

**INTEGRATED SAFEGUARDS DATA SHEET
APPRAISAL STAGE**

Report No.: ISDSA1111

Date ISDS Prepared/Updated: 02-Dec-2014

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I. BASIC INFORMATION

1. Basic Project Data

Country:	Bangladesh	Project ID:	P149553
Project Name:	Bangladesh NATP-2: National Agricultural Technology Program - Phase II Project (P149553)		
Task Team Leader:	Patrick Verissimo		
Estimated Appraisal Date:	12-Dec-2014	Estimated Board Date:	17-Mar-2015
Managing Unit:	GFADR	Lending Instrument:	Investment Project Financing
Sector(s):	Agricultural extension and research (50%), Animal production (20%), Crops (20%), Information technology (10%)		
Theme(s):	Rural services and infrastructure (50%), Technology diffusion (25%), Rural markets (25%)		
Is this project processed under OP 8.50 (Emergency Recovery) or OP 8.00 (Rapid Response to Crises and Emergencies)?			No
Financing (In USD Million)			
Total Project Cost:	214.01	Total Bank Financing:	160.00
Financing Gap:	0.01		
Financing Source			Amount
BORROWER/RECIPIENT			6.42
International Development Association (IDA)			160.00
US Agency for International Development (USAID)			23.72
Bangladesh MDTF for Climate Change			0.00
International Fund for Agriculture Development			23.86
Total			214.00
Environmental Category:	B - Partial Assessment		
Is this a Repeater project?	No		

2. Project Development Objective(s)

To increase the agricultural productivity of smallholder farms and improve smallholders' access to markets in selected districts.

3. Project Description

The project development objective (PDO) of the NATP-2 is to 'increase agricultural productivity on smallholder farms and improve smallholders' access to markets in selected districts'. NATP-2 will contribute directly to the Ministry of Agriculture's (MoA) and the Ministry of Fisheries and Livestock's (MoFL) priority of increasing farm yields and diversifying agricultural production by improving agricultural research and extension. Given the sector's high vulnerability to climate shocks and the diversity of agro-climatic zones, improving the agricultural technology system of Bangladesh will need to: (i) be embedded in the country's adaptation to climate change agenda with a focus on generating and diffusing climate-smart agricultural technologies and good agricultural practices adapted to the different agro ecological systems across the country, and (ii) take into account the social fabric and gender dimension in rural areas.

NATP-2 will cover a total of 56 districts and span over a broad range of agro ecological zones across Bangladesh. NATP-2's dual field-level strategy will deepen the interventions initiated by the previous project in existing upazillas (vertical scaling up) and expand the geographic coverage to include new districts and upazillas (horizontal scaling up). To contribute to the project objectives and scaling up previous achievements, NATP-2 implementation will rely on a comprehensive program of training activities; this will be implemented at various levels and cover skills development, knowledge sharing and learning. To scale up NATP achievements, the project design includes – embedded in the different project components – an Agricultural Innovation Fund (AIF). The project design for NATP-2 takes into account some of the shortcomings identified under NATP and reflects the integrated approach required to achieve the PDO. Agricultural extension and advisory services will be supported across all three sub-sector components for crops, livestock and fisheries farmers. Activities geared towards facilitating market access for smallholder farmers will be supported by NATP-2 across all 3 sub-sector components. Producer Organizations (POs) are key elements in facilitating a sustainable access to markets for smallholders and POs will be established across all 3 subsector components.

