

Blue Gold Program

Water Management and Productive Sectors Innovation Funds

Quarterly Progress Report: October – December 2016

Innovation Fund: Scope and Purpose

The Blue Gold Innovation Fund is a tool created to accelerate the development process in the program area of the Blue Gold program, by financing innovative approaches and new initiatives to socio-economic development. Innovations submitted to the Blue Gold Innovation Fund are expected to contribute to the outcome / results of the Blue Gold program; the expected impact expected to be mostly locally or regionally centred.

The Innovation Fund consists of a total budget of € 4.3 million, and has been divided into two separate funds: the Water Management Fund with a budget of € 2.4 million (focusing on water resources management) and the Productive Sectors Fund with a budget of € 1.9 million (focusing on agricultural production and food security).

The Innovation Fund is setup to utilize the establishment of linkages between Blue Gold and Bangladesh and Netherlands-based businesses / organisations. Contributions to innovation within Blue Gold may emerge from a wide variety of knowledge centres and enterprises, as long as the proposed activities fit within the framework of either the Water Management Fund or the Productive Sector Fund. The Blue Gold Program will scan relevant institutions and enterprises for emerging opportunities in specific technical fields.

1. Introduction

This report provides quarterly updates showcasing the innovative approaches that have benefited, or will have a positive impact on, the lives of the people in the polders.

The Innovation Fund consists of a total budget of € 4.3 million, and has been divided into two separate funds: the Water Management Fund with a budget of € 2.4 million (focusing on water resources management) and the Productive Sectors Fund with a budget of € 1.9 million (focusing on agricultural production and food security). Applications to the Innovation Fund follow two routes:

- (1) **Unsolicited proposals**, which have a budget ceiling of €50,000 and focus on smaller interventions such as feasibility studies or pilots.
- (2) **Solicited proposals**, which have a budget ceiling of €500,000 and are initiated by Blue Gold through an international call for proposals (tender), and have a separate TOR and guideline document that will be published together with the call for proposals;

This report provides an overview of the activities of the Blue Gold Innovation Fund in the quarter April to June 2016 including:

Unsolicited Proposals: Chapter 2 Activities in the quarter; Chapter 3 Projects under implementation; Chapter 4 Projects under review; Chapter 5 Projects under development; Chapter 6 Projects rejected; Chapter 7 Projects completed, and Chapter 8 Financial report.

Solicited Proposals: Chapter 9 Status of solicited proposals.

Overview of Innovation Fund Proposals – as at 31st December 2016

Unsolicited Proposals - The table below provides an overview of the numbers of applications in process:

Proposals under implementation (Chapter 3)	Projects under review (Chapter 4)	Projects under development (Chapter 5)	Projects Rejected (Chapter 6)	Projects Completed (Chapter 7)
10	11	7	15	7
Five new proposals approved in Q4	Six new proposal submitted in Q4	Three new concepts submitted in Q4	Four proposals rejected in Q4	No changes

Solicited Proposals - The table below provides an overview of the progress with solicited proposals (tenders). Further details are provided in Chapter 8.

	Planned Activities	Completion schedule	Remarks
1.	Tender on small scale dredging of in-polder drainage <i>khals</i>	January 2017	Awaiting input from EKN and BWDB before publishing tender document. Expected publication in Q1 2017.
2.	Tender on appropriate embankment protection measures in tidal rivers.	November 2016	Planning review by BWDB is completed. BWDB has started the contracting process. Implementation of tender activities is expected in Q2 2017.
3.	Pumped drainage facility in Polder 2	June 2018	Based on a technical study prepared by Deltares in December 2014, a full feasibility study led by Deltares is intended to examine the full case for intervention using pumped drainage, and – if positive – to design a pilot for a discrete area, for implementation under a subsequent phase.
4.	Tender on ICT in agriculture	March 2017	Awaiting input from EKN and BWDB before publishing tender document. Expected publication in Q1 2017.

2. Activities in the Quarter

Focus on recommendations of Annual Review Mission

In October 2016 the Blue Gold Program welcomed the Annual Review Mission as part of the progress reporting responsibility towards the donor, the Embassy of the Kingdom of the Netherlands. The mission has evaluated the changes introduced to the Innovation Fund since the last review mission in 2015 and reviewed the progress made in 2016, which resulted in the following recommendations:

- A. Launch the calls for proposals on Small Scale Dredging and ICT in Agriculture
- B. Promote the Innovation Fund amongst the Netherlands business sector
- C. Follow-up on recommended innovation topics
- D. Strengthen the interface with the Blue Gold polder teams

These recommendations, and the follow-up activities in Q4 of 2016, are described below.

A. Calls on dredging and ICT under Innovation Fund issued

Significant progress has been made on the preparations surrounding the launch of the calls for proposals. A description on the status of the calls for proposals can be found in Chapter 9 Status of solicited proposals.

B. Announcements on Innovation Fund among Dutch business sector made

Promotion of the Innovation Fund amongst the Netherlands business sector has intensified in Q4. Messages on the Innovation Fund and its opportunities for the Netherlands business sector have been included in 5 websites and 2 newsletters. A detailed overview of these promotional activities can be found in Annex 1 – Promotion of the Blue Gold Innovation Fund.

C. Recommendations on innovation topics

The review mission recommended that the Innovation Fund focused its effort on realizing three new innovative topics in the Blue Gold Program:

(1) Use of high-density polyethylene for sluiceways

During an exchange visit of the BWDB to the Netherlands, which took place in September 2016, the participating BWDB officials visited KWP Group, a producer of high-density polyethylene (HDPE) components for sluiceways, drainage pipes and other civil engineering components. As the current water management infrastructure in Bangladesh is mostly made of steel, these suffer from leakage due to deformation and rust. Around 8,000 iron structures of the BWDB are in need of replacement. Replacing these with HDPE components will increase the lifespan and reduce O&M costs, as well as provide an opportunity for the Bangladesh based industry to move into production of HDPE components. The TA-team has discussed the practicalities and potential benefit of HDPE component in a meeting with the BWDB and EKN, and will follow-up by inviting KWP Group to Bangladesh and host a workshop in Q2 of 2017 to promote HDPE as an alternative to iron.

(2) Introduction of small scale storage facilities

The Innovation Fund has contracted MarGEN Communications for a small scale feasibility study on the implementation of natural cold storage facilities in the Blue Gold Polders. These are storage facilities that are built with natural materials, and allow for the reduction of the inside temperature with a few degrees Celsius without the use of high-powered cooling systems. However, before piloting such a natural cold storage facility, it is important to research the suitability of the polder areas for setting up such a facility. MarGEN will look at the climate aspects, the aspects of local vegetable production, the costs of setting up a facility, and if it is possible to develop a business model for the systems which will allow farmers to pay for its use. Based on the outcome of the MarGEN study a decision will be made to pilot the natural cold storage facility in Q1 of 2017.

