Simplified Approval Process
Annex 2a: Logical framework

GREEN
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LOGICAL FRAMEWORK TEMPLATE

LOGICAL FRAMEWORK

1. GCF Impact level: Paradigm shift potential (max. 300 words)

The project will enable a transition towards a sustainable exploitation of water resources in the North-western area of Bangladesh that is most affected by climate change-induced drought. This will be achieved by substituting an unsustainable use of ground water resources with available surface water and by introducing innovative and low-cost techniques to recharge the below-ground aquifer. The project will also promote a shift towards less water-consuming agricultural practices and crops, thus reducing water needs for agricultural production and adapting agricultural production to drought. Replicable low-cost options will be introduced in the project area to promote climate-resilient sustainable development through the sustainable use of water resources. Finally, the project will build capacities at different institutional governance levels to sustain the project interventions in the future and to replicate and scale up the innovations proposed by the project to adapt poor farming communities to climate change.

Assessment Dimension	Current state (Baseline)		Potential target scenario (Description)	How the project/programme will contribute (Description)
	Description	Rating		
Scale	The practice of integrated water management (IWRM) as a means of adaptation to climate change in drought-vulnerable areas is found at very limited scale.	Low	The project will transform existing water management practices to integrated water management practices (IWRM) through 4-R approach (reduce, reuse, recycle, and recharge) practices in at least 14 upazilas (sub-districts) of Naogaon, Rajshahi and Chapainawabganj districts. 215,000 people will be directly benefited whereas all other people will be indirectly benefited.	The government adopted National MAR strategy to improve ground water recharge throughout the country. The building code act of the country also incorporates the MAR system with building design. This project will create knowledge and learning on the technical, social and financial viability as well as effectiveness of MAR system by implementing 2,500 roof-top based and 40 pond based recharge well MAR system in Naogaon, Rajshahi and Chapainawabganj districts. It is expected that these interventions will rapidly be scaled up by the government in association with various development partners including GCF.
Replicability	At the time of project design, no IWRM programmes found in the selected project districts. So, the baseline should be zero. However, individual activities like pond re-	Low	The proposed technologies particularly MAR systems and climate resilient agriculture will be replicated in the 16 districts of the Barind region. In addition, the MAR systems will be replicated in urban	The MAR systems will be replicated throughout the country by incorporating building codes. However, the project will create an enabling environment by enhancing the technical

	excavation, canal re-excavation, demonstration of MAR technology were found at the field level.		areas including Dhaka city.	capacity of local institutions and contractors and by generating and disseminating knowledge. The agricultural practices proposed in the project will be replicated by other farmers. These will be profitable as presented in the pre-feasibility report as well as less vulnerable to drought.
Sustainability	The Barind Multipurpose Development Authority (BMDA) under Ministry of Agriculture has been working on mitigating drought since 1990s through mainly extraction of ground water which is now being rapidly depleting. The BMDA has recently taken some initiatives to increase surface water storage by re-excavating ponds and canals. DASCHO, a local NGO has piloted 155 roof-top based MAR at household and institutional levels. These are functioning. However, the integrated water management approach has not been initiated.	Low	The BMDA will be equipped with the IWRM approach by establishment of climate change unit in its premises. BMDA will integrated this approach in their existing water management system for sustainable use of surface and ground water.	The proposed interventions are self-sustained. The expected life expectancy of the project is 20 years. It is expected that the project interventions will sustain more than the expected life expectancy. Because the MAR structures are permanent and minimum seasonal maintenance is required. On the other hand, proposed agricultural activities are more profitable and less vulnerable to climate change than the farmers are doing now.

2.1. GCF Outcome level: Reduced emissions and increased resilience (IRMF core indicators 1-4, quantitative indicators)					
GCF Result Area	**IRMF**	**Means of Verification**	**Baseline**	**Target**	**Assumptions / Note**

	Core Indicators (1-4)[1]	(MoV)		Mid-term	Final[2]	
ARA2 Health, well-being, food and water security	Core 2: Direct and indirect beneficiaries reached	Pre-feasibility report, Baseline report, Real Time Evaluation study report, annual performance report, quarterly monitoring report	To be determined	Direct beneficiaries: 80,000 50% of direct beneficiaries are women Indirect beneficiaries: half of the population of the selected upazilas	*Direct beneficiaries: 215,000* 50% of them are women Indirect beneficiaries: All the people of the selected upazilas	Farmers' understanding on climate-drought adaptive farming system increased Local government institutions are supportive to the proposed farming practices Seeds of stress tolerant varieties are available in the market
	Supplementary 2.2: Beneficiaries (female/male) with improved food security	Pre-feasibility report, Baseline report, Real Time Evaluation study report, annual performance report, quarterly monitoring report	To be determined	*64,500 of the selected beneficiaries improved food security*	*150,500 of the selected beneficiaries improved food security*	The community people own the water infrastructure including MAR system, canals and ponds. Maintenance of the water infrastructure are carried out on a regular basis The local institutions are supportive to the communities about maintenance of the