Component 1: Enhancing Agricultural Technology Generation (USD52 million)

This component will contribute to achieving the PDO by helping improve the performance of the national agricultural research system (NARS) through the support to agricultural technologies development, and the strengthening of agricultural research institutions. Improving the performance of the agricultural research system is an essential ingredient for achieving higher farm yields and thus directly contributes to the PDO. NATP-2 will support a demand-driven and market-oriented approach to agricultural research that takes into account: (i) the multiplicity of actors involved in agricultural technology generation; (ii) the need for increasing agricultural output per unit of shrinking arable land while adapting to climate variability and longer-term climate change; (iii) the evolving domestic demand for diversified, safer and more nutritious food; and (iv) opportunities for supplying international markets with selected agricultural and food products. Component 1 will support this research agenda by enhancing the institutional capacity of BARC and the National Agricultural Research Institutes (NARIs), by funding research through competitive grants, and by helping to build human capital for agricultural research. The component will also finance a number of activities (including specific studies, policy notes, training, research-extension linkages, and others) in support of the implementation of the 2012 BARC Act approved under NATP.

Component 2: Supporting Crop Development (USD66 million)

This component will contribute to achieving the PDO by increasing farm yields, diversifying agricultural production, and improving market linkages for smallholder farmers. To that effect, a comprehensive program of activities will be implemented under this component that will be geared at:

- (a) improving the outreach and quality of crop extension and advisory services by investing in public extension workers from DAE, promoting ICT in agricultural extension services and supporting farmer-to-farmer extension;
- (b) developing farmers' skills to scale-up the dissemination of Good Agricultural Practices (GAPs) including those developed under NATP, as well as identifying technologies for a sustainable production of safer food;
- (c) promoting farm and off-farm mechanization to increase crop productivity, farm output and diversification, as well as to increase efficiency in crop handling, reduce post-harvest losses and support processing;
- (d) facilitating stronger collaboration with the private sector for agro-business development on agro-processing, market access for smallholders, as well as for the establishment of machinery hire-services; and strengthening institutions involved in the crop sector, through capacity development and selected investments in infrastructure (e.g., improving DAE's horticultural centers, developing a national seed testing laboratory with MoA's Seed Wing, establishing agro-meteorological stations in collaboration with the Bangladesh Meteorology Department).

Component 3: Supporting Fisheries Development (USD37 million)

This component will contribute to achieving the PDO by promoting an integrated approach to achieve productivity, quality and output increases through technology transfer, as well as a better access to market opportunities for fish farmers. To achieve the PDO, NATP-2 will provide support for the sustainable development of inland culture fisheries (small scale aquaculture ponds) and inland capture fisheries (open water fisheries in beel and haor). To achieve the component objective, the project will scale-up NATP Good Aquaculture Practices for the production systems prevailing in the project area, promote community-based fisheries management, support the participation of fisheries CIGs and POs in value chains, reinforce research-extension-farmers linkages and strengthen the capacity of fisheries institutions. NATP-2 will further explore linkages with fishery activities under the on-going IFAD and USAID supported operations. The high degree of economic opportunities and benefits offered by the currently available and underutilised aquatic areas for aquaculture development, as well as the gender and nutrition dimension of fisheries, will be a major consideration for NATP-2. In addition to capacity enhancement and institutional strengthening, this component will support a number of investments in support of further developing fish farming in the project area.

Component 4: Supporting Livestock Development (USD47 million)

This component will contribute to achieving the PDO by promoting an integrated approach to achieve productivity and output increases through enhanced technology transfer, service delivery, as well as a better access for livestock farmers to markets. To that effect, NATP-2 will focus on: (i) strengthening livestock institutions (including food and feed safety and quality, animal health), improving livestock extension services, and reinforcing the linkages between research, extension and livestock farmers; (ii) scaling up outreach programs to reach out to a larger number of farmers; and (iii) facilitating the participation of smallholder farmers in selected livestock markets. To achieve significant and lasting productivity development in the dairy and beef sector, NATP-2 will focus on improving farm management (including animal nutrition, fodder production, animal health, improved

animal husbandry practices, as well as marketing) and work towards strengthening the artificial insemination system in accordance with the national breeding programs. This component will also support better interaction between the Bangladesh Livestock Research Institute and the Central Cattle Breeding Station and Dairy Farm; particular attention will be given to the need for synergies between BLRI's dairy program and the herd improvement program of the Breeding Station. Under this component, NATP-2 will cover dairy farming, goat rearing, beef fattening, and poultry farming.