(3) Introduction of salt tolerant varieties

The TA-team is very enthusiastic about the introduction of saline tolerant crop varieties in the Blue Gold polders. Even before the Annual Review Mission made its recommendation on this topic, there already was contact between Blue Gold and Salt Farm Texel (SFT); a renowned Netherlands based producer and innovator on saline tolerant crops. SFT is currently trialing the implementation of saline adapted agriculture in collaboration with the PROOFS project from ICCO. In October 2016 the TA-team had a meeting with SFT at the ICCO office to discuss

Blue Gold Program Innovation Fund

expansion of the trial under the Innovation Fund. The TA-team is focused on expanding the partnership potential with SFT and PROOFS, and is currently awaiting the submission of a concept note from SFT.

D. Strengthen interface with Blue Gold polder teams

After receiving this recommendation from the Annual Review Mission, the TA-team has developed a structured approach on strengthening the interface with the Blue Gold polder teams. The first step consists of meeting with polder teams and briefing them on the Innovation Fund, which took place in November and December 2016. The second step consists of making Polder Teams partially responsible for the implementation of Innovation Fund activities. This is starts by involving these teams in the project implementation: whenever a new Innovation Fund project is implemented in one of the Blue Gold polders, the grant recipient (implementing organization) will have to present their activities in front of the polder team of the corresponding implementation area. Additionally, close coordination between the Polder Team and the implementing organization is made a prerequisite by the Innovation Fund for proposal design and implementation. Thirdly the TA-team decided to distribute monthly updates on the Innovation Fund activities via email to all Blue Gold staff. These communications will be written in Bangla and provide information on all new contracts signed as part of the Innovation Fund.

3. Projects under implementation

Table 1 - Summary of projects under implementation

Name of applicant	Proposal topic	Lead Unit	Fund type	Budget	Status	Contract signed	Contract Office	Amount paid	Amount Due	Deliverables
MetaMeta	Roads for Flood Protection and Water Management	WRM	Water Management Fund	€ 24,820	14 Oct 2016: Meeting BG office 3 Nov 2016: Start of project scheduled for December 15 Nov 2016: Polder selection finalized	YES	ARNHEM	€ 12,012	€ 12,808	AWAITING IMPLEMENTATION
Consiglieri Consulting	Follow-up study on access to energy in the polders	IF	Productive Sector Fund	€ 24,957	13 Sep 2016: Request for project extension to October 22nd received and approved 22 Oct 2016: Extension deadline past 30 Nov 2016: Comments on not having received final report 7 Dec 2016: Final report received 14 Dec 2016: Comments shared, final report not accepted 20 Dec 2016: Skype call to discuss report revision	YES	DHAKA	€ -	€ 24,957	ONGOING
Practical Action	Aquageoponics	SVC	Productive Sector Fund	€ 44,317	06 Sept 2016: Comments and observations BGP field team shared 15 Nov 2016: Field visit BG team to project site 7 Dec 2016: summary findings project visit shared with PA	YES	DHAKA		€ 44,317	WAITING FOR FINAL REPORT
FHRC	Collective action for improved water management	SVC	Water Management Fund	€ 49,996	9 Nov 2016: Progress report Sept - Oct received 11 Nov 2016: comments TA-team on progress report shared 22 Dec 2016: second invoice received 8 Jan 2017: Progress report Nov - Dec received, PAPD report received	YES	DHAKA	€ -	€ 49,996	ONGOING

Note: Amount paid is incomplete at time of finalising this report

Blue Gold Program Innovation Fund

Table 1 - Summary of projects under implementation (continued)

Name of applican	Proposal topic	Lead Unit	Fund ty	Budge	Status	Contract signe	Contract Offic	Amount paid	Amount Due	Deliverables
WorldFish	EcoPonds II and empowering of women	SVC	Productive Sector Fund	€ 50,000	25 Oct 2017: Addendum to contract signed 12 Nov 2017: Progress report Sep - Oct received 17 Nov 2017: field visit BG team to project site 6 Dec 2017: Observations project visit TA-team shared	YES	DHAKA	€ -	€ 50,000	ONGOING
Deltares	Waterapp dashboard	WRM	Water Management Fund	€ 49,238	12 Sep 2016: Revised proposal + budget received 28 Sep 2016: Proposal accepted 13 Oct 2016: Contract prepared 6 Nov 2016: Meeting BG office 7 Dec 2016: Agreement on supplementary service work IWM 30 Dec 2016: Draft report Deltares received 31 Dec 2016: Contract extended to 31st Jan 2017, addendum signed	ARNHEM	ARNHEM	€ -	€ 49,238	ONGOING
WorldFish	Tilapia fish feed improvement	SVC	Productive Sector Fund	€ 49,996	06 Sep 2016: Comments TA-team shared 07 Sep 2016: Revised proposal + response WF received 10 Sep 2016: Comments TA-team shared 19 Sep 2017: Revised proposal received 19 Sep 2017: Comments on budget shared - VAT & AIT issue 27 Oct 2017: Final proposal & budget received 30 Oct 2017: Draft contract approved 22 Nov 2016: Presentation on proposal by WF in Khulna office 1 Dec 2016: Contract signed 6 Dec 2016: Trial ponds selected	YES	DHAKA	€ -	€ 49,996	ONGOING
Social Business Youth Alliance	Blue Gold Innovation Challenge	IF	Productive Sector Fund	€ 39,435	01 Sep 2016: Comments TA-team shared 18 Sep 2016: Additional comments TA-tea shared 22 Sep 2016: Revised proposal received 03 Nov 2016: Proposal approved 01 Dec 2016: Contract singend 18 Dec 2016: Launch event Dhaka 30 Dec 2016: Knwoeldge & Inspire session Patuakhali Press Club	YES	DHAKA	€ -	€ 39,435	ONGOING

Note: Amount paid is incomplete at the time of finalising this report

Blue Gold Program Innovation Fund

Table 1 - Summary of projects under implementation (continued)

Name of applican	Proposal topic	Lead Unit	Fund ty	Budge	Status	Contract signe	Contract Offic	Amount paid	Amount Due	Deliverables
MarGEn	Natural Cold Storage	SVC	Productive Sector Fund	€ 7,747	04 Oct 2016: feedback TA-team shared 18 Sep 2016: Comments TA-team shared 25 Sep 2016: Revised concept note received 17 Oct 2016: Comments DAE on concept note received 18 Oct 2016: Revised proposal received 31 Oct 2016: Meeting with TA-team to discuss propsoal 6 Nov 2016: Revised proposal recieved 10 Nov 2016: Final proposal received 4 Dec 2016: Final budget received 27 Dec 2016: Contract signed 28 Dec 2016: First invoice received	DHAKA	DHAKA	€ -	€ 7,747	ONGOING
Just Farming	Mung Bean production Management	SVC	Productive Sector Fund	€ 41,825	20 Sep 2017: concept note received 30 Oct 2016: Meeting Just Farming to discuss concept note 31 Oct 2016: Comments TA-team and notes meeting shared 15 Nov 2016: Revised proposal received 11 Dec 2016: Comments SVC-team shared 15 Dec 2016: updated proposal received 18 Dec 2016: Final proposal and final budget received 26 Dec 2016: Draft contract shared 27 Dec 2016: Contract signed 16 Jan 2017: First invoice received	DHAKA	DHAKA	€ -	€ 41,825	ONGOING