[1] The IRMF Indicators are set out in the Integrated Results Management Framework

[2] The final target means the target at the end of project/programme implementation period. However, for core indicator 1 (GHG emission reduction), please also provide the target value at the end of the total lifespan period which is defined as the maximum number of years over which the impacts of the investment are expected to be effective.

						infrastructure.
	Supplementary 2.3: Beneficiaries (female/male) with more climate-resilient water security	Pre-feasibility report, Baseline report, Real Time Evaluation study report, annual performance report, quarterly monitoring report	To be determined	*86,000 of the selected beneficiaries with more climate-resilient water security*	*172,000 of the selected beneficiaries with more climate-resilient water security*	The community people own the water infrastructure including MAR system, canals and ponds. Maintenance of the water infrastructure are carried out on a regular basis The local institutions are supportive to the communities about maintenance of the infrastructure.
	Supplementary 2.5: Beneficiaries (female/male) adopting innovations that stregthen climate change resilience	Pre-feasibility report, Baseline report, Real Time Evaluation study report, annual performance report, quarterly monitoring report	0	*Female: +6,500* *Male: +6,500* *(Mainly having MAR infrastructure)*	*Female: +16,500* *Male: +16,500* *(Mainly having MAR infrastructure)*	The community people own the water infrastructure including MAR system, canals and ponds.
ARA1 Most vulnerable people and communities	Supplementary 2.1: Beneficiaries (female/male) adopting improved and/or new climate-resilient livelihood options	Pre-feasibility report, Baseline report, Real Time Evaluation study report, annual performance report, quarterly monitoring report	0	+ 12,000 female + 12, 000 male	+ 30,000 female + 30,000 male	Farmers' understanding on climate-drought adaptive farming system increased Local government institutions are supportive to the proposed farming

						practices Seeds of stress tolerant varieties are available in the market

2.2. GCF Outcome level: Enabling environment (IRMF core indicators 5-8 as applicable)					
IRMF Core Indicators (5-8)[3]	**Baseline context (Description)**	**Rating for current state (Baseline)**	**Target scenario (Description)**	**How the project will contribute**	**Coverage**
Core Indicator 5: Degree to which GCF investments contribute to strengthening institutional and regulatory frameworks for low emission climate-resilient development pathways in a country-driven manner	Local level government and non-government institutions have limited strength and plans for addressing climate change.	low	2 Government organisations strengthened their capacity in addressing climate change. 60 selected NGOs strengthened systems and plans for addressing climate change (established focal persons and recruited specialised staff and integrated climate change)	The project will provide logistic and human resource support to the government to establish the proposed MAR centre. The project will also set up a Climate Change Cell at the Barind Multipurpose Development Authority (BMDA). The project will provide training to 100 selected partner organisations (POs) of PKSF who are based in drought-vulnerable areas. 3 staff from each of the selected organisations will received training on addressing climate change and real time evaluation study	Single sub-national area within a country

[3] The IRMF Indicators are set out in the Integrated Results Management Framework

				systems.	
Core Indicator 6: Degree to which GCF investments contribute to technology deployment, dissemination, development or transfer and innovation	Water management technologies in drought-vulnerable areas in Bangladesh are mostly traditional.	low	2,500 rooftop-based MAR systems and 40 pond-based recharge wells established. 12,000 farmers implemented drought adaptive crops and horticulture.	The project will promote integrated water resources management by adopting 4-R (reuse, recycle, recharge, and reduce).	Single sub-national area within a country
Core indicator 8: Degree to which GCF investments contribute to effective knowledge generation and learning processes, and use of good practices, methodologies and standards	Currently, very limited climate change adaptation projects in drought-vulnerable areas exist. Most of the past and ongoing projects do not have a system for generating knowledge and learning for future planning and scaling up.	low	*At least 4 studies including the baseline and annual real time evaluation carried out studies.* *Published periodic newsletters, produce workshop reports, and guidelines.*	The project will identify indicators for measuring resilience of communities to climate change-induced drought. The proposed studies will be based on identified indicators.	Single sub-national area within a country

