacity-building and institutional strengthening;
- (b) NAPA: provides a list of priority activities to mitigate the impacts of climate change in Bangladesh. According to the information available in the funding proposal, all the interventions included in the proposed project qualifies under NAPA;
- (c) Vision 2021 and the associated Perspective Plan 2010–2021: the vision of the Perspective Plan is to take effective measures to protect Bangladesh from the adverse effects of climate change and global warming. The plan includes all possible steps to protect vulnerable people from natural calamities; and
- (d) The Seventh Five Year Plan and NPDM: while the Seventh Five Year Plan provides an articulation of the Bangladeshi commitment to addressing climate change and equitable development, the NPDM addresses disaster risk reduction and climate change adaptation.

38. It can therefore be concluded that the proposed project is well aligned with national policies, strategies and plans related to climate change in Bangladesh.

39. **Other policies.** The proposed project is also well aligned with the country's socioeconomic development plans, which are well elucidated in the various five-year development plans (most current in terms of funding proposal preparation is the Seventh). Over the years, these plans have consistently focused on, among other things, sectoral strategies to grow the country's economy, which usually also include social issues such as poverty reduction and alleviation.

40. **Complementarity and coherence.** The proposed ECCCCP – Flood has been designed using lessons learned from a similar project (CCCP) implemented by PKSF, albeit at a smaller coverage scale compared to what is planned in this project. The various interventions incorporated into the design of ECCCCP – Flood were all lessons learned from the earlier CCCP. The proposed activities were selected based on the experience from CCCP. While implementing CCCP, project management unit staff frequently visited the project areas and found these activities effective in terms of increasing the resilience of the vulnerable communities. In addition, the midterm and final evaluation by independent consultants (Aide Memoire by the World Bank (the fiduciary manager of the project)) have rated these activities as satisfactory and effective, hence their choice for replication in an integrated manner in ECCCCP – Flood.

1.5.2. Implementation capacity: accredited entity

41. PKSF, the AE for this project, was established by the Government of Bangladesh as a not-for-profit organization in 1990. Key mandates of the organization from its inception include poverty alleviation; inclusion and people-centred interventions; sustainable and equitable development; and the promotion of sound health and livelihoods for all citizens. All of these areas of focus, many of which have been achieved by PKSF in its interventions in Bangladesh over its almost three decades in existence, indicate that the AEs have established strong records and capabilities in the key sector-specific elements of the proposed ECCCP – Flood;

42. PKSF is a national entity that was specifically created by the Government of Bangladesh. Over the last few decades, it has and has established field offices with strong staff strength to be able to supervise this project. In addition, over the years PKSF has maintained a very strong working relationship with its partner organizations, who are NGOs in the country and who have been effectively involved in many of the interventions carried out by PKSF in the country, including CCCP. It is from this large group of partner organizations that the 10 IEs, who will play crucial roles in ECCCP – Flood, will be carefully selected.

43. PKSF, which is the direct access entity for this project, will also serve as the EE for this proposed project. It will build the capacity of CCAGs, who will be direct beneficiaries of the project intervention, and the capacity of the 10 carefully selected IEs, who will have very effective interactions with the beneficiaries at each stage of project implementation. Given the interventions that PKSF has carried out in the country in its over two decades of existence, it can be concluded that the AE has relevant experiences in Bangladesh especially on similar project funding amount and working with the selected EE (s).

1.5.3. Implementation capacity: executing entity

44. PKSF is the EE for this project, and its mandate as a government “not-for-profit” organization, some of which are listed in paragraph 41, of this write-up shows that the organizational mandate of the EE is well aligned with ECCCP – Flood.

45. PKSF since its inception, has implemented many projects according to its mandate, and over that period it has set up infrastructure for delivering its mandates. This includes, but is not limited to: strong corporate office with a well structured board, management team and staff members and guidelines on financial management and procurement. With long experience in managing projects in Bangladesh funded by donors and other development partners, PKSF has its own finance division with well designed and efficient financial management and internal control systems. It has in place an effective monitoring and control system to monitor all its operations, including activities of its partner organizations and the projects. An independent audit firm carries out external audits of PKSF, and will continue to do so for the financial management of the project by PKSF. Given the information on the capacity of PKSF, which are summarized in this Paragraph 45 and elucidated in the funding proposal including reports on the performance of the AE in the CCCP it can be concluded that PKSF, as EE, has the required capacity, including the financial management capacity, to manage the proposed ECCCP – Flood, periodically assess project progress and provide reports on results to GCF.

1.5.4. Ownership

46. A key country ownership metric of this proposed project is that all important stakeholders are in the country. The AE is a direct access entity that was established by the Government of Bangladesh more than two decades ago. It is the lead decision-maker for this project. Through the careful selection of partner organizations, which are also in-country entities, relevant institutions in the country will be involved in this project. The project will

build the climate change capacities of beneficiaries organized in CCAGs and carry out interventions; this will increase country ownership scale.

47. All of the interventions, project management, monitoring and reporting will be carried out by national actors. The non-participation of non-national actors in this project is completely justified given the performance of the EE on national projects over the last few decades; the fact that the EE successfully implemented a similar project (CCCP) to the acclaim of international donors; and the fact that PKSF will build the capacity of the IEs and the CCAGs to participate fully and robustly in the project.

1.5.5. Stakeholder consultations

48. There is evidence that stakeholders were consulted during the design and implementation of CCCP, which is being proposed for replication as ECCCCP – Flood. According to the information provided in the funding proposal, while implementing CCCP, project management unit staff from PKSF frequently visited the project areas to discuss with the partner organizations and beneficiaries and found these activities effective in terms of increasing the resilience of vulnerable communities. This consultation continued during the specification of the interventions and is expected to continue throughout the implementation of ECCCCP – Flood. The stakeholder engagement plan during the implementation of ECCCCP – Flood is expected to cover a range of stakeholders from local/regional/national government, local communities and the IEs to be selected.

49. A specific focus of this project since its inception is on women and girls. This is why 80 per cent (16,000 out of 20,000) of the heads of households, who will be organized into CCAGs, will be women. This will ensure that more women will be provided access to the interventions (raised plinths of homesteads and climate proofing; tube wells; sanitary latrines and various livelihood-enhancing interventions). The views of women and other vulnerable groups were incorporated into the development of this project.

50. A careful plan is in place to identify the 10 IEs who are expected to play leading roles in the project implementation and the 1,000 CCAGs, who will be direct beneficiaries of the interventions and who will be trained on not only on climate change issues but on salient implementation aspects. These capacity-building of these stakeholders is part of output 1 of this project, and a plan for this is included in the funding proposal. The plan, according to the iTAP review, is comprehensive and sufficient.

51. The iTAP concludes that the country ownership of the proposed ECCCCP – Flood is high.

1.6 Efficiency and effectiveness

Scale: N/A

1.6.1. Financial structure

52. The total funding for this project (USD 13.32 million) is expected to be provided by GCF with co-financing from PKSF. The breakdown of the funding contribution by source, type of fund and total provided for the project are presented in table 1 below:

Table 1: Project funding details

	Source	Type of fund	Amount (million USD)
1.	GCF	Loan	0.00
		Grant	9.68
2.	PKSF	In-kind	0.34

	(Co-finance) microfinance	3.30
Total		13.32

53. About 73 per cent of the total funding for the project is requested from GCF as grant funding. Requiring grant funding from GCF can be justified by the fact that the funding is expected to support poor and marginalized households in flood-prone regions of Bangladesh, whose incomes are low and insufficient to bear the cost if the financial support is a loan. Furthermore, the funding from GCF is expected to cover activities such as the required capacity-building that will promote the success of the project intervention; the raising of the plinths of the existing and reconstructed houses; and the provision of tube wells and sanitary toilets at the houses with raised plinths, etc. These are not revenue-generating activities. Given these reasons, one can conclude that the request for grant funding from GCF is justifiable. The only available benchmark to compare the total funding required to implement this project is the earlier CCCP. The unit price of each activity is considered against the costs of CCCP. According to the funding proposal, the unit rates quoted are considered to be 10–20 per cent higher than those for CCCP due to an assumed 6 per cent inflation rate each year. It is expected that the estimated budget, including the provision of about USD 250,000 for meeting any challenges or barriers that may be encountered during the project implementation period, should be adequate to successfully implement the project activities. Furthermore, the provision of interbudgetary revisions, as was done for CCCP, should be help in dealing with most unforeseen circumstances that may arise during project implementation.

54. The project financing structure has been designed for interventions in which most of the beneficiaries are very low-income families who are unable to fund the necessary interventions listed in this project at any time, especially during extreme flooding events when they usually lose all livelihoods and their homesteads. From the experiences logged by PKSf during the pilot CCCP, micro-finance loans were effective in assisting beneficiaries in repairing their homes before the plinth is raised, maintaining them after and supporting goat- and sheep-rearing income-generating activities. The goal in this project is to replicate this success using funds from PKSf, while the grant from GCF is focused on the other intervention. PKSf experience in managing micro-finance portfolios is strong and does not in any way compete with any private sector and public investments for these kinds of interventions. Its continued use in this project will therefore NOT crowd out private and other public investments.

