**Ganges Proposal** 

the Ganges Delta

**CGIAR Challenge Program on Water and Food** 

Dhaka, Bangladesh 24 to 27 January 2011

**Development Workshop** 

Increasing the Resilience of Agricultural and Aquaculture Systems in the Coastal Areas of

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### **Acronyms**

BARI Bangladesh Agricultural Research Institute

BDC Basin Development Challenge

BFRI Bangladesh Fisheries Research Institute
BIDS Bangladesh Institute of Development Studies
BINA Bangladesh Institute of Nuclear Agriculture

BRRI Bangladesh Rice Research Institute
BWDB Bangladesh Water Development Board

CGIAR Consultative Group on International Agricultural Research

CIBA Central Institute of Brackishwater Aquaculture
CIMMYT International Maize and Wheat Improvement Center

CPMT CPWF Management Team

CPWF CGIAR Challenge Program on Water and Food

CSSRI Central Soil Salinity Research Institute

EOI Expression of Interest

ICRISAT International Crops Research Institute for the Semi-arid Tropics

IPSWAM Integrated Planning for Sustainable Water Management

IRRI International Rice Research Institute

IWFM-BUET Institute of Water and Flood Monitoring Bangladesh University of Engineering and Technology

IWM Institute of Water Modeling

IWMI International Water Management Institute

KAS Knowledge, Attitude, Skills
OLM Outcome Logic Model

PIPA Participatory Impact Pathway Analysis

PN7 Development of technologies to harness the productivity potential of salt-affected areas of the

Indo-Gangetic, Mekong and Nile River basins

PN10 Managing water and land resources for sustainable livelihoods at the interface between fresh

and saline water environments in Vietnam and Bangladesh

PN35 Community-based fish culture in seasonal floodplains

TWG Topic Working Group

SERVIR Regional Visualization and Monitoring System

SRDI Soil Resource Development Institute

WFC The World Fish Center

### **About CPWF Phase 2**

The CGIAR Challenge Program on Water and Food (CPWF) works to increase the productivity of water for food and livelihoods in a manner that is environmentally sustainable, socially acceptable, and alleviates poverty for all disadvantaged groups. The First Phase of the CPWF ran from 2003-2008, while the Second Phase will run from 2009-2013. In its Second Phase the CPWF works in six river basins (Mekong, Ganges, Limpopo, Volta, Nile, and the Andean Basins System) in the developing world. More information about the CPWF can be obtained at <a href="https://www.waterandfood.org">www.waterandfood.org</a>.

Research in CPWF's Phase II is designed to contribute to solving an important and pressing basin development challenge (BDC). Each BDC research challenge is made up of four to five projects of which one is a coordination project responsible for fostering learning across the BDC in support of innovation and adaptive management.

The CPWF seeks to contribute to developmental outcomes and impact by ensuring quality of research and quality of process. We are explicit about the causal pathways, derived from experience and theory, by which we expect our research to lead to change. Research must be tied to a plausible causal pathway to be a priority. Research projects are expected to be proactive about moving along these pathways. We are also guided by core principles and seek to foster an evaluative culture that regularly questions assumed causal pathways, is self-critical, seeks to learn from experience and which adapts the program-of-work to emerging opportunities and threats.

### The CPWF's Core Principles

### **Core Principles:**

### **Capacity Building**

Making change happen often requires training, capacity building, changes in knowledge, attitudes and skills

### **Partnership**

Research won't be relevant nor research outputs put into use without partnership

#### **Interdisciplinary integration**

Real world problems are complex and multifaceted and unlikely to fall to single disciplinary research

### **Adaptive management**

Real world problems are complex and dynamic, goal post shift, opportunities emerge. Projects, BDCs and the Program must be able to learn and 'fall forward' – be intelligent

#### Gender

We work to benefit women, youth, socially excluded **Accountability** 

We are accountable to our ultimate beneficiaries, out stakeholders, our donors and each other

# **Key questions for proposals arising from Core Principles:**

### **Capacity Building**

What knowledge and skills are needed for project success? Is building them reflected in the proposal?

### **Partnership**

Are we working with the stakeholders to ensure good science and uptake?

### **Interdisciplinary integration**

Are we bringing the right disciplinary skills to bear?