3. Project/programme specific indicators (project outcomes and outputs)

Project/programme results (outcomes/ outputs)	Project/programme specific Indicator	Means of Verification (MoV)	Baseline	Target		Assumptions / Note
				Mid-term	Final	
Outcome 1: **Improved institutional and technical capacities to address climate change-induced drought**						
Output 1.1: Enhanced capacities of government institutions to implement and monitor water resources	# of government organisation establishing a project- related unit. # of community-	Quarterly monitoring report, RTE reports, BBS, evaluation report.	0 0	2 GoB	2 GoB	Appropriate coordination and motivation of NGOs. NGOs are willing to participate.

management and climate change (CC) adaptation projects.	based NGOs trained by the project.			100 NGOs	100 NGOs	NGOs incorporate learnings into their daily operations.
Output 1.2: Knowledge and technical capacities of climate change adaptation interventions improved.	# RTE reports. # NGOs trained on RTE methods and utilisation of results. Number of NGOs using RTE methods for evaluating their activities.	ECCCP-drought baseline report, quarterly monitoring report, RTE study report, evaluation report.	0 0 0	2 100 +30	4 100 +60	No external events causes anomalies in baseline or RTE results. NGOs willing to participate in the training. NGOs have technical staffs for carrying out RTE studies.
Output 1.3: Communities are organised and aware of climate change issues and potential responses.	# of CCAGs established and carried out monthly meetings on climate change issues. Number of beneficiaries that increased awareness on climate change.	Quarterly monitoring report, RTE reports, evaluation report.	0 0 To be determined	600 40% +215,000	600 70% +215,000	Active participation of the CCAG members in the monthly group meetings, trainings, and implementation of activities.
Outcome 2: **Increased availability of surface and ground water for irrigation and drinking.**						
Output 2.1: Improved storage of surface water.	#km of canals re-excavated. # of ponds re-excavated.	Quarterly monitoring report, evaluation report, Contractors' reports.	0 0	50 120	140 300	Canals and ponds are selected in appropriate locations. Government institutions and communities participate actively.
Output 2.2: Improved	# of rooftop-based	Quarterly report,	0	1,000	2,500	Availability of roof-tops of

recharge of aquifers.	MAR models implemented. # of pond-based recharge well installed. Annual average ground water recharge increased by m^3	piezometre data, evaluation report	 0 To be determined	 15 400,000 m^3	 40 960,000 m^3	private houses . Rainfall occurs around the annual average rainfall of this region (about 1400 mm).
Outcome 3: **Drought-resilient livelihoods created through sustainable agricultural production.**						
Output 3.1: Drought-resilient crops are adopted by farmers	# Farmers trained Number of trained farmers actually applying the proposed cropping patterns.	Quarterly monitoring report, RTE study report, evaluation report.	Baseline to be provided in the inception report.	7,000 +6,000	15,000 13,000	Water access increases are sufficient to extend to irrigation. Drought-tolerant seeds are available. Farmers are motivated to cultivate drought-tolerant crops
Project/programme co-benefit indicators						
Co-benefit 1: Improved biodiversity by planting trees and preserving water.	*# of trees planted.*	Quarterly monitoring report, RTE study report, evaluation report	0	25,000 trees planted.	60,000 trees planted.	Local administration and BMDA are supportive of the project.
Co-benefit 2: Increased income for farmers and women.	*% of income increased.*	Quarterly monitoring report, RTE study report, evaluation report.	To be determined	20%	40%	Canals and ponds are selected in appropriate locations. Government institutions and communities participate actively. The farmers have access

						to water resources.
Co-benefit 3: Improved overall health of the community.	*% of community people improved health.*	Quarterly monitoring report, RTE study report, evaluation report.	To be determined	20%	40%	Canals and ponds are selected in appropriate locations. Government institutions and communities participate actively. The communities have access to water resources.

