Living Polders

Stakeholder Workshops Program

27 October – 4 November, 2019

Contents

1. Introduction

TRM tackles the problem of silting up of channels, and subsequently drainage problems in the polders. In the long run and as an additional advantage it raises land by allowing the deposition of sediments. These particular benefits of TRM have been corroborated in various studies. However, as has also been observed in studies and by water professionals, the success of TRM hinges to an important extent on the avoidance or solution of conflict among polder dwellers with competing interests and between residents and implementing agencies.

By offering a decision support tool (DST) – even a very simple one – that helps elucidating the broad-stroke consequences of choices for a variety of competing users, we aim to raise mutual understanding and create trust among different stakeholders. This in turn, we expect, will lead to better and more legitimate decisions about TRM implementation

Between October 27 and November 4, 2019 we will host a series of stakeholder events. During the events we will test and apply prototypes of our decision support tool (DST), with the specific purpose of seeking input for its further development. The DST regards decisions that are to be taken at multiple levels.

Types of decisions	**National level**	**Regional level**	**Local level**
Physical implementation of TRM	Optimal rotation schemes – national	Optimal rotation schemes - regional	Optimization of TRM in terms of amount and even spread of sediments
Governance and conflicting interests	Conflicting objectives: National vs local; long-term vs short-term (flood risk prevention, food security, poverty alleviation)	Scheduling TRM in polders in a region with conflicting preferences for salt or fresh water	Within polder/*beel* differences in preferences for salt/fresh water; Availability of alternative livelihood options during TRM implementation

In its current state, our DST can only serve as a crude form of support to decision-making that regards the physical implementation of TRM. We now seek input from stakeholders:

- to improve the accuracy and relevance of our models on the physical implementation of TRM at both the delta and the polder level, and;
- to complement the current focus on the physical implementation of TRM with components that regard decision-making on governance and the handling of conflicting interests.

Apart from seeking information and input from stakeholders, the stakeholder events also serve the important purpose of creating awareness, ownership and acceptance of the DST. Stakeholder engagement increases the accuracy and the scope and therewith the relevance and the legitimacy of the tool. Improved relevance and legitimacy will increase the sense of ownership and the likelihood of acceptance and actual use of the DST.

Events will be held at the national, the regional and the local level. Below, we will provide details on the respective objectives of each one of the events, the type of participants that are targeted, and the format that will be used to elucidate input and awareness.

2. National level workshop

On October 27, The Living Polders project organizes a panel during the Dhaka Water Knowledge Days.

2.1. Objectives

The first overall objective of the workshop in Dhaka is to obtain an inventory of relevant factors of success & failure, to be included in the DST. The second general objective is to increase commitment to the process of developing an accurate and relevant DST. More in particular, we aim to achieve the following objectives:

Types of decisions	National level	Objectives
Physical implementation of TRM	Optimal rotation schemes – national	Validation of knowledge on the physical part of TRM: Do experts think model outcomes are accurate and complete?
Governance and conflicting interests	Conflicting objectives: National vs local; long-term vs short-term (flood risk prevention, food security, poverty alleviation)	Testing awareness of local problems at the national level: How do experts see the tension between national vs. local and long-term vs. short-term objectives should be handled?

2.2. Format

After a short introduction in which we present our objectives, we proceed as follows with a scenario evaluation (particularly, a *pre-mortem*) exercise:

1. Stakeholders are divided in three groups. Each groups is presented with a separate option that in terms of sediment deposition (i.e. amount and even spread) appears optimal to us. The set of options regards optimal **rotation schemes at the national level**. The options vary in terms of parameters such as the number of polders per iteration, the length of the period of TRM per polder, partial or complete evacuation, etc.
2. We ask each group to consider the hypothetical scenario that - in spite of having selected what now seems a promising option – in 50 years from now it turns out that it was *the wrong choice after all*. Stakeholders are asked to deliberate about the potential reasons and causes of this failure in a detailed a realistic manner: What went wrong, and why?
3. Break-out groups present their results in a plenary session, and results will be compared. This may demonstrate different and joint ideas about factors of failure and success, and awareness of competing interests across levels of planning. We will focus on the question: How could the failure have been prevented?

At the end of the session, all participants are kindly asked to fill out a brief questionnaire.

