

Project Idea for Agriculture Sector Technology

B.1 Project Title:

Establishment of special agricultural R & D centre

B.2 Introduction/Background (Briefly describe the project and how it developed) :

The agriculture sector is vulnerable due to both the primary effects (variation in rainfall and temperature) and secondary effects (drought, flood, cyclone and storm surge, saline intrusion etc) of climate change. In addition, climate change related phenomena such as variation in temperature and rainfall may enhance spread of pest attacks or crop diseases that affect crop production. In the changing climatic context, it is necessary to either modify or develop new agricultural (mainly crops) technologies and introduce them at the farmers level.

The available technologies in crop agriculture are likely to address current climate variability. To address the long-term impacts and variability, technologies in crop agriculture have to be consistent with the predicted changes in climate system.

Aside with the international effort, it is equally important to strengthen national effort on research and development of climate resilience crop varieties and farming system.

B.3 Purpose and Objectives:

Main objectives of the projects are:

- Research on the development of context specific or climate resilient crop production technologies
- Identify the technological needs for sustainable agricultural production in different stress conditions caused by climate change.
- Establish a smooth institutional and coordination mechanisms of all the existing agricultural research institutions in country and abroad to consolidate all agricultural success stories on adaptation technologies in government, non-government and private initiative
- Conduct agricultural and food security related policy research.

C.3 Relationship to the country's sustainable development priorities

Country social development priorities

- Will expand agriculture based employment opportunity
- Will reduce joblessness of small farm holders and agricultural labors.
- Will contribute to country's goal of expanding farm based income and rural poverty eradication

Country economic development priorities

- Will increase rice production and will contribute to country's goal of attaining food security
- Will support addressing long-term impacts and variability, technologies in crop agriculture consistent with the predicted changes in climate system

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Country environmental development priorities

- Development of appropriate adaptation technologies will optimize utilization of natural resource base
- Will support conservation of local level biological resources

C.4 Project Deliverables:

This special research and development (R & D) center will develop adaptation technologies that are environmentally sustainable, culturally compatible, socially acceptable, economically feasible and technically viable.

C.5 Project Scope and Possible Implementation

The major scopes under the project are:

- Development of context specific or climate resilient crop production technologies through research
- Identification of technological needs for sustainable agricultural production in different stress conditions caused by climate change.
- Establishment of smooth institutional and coordination mechanisms of all the existing agricultural research institutions in country and abroad.
- Agricultural and food security related policy research

C.6 Timelines (What are the timelines e.g. one quarter, one year, multiple years?) :

Multiple Years

C.7 Budget/Resource requirements (What is the budget? How is the project to be funded? (Staff, Engage consultants, partnership, etc.) :

Capital Costs:

- Approx cost = Tk 3000.00 Lakh for Center establishment
- Approx cost = Tk 2000.00 Lakh for tools and appliances

Total: Taka 5000 lakh; (USD 6250000)

Operational and maintenance costs:

- Approx cost of field experimentation and demonstration = Tk 1000.00 lakh/ year
- Development of dissemination packages and tools Tk 250 lakh
- Approx cost of HR = Tk 250.00 lakh/ year

Total: Taka 1500 lakh; (USD 187500)

C.8 Measurement/Evaluation (What tangible evaluation of accomplishments are there?):

Development and extension of climate change resilient crop varieties

C.9 Possible Complications/Challenges (What are the potential challenges and complications?):

Possible challenges are

- High investment and operational cost for research activities
- Lack of skilled personnel in the field of agricultural research

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C.10 Responsibilities and Coordination (Who does what, when and how?):

Ministry of Agriculture

- Bangladesh Agricultural Research Council (BARC)
- Department of Agricultural Extension (DAE)
- Department of Agricultural Marketing (DAM)
- Agriculture Information Service (AIS)
- Seed Certification Agency (SCA)
- Bangladesh Agricultural Development Corporation (BADC)
- Barind Multi Purpose Development Authority
- Bangladesh Agricultural Research Institute (BARRI)
- Soil Resources Development Institute (SRDI)
- Bangladesh Jute Research Institute (BJRI)
- Bangladesh Institute of Nuclear Agriculture (BINA)
- Bangladesh Sugarcane Research Institute (BSRI)
- Central Extension Resources Development Institute (CERDI)
- Horticulture and Export Foundation (HEF)

Ministry of Environment and Forests

- Department of Environment
- Department of Forest
- Climate Change Trust

Ministry of Fisheries and Livestock

- Department of Fisheries
- Department of Livestock Services
- Bangladesh Fisheries Research Institute
- Bangladesh Livestock Research Institute

Ministry of Water Resources

- Bangladesh Water Development Board
- Water Resource Planning Organisation (WARPO)
- River Research Institute (RRI)
- Bangladesh Haor and Wetland Development Board (BHWDB)
- Institute of Water Modeling for mathematical water modeling (IWM)
- Center for Environmental and Geographic Information Services (CEGIS)

Ministry of Finance

Note: The BCCSAP has provided strategic elaboration of adaptation measures in Bangladesh for the next 10 years