Note: Amount paid is incomplete at the time of finalising this report

Blue Gold Program Innovation Fund

Deltares – Waterapp dashboard

The team of Deltares is developing three different prototypes for a water app that will provide a platform for discussions between BWDB and WMOs about drainage scenarios resulting from an embankment breach or the blockage of sluice by sediment. It is expected that the outcome of these different prototypes will lead to the development of a basic, robust and simple to use ‘water-app’ decision tool that routes water flows through a polder area, and supports water management by informing about the operation of water structures

WorldFish – Tilapia fish feed improvement

This is an action research activity by WorldFish on how to improve existing tilapia fish feed that is currently being used by farmers in the Blue Gold Polders. If a low-cost feed can be developed, that is higher in nutrients but at the same time easier to provide in dosage, a reduction in feed input for farmers is expected. This will influence small holder farmers to shift from non-fed tilapia production (currently the most occurring practice) to a production systems where farmers actively feed their fish. It is expected that this will result in increased fish production and consumption through sustainable intensification.

Social Business Youth Alliance – Blue Gold Innovation Challenge

Economic development in the Blue Gild Program area is often difficult to realize. It’s difficult for local people to come with new ideas and start an uncertain journey of realizing a business. Especially for young people, who do not have the skills or lack the experience. For this reason the Blue Gold Innovation Fund has contracted the Social Business Youth Alliance (SBYA), to start the Blue Gold Innovation Challenge (BGIC) in Khulna and Patuakhali. The BGIC is a one year program in which 6 of the best future entrepreneurs will be helped to launch their own social business ventures. They will receive training and resources to build their business model. The best 3 entrepreneurs will be rewarded with seed capital, mentorship and funding opportunities through the Innovation Fund. The BGIC is to encourage innovation in water management and agriculture, and stimulate entrepreneurship in Patuakhali and Satkhira.

Margen – Feasibility study on natural cold storage

Storage is an important function in agricultural marketing. The excess supplies at the harvest time are stored so that they could be supplied in the off-season. The perishable agricultural goods need special type of storage to prolong their usage. Generally there is surplus in the markets at the time of harvest, and there can be big fall in prices at that time but there can be very high price in the off season. Storage is required at various stages of the agriculture value chain, before transportation, before export and after import.

Blue Gold Program Innovation Fund

Modern storage of fruits and vegetables is virtually absent in Bangladesh. Cold storage facilities are only available for potato. For most fruits and vegetables, no noticeable low temperature storage facilities are available. However, there are a very few multi chambered and privately-owned low temperature storage facilities in Badamtali, Dhaka where the wholesalers keep high-value fruits, particularly the imported apples, orange, dates, pears and grapes. Reasonable progress in modern storage system has been made in potato sector. There are now around 393 cold stores (public and private), with a capacity of approximately 4.0 million metric tons against 82.05 million in 2011-2012. In the BGP area there are only 10 cold stores in Satkhira and Khulna, which have a capacity of about 27,000MT against 130,000 MT of production in the BGP area, and there is no cold storage in Patuakhali.

Natural cold storage facilities could be an interesting alternative to the capital intensive electrified cold-storage. The consultancy firm MarGEn is proposing a natural storage solution making use of locally available materials. This natural storage is designed to create a reduction in ambient temperature inside the storage of a few degrees, increasing shelf life. This technology has already been proven around the Rangpur and Bandarban areas. MarGEn is currently implementing a feasibility study to identify if there are polder locations with enough agriculture production to warrant a natural cold-storage facility, and if a business model can be setup to finance such a facility,

Just Farming – Mung bean production management

This initiative consists of a pilot by Just Farming on the use of a software system to improve the plot management of mung-bean farmers in the Blue Gold polders. In their approach Just Farming is focusing on a high end-market, namely the high quality mung bean required by some big processors / distributors (for example PRAN). This allows farmers who produce the desired high-end quality to maximise their income by selling through Just Farming. Simultaneously Just Farming will implement a software support system to manage the productivity of 'their' 200 contracted mung-bean farmers. It is expected that the use of software system will allow Just Farming field staff to enhance their overview of production practices, compare different production approaches, and implement lessons learned on improving production quality and quantity, resulting in improvements along the mung-bean value chain.

4. Projects under review

Table 2 - Summary of projects under review

Date received	Name of applicant	Proposal title	Lead Unit	Fund type	Budget	Status	Details
16/06/2015	BARI	Hydroponics	Agri	Productive Sector Fund	€ 20,333	23 Dec 2015: email to DG BARI requesting concurrence and signature on MoU 17 Jan 2016: follow-up email to DG BARI 2 Mar 2016: visit to BARI headquarters 31 Aug 2016 BARI accepts proposal to sign MoU with BGP	Project implementation halted by BARI until MoU is signed. Awaiting opportunity to sign the MoU with the BARI Director of Training
13/07/2015	Moringa Ltd	Moringa value chain development	SVC	Productive Sector Fund	€ 25,000	25 Sep 2016: New proposal and business plan outline received 28 Nov 2016: Revised proposal received 30 Nov 2016: Revised proposal approved	Waiting for final project proposal and budget revision before contract can be signed
08/02/2016	Grameen Intel	Piloting of agriculture software for farmers in BG	SVC	Productive Sector Fund	€ 25,000	05 Sep 2016: Comments TA-team shared & meeting at BG office 23 Oct 2016: Revised proposal received 26 Oct 2016: Comments TA-team shared 23 Dec 2016: Introduced ProPortion Foundation as support for proposal development	Introduced Grameen Intel to ProPortion Foundation, who will help GI structure their market development plan and submit a new proposal
04/04/2016	Classical Handmade Products	Handicraft production Sathkira	SVC	Productive Sector Fund	€ 21,490	3 Oct 2016: Proposal on hold as many staff have left CHP 11 Nov 2016: Revised proposal received 8 Dec 2016: Comments TA-team shared	Awaiting revised proposal