1.6.2. Co-financing/leveraging

55. The co-financing included in the funding proposal is targeted at those activities that the beneficiary, in the absence of this current project, will not have the ability to implement on their own given their income levels. Hence it can be said that the project is leveraging adequate level of of co-financing, determined on a project-by-project basis, from domestic resources.

56. The successful implementation of this project will only benefit about 20,000 households with a total of about 90,000 direct beneficiaries. All these beneficiaries will receive capacity-building on actions to take to build resilience to flooding events, with only about 10,000 homesteads (45,000 total beneficiaries) receiving support for renovating their homes to make them more durable to flooding events and raising their plinths. The population of beneficiaries were picked from five regions in Bangladesh with a total population of 9.84 million people exposed to flooding events. The total beneficiaries that will be impacted by this intervention will be about 6.9 per cent of the total possible beneficiaries in the region chosen. The successful implementation of ECCCCP – Flood, it can therefore be concluded, will produce enough of an experience base to enhance the replicability of the interventions for the remaining potential beneficiaries in the selected regions. It can also be argued that this success will assist PKSf to

mobilize more micro-finance from other financiers, both foreign and domestic, to replicate most of the interventions in a wider capture area of Bangladesh.

1.6.3. Financial viability/best practices

57. The financial viability of the project beyond GCF support is dependent on the proper choice of the 10 IEs, which are expected to have very solid experience in such activities in the selected regions in Bangladesh over an extended period of time. After the conclusion of the project, the IEs are expected to stay in the project area as it is their core working area. They will continue the services they rendered during project implementation and strengthen the financial services, which they offered during project implementation to include savings, credit and enterprise development, among others, for the CCAG members. This linkage of the beneficiaries and the IEs has been designed to be long term. The IEs should organize a workshop at the local level, involving local government representatives and local actors, and hand over the assets to the respective beneficiaries. The project should organize workshops at the national level, involving policymakers and actors, to share the results of the project interventions. Publications will be developed during the last year of the project.

58. Since the raising of the plinths of houses in flood-prone areas of Bangladesh has been practised for decades, it can be argued that the use of this age-old technology in the country has provided important experience that has improved over time, including the incorporation of best practices from CCCP. Thus, it can be argued that the roll-out of project interventions in ECCCCP – Flood replicates best-practice plinth-raising activities in Bangladesh by using the lessons learned in the earlier intervention managed by PKSF. Other best practices that will be achieved through the funding of this project will include:

- (a) Use of cluster-based homestead plinth-raising, a sustainable mechanism that will allow beneficiaries to produce year-round crops on raised plinths;
- (b) Slatted housing systems for goat/sheep rearing, a practised technology in the country, which was perfected through the successful launch of CCCP project and which will now be replicated at a slightly higher level through ECCCCP – Flood; and
- (c) Cropping pattern practice instead of the traditionally known single crop practice, which will provide more sustainable output in these vulnerable areas. Cropping patterns will consider choice crop varieties; cropping seasons; life cycle crops; timing of disasters; land type; and soil quality, among others.

59. Multiple options for each of the interventions were considered and piloted through CCCP, and lessons learned from the choices made during that project period, which were collated through the targeted monitoring of successes and failures during this earlier intervention, are incorporated into the design of the interventions in ECCCCP – Flood.

60. Based on the discussions presented above, the independent TAP concludes that the efficiency and effectiveness of the proposed ECCCCP – Flood is high.

II. Overall remarks from the independent Technical Advisory Panel

61. The iTAP therefore recommends that the GCF Board approve this funding proposal.

Response from the accredited entity to the independent Technical Advisory Panel's assessment (SAP008)

Proposal name: Extended Community Climate Change Project- Flood (ECCCP- Flood)

Accredited entity: Palli Karma-Sahayak Foundation (PKSF)

Impact potential

Max 100 words

PKSF thanks iTAP for intensive reviewing the funding proposal and the comments on impact potential. PKSF also appreciates that review of this section (impact potential) is very much aligned with the goal of the project. However, number of beneficiaries may be reconsidered as: Paragraph 1 (a): Number of direct Beneficiaries are 90,000 representing 20,000 selected households. The Climate Change Adaptation Groups (CCAGs) will be formed with 20,000 direct Beneficiaries representing 1 member from each selected household. Among the CCAG members, 80% or 16000 will be women and 10% of 16000 or 1600 will be women who are the heads of the households.

Paradigm shift potential

Max 100 words

PKSF appreciates the comments made on this issue. However, number of beneficiaries in paragraph 17 which might be 90,000 instead of 20,000.

Sustainable development potential

Max 100 words

Thanks iTAP for those recommendations.

Needs of the recipient

Max 100 words

Thanks to iTAP members for positive recommendation. The review of this section is well explained and reflected the funding proposal prepared by PKSF.

Country ownership

Max 100 words

PKSF appreciates iTAP's recommendations to the Board. This review reflects the funding proposal sufficiently and accurately.

Efficiency and effectiveness

Max 100 words

Thanks to iTAP members for the recommendation to the Board.

Overall remarks from the independent Technical Advisory Panel:



Max 250 words

The PKSF highly appreciates iTAP members for making the recommendation on the FP.

**Extended Community Climate Change Project- Flood (ECCCP-
Flood)**

Gender Assessment and Action Plan

April 2018

Prepared by



Palli Karma-Sahayak Foundation (PKSF)

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1. Introduction

The Green Climate Fund recognizes the importance of gender considerations in terms of both impact of and access to climate funding, and requires a Gender Assessment and Gender Action Plan to be submitted as part of the project-funding proposals that it assesses. The main objective of the Gender Assessment is to screen the gender aspects of the projects to be financed by GCF, and to subsequently strengthen the gender responsive actions within the project. The current project aims to reduce this vulnerability by addressing their adaptive capacity from multiple levels. The gender assessment report should be considered as an integral part of the project proposal including other annexure like the Feasibility Study, Stakeholder Engagement and Environmental and Social screening and action plan etc.

2. An overview of the proposed project

Considering the vulnerability to climate change of the flood vulnerable people, PKSf has decided to submit the project proposal to GCF on “Extended Community Climate Change Project- Flood (ECCCP- Flood)” under “Simplified Approval Process (SAP)” mechanism. A brief description of the proposed project is presented below:

Goal: The overall goal of the project is “to enhance resilience of the vulnerable communities to the adverse impacts of climate change through adopting climate-adaptive technologies and practices”.

Major activities

The project will directly involve 20,000 beneficiaries. Total budget is estimated USD 13.32 million and project period is 4 years. Major activities are raise homestead plinths in clusters, provide financial support to reconstruct climate resilient houses on raised plinth, install tube wells, construct climate resilient sanitary latrines, rear goat/sheep in slatted houses, cultivate flood resilient rice variety BRR1 dhan 51 & 52 and BINA dhan 11, cultivate early and disease protective wheat variety BARI 26 and cultivate vegetables in sand bars. The project will carry out vulnerability assessment and action plan, provide necessary capacity building training to different actors etc. Monitoring and evaluation will be an integral part of the proposed project. It is expected that the project will improve well being of rural vulnerable people in the flood affected districts, increase income of selected households and influence policies of the government.

Outcomes of the proposed project

1. The project is divided into four outcomes i.e. 1) Institutions (IEs) and community groups strengthened capacity on addressing climate change; 2) Protection of homestead from adverse effect of flood 3) Increased access to safe water and sanitation and 4) Accessed to flood resilient livelihoods. The activities under ECCCP-Flood will be implemented for flood risk zone.

3 Gender Assessment

Although Bangladesh has made significant progress in poverty, human development and gender equality indicators over the last few decades, poverty and inequality remains prevalent, and the social status of Bangladeshi women still need to be improved, especially in rural areas. Central to the issue of gendered inequality, is that Bangladeshi women suffer under a particularly high burden of low-paid work, responsible for a range of essential household functions such as collecting water, providing childcare, and producing half of the food at the household level, yet making up only a quarter of the industrial workforce.

4.1 Social Aspects

The mobility of women in Bangladesh varies depending on social status, religious affiliation and whether they live in urban or rural areas. Socio-cultural norms not only shape perceptions of the value of women, but also restrict a large proportion of women to unpaid domestic responsibilities, further reducing their productive value in the eyes of Bangladeshi society. These restrictions are felt throughout the social sphere, with limits on women's access to education and healthcare. In 2011, only 54.5% of girls were enrolled in secondary school, while 42% of women aged 15-19 were unable to attend a health center alone. The recent local study indicates that only 12% women travel outside of their village alone, and that when they travel other family members such as children (52%) and other female members (18%) usually accompany them, which has important implications in terms of women's access to markets. Although these social dynamics are in flux, and there have been important shifts due to economic conditions and opportunities, traditional beliefs regarding the role of women in the household and public spheres remain deeply conservative.

Looking after children & old and cooking for all members of the family are seen as the central roles of a woman throughout Bangladesh, particularly in rural areas, and the nature of work a woman performs is principally conducted within the premises of the household. This type of labor remains socially invisible and has little exchange value or impact on woman's decision-making power, reinforcing women's undervalued role in Bangladeshi society. The tradition of dowry still prevails, violence against women and child marriage is decreasing in the area because people are becoming more aware. Promisingly, a recent study carried out in the target districts, indicated a changing awareness in regards to the challenges faced by women, with women reporting that if they are financially empowered, they can do anything.