Component 5: Project Management (USD12 million)

This component will: (i) ensure that the project is carried out in line with the provisions in the official project documents, in particular all fiduciary and governance aspects; (ii) establish liaison mechanisms between the Bank and the project, as well as between the project and the GoB, and (iii) coordinate the implementation of selected overarching project activities with the support of external technical assistance.

4. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

NATP-2 will cover a total of 56 districts and span over a broad range of agro ecological zones across Bangladesh. The project will be implemented over a six year period in 270 upazilas; this includes 150 upazilas already covered under NATP-1, plus 120 new upazilas. New upazilas have been selected following the multi-criteria approach successfully applied under NATP-1 (among others: high prevalence of small and marginal farmers, agro ecologically stressed areas); a high potential for establishing a production and marketing cluster for one or more designated value chain commodities was added as a selection criteria for new upazilas.

5. Environmental and Social Safeguards Specialists

Sabah Moyeen (GSURR)

Farhat Jahan Chowdhury (GENDR)

6. Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/ BP 4.01	Yes	The NATP-2 will support a range of sub-projects involving research, technology demonstration, agricultural extension and value-chain development in crops, livestock and fisheries sectors. While many of these sub-projects are likely to be environmentally benign, some have the potential to cause negative environmental impacts (relating to agro-chemical use, agro-processing waste management, etc.). The project is classified as a "Category B" under OP/BP 4.01 with a partial assessment as the impacts are likely to be small-scale, site specific with no irreversible impacts and mitigation measures can be designed more readily. In order to identify and mitigate such impacts, an Environmental Management Framework (EMF) has been developed, building upon the EMFs of the preceding projects, NATP-1 and NATP-Additional Financing.

Natural Habitats OP/BP 4.04	No	Project activities will not be implemented in areas of natural habitats
Forests OP/BP 4.36	No	Project activities will not be implemented in forest areas
Pest Management OP 4.09	Yes	The sub-projects supported by the NATP-2 are likely to involve the use of chemical pesticides for pest management. While the NATP-2 includes interventions on Integrated Pest Management, a Pest Management Plan has been developed in order to systematically address, build capacity and monitor the pest management issues in the project.
Physical Cultural Resources OP/ BP 4.11	No	Project implementation will not affect cultural resources.
Indigenous Peoples OP/BP 4.10	Yes	The project will work in areas where indigenous people (IPs) live. The project does not anticipate any adverse impacts on IPs. Since the upazillas where interventions will take place have not been determined at this stage, a Social Management Framework has been prepared after conducting a Social Impact Assessment (SIA) in sample areas to include a development framework for Small Ethnic Communities and other Vulnerable communities (SECVCF). The SMF also includes a gender framework and will focus on enhancing community participation and inclusion through information dissemination, and an on-going strategy for consultation and communication. A comprehensive SIA was undertaken and detailed SMF was prepared for NATP-I which has served as a basis for the preparation for the new SMF and will incorporate the lessons learned from NATP-I. The current SMF has been prepared on the basis of field visits to existing NATP sites and sites planned for inclusion in the future and local consultations with a range of stakeholders. The SMF includes a screening format (to be implemented at the time of sub-project submission) to determine if project areas include IPs. If so, the sub-project will be required to prepare and implement a Small Ethnic Communities and other vulnerable communities Development Plan in compliance with the Framework included in the SMF. The gender and inclusion elements should be incorporated and implemented project wide.