2.3. Participants

Last name	First name	Organization	Type	Designation
Hossain	Md.Jahid	Water Resources Planning Organisation	autonomous national organisation	Senior Scientific officer
Rahman	Riad	Department of Environment	Government agency	Deputy Director
Ahmmad	Raju	Institute of Water Modelling	government owned-national research institute	Junior Engineer
Islam	Md. Saiful	Institute of Water Modelling	government owned-national research institute	As, IWM
Roshid	Aminur	Center for Environmental and Geographic Information Services	government research center	Senior Consultant
Sarker	Sanjib	Center for Environmental and Geographic Information Services	government research center	Research Consultant
Ahsan	S.M. Monjurul	Centre for Natural Resource studies	NGO	Team Leader
Tabassum	Maliha	Waste Concern	Private	Junior Engineer
Hossain	Shahadat	ONUSONDHANI CREEDS	Private Environmental research organization	CEO
Huq	Hamidul	United International University	Private University	Professor
Rahim	Md. Abdur	Pabna Science and Technology University	Public University	Assistant Professor
Hasan	Md. Asif	University of Dhaka	Public University	RA
Khan	M. Shah Alam	BUET	Public University	Professor
Rokon	Sheikh	Riverine People	River research Organisation	Secretary General
Rafath	Hasan Abdullah	ERA		RA
Hasan	Md. Mehedi	ERA		RA

3. Regional level workshop

On November 2 a regional level workshop will be organized in Khulna

3.1. Objectives:

The first overall objective of the workshop in Khulna is to obtain an inventory of relevant factors of success & failure, to be included in the DST. The second general objective is to increase awareness of and commitment to the process of developing an accurate and relevant DST. More in particular, we aim to achieve the following objectives:

Types of decisions	Regional level	Objectives
Physical implementation of TRM	Optimal rotation schemes - regional	Validation of knowledge on the physical part of TRM: Do experts think model outcomes are accurate and complete?
Governance and conflicting interests	Scheduling TRM in polders in a region with conflicting preferences for salt or fresh water	Testing awareness of local problems at the regional level: How do experts see the tension between regional vs. local and long-term vs. short-term objectives should be handled?

3.2. Format

The regional workshop will consist of two parts: One part focusing on regional rotation schemes, and another on within-polder implementation of TRM. An outline of the one-day program can be find, below.

Activity	Responsible/Lead by/Facilitator	Time	From	Until
Registration & Welcome		60 min	0900	1000
Welcome & general introduction of the LP project	S.A. Khan	10 min	1000	1010
Dignitaries welcome	??	10 min	1010	1020
General introduction about the objectives and the format of the workshop	F. van Laerhoven	10 min	1020	1040
Optimizing TRM execution at the regional and polder level – brief review of the research finding	F. Islam	10 min	1040	1050
Optimalizing TRM governance at the regional and polder level – brief review of the research finding	S. Nath	10 min	1050	1100
Part 1: Rotation schemes at the regional level				
Format & Objectives	F. van Laerhoven	5 min	1100	1105
Break out groups / discussion (~5 groups)	All			
1. Optimal rotation scheme (explain why)		10 min	1105	1115
2. What went wrong?		15 min	1115	1130
3. How could failure have been avoided?		15 min	1130	1145
Thee break		15 min	1145	1200
Plenary / presentation of breakout group discussions (~5x5 min)	F. Islam	30 min	1200	1230
Discussion of the results	S.A. Khan	20 min	1230	1250
Conclusion / Synthesis / Wrap up part 1	S.A. Khan	10 min	1250	1300
Lunch and prayer		60 min	1300	1400
Part 2: Optimalization of TRM execution at the *beel* / polder level				
Format & Objectives	F. van Laerhoven	5 min	1400	1405
Break out groups / discussion (~5 groups)	All			
1. Optimal TRM execution scheme (explain why)		10 min	1405	1415
2. What went wrong?		15 min	1415	1430
3. How could failure have been avoided?		15 min	1430	1445
Thee break *(*alternatively after the plenary presentations, starting at 1415)*		15 min	1445	1500
Plenary / presentation of breakout group discussions (~5x5 min)	S. Nath	30 min	1500	1530
Discussion of the results	S.A. Khan	20 min	1530	1550
Conclusion / Synthesis / Wrap up part 1	S.A. Khan	10 min	1550	1600
Closing				
Synthesis and conclusion	S.A. Khan F. van Laerhoven	15 min	1600	1615

3.2.1. Part 1: Rotation schemes at the regional level

After a short introduction in which we present our objectives and the format of the session pertaining to part 1, we proceed as follows with a first scenario evaluation (particularly, a *pre-mortem*) exercise.