#### **Adaptive management**

How will we spot opportunities and threats? What are the mechanisms that allow us to respond to them? How do we learn and get better? What evidence do we need? **Gender** 

## Who are we working to benefit? Who has power and how will that likely affect outcomes?

Accountability

How do we ensure accountability to our stakeholders, including donors and each other?

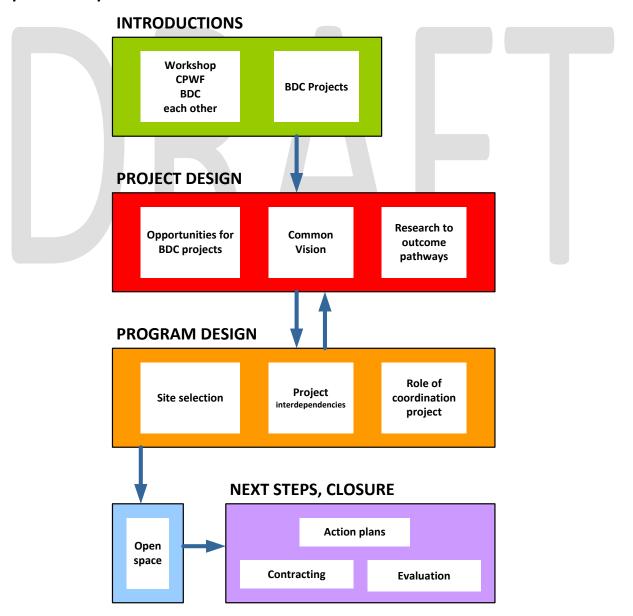
### **About the Workshop**

### **Objectives**

By the end of the workshop we will:

- 1. Have a common understanding of the overall BDC and its project components
  - a. Understand the roles separate projects will play and identify interdependencies with other projects
  - b. Have promoted integration between project teams, and developed a sense of belonging to the Ganges BDC and the CPWF
  - c. Be inspired and motivated by the Ganges BDC and its contribution to the global CPWF program of work
- 2. Have discussed, explored and identified **core project proposal components** (including outcomes, outputs, activities, indicators, core approaches, partners) in line with the CPWF planning framework
- 3. Understand the CPWF contracting process and requirements, and be clear on next steps

### Workshop Road Map



### **Outputs**

- 1. Vision for the BDC
- 2. Mapping of BDC project inter-linkages
- 3. Problem tree and related project objectives
- 4. Project proposal components, including activities, outputs, milestones and partner identification, outcomes
- 5. Project action plans to ensure proposal completion and submission

### **Approach**

The workshop will be facilitated by a CPWF team to give time to work in project teams on project proposals and in plenary to ensure programmatic coherence.

### **Online Resources**

<u>PIPA Process Online Manual (http://boru.pbworks.com/w/page/13774908/Online-manual)</u>
<u>CPWF BDC Website</u> (https://sites.google.com/site/cpwfbdceoi/)

### What to prepare?

- 1. 10 minute presentation of EOI covering: links and importance of project to lead organization; methodologies; partners and their roles; and project strategies for achieving adoption of project outputs
- 2. Prepare and bring information pertinent to site selection
- 3. Encourage project teams to come with questions on CPWF in general (who we are, how we work, etc) and more specifically in terms of contracting processes and requirements