Blue Gold Program Innovation Fund

Date received	Name of applicant	Proposal title	Lead User	Fund type	Budget	Status	Details
14/07/2016	Multisourcing	Digital Farmer Field Schools	SVC	Productive Sector Fund	€ 50,000	5 Oct 2016: Concept note received 10 Oct 2016: Comments TA-team shared 13 Nov 2016: Revised proposal received 4 Dec 2016: Meeting at BG office 18 Dec 2016: Updated proposal received 29 Dec 2016: Comments TA-team shared	Awaiting revised proposal
20/07/2016	BARI	Irrigation technology	Agri	Productive Sector Fund	€ 44,374	07 Sep 2016: comments TA-team shared 24 Sep 2016: Revised proposal received 09 Oct 2016: Comments TA-team shared 10 Oct 2016: Revised proposal received 18 Oct 2016: Started drafting of contract	Project implementation halted by BARI until MoU is signed. Awaiting opportunity to sign the MoU with the BARI Director of Training
25/09/2016	Errorlab	Automatic solar irrigation system	Agri	Productive Sector Fund	€ 50,000	25 Sep 2016: Concept note received 24 Oct 2016: Meeting BG office 5 Nov 2016: Draft business model received 28 Nov 2016: Draft proposal received 11 Dec 2016: Comments TA-team shared	Awaiting revised proposal
03/10/2016	LCP	Potato processing in BG polders	SVC	Productive Sector Fund	€ 11,216	03 Oct 2016: Concept note received 05 Oct 2016: Comments TA-team shared 14 Oct 2016: Revised concept note received 1 Nov 2016: Proposal received 5 Dec 2016: Meeting with LCP to discuss proposal 8 Dec 2016: Revised proposal received	Awaiting comments of TA-team on proposal feasibility
03/10/2016	Aspire	Insect Fish Feed	Agri	Productive Sector Fund	€ 25,000	3 Oct 2016: Concept note received 8 Oct 2016: Revised concept note received 7 Nov 2016: Revised concept note received 24 Nov 2016: Meeting BG office 15 Dec 2016: Proposal for feasibility study received 25 Dec 2016: Comments TA-team shared	Awaiting revised proposal
05/10/2016	Lalteer	Off-season vegetable production	SVC	Productive Sector Fund	€ 117,000	5 Oct 2016: Concept note received 10 Oct 2016: Comments TA-team shared 22 Dec 2016: Draft proposal received	Awaiting comments of TA-team on proposal feasibility
12/10/2016	Concern Universal	Women Business Centers	SVC	Productive Sector Fund	€ 50,000	10 Oct 2016: Meeting at CU office 19 Oct 2016: Visit to WBC in Batiaghata 14 Nov 2016: field visit to CU in Khulna	Awaiting proposal

Blue Gold Program Innovation Fund

During the period October – December 2016 the Blue Gold Innovation Fund had 7 new project proposals under review:

1. Aspire: a proposal for the production of insect larvae, which will be used in the development of fish feed for the local market.
2. BARI: a proposal to test and compare three kinds of irrigation technologies, which should result in a practical irrigation tool for BG farmers.
3. Concern Universal: a proposal to introduce the concept of Women Business Centres in the BGP area, creating economic opportunities and increasing the access to products and services in the BG polders.
4. ErrorLab: a proposal to develop from scratch an automated solar powered irrigation system, which farmers are willing to pay for.
5. LalTeer: a proposal to test the production of alternative off-season vegetables in the BG polders.
6. LightCastle Partners (LCP): a proposal to implement small-scale potato processing facilities in the BG polders, producing snacks for the local
7. Multisourcing: a proposal to digitize the content of BGP's farmer field schools and disseminate these by making use of SMS.

The development of the remaining 4 project proposals (BARI, Moringa, Grameen Intel, Classical Handmade Products) in the above summary that were submitted previously will continue. Although it was expected that the proposals of Moringa Ltd and Classical Handmade Products would be implemented in Q3 of 2016, the Q4 period showed no significant progress in the developments of these proposals. The BARI proposal implementation has been halted due to difficulties in the MoU signing process with the BARI directorate. Grameen Intel has found a partner to assist in the co-development of their proposal, and is expected to come with an implementation strategy in Q1 of 2017.

Three applications that were 'Under Review' in Q3, the Next Billion proposal on mobile movies, the Wageningen University proposal on information services for water logging, and the JADE study proposal on the feasibility of sheep rearing in the BGP, have been moved to the 'Rejected Proposals' category.

Next Billion's project proposal to use the 'video ladies' from the PROOFS project to broadcast messages to rural communities was discontinued as BGP did not manage to find common ground with PROOFS for the usage of the PROOFS video ladies. The geographic overlap between both project areas is limited, and the goals for the video messages were too different. Wageningen University's proposal on information services for water logging was developed with minimal communication to the TA-team. It was therefore not possible for the TA-team to provide advice to Wageningen University's proposal, which closely resembled the Deltares proposal for the development of a water app dashboard. This issue has been cleared during a face to face meeting with WU representatives in Dhaka, who are now working on the development of new concepts.

Blue Gold Program Innovation Fund

Finally, the JADE proposal for a study on the feasibility of sheep rearing in the BGP area was deemed not innovative enough by the TA-team, and rejected for these reasons.

5. Projects under Development

Table 3 - Summary of projects under development

Date received	Name of applicant	Proposal title	Fund type	Budget	Status	Details	
02/06/2016	Center for River, Harbor & Landslide Research	Climate based adaption against riverbank failure	Water Management Fund	€ -		02 Jun 2016: Concept note received 06 Jun 2016: Comments TA-team shared 24 Aug 2016: Follow-up email on status of proposal	Waiting for proposal
09/06/2016	Urban Wetlands	Floating Units for Sustainable Water treatment and Agriculture	Productive Sector Fund	€ -		16 May 2016: Visit to BG office 2 Jun 2016: Comments TA-team shared 9 Jun 2016: Concept note received 3 Aug 2016: Revised concept note received 4 Aug 2016: Comments TA-team shared	Waiting for proposal
20/07/2016	SPS	Non-electric fridge	Productive Sector Fund	€ 25,000		18 Sep 2016: Feedback TA-team shared, invited for a meeting at BG office 8 Oct 2016: Meeting BG office 24 Oct 2016: Revised proposal received 30 Oct 2016: Comments TA-team shared 7 Nov 2016: Revised proposal received 10 Nov 2016: TA-team recommends external support for proposal development	Waiting for proposal

Blue Gold Program Innovation Fund

Table 3 - Summary of projects under development (continued)

Date received	Name of applicant	Proposal title	Fund type	Budget	Status	Details
14/08/2016	BAU	Turkey Rearing	Productive Sector Fund	€ 25,000	9 Dec 2016: Revised concept note received 25 Dec 2016: Comments TA-team shared	Waiting for proposal
08/09/2016	North South University	Application of hybrid dryer for agriculture purposes	Productive Sector Fund	€ -	09 Oct 2016: Concept note received 8 Nov 2016: Comments TA-team shared	Waiting for proposal
20/12/2016	FlexBase	Floating Agriculture	Productive Sector Fund	€ -	20 Dec 2016: Concept note received 26 Dec 2016: Comments TA-team shared	Waiting for proposal
11/01/2017	Kaizen CR	Digital Marketplace	Productive Sector Fund	€ -	11 Jan 2017: Concept note received 17 Jan 2016: Meeting at BG office & comments TA-team shared	Waiting for proposal

The Innovation Fund currently has 7 different concept notes and proposals under development. These consist of ideas for projects that were sent to the TA-team of Blue Gold for review and feedback purposes. Below is a description of the 3 newest proposals that were submitted to the Innovation Fund during Q4:

North South University application of hybrid dryer for agriculture purposes

On 24th August the Blue Gold TA-team visited the North South University (NSU) in Dhaka as part of the wider promotion of the Innovation Fund. During this meeting the TA-team met with the various agriculture, fisheries and business experts of the NSU and discussed the scope for the submission of project proposals to the Innovation Fund.

