



Submission Document

Ganges Coordination and Change Enabling Project 5

Basin Development Challenges of the CPWF

February 2011
April 2011 (revision #1)

PART A: SUMMARY

1. Project Data

BDC: Increasing the Resilience of Agricultural and Aquaculture Systems in the Coastal Areas of the Ganges Delta

Project Title: Coordination and Change Enabling Project 5

Project Lead Organization: WorldFish Center

Consortium partners (who receive budget): Bangladesh Rural Advancement Committee (BRAC)

Project Leader (name and contact details): William Collis (interim Basin Leader)

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Duration: 35 months **Target start date:** 1 May 2011 **Finish date:** 31 March 2014

Maximum budget requested from CPWF (in US\$): US\$900,000 The full cost of this project is US\$1,144,742; WorldFish is providing US\$ 244,742 as matching fund in terms of support costs.

WorldFish/CRP1.3 Bangladesh funds provide for an additional 5% of William Collis (interim coordinator) and 5% of Ben Belton (social scientist, support to M&E/innovation research) time.

2. Project Summary

Project G5 is the “*Coordination and Change-Enabling*” project for the Ganges Basin Development Challenge. The Project G5 objective is “*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*” There are two major, inter-related activities: (i) coordination with our partners in Project G1-G4; and (ii) enabling change.

Project G5 is responsible for maintaining the coherence, integration and focus with our partners leading Projects G1 to G4, through active leadership and ensuring effective communication among projects. Building upon the Ganges BDC impact pathways, Project G5 will lead and coordinate monitoring and evaluation of project progress and integration, with close attention to the quality of implementation, and research products emerging from individual projects.

Project G5 will utilize tools of Results Based Management (RBM) to ensure that Projects 1-4 are well integrated into a program of research that ultimately delivers change – development outcomes and impacts. RBM is an approach to adaptive management that strongly emphasizes participation and learning. Learning depends on good information and feedback that will be derived from and delivered by an effective M&E system. G5 connects the research under each project across topics and scales, from household agriculture-aquaculture farming systems to community polder water management through to broader land use planning. The project is also an interface between the program and a variety of existing and potential stakeholders and works towards scaling out of research results to multiple stakeholders with common interest in achieving the BDC.

Project G5 outputs are knowledge sharing products such as: (i) policy briefs and other interventions tailored for policy makers; (ii) capacity building tools; (iii) demonstrated approaches for scaling out; (iv) scenarios for climate and hydrological change; and (v) outputs from innovation research. These will be achieved in various ways through activities involving coordination, identifying and enabling partnerships for change; innovation research; development and implementation of a communications strategy; operation of an adaptive management system; support to capacity building; and more generally serving in a leadership and team building role for the Ganges BDC. Impacts will include reduced poverty, improved food security and strengthened livelihood resilience for people in coastal Bangladesh and India.

PART B: PROJECT DESCRIPTION

3. BDC Goals to which the project will contribute

The goal of the Ganges BDC is *“to reduce poverty, improve food security and strengthen livelihood resilience in coastal areas through improved water governance and management, and more productive and diversified farm system.”*

The overall objective of the Ganges program is *“to improve resource productivity and increase resilience of agriculture and aquaculture systems in brackish water coastal areas of the Ganges”*. Five specific objectives are identified that will contribute to the achievement of this objective, and the ultimate goal of the Ganges BDC:

- (i) To establish a geo-referenced data base for the coastal zone of Bangladesh and to facilitate out-scaling of technologies through identification of target domains and land use planning*
- (ii) To develop and introduce resilient agriculture/aquaculture production systems in the coastal zone of Bangladesh and India for the benefit of poor households*
- (iii) To improve water governance and management for resilient production systems*
- (iv) To assess the impact of anticipated external hydrology changes on water resources in the coastal zone of the Ganges*
- (v) 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*

Each project within the Ganges program addresses one objective, and Project G5, the Ganges Coordination and Change-Enabling project addresses objective (v). As the coordination and change-enabling project its role is to ensure that Projects 1-4 are well integrated into a program of research that ultimately delivers change – development outcomes and impacts. It therefore contributes to all BDC project goals, and through various actions.

(1) *Coordination*: Project G5 is responsible for maintaining the coherence, integration and focus of Projects G1 to G4, through playing an active leadership role and ensuring effective communication among projects. Coordination connects the research of each of the individual projects across scales – from household level research in G2, community management of polders in G3, and macro-scale planning and scenario development in G1 and G4. Project G5 is also responsible for monitoring and evaluating the other four Ganges BDC projects. It builds upon the BDC's impact pathways, monitoring project progress and integration, with close attention to the quality of implementation, and the research products emerging from individual projects. Coordination is also facilitated by formal reporting requirements for each project that requires six-monthly reports for review by Project G5.

(2) *Change enabling*: Project G5 is also change-enabling. It is an interface between the program and a variety of existing and potential stakeholders – particularly government policy makers and development actors including investment banks, large NGO's and government - and actively works towards use of research results by multiple stakeholders to achieving the BDC. To do this, WorldFish has identified various project partners and will work with people, initiatives and organizations who are also addressing the Ganges BDC in Bangladesh and India.

(3) *Innovation research*: Research under project G5 involves designing and implementing a research program to examine how different types of research outputs move along impact pathways and how the actors involved enhance or impede that transition. Learning what others are doing and promoting partnerships, alliances and consensus will further contribute to enabling innovation and change leading to development outcomes and impacts. The design of the BDC projects represents a scaling up strategy. The different projects address research at different scales, from field and pond, to farm to community to region. Results from each of the projects can inform the others. Project G5 partners include BRAC, recognized worldwide for its capability to scale up successful ideas. We intend to harvest that experience and perspective for adding value to the outputs from the program. Innovation research focuses on processes and how knowledge, attitudes and skills are changed among stakeholders. Techniques for identifying and describing changes in complex systems such as in the basin include participatory methods such as Most Significant Change or Network Mapping.