### Workshop Agenda

Time	Jan 24, Monday	Jan 25, Tuesday	Jan 26, Wednesday	Jan 27, Thursday	
8:30	1. OPENING SESSION Welcome remarks Intro by Participants	INTRODUCTION TO THE DAY	INTRODUCTION TO THE DAY	INTRODUCTION TO THE DAY	
9:00	About CPWF & Workshop The Process Issues on the Table (free for all)	6. INTRODUCTION TO PROPOSAL FORMATS AND CONTRACTUAL	10. EXPECTATIONS OF THE COORDINATION AND CHANGE PROJECT	13. INTRODUCTION TO TWGs	
9:30	2. THE BDC IN CONTEXT The BDC in the context of the Ganges and the CPWF	REQUIREMENTS			
10:00		BR	EAK		
10:30	3. GETTING TO KNOW THE BDC PROJECTS Proj. presentations (15 min max/	7. DEVELOPING PROJECT OUTCOME LOGIC MODELS Sorting out causal links between	11. SPEED DATING "What I can do for you and what you can do for me"  Identify issues for open space	14. PROJECT PRESENTATIONS Key updates and changes since Day 1	
11:00	proj.) Groups generate questions for others Identify linkages and gaps both	research, generation of outputs and the achievement of outcomes		Identify needed further work and outstanding challenges (15 min max/ proj)	
11:30	within projects and across BDC				
12:00	-				
12:30		<u>L</u> UI	NCH		
13:30	4. IDENTIFYING OPPORTUNITIES FOR RESEARCH TO TACKLE THE BDC	8. GIANT GANTT CHART Identify cross project linkages and dependencies	12. PROJECT DEVELOPMENT Project teams to further refine objectives/ outcomes, activities, outputs, milestones Who are we working with: partner mapping	15. REALITY CHECK Peer feedback	
14:00	Identify key change areas where proj. will contribute Articulation of proj. outcomes Group feedback: opportunities –				
14:30	change areas, objectives/outcomes			16. ACTION PLANS FOR FINALIZING PROPOSALS	
15:00		 BR	 EAK		
15:30	5. PROJECT SYNERGIES AND INTERDEPENDENCIES.	9. SITE SELECTION AND SEQUENCING QUESTIONS Criteria Specifics	12. Cont. PROJECT DEVELOPMENT – OPEN SPACE	17. FINAL EVALUATION	
16:00	6. OUR COMMON BDC VISION Is current BDC Vision adequate? How should it be improved?			18. ADJOURNMENT	
16:30					
17:00 to 17:30	WRAP UP AND EVALUATION OF THE DAY*	WRAP UP AND EVALUATION OF THE DAY*	WRAP UP AND EVALUATION OF THE DAY*		
TBA	WORKSHOP COCKTAIL and DINNER	OPTIONAL: Contracting and compliance Q&A	OPTIONAL: Contracting and compliance Q&A		
	1	1		<u> </u>	

<sup>\*</sup> Including adding/ removing concerns/ questions from "question – concern wall"

### **Participants**

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20	G4	To be decided					
21	G4	To be decided					
22	G4	To be decided					
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24	G4	To be decided					
25	G4	To be decided					
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	Dhilianiana II				LKA Critanka MVC Malaysia LAO Laa I	<del>-</del>	•

PHL – Philippines, USA – United States of America, BGD – Bangladesh, IND – India, LKA – Sri Lanka, MYS – Malaysia, LAO – Lao PDR

### The Ganges Basin Development Challenge

The brackish water coastal zone of the Ganges is home to some of the world's poorest and most vulnerable people, who are exposed to tidal surges, increasing surface water salinity and a rising incidence of severe cyclonic storms. With the aim of improving the livelihoods of Ganges coastal zone farmers, the CPWF research program for the Ganges Basin Development Challenge (BDC) seeks "to increase the resilience of agriculture and aquaculture systems in the coastal areas of the Ganges Delta". Hereafter, it will be referred to as the "Ganges BDC research program". This program is composed of five projects. The following sections describe the Ganges BDC research program and its component projects.

### Target Area

The Ganges BDC research program will focus on brackish water coastal zones in the Ganges basin where agricultural lands have a maximum salinity greater than 5ppt (parts per thousand) in the dry season. Salinity levels are lower in the wet season.

In Bangladesh the target area will cover two Divisions: Barisal and Khulna. In Barisal Division, work will be conducted in Patuakhali, Barguna, Jhalakati, and Pirojpur Districts. In Khulna Division, work will be conducted in Khulna and Satkhira Districts. For two of the five projects, the target area will also include East Medinipur, Haora, North 24 Pargana, and South 24 Pargana Districts of the coastal zone of West Bengal, India. The inclusion of India will offer opportunities for cross country learning in technology development and institutional arrangements, for example, for managing conflicts between shrimp and rice.

For the most part, the Ganges BDC research program will work in areas where there is already some level of water control, that is, within the polders of coastal Bangladesh. In two projects, however, work will also cover salt-affected areas outside of polders. These are largely located in India. The target area will exclude the Sundarbans. Figure 1 shows the location of the target area.

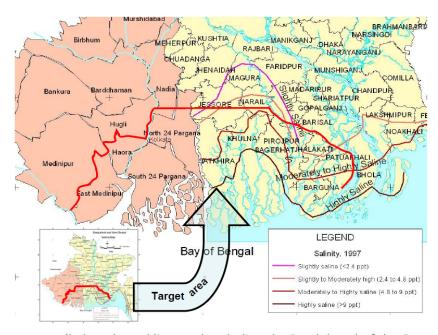


Figure 1: Target area (below the red line, and excluding the Sundabans) of the Ganges BDC R4DP

### Vision of Success

It is envisioned that after 10 years, BDC research program outputs will reach more than one million households. Favorable impacts will be generated with regard to agricultural production, rural livelihoods, policy coordination and implementation, and the environment. Quantitative and qualitative impact indicators will be defined during the development of an "outcome logic model" or OLM for the BDC research program.