The first outcome of this visit is a concept note from the NSU business department on the scope of applying a hybrid drying technology developed by BARI for food processing purposes. This proposal is research oriented, looking at the business opportunities for food processing in the BG polders.

Blue Gold Program Innovation Fund

FlexBase floating agriculture

In May 2016 the Amphidesh business delegation from the Netherlands visited Bangladesh as part of a matchmaking trip partially organized by EKN. Part of their trip was a visit to the Blue Gold Program, during which the delegation discussed the possibilities of amphibian floating platforms for the urban poor, and floating agriculture in Bangladesh.

FlexBase was part of this delegation, and has approached the Innovation Fund with a concept for floating agriculture platforms. FlexBase is currently working a desk study, out of which a proposal for the Innovation Fund would come forward.

Kaizen CR digital market place

This concept, a digital platform for farmers, would allow farmers to sell their produce to buyers via a guaranteed market price that is established on a daily basis. The market price is calculated daily based on the supply and demand of agriculture products (for example vegetables). Farmers would then receive updates on the market price via their mobile phone.

Additionally, a collection point would be established where farmers can go to sell their produce. As large numbers of farmers would gather at this collection point, it would also be interesting for agriculture input suppliers (such as ACI) to sell their products there. Other products and services, such as agriculture machinery services, could also be provided from this central location. The idea is to link these collection points with supermarkets from Dhaka (Agora, Meena Bazar, Swapno, Unimart) so they can buy produce from farmers directly.

6. Projects rejected

Table 4 - Summary of rejected projects

Date received	Name of applicant	Proposal topic	Fund type	Budget	Status	Details	Amount paid
08/03/2015	Acacia Water	Feasibility study Managed Aquifer Recharge for Agriculture	Productive Sector Fund	€ 5,000		Both the EKN and the BG IF found that the commercial viability of using water for irrigation during the dry season is not sufficiently proven.	€ 5,000
24/03/2015	EcoStories	Improved Cooking Stoves	Productive Sector Fund	€ 30,500		After 5 months of inactivity from the applicant the BG IF decided to reject the proposal.	€ -
22/06/2015	Winning Agro	TA on calf rearing and product placement	Productive Sector Fund	€ -		WinningAgro did not see a possibility to introduce their livestock feed product without the BG IF directly subsidizing the price of the product. Therefore the BG IF rejected the proposal.	€ -
22/07/2015	Twijnstra Gudde	Study wind and tidal energy	Water Management Fund	€ 125,000		The TG proposal does not fit within the funding structure of the BG IF. The proposal focuses on research only and has a budget of €125,000.	€ -
17/09/2015	MetaMeta	Biological rodent control	Water Management Fund	€ 84,500		As the Blue Gold polders are not experiencing any hindrance from rodents the BG IF declines the proposal for biological rodent control.	€ -
03/12/2015	Matrix Consultancy	Strengthening cattle supply chain	Productive Sector Fund	€ 50,000		No follow up on meeting, no response. Proposal is removed from application status	€ -
01/03/2016	Patuakhali University	Carp & Tilapia hatchery	Productive Sector Fund	€ 50,000		No follow up on meeting, no response. Proposal is removed from application status	€ -
21/03/2016	Practical Action	Crab market study	Productive Sector Fund	€ 24,963		The TA-team is of the opinion that there is currently no scope for commercial & sustainable crab production inside the BG program area.	€ -

Blue Gold Program Innovation Fund

Table 4 - Summary of rejected projects (continued)

Date received	Name of applicant	Proposal topic	Fund type	Budget	Status	Details	Amount paid
07/05/2016	Dutch Water Partners	Feasibility study on commercial water filtration	Productive Sector Fund	€ 25,000		EKN not convinced that proposal offers or promises anything very different from what other similar studies/projects (Sujol, MAR, etc.) have offered/tried out – and which did not, thus far, yielded any sustainable successes in terms of introducing sustainable models for commercial water vending (i.e. others than already exist local).	€ -
10/02/2016	Bangladesh Bondhu Foundation (part of GIZ)	Collaboration on improved cookstove dissemination	Productive Sector Fund	€ 21,175		Applicant is not willing to revise proposal according to comments of the BG TA-team. Applicant refuses to include a detailed description of the implementation area in the proposal. As applicant shows no willingness to revise proposal, it was decided to halt the collaboration	€ -
23/12/2015	Witteveen & Bos	Scoping mission on small scale dredging	Water Management Fund	-	15 Sep 2016: No follow up, no response. Proposal is removed from application status	With the launch of the BG tender on small scale dredging there is no direct need for a separate study on SSD	€ -
24/09/2016	JADE	Study on sheep rearing feasibility in BGP		€ 23,000	24 Sep 2016: Proposal received 10 Oct 2016: Comments TA-team shared	Proposal rejected, as there is no clear innovative aspect to the study proposal	€ -
25/09/2016	BASD	Women Empowerment – Fostering Entrepreneurship of Organic Vegetables and Fish		€ -	25 Sep 2016: Concept note received 02 Oct 2016: Comments TA-team shared. Concept note rejected	Concept rejected. The CN does not convince about any innovative nature of this project (and no research either); the project seems to overlap too much with our own vegetable and fish FFS activities; and the proposed action is too vaguely described.	€ -

Blue Gold Program Innovation Fund

Table 4 - Summary of rejected projects (continued)

Date receive	Name of applicar	Proposal topic	Fund ty	Budge	Status	Details	Amount paid
23/09/2016	Wageningen University	Information service for water logging		€ 24,500	23 Sep 2016: Proposal received 03 Nov 2016: Comments TA-team shared. Concept note rejected	The TA-team feels that the proposal of Wageningen University is too close to the Deltares proposal. Additionally, the TA-team feels that the proposal misses the connection with the needs of the BG farmers and the needs of the Bangladesh Water Development Board.	€ -
10/06/2016	Next Billion	Mobile movies Blue Gold platform	Productive Sector Fund	€ 25,000	08 Sept 2016: Skype call on proposal development NB 10 Oct 2016: Skype call Next Billion 3 Nov 2016: Next Billion informs that PROOFS is not onboard for proposal 12 Nov 2016: TL decides that remaining working modality with Next Billion is not feasible for BGP	The Next Billion modality focused on utilizing the PROOFS video ladies inside the BGP area. However, PROOFS did not agree to operate under the ToR setup by BGP. The alternative option was to train BG staff and beneficiaries to do video promotion themselves, but this was deemed unfavorable as it does not match with the core priorities of the BGP.	€ -

JADE feasibility study on sheep rearing

The JADE study proposal for researching the feasibility of sheep rearing in the BGP area was deemed not innovative enough by the TA-team. The proposal itself closely resembled the NICE Foundation proposal on pig rearing within the Kawra-communities. It included additional activities of Farmer Field Schools and growing fodder crops, both of which already take place within the BGP. The proposal was rejected for lack of innovative approach.

