Government of the People's Republic of Bangladesh

Ministry of Water Resources

Bangladesh Delta Plan 2100, Formulation Project

User Manual

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1.1 Introduction

The Bangladesh Delta Plan 2100 Formulation Project is led by the General Economics Division of the Bangladesh Planning Commission and was launched in August 2014 supported by the Government of the Netherlands. Delta Plan 2100 is a long-term, holistic and integrated plan for the Bangladesh delta. Long-term is considering goals for the next fifty to one-hundred years. Holistic is bringing together strategies for the country as a whole. Integrated is considering the needs of all water-related sectors in a single plan. The formulation of the Bangladesh Delta Plan 2100 draws on experience from the Delta Plan formulation process in the Netherlands. The Delta Plan formulates Strategies both on the national level and on the level of Hotspots. Strategies form coherent sets of measures to achieve the Delta Vision and are tested against developed Scenarios for robustness in a changing Bangladesh.

Bangladesh is the largest delta of the world. Its rivers and floodplains support life, livelihoods and economy. Over 160 million people live in an area of about 147 570 square kilometers. The country is defined by the delta, with almost a third of the country lying less than five meters above sea level.

The Bangladesh Delta Plan 2100 enables the Bangladesh government to integrate short-term, medium-term and long-term planning and takes into account the effect of delta management on all sectors, empowering Bangladesh to make optimal, efficient use of limited resources. It enables the Bangladesh government to integrate climate change adaptation and plan for a future delta that ensures water safety, food security and economic growth. By employing adaptive delta management, Bangladesh becomes able to conduct robust planning in the context of a rapidly changing environment.

A comprehensive database system and a knowledge portal is required to support the planners in participatory and interactive planning process for ensuring adaptive management of Bangladesh Delta. The overall objective of the knowledge portal is to develop a common and inclusive database on water, land and related natural resources as well as collected and generated knowledgebase information in support of the preparation, implementation and dissemination of the Bangladesh Delta Plan.

1.2 Components

The knowledge portal (Figure 1.1) consists of four major components. They are as follows:

1. *Home*
2. About Us
3. BDP Documents
4. BDP Tools and Data
5. *BDP Conference*
6. *Contact*

1.2.1 Home

This page contains an overview of the Knowledge Portal. The user can also navigate to other components from this page.

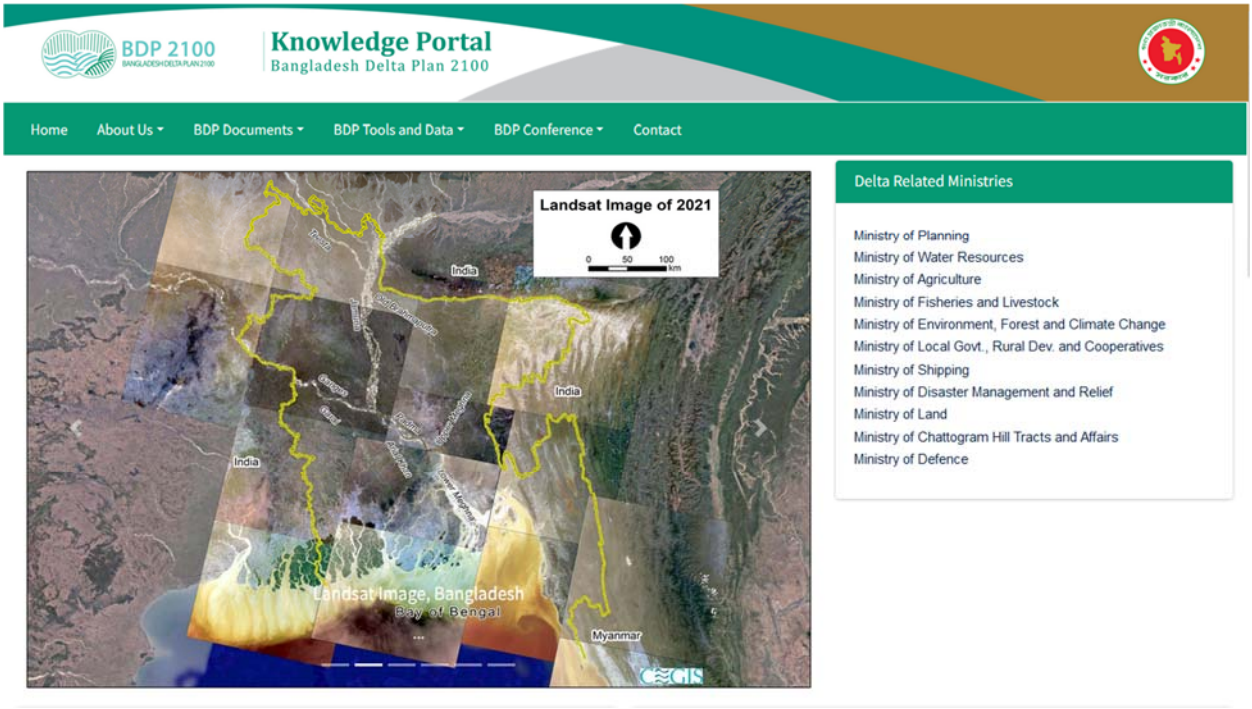


Figure 1.1: Home Page

1.2.2 About Us

This page contains an overview of the information of Knowledge Portal. The user can also navigate to information about the organizations. The About Us consists of two sub menu. They are as follows:

1.2.2.1 Bangladesh Delta Plan 2100

This page contains an overview of the information of Bangladesh Delta Plan 2100.