4.2 Role of women in decision-making

Women are poorly represented in planning and decision-making processes in climate change policies, limiting their capacity to engage in political decisions that can impact their specific needs and vulnerabilities.¹ There has been increasing recognition in international policy frameworks on the importance of incorporating gender in climate risk reduction efforts. In 2009, the Committee on the Elimination of Discrimination against Women (CEDAW) stated, "all stakeholders should ensure that climate change and disaster risk reduction measures are gender-responsive, sensitive to indigenous knowledge systems and respect human rights. Women's right to participate at all levels of decision-making must be guaranteed in climate change policies and programmes" and the IPCC's report in 2014 highlights vulnerability due to climate change due to gender.² The UNFCCC Paris agreement in 2015 also formally recognized the intersection of climate change and gender equality, but women's participation in planning and decision-making on climate protection is still low, even in industrialized

¹CCC, 2009

²UN Women, 2016

countries, and is linked above all to the heavily technical nature and male dominance in key areas of work related to climate risk including energy, transport, and urban planning. This is certainly the case in Bangladesh, where women’s perspectives on resilience are sometimes absent from national conversations.

In regards to women’s role in the domestic sphere, most household activities are done by women, with the highest participation in activities such as house cleaning, child care, cooking and meal preparation and lower but significant participation in household level activities such as tree plantations, dairy farming, and poultry rearing.³ Despite this central role in household activities, women’s decision-making power remains limited, with a recent study indicating that 31% of household decisions are made by women and that women’s participation rate in choice of crop to be grown, and the buying and selling of agricultural products is 19% and 34% respectively and even lower in decision regarding property at 20%.

Regardless, women’s central role in household management places them in a pivotal position for adapting livelihood strategies to changing environments. Given that women’s roles in decision-making is higher in areas such as food preparation and distribution, resolving food deficits and household work, management of harvested crops, women are central in assuring household food security as livelihood strategies shift due to slow-onset impacts such as flood and are assigned higher responsibility in disaster preparedness particularly in storage of food and water, during rapid-onset disasters. Adding nuance, a context-specific view of women’s role in household decision-making in the vulnerable flood and drought districts targeted by the project is also available from the baseline assessment of socio-economic conditions carried out by UN Women, and is presented in Table 1 below. The results clearly indicate that that women’s decision-making power greatly limited in all spheres, with higher participation in regards to food distribution and household work (including collection of water).

Table 1: Role of women in decision-making

SI No.	Type of Decision	Percent
1	Food related (Meal preparation, distribution etc.)	86.78
2	Meeting food deficit	33.58
3	Selling assets (land, house, livestock, seeds)	9.40
4	Selling agricultural production (crops, seeds)	6.88
5	Buying household assets (livestock, ornament, trees.)	11.10
6	Buying agricultural production (crops, seeds etc.)	7.35
7	Receive credit from mohajon/relatives/bank/NGO/GO	14.50
8	Agricultural work (crop cultivation, land mortgage etc.)	5.84
9	Household work (Collection of water, collection of natural resource etc.)	47.91
10	Household decision making (Engage in new income generating activity, conceiving a baby, using savings, ownership of VGD/ VG	11.59
11	Female and children healthcare decision making	16.32
12	Decision making about communication (Female going outside the homestead, going for work, education for children)	11.06
13	Decision making on disaster preparedness/coping/adaptation (Going to a shelter, Engaging in alternative livelihood activity	11.48
14	Other	14.29

Source: UN Women (2014)

³Assaduzzaman, 2016

4 Gender and Climate Change Vulnerability

It is widely documented that women experience the effects of climate change differently than men, both in terms of adjusting livelihood strategies, in their changing relationships to scarce resources and in regards to disasters. There are physical, cultural and social factors, often linked with poverty, that blend in making women more vulnerable to climate change than men. For example, women in Bangladesh are more dependent than men on natural resources threatened by climate change for their livelihoods, with the responsibility to secure water, food and fuel for cooking and heating for their households. As one of the key responsibilities of women is to prepare food for the household, they have to suffer to manage food if there is a crop failure due to climate change related disaster like flood. It has also been shown that women in Bangladesh face social, economic and political barriers that limit their coping capacity, confronting unequal access to resources, information, and cultural restrictions, which limit their mobility.⁴ Climate change effects on health also affect women and girls indirectly through the added burden of caring for sick relatives and, directly, through the additional work and physical effort of collecting water and other resources for their families at increasingly longer distances. Climate change impacts on food production and access also disproportionately affect the nutrition and health of poor women⁵. Finally, recent research has also shown that the strenuous economic conditions created by climate change are leading to an increase in child and forced marriages in Bangladesh, as dowries become cheaper⁶. Compelling evidence from this research has shown that child and forced marriages of girls appear to be short term solution designed to ease both the food insecurity and future financial pressures on families exacerbated as a result of climate events. The research concludes that attention to climate challenges must take a much broader focus on social consequences in order to protect the human rights of women and girls in vulnerable communities.

“Climate change is a major threat to the environment and natural resources, which we need for the Sustainable development of our globe. Climate change will undermine the very foundation of socioeconomic development and will increase inequality and poverty. It will have a serious impact on the livelihoods of poor women in developing countries, as the increasing droughts and storms will affect agriculture and water resources, which are often the responsibility of women”. Women can, however, play a central role in adaptation to climate change. Women often lead the way in adapting to climate change impacts, but they also play a key role in mitigating climate change by optimizing energy efficiency, using low-footprint energy sources and techniques, and influencing a household’s and community’s consumption patterns. Low-emissions development pathways can be more effective and more equitable where they are designed using a gender-informed approach. Billions of women around the world make decisions every day that influence the amount of carbon that is released into the atmosphere, for example as home-makers, as farmers and land-managers, or as consumers. Women make major share of the daily purchasing for families and take the lead in households combating climate change. Such choices can be expanded in ways that reduce carbon footprints while also promoting co-benefits for gender equality. When it therefore comes to decision-making and implementation towards building resilient communities in the face of climate change, the full and meaningful participation of women become essential. Until recently, however, policy responses at the global or national level did not reflect this reality, and even at this juncture we still have a long way to go. Over the last decade, new knowledge has been generated that allowed for a clearer understanding of the

⁴UN Women, 2009

⁵ IPCC, 2001

⁶ Alston, 2014

linkages between gender and adaptation. As this understanding grew, it also positively influenced government thinking especially in relation to the Pilot Program for Climate Resilience (PPCR).

The IPCC suggests that the differentiation of vulnerability to climate change among population groups can be clearly observed in the pattern of vulnerability to natural disasters. In general, women have less access to resources that are essential in disaster preparedness, mitigation and rehabilitation⁷ and women and children are 14 times more likely to die than men during disasters.⁸ In Bangladesh, as in global estimates, women are more affected and suffer more during and after disasters than men, exemplified by the impacts of cyclones on women in the coastal areas of Bangladesh. During Cyclone Sidr for example, many of the female casualties in coastal Bangladesh occurred because women, the majority of which are homebound, were busy tending the family livestock when the cyclone struck and could not leave without prior preparations, others died because their traditional clothing (saris) got trapped in trees and other objects while running, and others perished trying to rescue or search for children who could not evacuate fast enough^{9,10}. Furthermore, the cyclone was announced primarily among men, with many women lacking the necessary information to evacuate, remaining at home and facing serious risks.¹¹ Disaster preparedness requires decision-making and leadership, but in Bangladesh, women are generally excluded from such roles.¹² Post disaster stages also take a toll on women. Often, women find facilities for personal hygiene in shelters are inadequate, and with few alternatives, are exposed to urinary tract diseases, maybe sexually abused while looking for firewood or reconstruction materials, face deteriorating nutrition status as they eat less in order to offer more food to other household members and they lose the natural resources and livelihood assets they depend upon¹³. Regarding early warning and disaster preparedness, women consulted mentioned having been included in village disaster management committees and have been provided training and necessary equipment, such as early warning flags. The GoB and Bangladesh Red Crescent Society are also rolling out a cyclone preparedness program using community volunteers. However, none of these initiatives has focused on women's particular needs and have not identified gender segregated preparedness plans and priorities.

The climate variability has pushed women into a vulnerable and marginalized position in Bangladesh. For the analytical purpose, already mentioned that climate change itself does not directly affect the women, but the disasters especially natural disasters and man-made disasters like socially constructed system have made the situation possible where climate change plays a key role in instigating the vulnerabilities. This work examines the relations between extreme weather related disaster and gender-bias in the social vulnerability. These are part of the gendered impacts of climate change together with its consequences on women's health, agricultural livelihoods, water access and use, wage labour, migration and conflicts related with the deterioration of the environmental conditions (Brody et al., 2008). WHO notes, 'women and children are particularly affected by disasters, accounting for more than seventy five percent of displaced persons. In addition to the general effects of natural disaster and lack of health care, women are vulnerable to reproductive and sexual health problem, and increased rates of sexual and domestic violence. Moreover, gender roles dictate

7 UN Women, 2014

8 Araujo, 2007

9 Kabir, 2016

10 Alam, 2010

11 Kabir, 2016

12 Alam, 2010

13 MoEF, 2012

that women become the primary caretakers for those affected by disasters-including children, the injured and sick, and the elderly-substantially increasing their emotional and material workload. Women’s vulnerability is further increased by the loss of men and/or livelihoods, especially when a male head of household has died and the women must provide for their families. Post disaster stress symptoms are often but not universally reported more frequently by women than men’ (Dasgupta et al., 2010, p.6).