Wageningen University proposal for information on water logging

Wageningen University's proposal on information services for water logging was developed with minimal communication to the TA-team. It was therefore not possible for the TA-team to provide advice to Wageningen University's proposal, which closely resembled the Deltares proposal for the development of a water app dashboard. This issue has been cleared during a face to face meeting with WU representatives in Dhaka, who are now working on the development of new concepts.

Blue Gold Program Innovation Fund

Next Billion proposal for a mobile movies platform for Blue Gold

Next Billion's project proposal to broadcast messages to communities in the BGP centred along the adaptation of the PROOFS video ladies. These ladies are already operating the broadcasting of video messages in the PROOFS program area, and could easily adapt their approach to the needs of the BGP. However, it became clear that the program areas of PROOFS and Blue Gold did not overlap much, which made it logistically unfeasible. Additionally, the objectives of the PROOFS project with respect to the video ladies did not match with the objectives of the BGP. For this reason the proposal could not forward towards implementation.

7. Projects completed

Table 5 - Summary of completed projects

Date received	Name of applicant	Proposal topic	Lead Unit	Fund type	GATE	Budget	Status	Date Contract Awarded	Contract office
01/04/2014	WorldFish	Women-managed small household ponds (SHHP)	C3	Productive Sector Fund	G2	€ 45,000	05 Apr 2014: Start of project 08 Mar 2015: No cost extension June 2015 18 Jun 2015: No cost extension Dec 2015 28 Dec 2015: Final report received	05/04/2015	DHAKA
01/05/2014	Neelen en Schuurmans	Development and introduction of a web-based GIS information platform	C2	Water Management Fund	G3	€ 48,000	01 May 2014: Start of project 22 Aug 2015: Training mission BG staff completed 03 Sep 2015: Final report received	21/05/2014	ARNHEM / DHAKA
01/07/2014	IMARES	Pearl cultivation	C4	Water Management Fund	G2	€ 10,000	01 Jul 2014: Start of desk study 01 Jan 2015: Final report received	01/07/2014	ARNHEM
16/02/2015	Deltares & IWM	Study of Riverbank Erosion management	WRM	Water Management Fund	G2	€ 47,700	16 Feb 2015: Contract signed with IWM 7 Dec 2015: Contract signed with Deltares	-	ARNHEM
11/03/2015	DWA - YEP	YEP consultant via DWA Rijnland	C2	-	-	€ -	11 Feb 2015: Start of YEP recruitment procedure 09 Sep 2015: Contract signed with DWA 17 Sep 2015: Start date Ruud Leibbrand	-	-

Blue Gold Program Innovation Fund

Table 5 - Summary of completed projects (continued)

Date receive	Name of applican	Proposal topic	Lead Uni	Fund ty	GATE	Budge	Status	Date Contract Awarde	Contract office
10/04/2015	GreyShack	Scoping study on energy use in BG area	C5	Productive Sector Fund	G2	€ 7,316	25 Aug 2015: Start project 11 Dec 2015: Initial study report received 14 Jan 2016: Workshop and discussion on report conclusions 25 Feb 2016: Received the revised final report	11/08/2015	DHAKA
16/03/2015	NICE Foundation	Kawra pig rearing Khulna	C3	Productive Sector Fund	G2+G3	€ 49,967	1 Aug 2015: Project started 13 Aug 2015: Inception workshop 11 Nov 2015: Quarterly report 18 Nov 2015: Visit by FP DLS (Lutfor Rahman) 22-27 Dec 2015: Knowledge-sharing visit to Vietnam 31 Jan 2016: Half yearly report 4 Apr 2016: Exntesion request received 31 May 2016: No-cost extension approved till 1st July 2016 10 Nov 2016: Final report received 13 Nov 2016: Final report approved	05/07/2015	DHAKA

Nice Foundation action research on pig-rearing completed

Only one project was completed during Q4. Although the Nice Foundation's action research on pig rearing ended on 1st July 2016, it took quite some time before the official project report was completed. The report contains a detailed overview of the outcome of the pig-rearing activities and the lessons learned from the research pilot. The report will be published on the Blue Gold website.

8. Financial report on unsolicited proposals

Table 6 – Value of Contracts Awarded by Date of Award

Period	Number of Contracts Awarded	Value of Contract Awarded	Cumulative Value of Contracts Awarded		
2014 - Q1	0	€ 0	€ 0	Actual	
2014 - Q2	1	€ 48,000	€ 48,000		
2014 - Q3	1	€ 10,000	€ 58,000		
2014 - Q4	0	€ 0	€ 58,000		
2015 - Q1	0	€ 0	€ 58,000		
2015 - Q2	2	€ 45,000	€ 103,000		
2015 - Q3	2	€ 57,283	€ 160,283		
2015 - Q4	0	€ 0	€ 160,283		
2016 - Q1	0	€ 0	€ 160,283		
2016 - Q2	5	€ 144,094	€ 304,377		
2016 - Q3	1	€ 49,996	€ 354,373		
2016 - Q4	Forecasted for Q4	€ 275,000	€ 629,373		Forecast
	Actual for Q4	€ 207,000	€ 561,373		Actual
2017 – Q1	7	€ 159,000	€720,373	Forecast	

Blue Gold Program Innovation Fund

Although it was forecast that 8 contracts would be awarded in Q4 with a cumulative value of €629,373, the total number of contract awarded in Q4 2016 was 7, with a cumulative value of € 561,373. This can be attributed due to the unexpected delay of the implementation of two large BARI contracts.

Taking account of the anticipated award of contracts for 7 proposals, the Q1 2017 forecast total is €720,373.