(4) *Communications*: Project G5 will design and implement a communications strategy. The objective is to effectively communicate what the Ganges BDC research is doing both inside and outside the program, and so build recognition for this work and contribute to position the CPWF to influence a wide range of decision makers in government for policy change, and development actors for implementation. Communication will support coordination among projects and be used to support achieving development outcomes from the research.

(5) *Adaptive management*: A results-based M&E system is an important management tool to achieve coordination and regular reflection and knowledge sharing events that encourage and support effective collaboration towards achieving Ganges BDC goals. M&E will be reinforced by frequent meetings with project participants, and a regular flow of information between the Coordination Project and the projects in the field. Annual reflection events will be organized by Project G5 for all projects, with regular management meetings among project staff to support coordination and for monitoring and evaluating Ganges BDC performance and responding to next user needs and opportunities for facilitating change.

(6) *Capacity building*: Change enabling change involves capacity building at various levels Project G5 will assist in identifying capacity building needs with project G1-G4 participants to ensure that we have relevant capacity within the program for implementation of research including M&E and gender sensitive approaches. We also will use capacity building interventions to support achievement of outcomes from our research outputs, particularly with government, NGO development partners and work to identify needs for the private sector. The approach will depend on needs; it may for example involve training of trainers among partner NGO and government to use technology outputs (eg from Project G2). Evaluation of capacity building needs with our partners will be conducted and development of specific capacity building strategies developed based on outcome pathways. While funds for capacity building within Project G5 are limited, we will work with government, development partners and CPWF management to seek resources that build capacity for achieving development outcomes and impacts through our key actors.

(7) *Gender and diversity*: Gender mainstreaming as an approach for integrating gender perspectives and the goal of gender equality into research, policy and legislative interventions at all stages and levels. Meinzen-Dick et al. (2010) define good practice in gender mainstreaming following the cycle of research from priority setting, research, extension, adoption of innovations, and evaluation and impact assessment. Project G5 will lead the Program towards this good

practice objective Through the M&E system to be designed for the project, G5 will document and monitor the process of gender mainstreaming in the BDC, learning from mistakes and best practices, and steering the program towards improving gender equitable outcomes based on feedback loops, is an integral dimension of our gender strategy. The gender strategy of the Consortium Research Program on Aquatic Agricultural Systems (CRP 1.3) is cited in the Consortium external reviews as good practice and will provide a starting point for consideration of a specific gender approach to be used within Project G5 and through the coordination project to Projects G1-G4.

Project G5 more generally serves as an overall Ganges basin “leadership” and “team building” project among Ganges projects, enabling all project teams to work towards a common vision and working environment that will achieve objectives and goals. We are well aware that working collaboratively to achieve a desired aim is vital to effective research utilization, and G5 project leadership will seek to nurture and guide research teams and partners towards common goals. Through this leadership we will also seek to put into practice the CPWF core principles of capacity building; partnership; interdisciplinary integration; adaptive management; gender and accountability.

4. Research questions and methodologies

Project G5 will implement “innovation research” that seeks to understand how different types of research outputs and knowledge move along impact pathways. The research questions below provide the basis for the innovation research objective of project G5. The questions focus closely on the identification of processes and actors including different modalities of communication and networking. Consideration of these questions helps define the indicators to be included in the outcome oriented M&E system. Effective implementation of such systems in the context of results-based management includes regular and systematic feedback. Adaptive management, or learning by doing, is motivated by the feedback. This evaluative culture will be promoted and facilitated by Project G5, as a key lesson to impart to the participants in the Ganges BDC and will be supported by training in results-based M&E for project participants. While the coordination project team has skills and experience in results-based management practice, it will also rely on linkages with the “Learning to Innovate” (L2i) Thematic Working Group for consultation about additional methods to effectively address the research questions below, and sharing of knowledge and strategies. Because the M&E system can be effectively utilized to frame the methods for addressing the research questions and are linked closely to adaptive management practices we set aside no separate budgetary allocation for this research, although we identify a focal point staff in Dhaka for coordination of our innovation research. The table below provides indicative methods to address research questions posed in Project G5:

Research questions	Methodologies
<i>What mechanisms does research trigger, in which contexts, in efforts to transform research into developmental outcomes?</i>	Impact oriented research programs invest not only in producing outputs but also in assuring outcomes. The investments in outcomes are guided by the vision of change shared by program stakeholders through the development of Outcome Logic Models or Participatory Impact Pathway Analysis (Douthwaite et al). Project participants during the Dhaka project preparation workshop have used such tools to prepare the first Outcome Logic Model for Project G5, which is our starting point. During implementation specific communication, networking and institutional learning strategies are mechanisms that have been shown to be effective (Watkins and Ehst 2008). Regular project