Improved availability of dry season water, and improved practices for managing salt-affected lands, will result in intensification and diversification of farm systems. There will be at least a 50% increase in the production of dry season boro rice, high-value non-rice crops, and shrimp and fish. Yields of existing crops will increase as farmers improve their capacity to cultivate salt-affected lands. These changes will represent a substantial improvement over current production systems which often are restricted to a single low-yielding rainy season rice crop.

Intensification and diversification of production systems will lead to substantial increases in farm income. By nearly doubling rice production, food security will be improved, especially during the "hungry period" immediately before the harvest of the wet season rice crop. This will especially benefit disadvantaged groups, such as the landless poor, or poor families with very small farm holdings, who are net food purchasers. By introducing high-value non-rice crops, and aquaculture, opportunities will emerge for improvements in nutrition as well as increased cash income for farm families.

Diversification of production systems will generate employment opportunities, which will benefit the landless and those with very small land holdings. Women will be consulted in the development of employment opportunities so that some of these opportunities will be designed to meet women's interests and needs.

A major issue to be addressed by the BDC research program is water governance. Governance innovations will be designed to increase the involvement of disadvantaged groups in community decision-making, such as the landless poor, women, and young people. Another major issue to be addressed is that of policy implementation and coordination.

Outputs from the BDC research program will to inform decisions on implementation of policies related to water management. Research outputs will result in increased co-investment in resource management by more stakeholders; and improved cross-sectoral policy coherence and coordination.

Finally, improved production systems will benefit the environment. Production systems will produce fewer negative externalities and will be more resilient to perturbations, including climate change.

### **Complementarities and Uniqueness**

The Ganges BDC research program is designed to build on the achievements of other completed or on-going initiatives in coastal areas of the Ganges. In particular, it will take three streams of innovation, integrate them into coherent strategies, and then scale out these strategies to a wide range of polder categories and land types.

The first stream of innovation is on water management and water governance in polders. The research program will build on the work of the Bangladesh Water Development Board (BWDB), and partners, on "Integrated Planning for Sustainable Water Management (IPSWAM)". Special attention will be given to overcoming conflicts between boro rice and upland crops, and between rice and shrimp, through community water management initiatives.

The second stream of innovation is on the development of institutions for community-based resource management. The research program will build on the work of CPWF Phase 1 project PN35.

The third stream of innovation is on crop management practices for salt-affected lands. The research program will build on the work of CPWF Phase 1 projects PN 10 and PN 7 on increasing opportunities for cropping intensification. Some of these opportunities emerge from the availability of new crop varieties with short duration and enhanced tolerance to abiotic stresses (salinity, submergence, and drought). These have been developed by BRRI, BINA, IRRI, CIMMYT, BARI, ICRISAT, and partners. Through co-investment with BWDB, the program will test new cropping systems, and field and farm technologies in rehabilitated polders. Work will also be conducted in areas without polders in India.

The program will not include polder rehabilitation or other major investments in infrastructure, neither "dredging" of big rivers such as the Gorai, or capture fishery in rivers (outside polders) as these are on-going initiatives by other organizations.

The Ganges BDC research program will work at multiple scales. Agriculture and aquaculture technologies will be tested at the field/farm scale; work on water governance and management will be carried out at the community and polder scale; and land use planning and extrapolation domain identification will be conducted at the regional scale. Because the program will feature integrated strategies and mechanisms for policy implementation and coordination across scales it will use multi-disciplinary teams.

### Goal

Reducing poverty and improving regional social-ecological resilience, through improved water governance and management, and intensified and diversified agricultural and aquaculture systems in brackish water of the coastal Ganges.

### **Objectives**

The overall objective of the Program is to improve resource productivity and increase the resilience of agriculture and aquaculture systems in brackish coastal areas of the Ganges.