Figure 8.1 Cumulative Value of Contract Awards

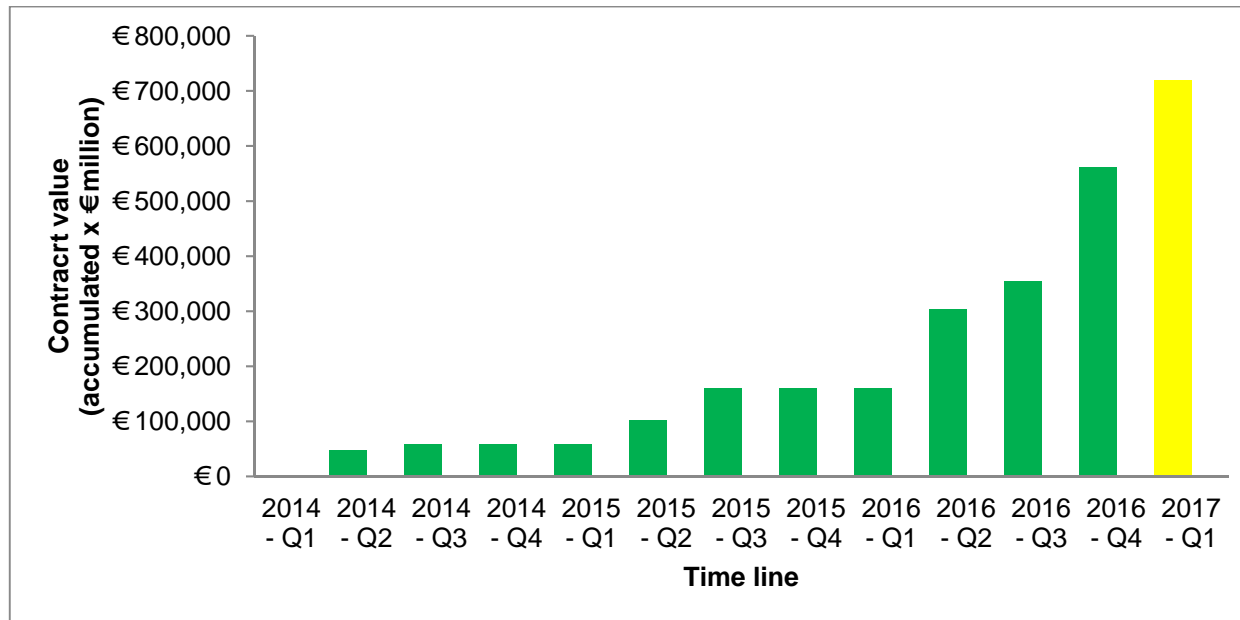
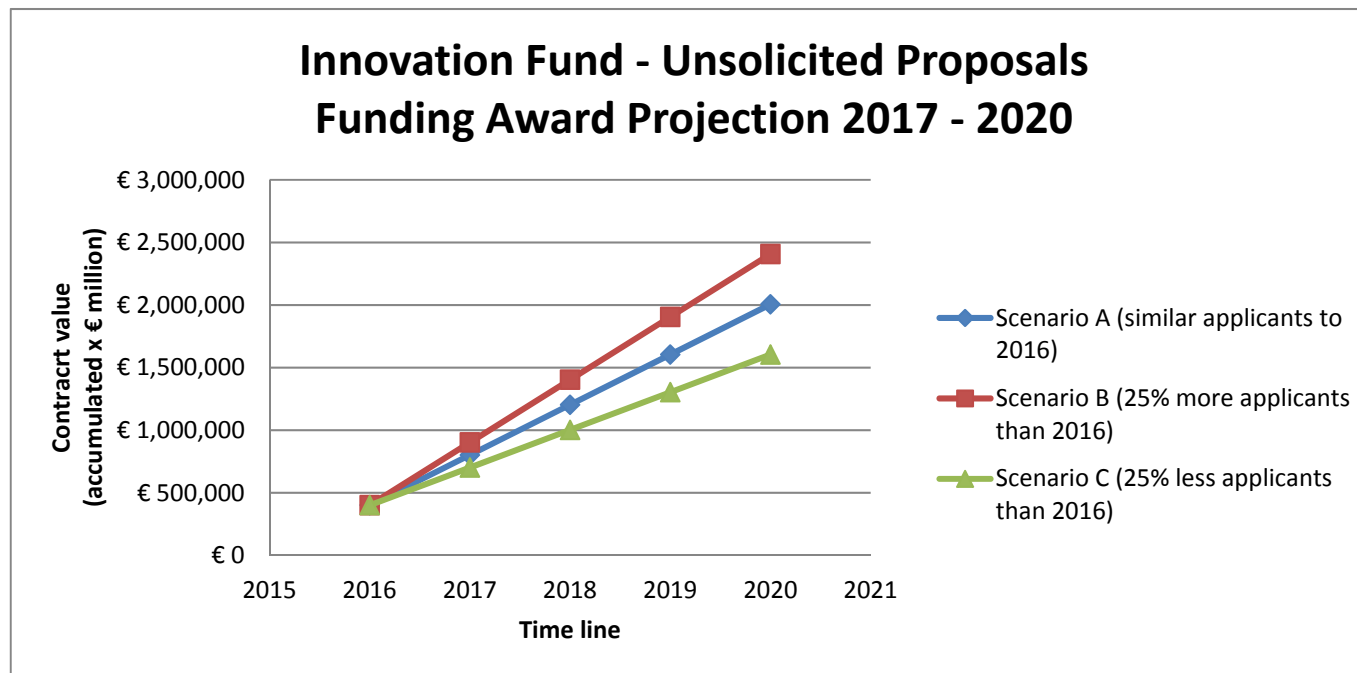


Figure 8.2 Projected Cumulative Value of Contract Awards 2017-2020



9. Status of solicited proposals

Table 7 - Summary of solicited proposals

Tender topic	Forecasted in Q1 2017	Completion Schedule	Status	Details
Small scale dredging/excavation of in-polder drainage <i>khals</i>	€ 500,000	end-September 2016	<p>31 Mar 2016: interview with dredging consultant</p> <p>21 Jul 2016: draft tender document shared</p> <p>25 Jul 2016: comments Ben Lamoree received</p> <p>25 Jul 2016: comments Khaled EKN received</p> <p>02 Aug 2016: coordination meeting EKN</p> <p>07 Aug 2016: request for follow up meeting EKN sent</p> <p>25 Aug 2016: request for follow up meeting EKN sent</p> <p>12 Sep 2016: request for follow up meeting EKN sent</p> <p>15 Dec 2016: Terms sheet sent to EKN for feedback</p> <p>20 Dec 2016: ToR for Small Scale Dredging sent to EKN and BWDB for feedback</p>	Awaiting input from EKN and BWDB before publishing tender document
Low cost embankment protection in coastal rivers	€ 600,000	end-September 2016	<p>23 Jun 2016: First BWDB committee meeting to agree core objectives of initiative</p> <p>19 Jul 2016: ADG Planning office order establishing six member committee</p> <p>18 Aug 2016: Meeting to agree design principles</p> <p>4-5 Sep 2016: Visit to Lower Bhadra River by committee, IWM and EKN team</p> <p>22 Aug 2016: Revised ADG Planning office order establishing six member committee</p> <p>15 Oct 2016: target date for design completion</p> <p>1 Nov 2016: Meeting BWDB to discuss procurement</p> <p>2 Nov 2016: Project setup shared with Deltares and IWM</p> <p>9 Nov 2016: BWDN design work completed, cost estimate requested</p> <p>29 Nov 2016: Involvement Deltares confirmed</p> <p>3 Dec 2016: Involvement IWM confirmed</p> <p>6 Dec 2016: Technical and financial proposal requested</p>	Awaiting technical and financial proposal Deltares/IWM

