



Living Polders: Dynamic Polder Management for Sustainable Livelihoods, Applied to Bangladesh

**Field Visit Report on
Visit to Beel Pakhimara: Water sampling, soil sampling and meeting with
different stakeholders (Fourth Field Visit)**

Conducted during: 4th to 11th November, 2017

Conducted by:

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General Information

Project Name: Living Polders: Dynamic Polder Management for Sustainable Livelihoods, Applied to Bangladesh

Date of Visit: 4th to 11th November, 2017

Visited Places

- Khulna University and Tala Upazila, Shatkhira (4th November)
- Contacted with Uttaran, Local Agricultural officer (5th November)
- Kobadak River, Spring Tide Sampling (6th November)
- Beel Pakhimara, Water and Soil sampling, Beel Bottom Measurement (7th November)
- Beel Pakhimara, Water and Soil sampling, Beel Bottom Measurement (8th November)
- KII, FGD and meeting with Sub-assistant Agricultural Officers of Jalalpur and Khesra Union of Tala Upazila(9th November)
- Beel Pakhimara, Neap Tide Sampling (10th November)
- Khulna University (11th November)

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Introduction

With the continuation of water sample collection in the river,

This field visit was aimed

- (i) To collect water samples during spring and neap tide,
- (ii) To meet with local agricultural officers and local Bangladesh Water Development Board (BWDB) officials
- (iii) To collect water samples and measure the bathymetry of Pakhimara beel and
- (iv) To get an idea of local peoples thought about sediment management inside the beel.

Description

4th November: We have been to Khulna University to collect all the necessary equipment and left for Tala, Satkhira. After reaching there we did a reconnaissance survey of the sampling locations and Beel area for suitable equipment setup.

5th November: We met with Uttaran field officials Mustaq Ahmed, Milton Das and Partho Protim and discussed the agricultural practices, economic activities before and after TRM, and siltation status inside the beel. We also have discussed about local people's perception and their concerns about TRM.

6th and 10th November: To see the variation in physical parameters of river water in spring and neap tide, 42 samples were collected each day at a one hour interval from 9.00 in the morning to 10.00 at night. To understand the vertical distribution of the sediment concentration, sampling was done at 0.2, 0.6 and 0.8 depth of water level from surface. Sampling location for spring is 22.6675704, 89.2618628 and for neap is 22.667918, 89.261565. For Spring tide the higher maximum water level measured 7.4m and minimum is 4.7m whereas for neap tide these are 6.1m and 4.4m at the mid-stream. We also have collected some soil samples from the bank of the river.

7th and 8th November: To get a clear understanding about the beel bathymetry, an extensive measurement inside the beel was carried out on 7th, 8th and half day of 9th November, where some water samples and soil samples were also collected from different points.

9th November: After starting the TRM operation there were some issues involving displacement of some of the locals and getting crop compensation. To point out those issues some key informant interviews and one group discussions were organized, where the focus group was the locals having land inside the beel. The discussion were concentrated on cropping pattern prior TRM and their thoughts about different sediment management options for rapid siltation and even land surface rise inside the Beel area.

Meeting with Sub-assistant Agricultural Officers of Jalalpur and Kleshra Union, where Beel Pakhimara is located, given the insight about quondam practices.

Discussion

Inside the Beel area some of the places were inaccessible due to temporary nets to confine the aqua culture farms. The far end of the beel has no significant influence of tide so that no flow direction was observed. There are so many small dykes, which were principally used as road ways before TRM operation, inside the beel submerged, may have significant impact on flow velocity reduction. The other two link canal mouth are closed, which are connected to Shalika River as well as 15 vent Shalika River sluicgate also remain closed.

For sediment management, local people opine to redirect the flow from Kobadak through first link canal to the far end of the beel by extending as well as to use the other two link canal.

Concluding Remarks

All the event have gone as planned. The samples collected from Kobadak River and Beel were sent to Khulna University for laboratory testing. Images of the field visit were uploaded to the archive link: <https://tinyurl.com/4thFieldVisitImage> .



Figure: A vignette of points where beel bathymetry were measured (Map Source: Google)



Figure: Sampling location in Kobadak River
(Spring 22.667570, 89.261863 and Neap 22.667918, 89.261565)



Figure: Soil Sample Collection



Figure: Water Sample Collection.



Figure: Measurement of Flow Velocity



Figure: Net compartment inside the beel for aquaculture.



Figure: Compartment made for aquaculture inside beel.



Figure: Silted up land



Figure: Silted up land



Figure: Structure inside the beel made by Local Fish farmers.



Figure: Dyke of 1st link canal.



Figure: Group discussion with land owners inside the beel.



Figure: One of the displaced families living on the embankment.

Fourth Field Visit Plan

Date	Descriptions	Remarks
3 rd November Friday	Leaving for Khulna	
4 th November Saturday	Arriving Khulna, equipment testing	
	Leaving for Tala, Managing boats, Equipment set up,	
5 th November Sunday	Spring tide Sampling	
6 th November Monday	Contact with Uttaran, Local BWDB and Agricultural officer	
7 th and 8 th November Tuesday and Wednesday	Sampling and measurement inside Beel	
9 th November	KII and FGD in Beel Area people (TRM scenario, Agriculture)	
10 th November Friday	Neap tide sampling	
11 th November Saturday	Leaving for Khulna	

Contact List

Name	Designation	Contact No.
Md. Samsul Alam	Agricultural Officer, Tala Upazila	01710726286
Md. Shohidul Islam	Sub Assistant Agricultural Officer, Magura Union, Tala Upazila	01740998526
Md. Golam Mostafa	Sub Assistant Agricultural Officer, Jalalpur Union, Tala Upazila	01736588690
Md. Mujibor Rahman	Local people	01970490999
Towhid Sana	Employee, Uttaran	01780478778
Md. Ohab	Employee, Uttaran	01935029220
Akter	Boatman	01983120600
Aziz	Boatman	01933198589
Didar	Boatman	01982696653
Sonaton	Rickshaw Puller	01943874103
Unknown	Rickshaw Puller	01860880477
Unknown	Rickshaw Puller	01921452627
Razzak	Mahendra Driver	01928846329