Both during disasters and in the face of changing environmental conditions, women’s role in communities is not formally recognized or accounted for in mitigation, adaptation and relief efforts and women’s knowledge about ecosystems and their particular strategies, experiences and skills for coping with water shortages, are often ignored^{14,15}. Overall, women and girl’s vulnerability to climate change generally depends on the interaction of three key functions: - exposure (E), sensitivity (S), and adaptive capacity (AC). The exposure is largely determined by the climatic hazards and the extent the women and girls are exposed to flood, flash flood and drought. The following table provides a summary of the vulnerabilities of women and girls in the context of climate change in flood, flash flood and drought areas in Bangladesh:

Table 2: Women and Girls Vulnerability to flood and flash flood: flooding, heavy rainfall, Water logging and temperature rise

<i>Critical elements at risk</i>	<i>Exposure (degree and frequency)</i>	<i>Sensitivity (Low to High)</i>				<i>Deficit in Adaptive Capacity</i>
	<i>Flood</i>	<i>Inundation of homestead</i>	<i>Water logging</i>	<i>Heavy rainfall</i>	<i>Temperature rise</i>	
<i>Life</i>	Very Likely	High	Very Likely	Very Likely	Very Likely	Less education to understand early warning; lack of warning system for flood; less access to early warnings; less places to evacuate during flood; tendency to undermine the risks from flood; lack of long term predictions of flood and water-logging, inadequate facilities for women and girls in public flood shelters; lack of women volunteers; lack of gender sensitive rehabilitation; lack of water and sanitation in houses and public shelters during flood and water-logging.

¹⁴Dankelman, 2002

¹⁵UN Women, BCAS (2014)

Critical elements at risk	Exposure (degree and frequency)	Sensitivity (Low to High)				Deficit in Adaptive Capacity
		Flood	Inundation of homestead	Water logging	Heavy rainfall	
Employment	Very Likely	Very Likely	Very Likely	Very Likely	Very Likely	Lack of diversity of livelihoods; lack of off-farm livelihood skills; reduced options for on-farm livelihoods; cultural barriers in employment in industry sector; limited SMEs to absorb women labour; lack of women with diversified skills in urban sector jobs; poor capacity to enter into skilled service sectors; heavy domestic responsibility; lack of incentives in skilled job outside domestic territory; sole responsibility for child care.
Food Production	High	High	Very Likely	Very Likely	High	Lack of available varieties of food to produce in flood and water logging context; lack of means to recover food loss from flood; lack of fresh irrigation options; lack of grasses and other inputs for livestock rearing.
Food Preparation	High	High	Very Likely	Very Likely	Very Likely	Lack of fire-wood during flood; unsafe and flood water for cooking; lack of hygiene during flood; lack of food during heavy flood; lack of knowledge on food and nutrition standards; lack of storage facilities during flood onsets; challenge of food preservation in extreme temperatures.
Sanitation and Hygiene	Very Likely	High	Very Likely	Very Likely	Very Likely	Lack of number of flooding, cyclone and water logged proof/resilient toilets; poor public health condition; lack of personal hygiene knowledge.
Shelter Maintenance	High	High	Very Likely	Very Likely	Certain	Poor maintenance of household assets and housing materials safer from flood, water logging,; lack of retrofitting materials and capacities to protect house from hazards; lack of financial capacities to prepare hazard proof/resilient house materials.
Child Care	High	High	Very Likely	High	High	Lack of means and knowledge to protect children from death, injury, fever, drowning, de-hydration, malaria, pneumonia, and other water-borne diseases.
Reproductive Health	High	High	Very Likely	High	High	Lack of knowledge and means for safe births during flood, water logging; lack of trained birth attendants in flood; lack of easy access to MCH clinic and hospitals in disasters.

<i>Critical elements at risk</i>	<i>Exposure (degree and frequency)</i>	<i>Sensitivity (Low to High)</i>				<i>Deficit in Adaptive Capacity</i>
	<i>Flood</i>	<i>Inundation of homestead</i>	<i>Water logging</i>	<i>Heavy rainfall</i>	<i>Temperature rise</i>	
<i>Girl's Education</i>	High	High	Very Likely	Very Likely	Very Likely	Challenge to continue education of girls during flood/flash flood; water-logging; increased role of adolescent girls in domestic spheres during disasters; increasing tendency to early marriage amongst disaster affected households; discontinuation of girl's education; lack of social safety net for girl's continued education.

Source: UNDP Bangladesh, 2015

5 Gender and the Women's Development Policy (WDP)

In (the context of the Convention on the Elimination of All Forms of Discrimination against Women CEDAW) and the Beijing Platform of Action, Bangladesh has developed several policies and sectoral strategies to ensure gender equality, including the Women's Development Policy (WDP), 2011 and the National Action Plan (NAP) to implement the WDP. The objective of this policy is to take special measures to enhance the overall safety and security of women and children, including helping them deal with disasters, ensuring rehabilitation services of those affected with special consideration for disabled women and ensuring food distribution and assistance to eliminate bottlenecks created due to extreme climate events and disasters. The proposed project will consider the following policies, strategies and action plans regarding gender aspects.

Bangladesh Climate Change Strategy and Action Plan (BCCSAP)

The Bangladesh Climate Change Strategy and Action Plan (BCCSAP) identifies women, particularly in poor households, as an important target group for monitoring and planning to protect livelihoods and achieve objectives for equitable and sustainable growth.

Climate Change and Gender Action Plan (ccGAP)

1. The underlying principle of the ccGAP is the transformative nature of gender-focused interventions and the action plan has the potential to enhance the effectiveness and efficiency of climate change and socio-economic development responses. The development of the ccGAP followed a participatory process that included in-country meetings, stakeholder consultations involved representatives from several ministries/government departments, civil society, academia, research institutions, local NGOs and international organizations, as well as a desk review of several key reports, publications, websites, surveys and in-person interviews.
2. The ccGAP integrates gender considerations into four of the six main pillars as identified in the BCCSAP: (i) Food security, social protection and health; (ii) Comprehensive disaster management; (iii) Infrastructure and (iv) Mitigation and low carbon development. The remaining two pillars of the BCCSAP, those of research and

knowledge management and capacity building and institutional strengthening, were mainstreamed within the above four pillars as crosscutting topics.

3. Under the food security, social protection and health pillars, emphasis has been given to integrate gender and climate change concerns into policies and national documents concerning the agricultural sector, create an environment to lease land/water bodies to women, ensure crop insurance and/or other safety nets for poor female farmers, access to financial instruments and involvement of women applying alternative technologies e.g. bio-fertilizer and climate resilient cropping practices.
4. Under the Comprehensive Disaster Management pillar, some actions worth highlighting are the development of a gender responsive disaster management policy, increased participation of women in union and upazila disaster management committees (UDMC/UzDMC), allocating financial resources to address gender and DRR issues, participation of women in community risk assessments, vulnerability and capacity assessment activities, as well as activities to help women and men provide first aid and primary health care as first responders in an emergency.

The National Plan for Disaster Management

This plan recognizes the particular vulnerabilities of women, though in implementation these do not necessarily trickle down into disaster-specific or local plans. The policy calls for incorporating the needs of female internally displaced persons (IDPs) in that it encourages the building of separate facilities where possible, and for the inclusion of women in the management committees of flood shelters. In practice, security and privacy concerns continue to deter women from shelters, and there as mentioned above there continues to be evidence of increased domestic and external violence against women taking place during and after the onset of disasters.

National Adaptation Program of Action (NAPA), 2005

The Government of Bangladesh also launched its National Adaptation Program of Action (NAPA) in 2005. The document is the product of a collective effort of stakeholders and highlighted the main adverse effects of climate change. It also identified the country's adaptation needs. At the time of submission, the NAPA provided a response to the urgent and immediate needs of adaptation and identified priority programs in Bangladesh. Of the 43 countries that have developed NAPAs up to November 2009, Bangladesh is among a group of eight countries that incorporated gender in a more comprehensive manner throughout the document. In total, eight references to gender are made. Poverty reduction and security of livelihoods with a gender perspective has been ranked as the most important set of criteria for prioritization of adaptation needs and activities and it is acknowledged that various groups in society will experience the impacts thereof in various degrees depending largely on the economic condition they find themselves (poor or non-poor), their location (coastal or non-coastal, rural or urban) and their gender.