1. Stakeholders are divided in three groups. Each group is presented with a set of separate options that appear feasible to us. The set of options regards optimal **rotation schemes at the regional level**. The options vary in terms of parameters such as the number of polders per iteration, the length of the period of TRM per polder, partial or complete evacuation, etc. We first ask participant to (i) 'design' the optimal (regional) rotation scheme, and to (ii) explain us as detailed as they why they think this is the best option. We explicitly ask people to think about the *technical* and the *governance* design. (10 minutes)
2. We ask each group to consider the hypothetical scenario that - in spite of having selected what now seems a promising option – in 50 years from now it turns out that it was *the wrong choice after all*. Stakeholders are asked to deliberate about the potential reasons and causes of this failure in a detailed a realistic manner: What went wrong?[1] (15 minutes).
3. We then proceed by asking the break-out groups to answer the question: How could the failure have been avoided? (15 minutes)
4. Break-out groups present their results in a plenary session (30 minutes), and results will be compared and discussed (20 minutes)

Note: do not reveal the format and/or the objectives of the second (pre-mortem) part of the exercise when starting with the first part, yet.

This is what the three sheets required for the session would more or less look like (if possible translated into Bangla):

What does an optimal rotation scheme look like in your view? (technical and governance related)	
Characteristics • • • Etc.	Reasons for choosing • • • Etc.

Imagine your design failed, what could have been the reason?	
Area 1. 2. 3. etc.	Details/explain 1. 2. 3.

How could the failure have been avoided	
1. 2. 3. etc	1. 2. 3. etc.

[1] We do not prompt participants at the start of the exercise, but will check to see of the discussion doesn't get stuck, or deviates too much to be relevant. In that case, facilitators intervene and ask participant to think about the following:

- Geology (e.g. gradient)
- Hydrology (water courses)
- Engineering (building of physical infrastructure)
- Funding
- Planning/governance of a multi-decade plan
- Local opposition (physical effects of inundation, varied impact on various types of crops, cost of re-allocation, loss of income)
- Climate change

Required materials

- Maps of the regional distribution of polders (5)
- 15 flip-over sheets (5x3), each one corresponding with the subsequent topics of the session (see above):
    1. Optimal rotation scheme (characteristics? Reasons for choosing)
    2. What went wrong? (area, details)
    3. How could this failure have been avoided?
- Markers (that work) (10)
- Adhesive tape (or, some sort of solution for displaying five flip over sheets

3.2.2. Part 2: Optimization of TRM execution at the beel / polder level

After a short introduction in which we present our objectives and the format of the session pertaining to part 2, we proceed as follows with a second scenario evaluation (particularly, a *pre-mortem*) exercise.

1. Stakeholders are divided in three groups. Each group is presented with a set of separate options that based on our research appear feasible and optimal to us (in terms their technical implementation). The set of options regards **the optimization of TRM in a particular polder in terms of amount of sediment deposited and the even distribution thereof**. The options vary in terms of polder size and layout, number and kind of inlets, and number and kind of gates and the operation thereof. We first ask participant to (i) 'design' the optimal (polder or *beel* level) TRM implementation scheme, and to (ii) explain us as detailed as they why they think this is the best way to go about. We explicitly ask people to think about the *technical* and the *governance* design (10 minutes).
2. We then ask each group to consider the hypothetical scenario that – in spite of having selected what now seems a promising option – in 10 years from now it turns out that it was *the wrong choice after all*. Stakeholders are asked to deliberate about the potential reasons and causes of this failure in a detailed a realistic manner: *What went wrong?* (15 minutes)[2].
3. We then proceed by asking the break-out groups to answer the question: How could the failure have been avoided? (15 minutes)
4. Break-out groups present their results in a plenary session (30 minutes), and results will be compared (20 minutes)

This is what the three sheets required for the session would more or less look like (if possible translated into Bangla):

What does an optimal implementation of TRM at the polder level look like in your view? (technical and governance related)	
Characteristics • •	Reasons for choosing • • • Etc.

Imagine your design failed, what could have been the reason?	
Area 1. 2. 3. etc.	Details/explain 1. 2. 3.

How could the failure have been avoided	
1. 2. 3. etc	1. 2. 3. etc.