4. Project/programme activities and deliverables

Output	Activities	Description	Deliverables
Output 1.1 **Enhanced capacities of government institutions to implement and monitor water resources management and climate change (CC) adaptation projects.**	Activity 1.1.1: Establishment of climate change unit at the Barind Multipurpose Development Authority (BMDA).	PKSF has already consulted with the BMDA on establishing a climate change unit. Existing BMDA staff will be assigned to this unit. The project will provide three staff and necessary logistics to the BMDA for this activity.	A climate change cell at BMDA
	Activity 1.1.2: Establishment of a MAR centre.	PKSF will arrange meetings with relevant ministries to initiate the MAR centre. PKSF will propose some logistics and staff support during the project period for the MAR centre.	A MAR centre
Output 1.2: **Knowledge and technical capacities of climate change adaption interventions improved.**	Activity 1.2.1: Real Time Evaluation (RTE) study.	The PMU will prepare ToRfor the study and baseline. Selection of farms by posting advertise on the PKSF website or in newspapers. Analysis of data and development of the study report. The PMU will prepare ToR for the real-time impact assessment and selection of consultants. It will prepare questionnaires and trainings for data	Study reports

		collector/enumerators. Processing data and preparing report.	
	Activity 1.2.2: Analyse results and develop knowledge database of intervention impacts.	PMU will prepare ToR for potential website-developer for developing a website for the project, a database management software and prepare newsletters.	A website, a data management software, data and information and newsletters
	Activity 1.2.3: Training to NGOs on climate change.	The PMU will prepare a training manual. The manual will be used to provide training to the selected staff of the selected 100 NGOs. A Bangla version of this manual will be developed to provide this training.	Training reports
	Activity 1.2.4: Trainings on CC issues and project management.	The PMU will prepare training manuals. The manuals will be used to provide training to the staff of IEs. A Bangla version of this manual will be developed to provide training to the IEs' staff	Training report
	Activity 1.2.5: Organize knowledge-sharing workshops and seminars.	PMU will organise workshops and seminars. Government representatives, development partners, civil society representatives, IEs, etc. will take part in these workshops and seminars.	Workshop reports and seminar reports
Output 1.3: **Communities are organised and aware of climate change issues and potential responses.**	Activity 1.3.1: Beneficiary selection, group formation and mobilisation.	The project will select 215,000 beneficiaries in consultation with local government institutions and community people. The field officers of the IEs will carry out this activity. IEs will require approval of the list of selected beneficiaries by the PMU of Executing Entity.	List of beneficiary groups and resolution of group meetings
	Activity 1.3.2: Develop beneficiary's socio-economic profiles.	After selection, the IE field-level staffs will visit the selected beneficiaries from door to door and collect socio-economic information before providing support from the project. The PMU will	Database on beneficiaries' socio-economic condition at the beginning of the project

		prepare the format for collecting socio-economic profiles of the project participants.	
	Activity 1.3.3: Arrange monthly group meetings on climate change issues of CCAG	IE staffs will facilitate the group meetings at the community level	Monthly and quarterly reports
	Activity 1.3.4: Training of beneficiary groups	IE's staff will prepare training plans and get approval from the PMU. The IEs' staffs will organise training sessions as per the approved plan. PMU will physically monitor the training activities on a sample basis.	Training reports
	Activity 1.3.5: **Organize exchange visits for CCAG members and IEs' staffs.**	PMU will identify best practices. Then organise exchange visits for the local communities and institutions to exchange the experience of selected best practices. The IEs staff will assist the PMU in organising the exchange visits including selection of participants, venue, invitations, accommodation, logistics etc.	Exchange visits reports
Output 2.1: **Improved storage of surface water**	Activity 2.1.1: Ponds re-excavation.	Carry out consultations with CCAGs to select beneficiaries for ponds, procure contractors, re-excavate ponds, and plant trees around the pond. IEs will receive approval for implementing this activity from EE's PMU.	300 Re-excavated ponds
	Activity 2.1.2: Canals re-excavation.	Carry out consultations with CCAGs to select beneficiaries for ponds, procure contractors, re-excavate canals, and plant trees around the canals. IEs will receive approval for implementing this activity from EE's PMU.	140 km canal re-excavation
Output 2.2: Improved recharge of aquifers	**Activity 2.2.1** Installation of rooftop managed aquifer recharge system.	The IE staff in consultation with CCAG members will select appropriate sites to establish artificial ground water recharge plant.	2,500 rooftop managed aquifer recharge system

		Installation of shallow piezometre for monitoring effectiveness of MAR. The IE will procure the works as per the procurement plan approved by the PMU of EE.	
	Activity 2.2.2: Installation of recharge well for ground water recharge in ponds.	The IE staff in consultation with CCAG members will select appropriate sites to establish artificial ground water recharge plant. Installation of shallow piezometre for monitoring effectiveness of MAR. The IE will procure the works as per the procurement plan approved by the PMU of EE.	40 ponds with recharge well
Output **3.1: Drought-resilient crops are adopted by farmers**	Activity 3.1.1: Promotion of drought-adaptive cropping patterns, crop varieties.	The IE staffs will select farmers based on pre-defined criteria in consultation with CCAG members. Selected farmers will receive training, seeds, and other input support to establish drought-resilient cropping patterns.	7,500 farmers are implementing this activity Report on cropping pattern and crop varieties and fruit trees
	Activity 3.1.2: Promotion of drought-adaptive fruit cultivation.	Selection of appropriate farmers based on pre-defined criteria. Provision of tree saplings, fertilisers and trainings.	7,500 farmers are implementing this activity Report on drought adaptive fruit