### Specific objectives include:

- To establish a geo-referenced data base for the coastal zone of Bangladesh and to facilitate out-scaling of technologies though identification of target domains and land use planning
- To develop and introduce resilient agriculture/aquaculture production systems in the coastal zone of Bangladesh and India for the benefit of poor households
- To improve water governance and management for resilient production systems
- To assess the impact of anticipated external hydrology changes on water resources in the coastal zone of the Ganges
- To enhance impacts in Bangladesh and India through stakeholder participation, policy dialogue and effective coordination among other Government, NGO's, CGIAR and donors sponsored projects and programs in the Ganges BDC research Program

### The BDC Projects for the Ganges Basin

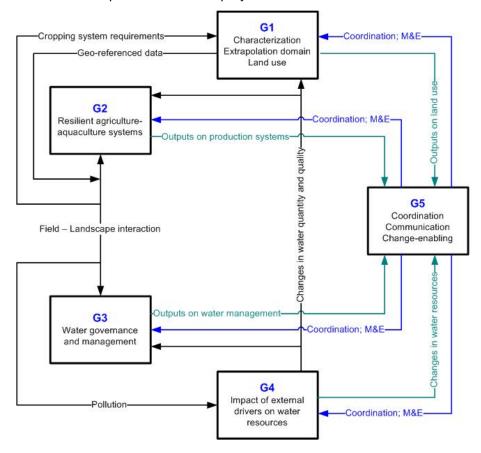
Research on the Ganges Basin Development Challenge is divided into five inter-related projects. Each project will address one specific objective:

- Project G1. Resource profiles, extrapolation domains and land-use plans
- Project G2. Resilient intensified and diversified agriculture and aquaculture systems
- Project G3. Water governance and community-based management
- Project G4. Assessment of the impact of anticipated external drivers of change on water resources of the coastal zone
- Project G5. Coordination and change-enabling project

All five projects have relevance to the brackish water coastal zone of Bangladesh where polders are used for water control. Two projects (G2 and G5) will also feature research in India in areas without polders.

### Functional links across the projects

The five projects are interrelated; the synergy among the projects will ensure the outcomes and impacts that are more than the sum of the parts. The interdependencies among the projects are described in the Figure below. The links will be described in more details in the description of individual projects.



### **Contracting Information and Checklist**

### **Key Links**

CPWF Monitoring and Evaluation Manual ( https://sites.google.com/a/cpwf.info/m-e-guide/home)

CPWF Handbook (https://sites.google.com/site/cpwfhandbook/)

### **Contracting Documents**

- Award Letter
- Attachment 1: Schedule of reports and payments
- Annex 1: CPWF Standard Clauses and Procedures
- Annex 2: Project Proposal
- Annex 3: Milestone Plan with indicators and corresponding Outcome Logic Model
- Annex 4: Gantt Chart (Project Schedule)
- Annex 5: Third Party Intellectual Asset Audit
- Annex 6: Budget
- Annex 7: Memorandum of Understanding with Partners

### **Contracting Timeline**

29 November 2010 17 December 2010 24-27 January 2011 14 February 2011 14 March 2011 April 2011 Deadline for submission of EOIs to CPWF management team (CPMT)
Decisions and comments on EOIs sent to lead organizations
Ganges Proposal Development Workshop
Deadline for project proposals to be submitted for external review
Decisions and comments communicated to lead organizations
Projects contracted

### **General Information**

### 1. Visa

Participants are advised to apply for a visa in Bangladesh Embassies/ Consulates in their respective country.

#### 2. Venue

The meetings will be held at:

Hotel Lake Castle

House # 1A, Road 68/A, Gulshan 2, Dhaka, Bangladesh Tel No.: 0088 (02) 8812812, 8814137, 8829503, 8816186-90

Fax No: 0088 (02) 9884675

Website: www.hotellakecastle.com

### 3. Hotel Accommodation and Airport Transfers

Delegates from overseas have been booked on a conference package at the Hotel Lake Castle, which covers bed and breakfast for the conference days. Delegates should settle all extras (e.g., telephone calls, internet, fax, laundry, room service) directly with the hotel staff.

Airport transfer will be arranged. Please give your flight details to Bing Bayot (r.bayot@cgiar.org).

### 4. Workshop Cocktails and Dinner

There will be a Welcome Cocktails and Dinner for all the participants on 24 January 2010.

#### 5. Insurance

Participants are advised to ensure that they have their own travel, medical, life and other insurance.

### 6. Contact Information

All inquiries regarding logistics and arrangements should be referred to:

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