Sixth Five-Year Plan (2011 – 2015)

Bangladesh has been preparing its medium-term development plans known as the Five-Year Plan (FYP) since 1973. Against the backdrop of poverty reduction, employment and growth rate targets set in Vision 2021. The Sixth Five Plan, 2011-2015 endeavors to initiate the transition to the higher growth path. This growth path, while ambitious, is achievable through a strategy that transforms Bangladesh from a rural agro-based economy towards an urban

manufacturing-based economy. The Sixth FYP is also informed by the MDGs. These are particularly relevant for the Sixth FYP as its termination coincides with the 2015 MDGs deadline. The targets outlined in the Sixth FYP fall into seven broad categories, including Income and Poverty, Human Resource Development, Water and Sanitation, Energy and Infrastructure, Gender Equality and Empowerment, Environment Sustainability and Information and Communications Technology. The Plan also includes strategies to incorporate “gender mainstreaming into policies” and to “integrate gender issues in planning and budgetary processes” by placing a strong emphasis on the importance of managing climate change through incorporation thereof.

6 Position of Women in Bangladesh

The Constitution of Bangladesh (Articles 27, 28, 29 and 31) guarantees equality and non-discrimination on account of sex, religion, ethnicity, place of birth in order to provide scope for affirmative action in favour of the “backward section of citizens”. Article 24 promised to ensure religious freedom within a pluralist, National framework and Article 28 (sections 1,2 and 3) ensures equality in all spheres of life between women and men. Although the constitution guarantees equality between women and men in public domain but further scope for improvements remain in the private sphere. These have been upheld in differing degrees since independence some 4 decades ago, changes have occurred in some contexts, including in the situation of women. Efforts towards women’s development in Bangladesh are based on a wide array of international commitments including the Millennium Development Goals (MDGs), the CEDAW (1979), and the Beijing Platform of Action (1995), amongst others. Following the declaration of the UN Decade of Women (1976-85), the Government of Bangladesh, national and international non-government organizations and others have undertaken several programs towards the advancement of women in the country. Simultaneously, the women’s movement has also played an important role in raising mass awareness of women issues and enhancing women’s participation in every sphere of life in order to achieve equality. As a result, over the last 40 years, women in Bangladesh, as was the case with women in other developing countries, have gradually become more visible in the labor force, development programs and local institutions such as local government bodies.

Gender parity in primary and secondary education has been achieved and the Government of Bangladesh also established institutions for girls and women at the secondary and tertiary level. However, concerns are raised over the high drop-out rate among girls, especially in rural areas, the gender gap at technical/vocational and the tertiary education levels, and the high number of girls who suffer sexual abuse and harassment both at school as well as on their way there. Barriers experienced by women and girls to quality education, for example, the lack of physical infrastructure, the lack of facilities for girls in schools, the negative impact of early marriages and the lack of access to education by rural women and girls are also of concern. The Bangladesh Labour Act (2006) promotes equality of opportunity in employment and provides for equal pay amongst men and women. However, it does not extend to workers in the informal sector where the largest population of Bangladesh’s women is being employed. The persistence of discrimination against women in the labour market, in particular, occupational segregation, a wide gender wage gap and the exploitation of girls is also prevalent.

With regards to Millennium Development Goal 3 (Promote Gender Equality and Empower Women), it is Noteworthy to mention that the total fertility rate (TFR) has fallen from 7 live births in the mid-70s to 2.3 births per woman in 2011 as the contraceptive prevalence rate

increased from about 8% in the early 1970s to 40 % in early 1990s to 60% by 2011. The reduction in birth rate is also attributed to education of girls and more women joining the work force. Another positive development is that women's life expectancy has increased to 68.9 years in 2009 from 46.7 years in 1960. Overall mortality amongst women of reproductive age has consistently declined over the last 10 years. The maternal mortality has decreased from 322 per 100,000 live births in 2001 to 194 in 2010. More needs to be done, however, to meet the MDG target of 143 deaths per 100,000 live births by 2015. At primary and secondary level enrolment in educational institutions, girls now account for larger proportions at 1.02% and 1.14% respectively. Girls are also doing better, or no worse, in public examinations at these levels compared to their male counterparts. However, at the tertiary level the proportion of girls is only 39%, which is largely due to social reasons such as the marrying off of girls at that age. Overall, girls lag behind in science education. The World Development Report 2012: Gender Equality and Development mentions that in Bangladesh, a woman earns only 12 cent for every dollar that a man earns, one of the lowest wages earned by women compared to other countries of the world. A major breakthrough has been achieved in the area of education and employment for girls due to affirmative action by the government and employment opportunities in the Ready Made Garments (RMG) industries that employ mostly women. Although the wage rates at entry-level within this sector is much lower than in other sectors requiring similar (or less) skill. Other issues such as unsafe working conditions and high levels of harassment also reduce the contribution to women's empowerment and gender equality.

7 Gender Considerations for the Proposed Project

The earlier CCCP did not have Gender Assessment and Action Plan but consultations with women were carried out during proposal designing stage by the applicant organizations. Later on, women members were involved in most of the activities particularly in group meetings, homestead plinth raise, goat/sheep rearing, vermi-compost production, vegetable cultivation etc. Necessary female staffs were also recruited at IE level.

Napoleon Bonaparte stated that "Give me an educated mother, I will give you an educated nation." The project adopted this approach. The women will be educated on climate change issues in their localities because mother is the best teacher of a child. The children will learn about climate change from their mother. This will have long term impacts in the society. The new generation will grow in a climate resilient environment. The CCAGs will include mostly female members because enhancing capacity of a women on climate change issues means enhanced capacity of the whole households. The activities are designed in a way that the women will be mostly benefited economically and socially. Besides, necessary female staffs will be ensured at the field level so that women members can easily express their opinions and actively take part in the project activities.

Like CCCP, the proposed project has taken a gender responsive and transformative approach to climate change vulnerability, considering gendered differences in access to resources, ability to pursue adaptive livelihoods and institutional support and capacity building, and this has fundamentally shaped all of the activities and outputs of the project. The proposed project recognizes women's essential contributions as leaders and agents of change in the face of a changing climate and resource constraints.

The ECCCCP-Flood project considers not only the benefits of women, but also considers the inter-sectional vulnerability to changing conditions, of those beneficiaries facing additional

- Daily income is less than USD 1.75; less than USD 1.75; and vulnerable areas;
 - Those who women headed households and from other disadvantaged organization;
- marginalization due to poverty, and social exclusion. The project design recognizes to build adaptive capacity in regards to changing climatic conditions, by supporting climate resilient livelihoods, resilient homestead and better integration into local value chains, in which women are already playing a growing role.

The ECCCCP-Flood project will accommodate GoB's policies and strategies on women's resilience and their critical role in preparedness and recovery from disasters and the necessity of shifting livelihoods towards adaptive options, efforts remain limited compared to the actual and acute needs of women. The Gender Assessment expands on the information provided throughout the proposal, by providing additional information on the national and local gender context, particularly in regards to women's access to resources, their role in decision-making and the gendered aspects of local livelihoods, and provides the basis for, and lessons on which, the Gender Action Plan (which is reflective of the overall project design) has been built. The activities of the proposed project have been selected considering that women can easily implement to enhance their capacity and increase their resilience to climate change.

The important livelihood option selected for the proposed project is goat and sheep rearing in slatted houses. The proposed project will select only women participants for implementing the activity because traditionally, all most all women in rural areas of Bangladesh including flood zone commonly rear livestock animal including goat and sheep. But the traditional process of management is a constraint of achieving expected benefit of rearing goat and sheep. The proposed project will provide support technological support and capacity building training to make it climate resilient and sustainable livelihood adaptation to climate change.

8 Gender considerations by activities

Outcome 1: Institutions (IEs) and community groups strengthened capacity on addressing climate change

Activity 1.1.1: Beneficiary selection and group formation

The project will select 20,000 households covering 90,000 direct beneficiaries in consultation with local government institutions and community people. For measuring the poverty, the project will use Poverty Probability Index (PPI). At this stage of selection, we will first select the 20,000 HHs based on the following selection criteria:

- I. Those who are living in riverine char and low-lying flood vulnerable areas;
- II. Priority on women headed households and other disadvantaged groups.
- III. Poor and ultra-poor households (as defined in the Household Income and Expenditure Survey (HIES 2016) of the Bangladesh Bureau of Statistics (BBS-2017)¹⁶);
- IV. Daily income is less than USD 1.75;
- VI. Those who are not receiving any support from other project or organization;

The beneficiary selection process will follow intensive consultations at districts, upazila (sub-district), union and community level. The district consultation with government and non-government representatives will identify the most vulnerable upazila. Similarly the upazila

¹⁶ This document defined extreme poor as the person having purchasing power parity (PPP) below 1.25 USD a day and PPP below 1.90 a day is called poor.

consultation meeting will identify most vulnerable unions and consultations at union level will identify most vulnerable villages. At the village level, the community people will identify the vulnerable people as per the criteria. Thus, when the selection process will reach 20,000 beneficiaries, then it will be stopped. These 20,000 beneficiaries are direct beneficiaries and form 1000 Climate Change Adaptation Groups (CCAGs). For measuring the poverty, the project will use Poverty Probability Index (PPI). It is to be noted that 20,000 beneficiaries will represent 20,000 HHs. The family members of these beneficiaries are indirect beneficiaries. So, the total beneficiaries will be $20,000 \text{ HHs} \times 4.5$ (average family size is 4.5) = 90,000 of whom 20,000 are direct beneficiaries and 70,000 are indirect beneficiaries.