	team meetings and reflection events will be used to review and encourage discourse on transforming research to developmental outcomes and identify shared actions that put research into use. Monitoring and evaluation by Project G5 of the results of these actions will in itself provide knowledge of the mechanisms for transforming research into development outcomes.
<i>When and where does networking, in the form of engagement in multi-stakeholder platforms and other modalities, work to link research to generation of outcomes?</i>	There is no one “stakeholder platform” that the Ganges BDC will engage with but various collaborative arrangements in both Bangladesh and India that we will work with. Further research is required on the optimal approach in India, but in Bangladesh there are several networking arrangements that provide opportunities for sharing knowledge and generating development outcomes. Among these are the CSISA hubs at regional level, and NGO fora such as the Federation of NGOs and other similar organizations at national level. Stakeholder platforms can be an effective strategy for enhanced knowledge sharing and generating development outcomes. The identification of key partners will be facilitated by social networking tools such as Net Map to diagnose capabilities as well as potential problems of partners. The platforms could be important entry points to communication and can provide feedback on what is effective. Horizontal evaluation (Thiele et al. 2007) is a feedback technique useful for identifying opportunities and constraints for knowledge sharing in stakeholder platforms. The organization of spaces for regular dialogue and negotiation among value chain participants is a example of a stakeholder platform, that we will explore using CSISA. Various development efforts in the BDC region have organized such value chains around fish, prawn or vegetables. Other stakeholder platforms are the community-based polder management committees. These existing platforms will be engaged during the project as both participants and observers and communication channels.
<i>What effect does BDC research have on research and development networks in the basin (e.g., in links between agriculture and water sectors in government), and what is the developmental contribution of these links?</i>	Communication across sectors is a challenge in integrated development. The bureaucratic inertia driven by separate budgetary flows, planning and implementation often limits learning across them. To have impact research must reach beyond the pilot site to the larger sites of potential use. Scaling up is “a deliberate effort increase the impact of innovations successfully tested in pilot or experimental projects so as to benefit more people and to foster policy and program development on a lasting basis” (WHO 2009). Types of scaling frequently include expansion or replication in new areas. However, institutionalizing the innovation via legislative or policy routes can also be pursued. Creating linkages across sectors builds a broader political base for such changes. M&E can be designed to include indicators of the scaling up strategy. Building consensus for change though dissemination and advocacy are pillars of a communication strategy. Approaches include training, technical assistance, policy dialogues or peer exchanges. These

	can utilize interpersonal, mass media or other channels. Measuring awareness and knowledge among target actors can be useful indicators of success in a scaling up strategy. Information flows within and among networks are additional indicators.
<i>How can dialogue and negotiation in stakeholder platforms be most effectively informed regarding the likely consequences of different strategies?</i>	Community based management frequently must deal with conflicting agendas and objectives. Participatory exercises to engage the communities and other project partners to develop and agree to a theory of change and indicators of achievement of that change can be effective in generating consensus or agreement around broad goals. Outcome Logic Mapping can facilitate the identification and agreement of indicators the participants themselves believe important. Participatory monitoring of those indicators can motivate ownership of the achievement of the desired result. Horizontal evaluation creates a space as a non-threatening feedback mechanism and is a method for performance evaluation that makes transparent the interdependence of the stakeholders and reinforces mutual responsibility.

5. Links to previous and ongoing work

The CPWF has previous experience in the Ganges basin during Phase 1 research that provides a number of lessons that the present program can build from. These include key learning areas that were made available to the Project Development Workshop:

[PN07](#) - Improving productivity in salt-affected areas

[PN10](#) - Coastal resource management for improving livelihoods (CRESMIL)

[PN16](#) - Aerobic rice system

[PN23](#) - Resource management for sustainable livelihoods

[PN34](#) - Improved fisheries in tropical reservoirs

[PN35](#) - Community-based fish culture

[PN42](#) - Groundwater governance in IGB and YRB

[PN48](#) - Strategic analysis of river linking

During early implementation, Project G5 plans to work with CPWF management and other Ganges BDC projects to distill key lessons from this earlier phase that are particularly relevant to coastal areas into suitably packaged knowledge products for policy makers, large international and national NGO's and other key development actors to disseminate knowledge on the CPWF more widely, and ensure available lessons are made available to the widest possible audience in India and Bangladesh. This approach will provide opportunities for increasing impacts from previous research, as well as raising the profile of CPWF among stakeholders, facilitating the work planned for the Ganges BDC under the current CPWF projects.

The problems being addressed by current CPWF Ganges program, effectively those related to the growing issues of the coastal zone; poverty, food insecurity and vulnerability. Vulnerability is thought to be growing as a result of climate change induced changes most importantly increasing cyclones, tidal surge and seasonal salinity. These bring with them the need for improved water governance and management, and more productive and diversified farm systems, are being addressed by a range of other programs, government, donors and NGOs, providing good opportunities in Bangladesh in particular for distilling useful lessons and facilitating cooperation

and scaling up. This will include a range of ongoing Government and non-government programs and private sector actors (CSISA¹, the World Bank funded GAFSP² and NATP³, through IRRI, the EC funded Soil Fertility program, the USAID funded AAPI⁴ program of IFDC, and others, a variety of private sector input suppliers). Of equal importance are the large number of CGIAR CRPs that plan to work in Bangladesh and the need to align and harmonize their work- the CPWF is an opportunity including CRP 1.3, a variety of CRP 3 programs (particularly GRISP 3.3 and 3.7 and others), 4, 5 and 7 and others.

A number of other initiatives are relevant to individual projects, and to the coordination and change enabling project G5. A key function of Project G5 will be to ensure effective communication with such initiatives and assist other projects G1-G4 in developing their networks. Below we highlight key past and ongoing work relevant to projects G1-G5 activities, and achievement of development outcomes and impacts for the Ganges BDC.