Required materials

- Maps of *beel* Pakimara (5)
- 15 flip-over sheets (5x3), each one corresponding with the subsequent topics of the session (see above):
    1. Optimal rotation scheme (characteristics? Reasons for choosing)
    2. What went wrong? (area, details)
    3. How could this failure have been avoided?
- Markers (10)
- Adhesive tape (or, some sort of solution for displaying five flip over sheets

[2] See footnote 1

3.2.3. Part 3: Better decisions? (OPTIONAL)

In a third and final (optional) session, we proceed as follows:

1. Stakeholders are divided in three groups. Each group discusses the following: What is needed to make better informed decisions about the planning and execution of TRM? They are explicitly asked to address the following: (i) what type of information is required? (ii) what stakeholders should be involved in decision-making about design and implementation of TRM (and how should they be involved), (iii) what are the precise roles and responsibilities of all those involved in making decisions about design and implementation of TRM?, and (iv) what is the need for support (and who should give it)? (15 minutes)
2. Break-out groups present their results in a plenary session (15 minutes), and results will be compared (10 minutes)

This is what the sheet required for the session would more or less look like (if possible translated into Bangla):

Type of information needed (who has it? who should provide it?) (please, rank!)	Stakeholders involved in decision-making (Who? How?)	Responsibilities & roles	Need for support (What type of support? From whom?)
• • • Etc.	• • • Etc.	• • • Etc.	• • • Etc.

Required materials

- Empty flip-over sheets (5)
- Markers (10)
- Adhesive tape (or, some sort of solution for displaying five flip over sheets

At the end of the session, all participants are kindly asked to fill out a brief questionnaire.

3.3. Participants

Name	Gender	Organization	Type	Designation
H.M Alauddin	Male	Daily Purbanchal	Newspaper	Journalist
Dipanker Roy	Male	the daily Star	Newspaper	Khulna correspondent
Gouranga Nondi	Male	Daily kaler Kantha	Newspaper	Khulna correspondent
Anwarul Kadir	Male	Sundarban Academy, Akberabad Estate, Farazipara, Khulna	Civil Society	Executive Director
Sheikh Selim Akter Swapan	Male	Beel dakatia Sangram Parisad	Civil Society	Social Worker
Akteruzzaman Sohel	Male	Dumuria Khulna	Civil Society	
Hashem Ali Fakir	Male	Chuknagar College	College	Professor
Md. Abu Saeed	Male	District Fishery Office	Government	District Fisheries officer, Khulna
Deepanker Chandra bala	Male	Department of Agricultural Extension , Khulna	Government	Agricultural engineer
Md. Harun or Rashid	Male	Department of Agricultural Extension , Khulna	Government	Agricultural engineer
Md. Mahedi Al masud	Male	Department of Social Services	Government	Placement & Rehabilitation officer
Pankaj Kanti Majumder	Male	DD (Deputy Director)	Government	Department of Agricultural Extension , Khulna
Mr. Mahfuzur Rahman Mukul	Male	Bangladesh Environmental Lawyers Association, Khulna	Lawyers association	Coordinator
Momotaz khatun	Female	Ashroy foundation, Khulna	NGO	Executive Director
Md. Mizanur rahman	Male	Ashroy foundation, Khulna	NGO	Program manager
Mr. Dilip kumar Sana	Male	Uttaran	NGO	Project officer
Sheikh Nazmul Huda	Male	Jagrata Juba Sangha, Khulna	NGO	APC
ATM Zakir Hossain	Male	Jagrata Juba Sangha, Khulna	NGO	Executive Director
Masud Khan	Male	Jagrata Juba Sangha, Khulna	NGO	RA
Ali Haider	Male	Jagrata Juba Sangha, Khulna	NGO	RA

Mr. M Mofidul Haque Litu	Male	Jalalpur Union	Political Leader	Chairman, Jalalpur Union, Tala
Ela ganguly	Female	Polder-30, Blue Gold program	Project	General Secretary
Dr. Frank van Laerhoven	Male	Geosciences, Utrecht University, the Netherlands	University	Professor
Dr. Muhammad Shah Alam Khan	Male	IWFM, BUET	University	Professor
Dr. Sanchayan Nath	Male	Post-Doc Fellow, Utrecht University	University	Researcher
Md. Feroz Islam	Male	Utrecht University	University	PhD student
Eugine Abhishek Rodrigues	Male	IWFM, BUET	University	Post Graduate Student
Nazeat Ameen Iqra	Female	IWFM, BUET	University	Post Graduate Student
Mukta Dutta	Female	Khulna University	University	RA
Shamim Reza	Male	Khulna University	University	RA
Rashed uz Zaman	Male	Khulna University	University	RA
Nishat Sharmin	Female	Khulna University	University	Student
Nazmul Sowd Niloy	Male	Khulna University	University	Student
Mr. Abm Shafiqul Islam	Male	Central Water Committee, South west region	Water Committee	President
Mir Zillur Rahman	Male	Tala Upazilla Water Committee	Water Committee	Secretary