About 80% beneficiaries will be women i.e. 16000 of the direct beneficiaries will be women. 10% of these 16000 women beneficiaries i.e. 1600 will be women headed (national average of women headed household in Bangladesh is around 12%). Because empowerment of women is the key to sustainable development in the country. Napoleon Bonaparte stated that “Give me an educated mother, I will give you an educated nation.” The project adopted this approach. The women will be educated on climate change issues in their localities because mother is the best teacher of a child. The children will learn about climate change from their mother. This will have long term impacts in the society. The new generation will grow in a climate resilient environment. The CCAGs will include mostly female members because enhancing capacity of a women on climate change issues means enhanced capacity of the whole households. Women head will be given priority while forming the CCAGs. The activities are designed in a way that the women will be mostly benefited economically and socially. Besides, necessary female staffs will be ensured at the field level so that women members can easily express their opinions and actively take part in the project activities. The female headed households will receive priority while selecting the beneficiaries. As per experience of CCCP, there will be female headed households. The consultation meetings during beneficiary selection will identify the female headed households. Level of vulnerability is the main distinction between a women in married households and a female heads of the households. The female heads are more vulnerable because their income source is very limited, they cannot go outside of their locality, women’s labour rate is also low. These limitations makes them more vulnerable than the women in married households.

Activity 1.1.2 Prepare beneficiary’s socio-economic profile

Detailed socio-economic profile of the selected households will be prepared before providing any support to keep the record of existing situation with project intervention. This information will be used to compare short term progress achieved by project interventions. The project staff of the implementing entity will carry out the socio-economic profile. The PMU at EE level will provide necessary technical support including developing tools and guidelines. Grant finance from GCF will be used to carry out this activity.

Activity 1.1.3 Arrange monthly group meetings on climate change issues of CCAG

The IEs will have field level staffs to directly coordinate with the beneficiaries. S/he will assist the groups in organizing meetings, discussion on climate change and other environment and health issues. The meeting notes will be preserved in a register book. The groups will take necessary decisions in addressing climate change impacts by the project interventions. They will decide who will get what types of support from the project, based on their needs. Thus, community level informal institutions will be shaped and carry forward by these group members. PKSf will co-finance this activity as in kind grant.

The experience of CCCP shows that the CCAGs are functional where they are engaged in financial services. Most importantly, the CCAG members are continuing most the activities as they are getting benefits from it. This project plans to engage the CCAG members in financial services (credit, savings, enterprise loan etc.) by the partner organizations of PKSf beyond the project period. This will ensure the sustainability of the CCAGs.

Activity 1.2.1 Carry out participatory vulnerability assessment

Though the project has identified activities in consultation with vulnerable communities, but a systematic participatory vulnerability assessment (PVA) will be carried out in each community for long term planning in adaptation sector. This will be done as part of capacity building training to the vulnerable community to address future climate change impacts and vulnerabilities by themselves. 1000 groups will carry out this exercise in their respective communities. The IE's staffs with technical support from PMU will develop necessary tools. The field level staffs of selected IEs will be provided training on PVA so that they can facilitate the CCAGs to carry out this exercise. This will increase understanding of the vulnerable community about climate change impacts on their lives and livelihood. Through this process, the selected community will internalize the perception on climate change so that they are able to address it in the long run. The whole assessment will focus on gender and climate change issues in the selected communities. PKSf will co-finance this activity as in kind grant.

1.2.2 Prepare local level adaptation action plan using Participatory Research Appraisal (PRA) tools

This activity will depend on completion of activity 1.3.1. The PMU will guide IEs' staffs in developing adaptation plan matrix (APM). The respective field staffs will discuss this matrix with the CCAGs and facilitate to identify necessary actions to address climate change in their locality. 1,000 CCAGs will prepare 1000 adaptation action plan for their own locality. This will enhance their knowledge and understanding on adaptation activities for their own and help reducing loss and damage to their resources and productions. Thus, this activity will contribute to enhance their resilience to climate change. Male and female will be participated during PRA. PKSf will co-finance this activity as in kind grant.

Activity 1.3.1. Prepare training manuals on CC issues and project management

The PMU of EE will prepare a training manual to deliver TOT to the IEs' staffs on climate change issues and project management. Approximately 50 staffs from 10 selected IEs will receive this TOT. This will significantly contribute in strengthening institutions in addressing climate change issues at community level. Besides, another training manual on climate change will be prepared for providing training to the CCAG members. PMU will prepare the training manual and IE staffs will deliver the training. The project will also prepare necessary guidelines including activity implementation guideline, monitoring and evaluation guideline, environmental and social management guideline, procurement guideline, accounting and financial manual etc. This activity will use grant finance from GCF.

PKSf will encourage IEs to recruit female consultant for providing this training. This will significantly contribute in strengthening institutions and gender mainstreaming in addressing climate change issues at community level.

Activity 1.3.2: Prepare training plan and organize training sessions for beneficiaries

Each selected IE will prepare a training plan to deliver training to the selected CCAG members. This training plan will require approval from the PMU. PMU staffs will closely monitor the training sessions as per plan. This is a non-budgetary activity. IE staffs will select 3 persons from each CCAG who will receive the training. Thus 3,000 persons will receive this training. More than 80% of the selected participants will be women. PMU will ensure that the IEs will mostly engage woman trainers to deliver the training. Grant finance from GCF will be used to carry out this activity.

The project will motivate the male members towards the project activities describing needs and benefits so that they will help female members in participating in the training sessions. They will accompany them in local travel from home to training venue. In case of having child, the male members will look after while the female members will be in training. It is to be noted that considering the difficulties in mobility of the women, the training venue will be at the union level so that they can take part in the training staying at home.

Activity 1.3.3 Organize training for IE's staffs

PMU will organize and deliver the training sessions. About 50 staffs will receive this training in 2 batches (number of training will be around 10). This will enhance capacity of the newly recruited IEs' staffs. They will learn about climate change and adaptation as well as management of adaptation project. They will contribute to the organizations in practicing climate change related activities within the organization. This activity will use grant finance from GCF.

Activity 1.3.4 Organize exchange visit for CCAG members and IEs staffs

The project will organize 06 exchange visit by inter-community in the vulnerable areas. They will learn from each other and encouraged to adopt climate resilient technologies and practices. It is a type of in country training and sharing of knowledge/technology for the beneficiaries and IE's staffs. It will be conducted in the project areas or in other areas of the country under implementation of same kind of activity areas). This type of visit will be helpful for the smooth and successful implementation of project.

1.3.5 Organize workshops and seminars

The project will organize 20 workshops at national and local level. The workshop will include project inception, project closing, quarterly progress review workshops, annual learning sharing workshop, training workshops etc. In addition to NDA, representatives from other government agencies including, Ministry of Agriculture (MOA), Department of Agriculture Extension (DAE), Ministry of Environment, Forests and Climate Change (MOEFCC), Department of Environment (DOE), Bangladesh Climate Change Trust (BCCT), Ministry of Water Resources (MOWR), Water Resources Planning Organizations (WARPO), Bangladesh Water Development Board (BWDB), Flood Forecasting and Early Warning Centre (FFWC), Local Government Engineering Department (LGED), Ministry of Women and Children Affairs (MOWCA), Bangladesh Rice Research Institute (BRRI), Bangladesh Agriculture Research Institute (BARI), Bangladesh Institute of Nuclear Agriculture (BINA), Bangladesh Agriculture Development Corporation (BADC), Department of Public Health Engineering (DPHE), Department of Livestock, Department of Disaster Management etc. will be invited to attend the workshop. Besides, AE representatives, IE staffs and PMU staffs

The PMU will develop and publish quarterly newsletter on project progress and learning. This newsletter will be circulated in different stakeholders including GCF, Bangladesh NDA and other government organizations. Published newsletter will also be uploaded in PKSf's website. Grant finance from GCF will be used to carry out this activity.

will be invited in these workshops. PMU will organize all these workshops. All the workshops and seminars will be organized with grant finance from GCF.

The project will identify best practices and lessons through out the project period. These best practices and lessons will be shared in these workshops. The government representatives will learn and be sensitized about the best practices and lessons of the project. This will help the relevant stakeholders incorporating these lessons in their development works. They will also apply the technical know-how of the ECCCCP-Flood in the existing and future projects.

Activity: 1.4. Prepare and disseminate knowledge documents

The project will carry out lessons that have been learnt throughout the project period. Program Officer (Capacity building and knowledge management) of PMU will carry out the lessons and develop a booklet for publication. The knowledge documents will be distributed among the relevant government agencies (as mentioned above), international and national NGOs including partner organizations of PKSf. They will use the information from the knowledge documents in designing their future projects, management of adaptation projects and measuring short and long term impacts of adaptation project. They will consider effectiveness of raised plinths, slatted houses, flood resilient water and sanitation system as well as resilient agriculture and livelihood to be documented in the knowledge documents. This will also contribute to strengthening institutions at national and local level in designing and implementing adaptation project in the country. This activity will use grant finance from GCF.