Innovations on community water management in coastal polders that were initiated under the Bangladesh Water Development Board (BWDB) and *Integrated Planning for Sustainable Water Management* (IPSWAM) project are considered highly relevant. The success of IPSWAM however remains to be scaled out to other polders, even though government policy supports community water management. A key challenge for BWDB is learning from the successes of IPSWAM, and identifying pathways and partners for scaling of successful experiences to adopt better management of polders across the region. An important opportunity for the Ganges BDC program is to seek ways of outscaling the successes of IPSWAM and similar programs to a wider number of coastal polders and people. Development actors, including the World Bank, the Asian Development Bank, the Royal Netherlands Embassy and USAID, are with others investing in infrastructure and management that would facilitate scaling up in Bangladesh, and therefore there is a significant opportunity for engagement by Project G5 to explore ways in which the Ganges program can facilitate larger scale investments. While the project will not work on community based fisheries management, *per se*, some of the innovations on community-based resource management developed under CPWF Phase 1 PN35 may provide useful lessons on community management of water and fish that might be relevant to the management of coastal polders in Bangladesh.

Crop management practices for salt affected lands developed under CPWF PN10 and PN7 provide opportunities for early sharing of lessons by Project G5 to a larger audience in Bangladesh and India, and an important base for Project G2. WorldFish is lead in a number of Khulna based farming systems research and development activities that are within the geographical focus of the Ganges BDC, such as the GHERS⁵ project and Save the Children/MYAP⁶ called Nobo Jibon and a

¹ Cereals Systems Initiative for South Asia (CSISA) an integrated set of programs of IRRI, CIMMYT and WorldFish to increase the productivity of agro aquatic eco systems supported by USAID

² The Global Agriculture Food Security Program (GAFSP) supported by World Bank to implement the Country Investment Plan (CIP) with respect to food security and food availability

³ The National Agriculture Technology Project (NATP) supported by World Bank and International Fund for Agricultural Development (IFAD) an initiative for poverty reduction by improving agricultural productivity and performance of the national agricultural technology system.

⁴ Accelerating Agricultural Productivity Improvement in Bangladesh (AAPI) project of International Fertilizer Development Center (IFDC) supported by USAID to improve food security and accelerate income growth in rural areas

⁵ Greater Harvest and Economic Returns from Shrimp (GHERS) initiative under Poverty Reduction by Increasing the Competitiveness of Enterprises (PRICE) supported by USAID

number of other research projects and NGO's (such as BRAC) are involved in research and outreach activities in the coastal areas of Bangladesh and India. An early initiative of Project G5 will be to review existing practices and develop some initial recommendations with Project G2 on possible cropping systems that may be more widely shared in the short-term.

WorldFish, IRRI, CIMMYT with USAID and other national and international partners are implementing the Expansion of the Cereal Systems Initiatives for South Asia (CSISA) in Bangladesh project (CSISA—B), that includes existing and planned research and development “hubs” in Khulna and Barisal districts located in the coastal areas where the Ganges BDC will operate. CSISA partnerships with a wide array of development allies in the hubs will provide important opportunities for dissemination of findings from Project G2 and G3 in particular. “Embedding” Ganges BDC research into selected CSISA hubs within the southern region of Bangladesh provides significant opportunities for learning how networks, alliances and partnerships can be used more effectively for achieving development outcomes from research. It also provides an existing funded infrastructure that will directly benefit the process of scaling out of particularly household level aquaculture and agriculture system improvements.

Project G4 is a key investment for understanding the future impacts of climate and other hydrological and climate related changes in the coastal zone. Again, there are opportunities to link with several ongoing initiatives to increase the impact of the work. A key challenge for Project G1, G2 and G4 will be to coordinate and share data, and ensure that sufficient time is available in the project to disseminate findings to key government decision makers and development actors. Lessons from previous modeling and mapping exercises indicate that engagement with key stakeholders will be important, and that outputs need to be targeted towards a range of policy makers and development investors.

Project G5 is being implemented at a significant time for the CGIAR system, as new research programs are being developed and implemented – the “Cooperative Research Programs” (CRP). The Ganges BDC relates to a number of CRPs, including CRP 5 “*Water land and ecosystems*” and CRP 1.3 “*Harnessing the development potential of aquatic agricultural systems for the poor and vulnerable*” which has a strong focus on the Ganges-Brahmaputra-Megna system. WorldFish is the Lead Center in CRP 1.3, which aims to deliver improvements in the livelihoods of 15 million poor and vulnerable people over the next 6 years, and specifically targets research in development for aquatic agricultural systems in the Ganges basin. In addition, WorldFish, working with IWMI and other partners will be responsible for the management of Climate Change, Agriculture and Food Security Program (CCAFS - CRP 7). IRRI is also the lead in CRP 3.3 “*Global Rice Science Partnership*” (GRISP). Management and networking of CRP 1.3, investments such as CSISA and other mutually supportive investments in the Ganges BDC area complements the planned Project G5 activities, and will enable the project to create wider impacts through being embedded into our wider Bangladeshi and Indian networks. Indeed, we see Project G5 as a key opportunity for improving knowledge about how the CRP's can be better integrated and work effectively together to achieve development outcomes and impacts that will not only be relevant to the future in the Ganges basin, but much more widely across other basins and CGIAR regions of engagement.

As was apparent from the project development workshop in Dhaka, there is a wealth of experience and networks around all projects which can be effectively harvested both for good

⁶ Save the Children USA under Multi-Year Assistance Program (MYAP) supported by USAID (PL 480 feeding + livelihoods program)

coordination and enabling change. Project G5 will therefore engage with all project teams early on to better understand and ensure we have effectively distilled lessons from earlier work, and will continue an active engagement with projects and partners throughout.