5. Monitoring, reporting and evaluation arrangements (max. 300 words)

Project-level monitoring and evaluation will be undertaken in compliance with the PKSF Monitoring and Evaluation Policy, the Accreditation Master Agreement and the PKSF Access to Information Policy. The project also adopts the GCF's Real Time Evaluation (RTE) system to assess the effectiveness and efficiency of the proposed interventions.

Project monitoring will measure the achievements of the project through performance indicators and report on the implementation progress. Performance indicators were identified according to the principles established in the GCF Initial Results Management Framework linking time-bound sets of activities to a set of agreed adaptation results. PKSF maintains a standard list of technically well-informed indicators aligned to its donors' core indicators, including GCF.

The basis for monitoring is the results-based framework of the project. 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 the IEs.

Monitoring conducted by the PMU will have three main functions. First, monitoring by PKSF and PMU will ensure accountability of the IEs to deliver project outputs

and activities. Second, monitoring will establish proper documentation of the implementation process and achievements. Third, monitoring will facilitate a learning process.

A project inception workshop will be held after the project document is signed by all relevant parties to: a) re-orient project stakeholders to the project strategy and discuss any needed changes; b) discuss the roles and responsibilities of the project team, including reporting and communication lines and conflict resolution mechanisms; c) review the results framework if needed, re-assess baselines as needed, discuss reporting, monitoring and evaluation roles and responsibilities and finalise the M&E plan; d) review financial reporting procedures and mandatory requirements, and agree on the arrangements for the annual audit; e) plan and schedule meetings and finalise the first year annual work plan. PKSF, as AE, will prepare the inception report no later than six months after the inception workshop.

A Project Annual Performance Report (APR) will be prepared for each year of project implementation. All the APRs will be cleared by PKSF before submission to the GCF Secretariat. The Project Coordinator, the Environment Climate Change Unit of PKSF, and the IEs will provide objective inputs to the annual APR. The Project Coordinator will ensure that the indicators included in the project results framework are monitored annually well in advance of the implementation report submission deadline and will objectively report progress. The annual implementation report will be shared with the NDA and other relevant stakeholders. PKSF will consolidate inputs of the NDA Focal Point and other relevant stakeholders in the implementation report. The final project implementation report/performance report, along with the final evaluation report, will serve as the final project report package.

Project mid-term (MTE) and final (FE) evaluations will be commissioned and managed by PKSF's Project Management Unit (PMU). As AE, PKSF will engage independent external evaluators to assess the performance and progress of the project at mid-term and at the end of the intervention. The specific evaluation criteria will be used for the mid-term and final evaluator will be aligned to the GCF Evaluation Criteria.

In addition, the PMU of PKSF will organise annual meetings where the representatives of IEs will discuss achievements, problems, and progress against the annual project implementation plan. These annual meetings will represent important learning opportunities for participant IEs.

The project will also carry out an RTE study to assess the effectiveness and efficiency of the proposed interventions. RTE will establish a baseline on community resilience against drought as well as identify indicators for measuring the effectiveness of the proposed interventions. Then, a set of questionnaires and checklists will be developed based on the identified drought-resilient indicators. A periodical RTE study (under component/outcome 2) will be carried out for evaluating the interventions. The knowledge and lessons captured through these studies will be shared with all levels of stakeholders. The project will install piezometres to measure the effectiveness of the MAR system.

All contracted IEs will be requested to have a dedicated Monitoring officer, who will report to the Chief Executive or a senior official of the IE 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 by PKSF and the IE. The Monitoring Officer will undertake outcome-level monitoring every six months based on the Outcome Assessment Sheet (OAS) prepared by PMU at the inception phase of the project. On a yearly basis, the monitoring officer will assess the impact of the project activities based on the agreed Impact Assessment Sheet (IAS), which will be prepared taking indicators of Impacts and Outcomes of the project logframe into account. Evaluation reports and management responses will be made available to the public through the PKSF website (www.pksf-bd.org). The PKSF head office will retain all M&E records for this project for up to six years after project financial closure in order to support ex-post evaluations.