Outcome 2: Protection of homestead from adverse effect of flood

Activity 2.1.1: Raise homestead plinths in clusters

Climate-vulnerable people mostly live in low-lying areas. As a result, their houses easily get damaged by flood water. During flood, these people have to take shelter on roads and embankments. The women suffer mostly because threats of sexual harassment in the flood shelter or on the embankment significantly increased. The proposed project will raise homestead plinths of 10,000 beneficiaries above flood level in Brahmaputra river char lands of the selected 5 northern districts focusing priority on women headed households. . This will benefit a total of 45,000 people (10,000X4.5) as average family size is 4.5. The women headed households and disadvantaged people will be given priority for raising plinths. The Brahmaputra is a mighty trans-boundary river which flows through China, India and Bangladesh. The plinths will be raised with the alluvial sand. On an average, roughly 6,000 cft. (cubic feet) alluvial sand may be required for a household. A cluster based approach will be adopted for raising plinths. This will reduce sand requirement as well as increase sustainability of the plinths. The height of the plinths will depend on the local situation and to be determined in consultation with the local community. Past highest flood level will be determined in consultation with the community people and 1 ft. will be added considering future uncertainty. The beneficiaries will be encouraged to cultivate vegetables on the raised plinths round the year which they do not do now. This activity will be implemented in flood prone char areas of Nilphamari, Lalmonirhat, Kurigram, Gaibandha and Jamalpur districts. This activity will use grant finance from GCF.

Women in the flood vulnerable areas perceive that they are the most benefited groups among the flood affected communities due to raising homestead plinths. They think that they have to cook food for their family members. If the homestead inundates, they have to struggle for cooking food and collecting drinking water. The women think that male member of the household usually works outside. At home, they have to look after children, elderly, poultry and livestock resources and so on. If their homestead inundates, they have to move to embankment or flood shelters with all these belongings which intensify their sufferings in manifold. Raising homestead plinths with tube-wells and sanitary latrines significantly reduces their sufferings. Some women think that they have to face sexual harassment during staying in flood shelter or embankment during flood. But if they can stay at their house, the probability of such harassment would be almost zero. Women's perception on slatted house for goat/sheep is positive. They think that this will increase their household income through protecting their goat/sheep from flood risk. This will help them in playing role in decision-making for their households.

Activity 2.2.1: Provide financial support to reconstruct climate resilient houses on raised plinth

It was a learning from the field that after raising plinths, it requires reconstruction of houses on the raised plinths. The reconstruction works require financial support to make it climate resilient. PKSF will provide financial support as credit to reconstruct the climate resilient house of the selected beneficiaries. This activity not only considers the flood risks but also other climate related extremes like Nor'wester, strong wind etc. Hence, the project will support to reconstruct storm resilient houses on the raised plinths using storm resilient materials like RCC pillars, iron angles, corrugated tin etc. will be used in re-constructing the houses. This activity will use loan from PKSF.

Outcomes 3: Increased access to safe water and sanitation

Activity 3.1.1 Install tube wells for safe drinking water

The flood affected community severely affected by scarcity of safe drinking water due to inundation of drinking water sources including tube well. As the frequency and intensity of flood increasing and future flooding areas would be increased, the sufferings of the people from safe the scarcity of safe drinking water would be enormous. Women will be particularly more vulnerable due to damage to drinking water sources by floods. Because, they are mainly the responsible persons to collect water for household consumption. Installation of tube-wells has increased access to safe drinking. It saved their time and distance required for collecting drinking water. This has become further effective as tube wells were provided following cluster based approach where at least 4 to 10 families are using and maintaining a tube-well. All the tube-wells have been installed above maximum flood level in flood prone areas. Installation of tube-wells also considered utilization of used water from the storage tank in the vegetable garden. The project will install 500 tube wells in the selected five districts such as Nilphamari, Lalmonirhat, Kurigram, Gaibandha and Jamalpur district. This 500 tube wells will cover approximately 2500 households covering a total population of 11,250. Among these people, 2,500 are direct beneficiaries and 8750 are indirect beneficiaries. Women heads and disadvantaged groups will get preference while selecting the beneficiaries.

Tube-well is treated as social resource in the country. Women are comfortable using tube-wells in groups. Regular maintenance of tube-wells are easy and least cost task. There are male members in the community can repair small damages to tube-wells. But if the problem

is more technical, the male members hire mason from nearby union or upazila headquarters. Maintenance of tube-wells requires very small amount which is affordable to the communities.

Activity 3.2.1 Construction of sanitary latrines

Like tube well, sanitary latrines are also highly vulnerable to floods. The latrines are flooded and surroundings are contaminated with stool and other human wastes. This quickly spread over diseases in the affected community. The future vulnerabilities would be more severe due to increased frequency, intensity and areas of floods in Bangladesh. The project will provide 2,810 climate resilient sanitary latrines in the selected flood risks districts. All the family members of these beneficiaries will be benefited from the latrines. So, total number of beneficiaries of latrines will be 12,645 of which 2,810 are direct beneficiaries and 9,835 are indirect beneficiaries. Women heads and disadvantaged groups will get preference while selecting the beneficiaries for latrines. These latrines are resilient to floods because these will be installed on the raised plinths. Water supply system will be ensured for maintaining hygiene which is not the current practiced in rural Bangladesh particularly in the remote char areas. The latrine was designed and demonstrated under CCCP which created huge demand of climate resilient hygiene latrines at the community level. Necessary hygiene sessions will be conducted in monthly group meetings. Individual household will be the owner of the latrine.

The design of the sanitary latrines considers pregnant women, elderly people and children. There will be handle inside the latrine for these group of people so that they can hold it during using the latrine. Besides, considering the difficulties of women's movement particularly during night, the project will construct the latrines closed to the selected households' home.

Outcome 4: Accessed to flood resilient livelihood

Activity 4.1.1 Rear goat/sheep in slatted houses

1. Goat and sheep rearing is traditional livelihood activities for rural communities in Bangladesh. Women are mainly involve in rearing goat/sheep in the rural areas of the country. But traditional system of goat and sheep rearing is sensitive to floods, heat waves and cold waves. The goat is easily affected by different disease during rainy season due to living on wet floor, cold injury during winter and heat stress during hot period. Growth and reproduction of goat/sheep hampered by the above circumstances. As a results total production has is reduced. But only slatted housing systems of goat and sheep can overcome these adverse situation. The proposed project will promote slatted houses to protect goat and sheep from frequent floods and associated impacts. It will support the crop loss due to climate change related events. 10,000 women will be selected and trained for rearing goat and sheep in slatted houses. Women headed households and other disadvantaged groups will get preference while selecting beneficiaries for goat/sheep rearing. The selected 10,000 women are direct beneficiaries. This activity will also benefit other members of the family. So, a total of 45,000 people will get benefit of whom 10,000 are direct beneficiaries (all are women) and 35,000 are indirect beneficiaries.

One very important lesson here is that technological support is more effective and sustainable than only financial support. Another feature is that sheep are more resistant to climate change than goat. Hence, priority will be given on sheep rearing particularly in the char areas. Both grant and loan financing will be used to implement this activity. Grant will be the appropriate source from GCF for making slatted houses and training to the beneficiaries and loan from PKSF will be used for purchasing goat/sheep.

Activity 4.2.1: Cultivate flood resilient rice variety BRRI dhan 51 & 52 and BINA dhan 11

Climate change primarily affect the crop sector especially rice during monsoon. Flooded water damages the rice seedling and standing crops in each years. The traditional varieties could not survive inundation by the water over 10 days. So, farmers will cultivate flood-resilient rice varieties BRRI dhan 51 & 52 and BINA dhan 11. These varieties can survive 15 days in water in submerged condition. Flood water in the selected areas usually recedes by 15 days unless it is an extraordinary flood.

6,000 beneficiaries will cultivate flood-resilient rice varieties BRRI dhan 51 & 52 and BINA dhan 11. These two varieties can survive 15 days in water in submerged condition. Flood water in the selected areas usually recedes by 15 days unless it is an extraordinary flood. The IE staffs in consultation with CCAG members will select the farmers for cultivating these varieties. 50% of the beneficiaries i.e. 3000 will be female. As one of the key responsibilities of women is to prepare food for the household, they have to suffer to manage food if there is a crop failure due to climate change related disaster like flood. In Bangladesh, women usually do not work in the crop field. Male members of the household or hired agriculture labour work in the crop field. Women take part in the pre-cultivation (seed storage etc.) and post-harvest period. In absence of male members, women can hire agriculture wage labour for crop cultivation and management. The PMU staffs will provide technical guidance to the IE staffs. They will monitor the activity to ensure effective implementation.

For crop production, the women will mainly be engaged in post-harvest activities and directly will involve in vegetable cultivation in sand bar. They will sow the seeds of vegetables, irrigate them and look after them because the vegetables will be cultivated around their homesteads. The women members will learn about cultivation of flood tolerant varieties and disseminate the technology in their locality through meetings and informal discussions.