Lessons from previous projects indicate that gender and diversity must be integrated throughout. We recognize good practice for gender mainstreaming in the five stages of the research and development cycle outlined by Meinzen-Dick et al (2010) that we will strive to put into practice. The CSISA project in Bangladesh has recently commissioned a gender strategy that will serve as a basis for preparation of a suitable gender strategy for the Ganges BDC.

6. Links to other BDC projects

Project G5 as the coordination and change-enabling project is intimately linked to all four Ganges BDC projects as well as the conduit for linkage to the CPWF management and experience and lessons sharing with other CPWF basins. The links provided below are largely generic, and specifics will be developed during the inception period, and during project implementation, particularly during the bi-monthly meetings and annual meetings and according to the processes and practices put in place through the adaptive management system. Project G5 outputs – moving beyond these research outputs to a combination of research outputs and outcomes that will result from their use - are described in the Annex A Project workbook, worksheet Project G2-OLM attached to this submission.

Research outputs	Dependencies on other BDC projects to produce it	Use of research output by other BDC projects	Risks and assumptions
Knowledge sharing products design such as policy briefs and other interventions that work with policy makers	Dependant on projects G1-G4 for the technical information to distill in suitable formats for policy makers. Timing is critical for policy influence, and Project G5 will coordinate closely with each project to develop mutual agreed timelines for submission of reports/documents necessary for preparation of the knowledge products.	GI-G4 may use products within their networks. Through regular meetings and effective communications we expect to develop collaborative strategies among projects for efficient and effective policy influence	See below. Natural disasters in vulnerable coastal areas may divert attention and resources.
Capacity building products that support NGOs and government to disseminate research findings to communities	Dependant on projects G1-G3 in particular, with different products for different projects/target groups Capacity building products will be developed through iterative/participatory processes with users requiring engagement by	GI-G4 may use products within their networks	As above

	Project G1-G3 teams throughout the development process to ensure products are relevant/technically sound		
Products that create visibility of project outputs to and are used by government and development actors.	Dependant on projects G1-G4. In addition to the point above, inputs from Projects G1-G5 will be require to assist in ensuring technical correctness in design	GI-G4 may use products within their networks	As above
Demonstrated approaches for scaling out effectively in specific conditions of focal hubs	Dependant on projects G1-G4	GI-G4 may use products within their networks	As above
Knowledge products reflecting scenarios for the coastal areas related to future changes in hydrology/climate	Key project output requiring close coordination with Project G4 to assist in identifying external drivers and building scenarios for modeling.	All projects will require this output to elaborate their strategies for addressing the future of agriculture/aquaculture in coastal areas	Risks associated with lack of data sharing.
Science outputs and policy briefs from innovation research	Research will be conducted by G5, but in cooperation with Projects G1-G4	Innovation research findings should contribute to improved future targeting and implementation of Projects G1-G4 (and future coordination projects)	As above

Recognizing there is risk in dealing with the vagaries of coordinating four projects, and at the request of CPWF, we provide below a more comprehensive risk assessment and risk management strategy. The tradition of competition among the centers and Bangladeshi and Indian partners creates numerous challenges for building confidence and good will needed to reduce several of these risks. Good program knowledge management can partially mitigate Risks 3, 4, 5 and 6. Internal communication is a particular focus. If program participants know that information and knowledge is systematically gathered, transparently evaluated and discussed and democratically shared, confidence building and cooperation should be improved.

Type of Risk	Risk management
1. Lack of well structured incentives for G1-G4 to cooperate.	Leadership on research management communication and financial incentives are key to managing this risk. Regular meetings will also serve as team building events that help build common vision and motivation among the team to work together and succeed. Project G5 also serves as a reviewer of 6-monthly reports from each team, which requires approval prior to payment. This potentially provides an important incentive for cooperation. We will also coordinate closely with CPWF management and higher levels of management with WorldFish and partner agencies depending on issues that arise.
2. Competition between CGIAR centers for resources could possibly constrain cooperation	This risk probably cannot be influenced by the basin manager and perhaps only marginally by WorldFish. External drivers such as the rapid consolidation of sufficient funding for the Consortium Research Programs could have a significant impact as well as a well-understood integration of CPWF into the CRP structure.
3. Risks associated with lack of data sharing, particularly among projects G1 and G4.	The degree to which CPWF data management policy is included in contracts will be the key risk mitigation factor. Data sharing can then be included as a performance measure. Lacking contractual obligations, the basin leader will have to rely on planning that includes data sharing and transparent monitoring and evaluation of data sharing practice and performance.
4. Coordination and communication risks associated with operating at multiple stakeholders and levels	The preferred communication risk mitigation measure is a mutually-agreed well-defined communication strategy. The strategy should address both internal communication among research partners but also external communication to beneficiaries and stakeholders. Coordination risk mitigation derives from well-designed start up plans supplemented by regular program management encounters. Internal mechanisms can include a program intranet with participatory bulletin boards and other types of social communication devices.
5. Focus on research outputs and fixed timetables leading to inability to seize opportunities for change	The management philosophy of CPWF is the major mitigating factor here. The CPWF principles of adaptive management have led to the incorporation of many results-based management structures in the design of the G5 proposal.

	These include an M&E system focused on results, spaces and times for regular feedback and learning. G5 and the other project managers know that changes can be negotiated with CPWF and would thus be more inclined to recognize and seize these opportunities.
6. Implementing an effective adaptive management system, with implications for adopting an evaluative culture within the Ganges BDC	An effective results-based M&E system is the cornerstone for an evaluative culture in the Ganges BDC. Since G5 promises to design and launch such a system, the presence of M&E is not a risk. However the implementation of such a system depends on willing and effective participation by many actors in projects G1 through G5. A M&E readiness assessment coupled with a related training is a major mitigating factor.