4. Local level workshop

On November 3 and 4, local stakeholder workshops will be organized in *beel* Pakimara and *Beel* Khuksia

4.1. Objectives

The first overall objective of the workshop in at the local level identify ingredients for DST tool that in sessions with local users can be used to support discussions regarding the design and planning of TRM. The second general objective is to increase commitment to and awareness of the process of developing an accurate and relevant DST. More in particular, we aim to achieve the following objectives:

Types of decisions	**Local level**	
Physical implementation of TRM	Optimization of TRM in terms of amount and even spread of sediments	Validation of knowledge on the physical part of TRM: Do residents think model outcomes are valid, accurate and complete?
Governance and conflicting interests	Within polder/*beel* differences in preferences for salt/fresh water; Availability of alternative livelihood options during TRM implementation	Testing awareness of mutual interests between different stakeholders.

4.2. Format

After a short introduction in which we present the our objectives, we proceed as follows:

1. Participants in the workshop will be divided in 3 groups. Each group receives 3 scenarios of a TRM plan at the local level, that vary in terms of the number and kind of inlets, the number and kind of gates, the length of the period that the polder is subject to TRM and whether TRM requires complete or partial evacuation. The scenarios are based on the output of the model prepared by the project. They will be explained in simple terms with the help of print-outs of maps
2. Groups are asked to consider each of the three scenarios and judge which are in their eyes the best. They are asked to explain why.
3. After having selected the most preferred plan, the group members are asked to discuss who in the community would be against it and protest. Why would they protest? How strongly would they oppose this plan?
4. Finally, group members are asked to (briefly) report back in a plenary session and particularly discuss how protest can be prevented.

At the end of the session, participants are kindly asked to fill out a brief questionnaire (or alternatively, they will be interviewed).

4.3. Participants

Selected with the following criteria in mind:

- School teachers
- 50-50 male-female gender balance amongst participants in the stakeholder meetings
- Include livelihood groups that sometimes get missed out: employees/employers of brick-factories, drivers, workers in mills, migrants, etc.
- Elites: powerful landlords, owners of shrimp farms, etc.
- Avoiding the involvement of "workshop tigers" (i.e. the usual suspects)

Beel Pakhikmara

First name	Last name	Gender	Profession
Md. Khalilur	Rahman	Male	Local School teacher
Md. Amirul	Islam	Male	Local School teacher
Sheikh Amirul	Islam	Male	Fisherman
Arshad	Morol	Male	Fisherman
Milton Kumar	Kashyapi	Male	Land Owner
Sheikh Imadul	Haque	Male	Land Owner
Habibur	Gazi	Male	Gher Owner
Latika	Ghosh	Female	Gher Owner
Tozam	Morol	Male	Brick field Labourer
Rashida	Begum	Female	Brick field Labourer
Amor	Ghosh	Male	Farmer
Shipra	Ghosh	Female	Farmer
Sattar	Gazi	Male	Van Driver
Sirazul	Islam	Male	Van Driver
Korimon	begum	Female	Day Laborer
Azma	Begum	Female	Day Laborer
Tofez Uddin	Morol	Male	Local Leader
Mozammel	Haque	Male	Local Leader
Mamtaz	Begum	Female	House wife
Saleha	Begum	Female	House wife

Beel Khuksia

First name	Last name	Gender	Profession
Mafizur	Rahman	Male	Social Worker
Atiar	rahman	Male	Retired School teacher
Liakat	Ali	Male	Union Council Member
Farida	Begum	Female	Union Council Member
Kohinur	Khatun	Female	Union Council Member
Sharmin	Akhter	Female	Housewife
Nadira	Begum	Female	Land owner
Barindranath	Mondol	Male	Retired School teacher
Sujit	Halder	Male	Union Council Member
Aravinda	Mondol	Male	Retired Government Officer
Kalipada	Mondol	Male	Farmer, Social Worker
Sujata	Sarker	Female	Fisherwoman
Shapla	Khatun	Female	Union Council Member
Haripada	Mondol	Male	Farmer, Social Worker
Manaranzan	Mondol	Male	Gher Owner
Ranjan	Mondol	Male	land Owner
Suvas kanti	Mondol	Male	Gher Owner
Sudhakar	Mallick	Male	Community Clinic officer
Goutam	Mondol	Male	Van Driver
Prtabhas Chandra	Mondol	Male	Farmer
Vivekananda	Mondol	Male	Farmer
Jagatosh	Mondol	Male	Gher Farmer & Business