



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

Field Visit to Beel Bhaina, Beel Khuksia, and Beel Pakhimara: Sediment and water Sample Collection (Tenth Field Visit)

Conducted during: 17 – 21 July, 2018

Prepared by

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General Information

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

Date of Visit: 17 – 21 July, 2018

Visited places:

- Beel Bhaina, Jashore (18 July)
- Khulna University Laboratory (19 July, 20 July)
- Beel Khuksia, Jashore (20 July)

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Introduction

To understand the variation in nutrient content and soil composition of the deposited sediment and water quality, it is needed to collect and analyze these from different locations in different seasons of the year. In this field visit, we have collected wet season samples.

The field visit was aimed to collect deposited sediment and water samples at different points of to Beel Bhaina, Beel Khuksia, and Beel Pakhimara.

Description

Sediment and water sample collection (18 and 20 July)

On 18 July, we explored Beel Bhaina and collected sediment samples from 10 different points (both beel and Hari River). We also took 5 water samples for analyzing nutrient contents and quality. Water samples were collected from beel, river and boring.

From Beel Khuksia, on 20 July, we collected sediment (from 8 points) and water (from 5 points) samples in the same way for further analysis. As there were no boring water supply, we collected two samples from shallow tube wells.

In total, about 45 sediment samples and 10 water samples were collected. We took one soil profile from each of the beels.

Laboratory work (19 and 20 July)

On 19 July, we planned to collect samples from Beel Pakhimara, Shatkhir. As there was high water level inside the beel, considering the inconvenience to sampling, we didn't go there. So we decided to work in the Laboratory, Khulna University. We separated weeds and unwanted materials from the previously collected soil samples and let it dry in the open air.

After collecting samples from Beel Khuksia on 20 July, we took the samples to the Khulna University and soil samples were let dry in the open air. Water samples were separated and kept aside for analysis.

Discussion

Due to heavy rainfall and drizzling, the embankments of the study area became muddy and we faced difficulty moving around the beels. At some points, specific sampling locations were drowned and we couldn't take samples from there.

Photos



Image 1: Muddy Embankment in Beel Bhaina



Image 2: Soil Profile in Beel Bhaina



Image 3: Water Temperature Measurement in Beel Khuksia



Image 4: Water sample Collection in Beel Khuksia

Annex

Field visit Plan

Date	Descriptions	Remarks
17 July 2018	Leaving for Khulna	
18 July 2018	Arriving in Khulna and Sampling in Jashore	
19 July 2018	Sampling in Shatkhira	
20 July 2018	Sampling in Jashore and Leaving for Dhaka	
21 July 2018	Arriving in Dhaka	