7. Suggested sites

In Bangladesh, Project G5 will work principally at two levels: (1) widely across the brackishwater project areas within the lower Ganges delta, focused, but not exclusively on, sites where Projects G2 and G3 are operating (Kaligonj, Batiaghata, Khulna, Patuakhali, Barguna and Barisal districts, depending on final sites chosen); and (2) with government agencies and influential development actors with bases in or around Dhaka.

In brackishwater areas, Project G5 will work closely with CSISA hubs in Khulna and Barisal districts, and through these hubs, work with development actors engaged with supporting development in coastal brackishwater areas of Bangladesh. The purpose of the engagement at this level will be largely to seek partners for scaling out of research findings through various projects and channels, involving NGO's (eg RDRS, BRAC), government (extension actors) and private sector (seed suppliers, services).

In Dhaka, Project G5 will engage widely across a range of government agencies (such as BARC⁷, BARI, BFRI, BRRI, and possibly BLRI, outreach organizations such as DAE, DOF, DLS, SRDI and potential partners such as LGED, BWDB, WARPO) and development actors (such as major donors/banks and international and national NGOs).

During the Dhaka project development workshop, discussion in scaling out/up was predominantly focused on Bangladesh. In India, it will work with NARs partners and their development partners in West Bengal. Our primary contact point will be the participating ICAR institutes of CIBA and CSSRI through which we will work towards Aa scaling up/out strategy during early phases of implementation, although we expect that this strategy will be less ambitious than Bangladesh, and likely oriented towards technologies and farming systems developed by Project G2.

8. Project Outcome Pathways

Annex A Project workbook, worksheet PNx-OLM

9. Activities and Implementation Plan

Annex A Project workbook, worksheet PNx-Gantt Chart.

⁷ (BARC) Bangladesh Agricultural Research Council; (BARI) Bangladesh Agricultural Research Institute; (BFRI) Bangladesh Fisheries Research Institute; (BRRI) Bangladesh Rice Research Institute; (BLRI) Bangladesh Livestock Research Institute. (DAE) Department of Agriculture Extension(DoF) Department of Fisheries(DLS) Department of Livestock Services;(SRDI) Soil Resource Development Institute; (LGED) Local Government Engineering Department; (WARPO) Water Resources Planning Organisation; (BWDB) Bangladesh Water Development Board

10. Communications

A communications plan coordinated and implemented by Project G5 in cooperation with CPWF management and individual projects is integral to the success of the Ganges BDC. The outcome logic model (OCM) worksheet identifies communication activities as necessary to bring about change along each three outcome pathway, with actors including (i) Ganges BDC project research team; (ii) Government, and particularly influential policy makers; and (iii) development actors making large scale investments in the coastal regions of Bangladesh and India.

Communication products and approaches will depend on the stakeholders involved and the processes being used to effect change. Project G5 will therefore review in more detail the communications required, and prepare a strategy within the first six months with input from members of the other basin projects and the CPWF communications coordinator. The strategy will aim to: (a) support coordination objectives; (b) facilitate learning and capacity development; (c) provide the products and approaches necessary to support actions along the impact pathways of Ganges projects. Communications related to coordination will include channels for submission and collection of project reports, and access to relevant documents, reports, data sources as needed by Ganges BDC research projects, likely through a web or wiki site. The communications program will also build partnerships with national initiatives, such as the Agriculture Information Services (AIS) in Bangladesh, to widen the impact of our communication activities, as well as create stronger ownership among agencies within the region.

The communication strategy will be designed, developed and implemented to communicate to a range of internal and external audiences the results and outcomes of BDC research, and so build recognition for this work, and support the Ganges BDC to influence a wide range of decision makers, as well as practical implementers (extension agents, NGOs) to support scaling out of research findings. It is anticipated that the communications strategy will also provide support to other Ganges projects in developing and implementing their own communication strategies, in a strategic and harmonized way. A communications and knowledge sharing expert with experience in adult learning will be appointed within the Project G5 team to coordinate and oversee development and implementation of the communications strategy.

The communications strategy and its implementation will seek to facilitate the changes in knowledge, attitude and skills identified for different actors along the outcome/impact pathways. It will retain flexibility, to be continually improved, informed by the impact pathways, regular reflection events, and through mutual learning and assessment of the policy, communication and research/innovation settings of the Ganges BDC. It will include an assessment of the assumptions and risks that might undermine its implementation. A communications baseline will be established during 2011 to show the current level of awareness and knowledge of the proposed research topics (taking into account gender, language and other diversity factors), the relevant policy narratives, and the communications and policy influence skills of the team. When implemented we will identify, reach and engage with institutional and policy targets and processes as necessary to achieve development outcomes and impacts. We will involve user groups and build relationships with them during the research project cycle. Implementation of the communications plan will be subject to regular monitoring and evaluation and improvement through the adaptive management system. Both English and Bangla/Bengali language will be used as appropriate.

Conventional communications outputs, such as peer-reviewed papers, a website, books and book chapters and other media designed with specific target groups in mind will be produced, but we

will move beyond the conventional, to test and produce innovative and unusual products conveying information about progress along impact pathways, BDC outputs, Phase 1 research products and explaining what it is that the BDC focuses on. The strategy will include a media plan so as to engage with journalists in print, radio and TV media, explore the use of mobile phone technology and work closely with the CPWF Communications Coordinator and related CGIAR CRPs in the development and implementation of the communications strategy. Some initial discussions have been held with CPWF Communications Coordinator on use of mobile phone technologies for supporting technology adoption, and other social media in policy change, which will be pursued as possibly more innovative approaches of interest to the Ganges, and beyond. In India, CIBA is involved in a new nationally-funded research project on use of mobile phone technologies for aquaculture farmers, which provides opportunities for testing approaches during the research phase, and wider dissemination in the future. Finally, the communications program will retain flexibility to respond to opportunities and challenges that will arise.