Involuntary Resettlement OP/BP 4.12	No	<p>The project will not require acquisition of private land. The construction of mini laboratories under Component 4 will be undertaken on public lands only which are free of encumbrances, including squatters and/or people leasing or using lands for livelihood purposes. No displacement (physical or economic) of people (with or without title) will be permissible (or required) under the project; no adverse impact on livelihoods are anticipated. The rehabilitation of ponds is not expected to require additional lands as the activity focuses on deepening the ponds only. Buried pipes for irrigation enhancement and improvement will be installed on the basis of community consultation and mutual agreement with farmers. The experience of NATP I shows that farmers view this as a largely beneficial activity and are more than willing to allow the installation works on a voluntary basis. This is clearly documented in the SMF as is the process for consultation with farmers and appropriate documentation. Based on the assessment GoB carried out in the context of the SMF elaboration, it was finally concluded that OP4.12 did not need to be triggered.</p> <p>The project activities may have special impacts on women or can enhance benefits to them and other vulnerable groups. The SMF which will contain a Gender and Inclusion Framework focused on participatory processes, social inclusion and accountability. The SMF will include a screening format to be applied in case public land use is required to check whether squatters are impacted or livelihoods are adversely impacted due to the project; and these sub-projects will be duly rejected. All sub-projects will follow the guidelines provided in the Gender and Inclusion Framework and maintain the requisite consultation processes and documentation. All social safeguards documents will be duly disclosed following Bank guidelines.</p>
Safety of Dams OP/BP 4.37	No	The project will not construct or rehabilitate dams larger than 10 meters in height.
Projects on International Waterways OP/BP 7.50	No	The project does not involve in any international waterways. The project does not plan to carry out any interventions that affect the use or pollute international waterways, particularly river or

		body of surface water that flows through two or more states.
Projects in Disputed Areas OP/BP 7.60	No	No project activity will be implemented in disputed areas.

II. Key Safeguard Policy Issues and Their Management

A. Summary of Key Safeguard Issues

<p>1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:</p> <p>The NATP-2 supports a range of activities including research, training, ICT, infrastructure support (lab renovation and upgrading), agricultural equipment, agro-processing units, cold storage units, market yards, kitchen gardens, dairy and goat rearing units, milk chilling and processing centres, small scale slaughter houses, feed manufacturing units, bio-gas units, fish rearing (mono and poly culture), fish processing units, etc. While many of these sub-projects are likely to be environmentally benign, some have the potential to cause negative environmental impacts (relating to agro-chemical use, agro-processing waste management, etc.) which are likely to be small-scale, site specific with no irreversible impacts and mitigation measures can be designed more readily. The key issues and impacts associated with these activities include:</p> <ul style="list-style-type: none"> • Overuse, unsafe use and use of hazardous pesticides and chemicals such as feed additives impacting human, livestock and environmental health • Imbalanced used of chemical fertilizers impacting environmental health • Over-extraction and inefficient use of water for irrigation leading to groundwater depletion • Use of water with poor quality (arsenic contamination, microbial contamination, etc.) leading to impact on human health • Pollution from agro-processing units due to improper management of solid and liquid wastes • Health risk from agro-processing units due to unhygienic practices • Loss of native crop and livestock diversity due to introduction and promotion of new and improved species/varieties <p>All the above activities will be carried out on public lands which are free of all encumbrances or on lands belonging to private individuals who own the above mentioned businesses and participate in the project on a voluntary basis. No land acquisition, displacement or adverse impacts on existing livelihood activities will be permitted under the project.</p>
<p>2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:</p> <p>No long-term or indirect impacts are envisaged from the project interventions. However, to manage against unforeseen risks, the project has prepared a negative list of attributes or exclusion criteria for potential sub-projects, as part of the environmental and social management framework</p>
<p>3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.</p> <p>The sub-projects will be identified during the project implementation phase. The environmental and social screening along with the Environmental Mitigation Measures and Code of Practices (ECoPs) will help to consider the alternative options to avoid or minimize adverse impacts at the grassroots-level planning stage.</p>
<p>4. Describe measures taken by the borrower to address safeguard policy issues. Provide an</p>

assessment of borrower capacity to plan and implement the measures described.