Activity 4.2.2: Cultivate early and disease protective wheat variety BARI 26

The higher temperatures and changing rainfall patterns coupled with increased **flooding**, rising salinity in the coastal belt, droughts in the northwest and southwest, and drainage congestions are likely to reduce crop yields and crop production (MoEF, 2009). IPCC estimates that, by 2050, rice production in Bangladesh could decline by 8 percent and **wheat by 32 percent (IPCC, 2007)**. So, potential reduction of wheat production due to climate change in Bangladesh is significant. The project will promote BARI wheat 26 which is a short duration/early and disease protective variety cultivated in *Boro* season. Due to short life cycle, this variety can escape early flood in the selected districts. Because, early flood may occur in the month of April to May due to intensive precipitation in the Himalayan as well as inside the country. The IE staffs in consultation with CCAG members will select 2000 the farmers. Like activity 4.2.1, 50% of the beneficiaries i.e. 1000 will be women. They will provide training on management of this variety, provide seeds and other technical supports including compliance of IPM. PMU of EE will provide necessary guidance and approval for

implementing this activity and monitor. This activity will be implemented with grant finance from GCF.

Activity 4.2.3 Cultivate vegetables in sand bars

In Brahmaputra char areas, lots of land remain fallow due to sand carpeting by flood each year. These lands can be brought under cultivation. Pit system vegetable cultivation (mainly pumpkin) technique provides the opportunity to cultivate vegetables in this area. Farmers (especially women) can use fellow land for cultivation. It is the great opportunity for the poor farmers. IEs field level staffs in consultation with CCAGs will select farmers to promote this technology. A total of 2,000 beneficiaries will be selected of whom all are women. PMU of EE will oversee and provide necessary guidance to the IEs staffs. This activity will be implemented using grant finance from GCF.

9 Women's views on the above activities

Women in the flood vulnerable areas perceive that they are the most benefited groups among the flood affected communities due to raising homestead plinths. They think that they have to cook food for their family members. If the homestead inundates, they have to struggle for cooking food and collecting drinking water. The women think that male member of the household usually work outside. At home, they have to look after children, elderly, poultry and livestock resources and so on. If their homestead inundates, they have to move to embankment or flood shelters with all these belongings which intensify their sufferings in manifold. Raising homestead plinths with tube-wells and sanitary latrines significantly reduces their sufferings. Some women thinks that they have to face sexual harassment during staying in flood shelter or embankment during flood. But if they can stay at their home, the probability of such harassment would be almost zero. Women's perception on slatted house for goat/sheep is positive. They think that this will increase their household income through protecting their goat/sheep from flood risk. This will help them in playing role in decision-making for their households.

10 Participation of women in CCAG and its sustainability

The project takes the opportunity by engaging women in the project for successful implementation of the project activities. In many cases, the male heads go out distant areas for work and they cannot participate in the project activities in spite of being eligible for getting support from the project. The CCCP experience shows that most of the women proactive in terms of participating group meetings and other activities. In terms of sustainability, experience shows that the CCAG members do not organize the monthly group meetings as they did during project period but they are continuing the activities.

The CCAGs are functional where they were engaged in financial services. But the name of the group may be different. Most importantly, the CCAG members are continuing most the activities as they are getting benefits from it. This project plans to engage the CCAG members in financial services (credit, savings, enterprise loan etc.) by the partner organizations of PKSF beyond the project period. This will ensure the sustainability of the CCAGs.

The project activities will not create extra burden for the women because most of the proposed activities are their daily works. The project will add some technologies for enhancing their resilience of their resources including goat/sheep through slatted house, homestead through raising plinths above flood level etc. The project will motivate both female and male members of the households towards the project activities. The CCCP experience shows that male members are generally supportive to the women members in engaging the project activities. They helped in making goat/sheep house, provided opinions about sites for tube well installation etc.

11 Proposed Gender Action Plan

The purpose of a Gender Action Plan is to operationalize the constraints and opportunities for women and men that were identified during the gender analysis, towards fully integrating them into the project design, providing the framework for a gender-responsive and socially inclusive project. In addition, specific indicators are also proposed to measure and track progress on these actions at the activity level, which can be incorporated into the detailed M&E plan which will be developed at the start of implementation, and provides concrete recommendations on how to ensure that the degree of gender-responsiveness and transformation (including collection of sex and age disaggregated data) continues to be measured throughout implementation. Furthermore, it is recommended that the project take into consideration gender and social inclusion measures outlined above and these measures are tailored specifically for a Bangladeshi context. In order to do this, the following approaches are strongly recommended:

Objective	Actions	Target and Indicators	Responsible institutions	Allocated budget (USD)
Output:1.1: Climate change adaptation groups (CCAG) formed and operationalized				
Activity 1.1.1: Beneficiary selection and group formation	Meeting with local government bodies, community people, prepare list of vulnerable people, validation of the list, final list and for CCAGs.	Baseline=0 Target= More than 80% women Indicators: • 16,000 women selected • 16,000 women attended the group meetings	IEs staffs and PMU	\$33,200
Output 1.3: Trainings and workshops on CC conducted for beneficiaries and stakeholders				
Activity 1.3.2: Prepare training plan and organize training sessions for beneficiaries	Select trainees from CCAG members, prepare training plan, deliver training etc.	Baseline=0 Target= 80% of women and women headed households Indicators: • 16,000 women received training on CC issues and IGA	IEs and PMU	\$ 433,280
Activity 1.3.3 Organize training for IE's staffs	Prepare ToR for recruitment of IE staffs, advertise for staff recruitment, recruit staffs, organize training for staffs	Baseline=0 Target= 50% of the female staff recruited Indicator:	IEs	\$ 13,500

Objective	Actions	Target and Indicators	Responsible institutions	Allocated budget (USD)
		<ul style="list-style-type: none"> 25 female staffs recruited and trained at IE level 		
Activity 1.3.4: Organize exchange visit for CCAG members and IEs staffs	Identify best practice, select CCAG members for exchange visit, communicate with host IEs etc.	Baseline= 0 Target: 80% of the beneficiaries will be women (96 women)	PMU, IEs	\$11,520
Activity 1.3.5: Organize workshops and seminars	Prepare workshop material including presentation, guest list, invite guests, conduct workshops, prepare workshop reports etc.	Baseline=0 Target: 50% of the participants will be women (approx.. 500 in targeted 20 workshops)	IEs and PMU	\$ 14,000
Output 2.1: Raised homesteads above flood level				
Activity 2.1.1: Raise homestead plinths in clusters	Organize CCAG members for clusters, measure requirement of soil, receive approval from PMU, contact labour contact society (LCS) and raise plinths.	Baseline=0 Target= 80% of 10,000 selected beneficiaries (8,000) will be women 50% of total labour for raising plinths will be women.	IEs, PMU	\$ 33,55,200
Output 2.2: Reconstruction of climate resilient houses				
Activity 2.2.1: Provide financial support to reconstruct of climate resilient houses on raised plinth	Loan disbursed for house reconstruction	Baseline=0 Target= 80% Indicator: <ul style="list-style-type: none"> 8,000 women received loan for house reconstruction. 	IEs and PMU	\$ 12,00,000
Output 3.1: Installation of resilient tube wells installed				
Activity 3.1.1 Install tube wells	Select tube wells' sites, initiate procurement, install tube wells	Baseline=0 Target=7000 Indicator: <ul style="list-style-type: none"> 7000 women primarily benefitted 	IEs and PMU	\$ 252,373

Objective	Actions	Target and Indicators	Responsible institutions	Allocated budget (USD)
		<ul style="list-style-type: none"> Among 7000 female beneficiaries, 700 are women heads 		
Output 3.2: Construction of sanitary latrines				
Activity 3.2.1 Construct climate resilient sanitary latrines	Select beneficiaries, initiate procurement, constructions of sanitary latrines	Baseline=0 Target=7700 Indicator: <ul style="list-style-type: none"> 7700 women get benefitted from sanitary latrines Among 7700 women beneficiaries, 770 are women heads 	IEs and PMU	\$ 688,098
Output 4.1: Rearing of goat/sheep in slatted houses				
Activity 4.1.1 Rear goat/sheep in slatted houses	Selection of beneficiaries for goat/sheep rearing from CCAG members through consultation, prepare list, finalize list, provide support for goat/shed	Baseline=0 Target=10000 Indicator: <ul style="list-style-type: none"> 10,000 women rear goat/sheep 	IEs and PMU, monitoring report, midterm and final evaluation report	\$ 3,259,200
Output 4.2: Cultivation of flood tolerant crops				
Activity 4.2.1 Cultivate flood resilient rice variety BRRI 51 & 52 and BINA dhan 11	Selection of farmer from CCAG members, meetings, crop cultivation	Baseline=0 Target=1000 Indicator: <ul style="list-style-type: none"> 1000 female beneficiaries will cultivate rice 	IEs and PMU, monitoring report, midterm and final evaluation report	\$ 3,28,800
Activity 4.2.2 Cultivate early and disease protective wheat variety BARI 26	Selection of farmer from CCAG members, meetings, crop cultivation	Baseline=0 Target=1000 Indicator: <ul style="list-style-type: none"> 1000 female beneficiaries cultivate wheat 	IEs and PMU, monitoring report, midterm and final evaluation report	\$ 1,09,600

Objective	Actions	Target and Indicators	Responsible institutions	Allocated budget (USD)
Activity 4.2.3 Cultivate vegetables in sand bars	Selection of farmer from CCAG members, meetings, crop cultivation	Baseline=0 Target=50% Indicator: • 1000 female farmers cultivate vegetables in sand bar	IEs and PMU, monitoring report, midterm and final evaluation report	\$ 1,09,600
			Total	\$9,328,391

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