PART C: CONSORTIUM DETAILS, INDICATIVE BUDGET AND REFERENCES

11. Consortium Details

Annex A Project workbook, worksheet PNX-Contacts

Lead Institution

The WorldFish Center brings considerable experience to Project G5 and with a South Asia regional headquarters in Dhaka active for over 24 years, has wide experience in implementing research in development projects in the Ganges-Brahmaputra-Megna system, excellent relations with government, non government and other development agencies in Bangladesh and India, and wide networks among research and development partners in both countries. WorldFish is able to draw on expertise from within its South Asia regional program, and the HQ in Penang and other locations where needed to bring a wide range of necessary skills and experiences to the CPWF Ganges Basin Development Challenge. We highlight the following current and recent similar initiatives relevant to this proposal:

- WorldFish was engaged in several CPWF Phase 1 projects, including lead of two projects (PN 34 & 35) that included India and Bangladesh.
- Ongoing engagement in the Cereal Systems Initiatives in South Asia (CSISA) in cooperation with IRRI and CIMMYT, that includes a research and development “hub” in the Khulna region
- WorldFish is lead in a number of Khulna based research and development activities that are within the geographical focus of the Ganges BDC, such as the GHERS⁸ project and Save the Children/MYAP⁹ known as Nobo Jibon.
- WorldFish was engaged in several CPWF Phase 1 projects, including lead of two projects (PN 34 & 35) that included India and Bangladesh.
- Ongoing engagement in the Cereal Systems Initiatives in South Asia (CSISA) in cooperation with IRRI and CIMMYT, that includes a research and development “hubs” in the Khulna and Barisal regions.
- WorldFish is lead in a number of Khulna based research and development activities that are within the geographical focus of the Ganges BDC, such as the GHERS¹⁰ project, Save the Children/MYAP¹¹ known as Nobo Jibon and with the MOLF/DANIDA supporting the RFLDC Program.
- WorldFish is the Lead Center in the CGIAR Consortium Research Program (CRP) 1.3 *“Harnessing the development potential of aquatic agricultural systems for the poor and vulnerable”* which has a strong focus on the Ganges-Brahmaputra-Megna system. It is also a partner within a number of CRPs, including IWMI led CRP 5 on *“Water, land and ecosystems”* CRP 7 (CCAFS) on *climate change*, and CRP 4 on *agriculture and nutrition*.

Project G5 complements similar ongoing work by the WorldFish Center in Bangladesh and India. In particular, the Center is leading CRP 1.3 which aims to deliver improvements in the livelihoods of 15 million poor and vulnerable people over the next 6 years, and specifically targets research in development for aquatic agricultural systems in the Ganges basin. The management and

⁸ Greater Harvest and Economic Returns from Shrimp (GHERS) initiative under Poverty Reduction by Increasing the Competitiveness of Enterprises (PRICE) supported by USAID

⁹ Save the Children USA under Multi-Year Assistance Program (MYAP) supported by USAID (PL 480 feeding + livelihoods program)

¹⁰ Greater Harvest and Economic Returns from Shrimp (GHERS) initiative under Poverty Reduction by Increasing the Competitiveness of Enterprises (PRICE) supported by USAID

¹¹ Save the Children USA under Multi-Year Assistance Program (MYAP) supported by USAID (PL 480 feeding + livelihoods program)

networking skills of WorldFish, combined with on the ground projects such as CSISA and other mutually supportive investments in the Ganges BDC area, and a strong organizational philosophy towards development impacts, complements the planned Project G5 activities, and will enable the project to create wider impacts through being embedded into our wider Bangladeshi and Indian networks.

Project Partners

Institution 1: BRAC¹² is a non-government organization dedicated to alleviating poverty by empowering the poor to bring about change in their own lives. The organisation began work as a national NGO with relief and rehabilitation work following Bangladesh's war of Liberation. It has grown since this time into the world's largest NGO, working within Bangladesh, but supporting poverty alleviation initiatives in other countries in Asia, Africa and the Americas. BRAC has significant strengths that it brings to the Ganges BDC: wide experience in poverty alleviation and empowerment of the poor; existing cooperation with the CGIAR system; a strong participatory development focus; and a wide network in the coastal regions of Bangladesh reaching large numbers of the poor. BRAC will be involved in adaptive research through Project G2, but will be a key partner with WorldFish in activities associated with Project G5. We envisage BRAC as a key partner in achieving development outcomes associated with Impact Outcome Pathway 3. An MOU will be signed with BRAC, broadly covering the following roles and responsibilities:

- Actively participate in identification for the Ganges BDC, through Project G5, of specific opportunities for scaling out/up of research findings from Ganges BDC research projects G1-G4 through development actors, that will include BRAC programs, and those of other development and value chain actors in the Ganges BDC areas in Bangladesh;
- Identification of other development actors and stakeholders who may use outputs developed through Ganges BDC research projects, particularly (but not exclusively) Projects G2 and G3;
- Advice, testing and use of selected capacity building tools and communications products to support wider adoption of Ganges BDC research outputs for development actors and other stakeholders.
- Participation in Ganges BDC team meetings, reflection and knowledge sharing events to advise on research activities, relevance to development actors, and advice on preparation of outputs relevant to stakeholders, and pathways for creating development outcomes/impacts;
- Participation in innovation research projects to test processes and lessons related to the creation of development outcomes from research.