In tune with the requirements of the OP 4.01 and the OP 4.09, an Environmental Management Framework (EMF) and a Pest Management Plan (PMP) have been prepared by the Government of Bangladesh.

The EMF incorporates the following principles for the environmental management of sub-projects to be implemented under the NATP-2 project:

- Activities with severe negative environmental impacts will not be supported by NATP-2.
- Activities involving financing of CIGs, POs, SMEs and research proposals will go through environmental screening and assessment and will have sub-project specific Environmental Management Plans (EMPs).
- All supported activities will ensure compliance with the relevant 'Environmental Code of Practice'.
- 'Environmental Enhancement Measures' will be recommended specifically to address adaptation needs in the context of climate change.

The EMF describes procedures for screening and categorization of sub-projects. The sub-projects in the NATP-2 have been categorized into 3 groups: those that require Limited Environment Assessment (LEA), those that required Detailed Environment Assessment (DEA) and those that do not need any assessment. Following the assessment, a sub-project EMP will be prepared that will spell out the required mitigation measures, the implementation schedule, the technical and financial support required for implementation and the monitoring arrangements. The EMF provides tools/formats for environmental screening, assessment and EMPs.

The EMF also describes the institutional arrangements at the union, upazila, district, Project Implementing Unit (PIU) and Project Management and Coordination Unit (PMU) levels for environmental screening, assessment, monitoring of EMP implementation and capacity building. It also describes a plan for capacity building of the key stakeholders including Common Interest Groups (CIGs) of farmers, Producer Organizations (POs), department staff at various levels, etc. Monitoring to identify and suitably address any issues in implementation of the EMF will be at two levels: i) sub-project environmental effect monitoring and ii) environmental impact monitoring. An independent external environmental audit of the project will also be undertaken prior to the mid-term review.

A Social Management Framework (SMF) has also been prepared by the Government of Bangladesh to address possible impacts on indigenous people and issues of gender and social inclusion and participation. Social screening formats have been incorporated to ensure that no displacement or disruption/adverse impacts on livelihoods occur.

The SMF clearly states that the following activities will not be permitted under the project:

- The sub projects requiring land acquisition and involuntary resettlement (physical or economic, pertaining to people with or without title) are excluded.
- Activities likely to adversely affect wildlife, fish habitat, common property resources like pasture land and livelihoods of marginalized groups etc. will be excluded.
- The sub projects involving large scale water management particularly requiring canal excavation will be avoided as it may involve land acquisition and involuntary resettlement.
- Sub projects requiring constructing permanent structures on private land will be excluded

All sub-projects will follow the gender and inclusion guidelines provided in the SMF.

Both the NATP-1 and the NATP-Additional Financing projects have developed and implemented EMF and SMFs before. The borrower is thus familiar with the Bank's requirements and has demonstrated capacity to implement EMFs and adequately address/mitigate the identified environmental issues/impacts.

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.

Key project stakeholders include the local farming communities (including women, marginal and small farmers, indigenous people); project functionaries at different levels, associated line department staff (agriculture, livestock and fisheries); elected representatives, particularly at the Union level; NGOs, academia and consulting community; input suppliers and producers (traders, fertilizer associations); external donors; and consumers of agricultural, horticultural, milk and fish products associated with project activities. There have been consultations throughout the project preparation both by the Bank Missions as well as by the GOB's environmental and social assessment consultant's team.

Disclosure. The Environmental Management Framework (EMF), Social Management Framework (SMF), and Pest Management Plan (PMP) reports have been prepared by the Ministry of Agriculture (MoA) and Ministry of Fisheries and Livestock (MoFL). The executive Summary of the EMF, SMF, and PMP have been translated into Bangla and the same will be disseminated widely across the country through the Departments of Agriculture, Fisheries, and Livestock, Research Institutions as well as other agencies. In accordance with the Bank's disclosure policy the advanced draft EMF, SMF, and PMP have been disclosed on the Ministry website on November 13 and 28, 2014, with hard copies provided in the implementing agency's office, for comments from the public before finalization. They will also be disclosed in the World Bank Office InfoShop.