Blue Gold Program Innovation Fund

Table 7 - Summary of solicited proposals (continued)

Tender topic	Budget	Completion schedule	Status	Details
Pumped drainage feasibility study Polder 2.	€ 200,000	June 2018	13 Nov 2016: Meeting with Deltares to discuss feasibility study 22 Dec 2016: Proposal from Deltares received	Proposal reviewed and considered incomplete; resubmission to be requested.
ICT in agriculture	€ 500,000	March 2017	19 Dec 2015: compilation of ICT project overview in Bangladesh completed 20 Dec 2015: meeting Next Billion to discuss ICT collaboration opportunities 07 Feb 2016: Co-creation workshop with WinMiaki on ICT possibilities for BG 16 Feb 2016: meeting Practical Action to discuss ICT collaboration opportunities 03 Mar 2016: presentation of outcomes WinMiaki workshop 20 May 2016: TA-team workshop on horizontal learning concept + ICT within BG 29 May 2016: meeting mPower to discuss collaboration opportunities with BG 14 Jul 2016: concept note on Next Billion approach for BG approved 31 Aug 2016: TA-team workshop on ICT strategy for BG 15 Dec 2016: Terms sheet sent to EKN for feedback 23 Dec 2016: ToR for ICT in agriculture sent to EKN and DAE for feedback	Awaiting input from EKN and DAE before publishing tender document

Taking account of the anticipated award of contracts for 4 solicited proposals, the forecasted expenditure total is €1,800,000.

Small-scale dredging/excavation of in-polder drainage *khals*

The TA-team has developed a Terms Sheet for the call for proposals of the Innovation Fund, and a specific ToR for the small scale dredging/excavation topic. Both have been submitted to EKN and BDWB, and await feedback. A meeting is planned for 15 January 2017 to discuss these documents, after which the final comments will be incorporated and the call for proposals will be published.

Blue Gold Program Innovation Fund

Low-cost embankment protection in coastal rivers

Based on the outcomes of a study on river bank erosion management in Polder 29 (Chandgor, Khulna) by the institute of Water Modelling (IWM), it is proposed that the permeable groynes recommended in IWM's report will be piloted to assess their suitability as a low cost form of protection of coastal river embankments. A presentation to BWDB on the outcome of the IWM study was held on 23rd June, as a result of which the chair of the meeting appointed a BWDB committee to look at the technical design of the groynes and the modalities for implementation, with PCD as Member Secretary, Blue Gold Program TA team providing assistance, and IWM offering technical advice.

Blue Gold is waiting for BWDB's estimate for the construction of semi-permeable groynes along a 0.5km reach of the Lower Bhadra River. The construction of the groynes will take place under a civil engineering contract, which will be tendered using the direct procurement method. The tender documents for this procedure have been drafted by the TA-team and currently await review by the BWDB. It is expected that the tender will be launched in Q1 of 2017, with the BWDB taking the lead in the tender procedure. The Bangladesh Institute of Water Modelling (IWM) will be contracted to monitor performance of the groynes during the flood seasons 2018 and 2019, and then to prepare a post-construction report with a performance assessment of the groynes and a manual with lessons and guidelines for replication. In compliance with the requirements of the Innovation Fund, the Dutch water and subsurface research institute Deltares will be involved in the monitoring by IWM to facilitate Dutch-Bangladesh knowledge transfer – one of the aims of the Innovation Fund. Using Dutch expertise with this form of maritime engineering would contribute to assuring the quality of construction of the engineering works.

This operation will be financed through the TA Budget of the Blue Gold Program under the Innovation Fund. It is expected that tender for the civil engineering works will be launched in Q1 of 2017, with the aim of awarding a contract by March 2017, for completion by end-June 2017. The impact of the groynes will be measured for a period of 18 to 24 months, including at least one full flood season.

Pumped drainage facility in Polder 2

The TA-team sees a need for a broader study analysing the possibility of pumped drainage for the waterlogging problem in Polder 2. This study should cover a number of areas, including economics, design and operations. The TA-team aims for the feasibility study to be followed by an action-research pilot within a suitable WMA catchment (or sub-catchment) to demonstrate the benefits of pumped drainage along with an "improved" cropping pattern – similar to one of Blue Gold's community-led agricultural water management (CAWM) schemes. At the end of the action-research, the pumpstation financed by the grant of the Innovation Fund would be auctioned off to the highest bidder.

Blue Gold Program Innovation Fund

The TA-team has requested Deltares to take the lead in designing the feasibility study on pumped drainage in Polder 2, with possible inclusion of experts from the Wageningen University (WUR), IWM and CEGIS. Deltares had been requested to recommend and prepare a technical and financial proposal for an action research program for a pumped drainage CAWM at a single location to demonstrate the benefits of pumped drainage and a cropping pattern to maximise returns.

ICT in agriculture

The TA-team has developed a Terms Sheet for the call for proposals of the Innovation Fund, and a specific ToR for the ICT in agriculture topic. Both have been submitted to EKN and DAE, and await feedback. A meeting is planned for 25 January 2017 to discuss these documents with Peter de Vries of EKN, after which the final comments will be incorporated and the call for proposals will be published.

Annex 1 – Promotion of the Blue Gold Innovation Fund

Name	Medium	Date Publication	Link
Netherlands Bangladesh Business Platform	Website	30 November 2016	http://nbbp.org/
Ondernemen in Ontwikkelingslanden	Website	30 November 2016	http://www.ondernemeninontwikkelingslanden.nl/nieuws/nu-open-blue-gold-innovation-fund-slimme-nederlandse-oplossingen-bangladesh
EKN	Website	1 st December 2016	http://bangladesh.nlembassy.org/ http://bangladesh.nlembassy.org/news/2016/01/opportunities-for-business-development---the-blue-gold-innovation-fund.html
Wageningen University	Newsletter	6 December 2016	http://mailing.wur.nl/880/Actions/Newsletter.aspx?messageid=11369&customerid=46544&password=enc_3736393646443037_enc
NWP	Newsletter	16 December 2016	
WaterInternationaal	Website	19 December 2016	http://www.waterinternationaal.nl/tenders.html
Internationaal Ondernemen	Website	11 Januari 2017	http://www.internationaalondernemen.nl/kansen/nu-open-blue-gold-innovation-fund-bangladesh