Institution 2: BARC¹³. The Bangladesh Agricultural Research Council (BARC) is an autonomous organization under the Ministry of Agriculture, Government of Bangladesh. BARC was established in 1973 with the aim of coordinating systematic agricultural research in the country. It is the apex body of National Agricultural Research System (NARS). BARC represents an important partner for Project G5, both helping in facilitating coordination of the Ganges projects, in accordance with its national remit, and also as a partner in facilitating policy change arising from research.

Two experienced WorldFish consultants (see accompanying Contacts worksheet) are also engaged on a part-time basis to advise and facilitate the links with selected BARC research institutes, strengthening the partnership with the Bangladesh NARS.

¹² www.brac.net

¹³ www.barc.gov.bd/home.php

Institution 3: ICAR Institutes, India – Central Institute of Brackishwater Aquaculture (CIBA) and Central Soil Salinity Research Institute (CSSRI). Change enabling activities in India will be coordinated by and through the two ICAR research institutes who are partners with Project G2. Project G5 will engage with both in the design and implementation of an effective strategy for achieving development outcomes from research within India. CIBA and CSSRI are members of the Indian Council of Agricultural Research (ICAR), the apex body for agricultural research in India.

Other partner institutions: WorldFish brings to Project G5 and the Ganges BDC a large network of government, NGO, donor and investment partners. Project G5 will work with and through our Ganges basin partners in Projects G1-G4 and with a range of Government research and line agencies that include BRRI, BARI, BFRI, DAE, SRDI, BWDB, LGED, DAE, DOF and other partners in the private sector including local supplier associations and Chambers of Commerce. We expect to engage in varied ways directly and indirectly with these partners during the program, indeed seeking to build a strong coalition for achieving the goals of the Ganges BDC, and a stronger network for achieving future development impacts from research within Bangladesh, and India.

12. Indicative breakdown of budget

Annex A Project workbook, worksheets PNx \$ Summary, PNx \$ Comments, PNx \$ Time Allocation, PNx \$ By Outputs, and PNx \$ By Institution.

13. Bibliography

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A: Project Workbook

Table of Content

	Worksheet	Tab Name	Description
1	Title Page with Reviewers' Comments	PNX Title Page	This page contains main project information and the contracting and inception reviewers' comments.
2	Project Partners and Contact Information	PNX Contacts	Please list all your project participants with their contact details. This information will be fed into the CPWF contact database. Please ensure that you inform the CPWF about any changes in your team.
3	Outcomes Logic Model	PNX OLM	The OLM is a table that describes the project's theory of change (ToC), or how the project is expected to work. It is a description of the project's activities, outputs, outcomes and impact and their inter-relationships. Each line describes an Outcome Pathway, with a short narrative description. The last row in the model is a narrative description of how the project predicts that the outcomes it achieves are likely to reinforce each other and eventually contribute to longer-term impact. <i>For more information, visit: CPWF M&E Guide- OLMs</i>
4	Outcome Target Indicators Plan	PNX OTIP	The Outcome Indicators Plan (OIP) contains specific description(s), for each Outcome Pathway (from OLM), of who/ how many exactly the project expects to change (Practice and/or KAS) and by how much, by the end of the Project . Indicators and tools to measure them are included for each outcome target. <i>For more information, visit: CPWF M&E Guide- Outcome Indicators Plan</i>
5	Milestone Plan	PNX Milestone Plan	The milestone plan focuses on the end-dates by which your activities need to be completed and outputs need to be delivered. It contains the project start and end date, and other important milestones. Progress reporting is directly made on the original milestones as defined in the milestone plan. <i>For more information, visit: CPWF M&E Guide- Milestone Plan</i>
6	Gantt Chart	PNX Gantt Chart	The Gantt Chart focuses on the activities to be carried out to complete the project. This chart contains the project schedule, work breakdown structure, i.e. activities with their milestones as the terminal elements, their start and finish dates, responsible project team member and their affiliations. <i>For more information, visit: CPWF M&E Guide- Gantt Chart</i>
7	Schedule of Reports and Payments	PNX \$ Schedule	<i>= filled by CPWF Finance Officer for contracting</i> This spreadsheet will be filled out by CPWF finance officer for contracting according to the budget details the project has submitted. It shows the schedule of budget release, which depends on the satisfactory submission and approval of the required progress reports.
8	Budget Summary	PNX \$ Summary	This spreadsheet shows the breakdown of the project budget per line item and per year.
9	Budget Comments	PNX \$ Comments	The comments worksheet is where budget explanations and details are explained.
10	Staff Time Allocation and Breakdown of Personnel Costs	PNX \$ Time Allocation	In this worksheet the project team composition is listed with their names, institution, expertise and contribution to the project (e.g., Output 1, Communication, Policy, etc.), the number of days per year, and the daily rate per staff.
11	Indicative Breakdown of Budget by Outputs	PNX \$ By Outputs	This table shows the distribution of budget by output then by institution. The overhead costs are not included in the distribution.
12	Indicative Breakdown of Budget by Institution	PNX \$ By Institution	This table shows a summary of the budget allocated to the project partner institutions (left part). The right part of the table could be of support to work out each project partner's budget share by line item.

B: CV of Team Members

This Annex provides a full CV of the interim Basin Leader (William Collis), and one-page CVs of the other identified team members.