B. Disclosure Requirements

Environmental Assessment/Audit/Management Plan/Other	
Date of receipt by the Bank	13-Nov-2014
Date of submission to InfoShop	10-Dec-2014
For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors	
"In country" Disclosure	
Bangladesh	13-Nov-2014
<i>Comments:</i> Draft EMF and PMP disclosed on the website of the MoA/NATP-1 with summary translated in local language	
Indigenous Peoples Development Plan/Framework	
Date of receipt by the Bank	28-Nov-2014
Date of submission to InfoShop	10-Dec-2014

"In country" Disclosure	
Bangladesh	28-Nov-2014
<i>Comments:</i> The SMF published in country on November 28, 2014 includes a development framework for Small Ethnic Communities and other Vulnerable communities (SECVCF).	
Pest Management Plan	
Was the document disclosed prior to appraisal?	No
Date of receipt by the Bank	13-Nov-2014
Date of submission to InfoShop	10-Dec-2014
"In country" Disclosure	
Bangladesh	13-Nov-2014
<i>Comments:</i> Draft PMP disclosed with draft EMF (see above)	
If the project triggers the Pest Management and/or Physical Cultural Resources policies, the respective issues are to be addressed and disclosed as part of the Environmental Assessment/Audit/or EMP.	
If in-country disclosure of any of the above documents is not expected, please explain why:	

C. Compliance Monitoring Indicators at the Corporate Level

OP/BP/GP 4.01 - Environment Assessment	
Does the project require a stand-alone EA (including EMP) report?	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>] NA [<input type="checkbox"/>]
If yes, then did the Regional Environment Unit or Practice Manager (PM) review and approve the EA report?	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>] NA [<input type="checkbox"/>]
Are the cost and the accountabilities for the EMP incorporated in the credit/loan?	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>] NA [<input type="checkbox"/>]
OP 4.09 - Pest Management	
Does the EA adequately address the pest management issues?	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>] NA [<input type="checkbox"/>]
Is a separate PMP required?	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>] NA [<input type="checkbox"/>]
If yes, has the PMP been reviewed and approved by a safeguards specialist or PM? Are PMP requirements included in project design? If yes, does the project team include a Pest Management Specialist?	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>] NA [<input type="checkbox"/>]
OP/BP 4.10 - Indigenous Peoples	
Has a separate Indigenous Peoples Plan/Planning Framework (as appropriate) been prepared in consultation with affected Indigenous Peoples?	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>] NA [<input type="checkbox"/>]
If yes, then did the Regional unit responsible for safeguards or Practice Manager review the plan?	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>] NA [<input type="checkbox"/>]
If the whole project is designed to benefit IP, has the design been reviewed and approved by the Regional Social Development Unit or Practice Manager?	Yes [<input type="checkbox"/>] No [<input type="checkbox"/>] NA [<input checked="" type="checkbox"/>]
The World Bank Policy on Disclosure of Information	

Have relevant safeguard policies documents been sent to the World Bank's Infoshop?	Yes [<input type="checkbox"/>] No [<input checked="" type="checkbox"/>] NA [<input type="checkbox"/>]
Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>] NA [<input type="checkbox"/>]
All Safeguard Policies	
Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>] NA [<input type="checkbox"/>]
Have costs related to safeguard policy measures been included in the project cost?	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>] NA [<input type="checkbox"/>]
Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>] NA [<input type="checkbox"/>]
Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>] NA [<input type="checkbox"/>]

III. APPROVALS

Task Team Leader:	Name: Patrick Verissimo	
Approved By		
Practice Manager/ Manager:	Name: Simeon Kacou Ehui (PMGR)	Date: 04-Dec-2014