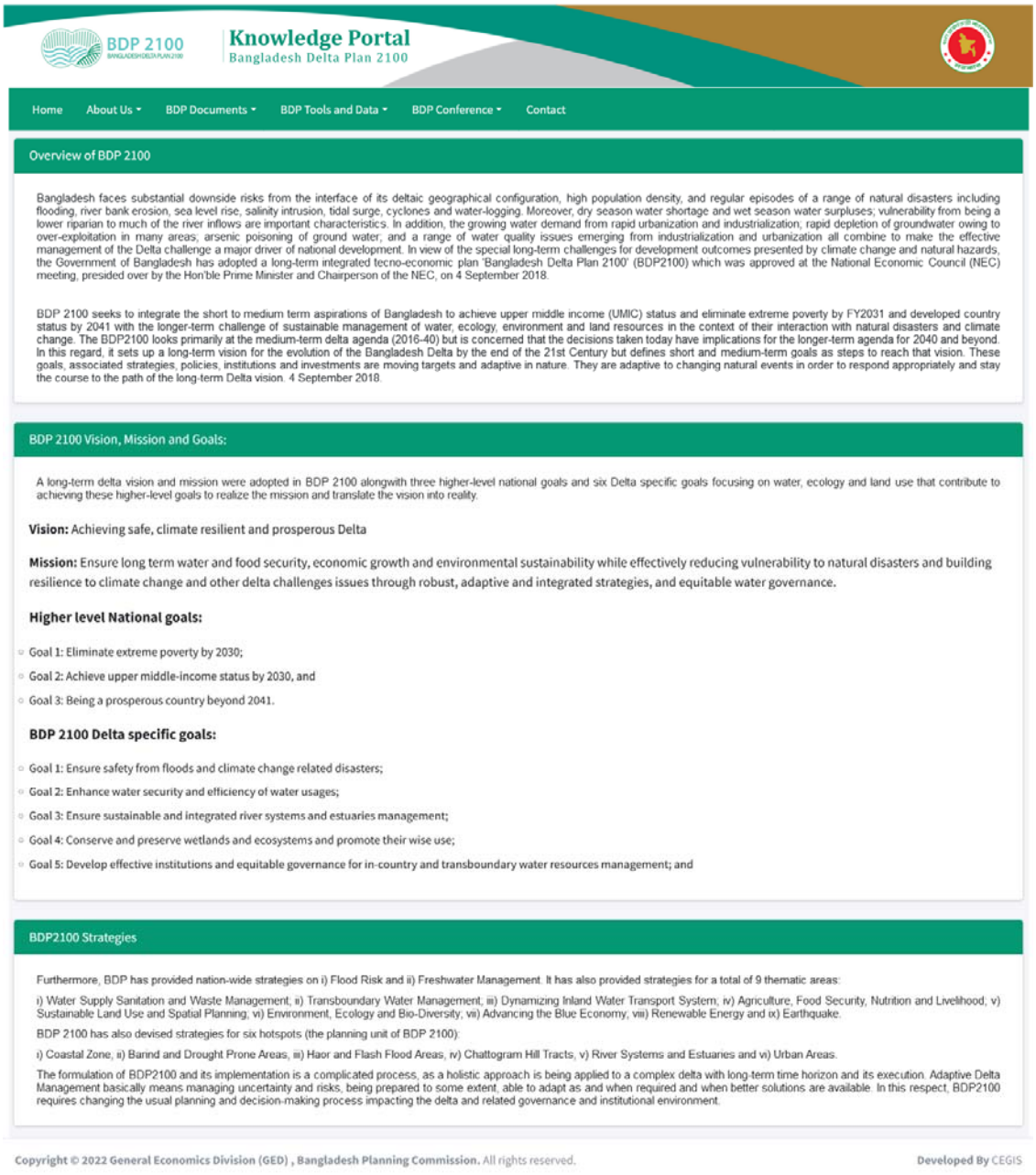


Figure 1.2: Bangladesh Delta Plan 2100

1.2.2.2 SIBDP Projects

The SIBDP Projects consists of seven sub menu. They are as follows:

a) SIBDP Overview

This page contains an overview of the information of SIBDP Projects.

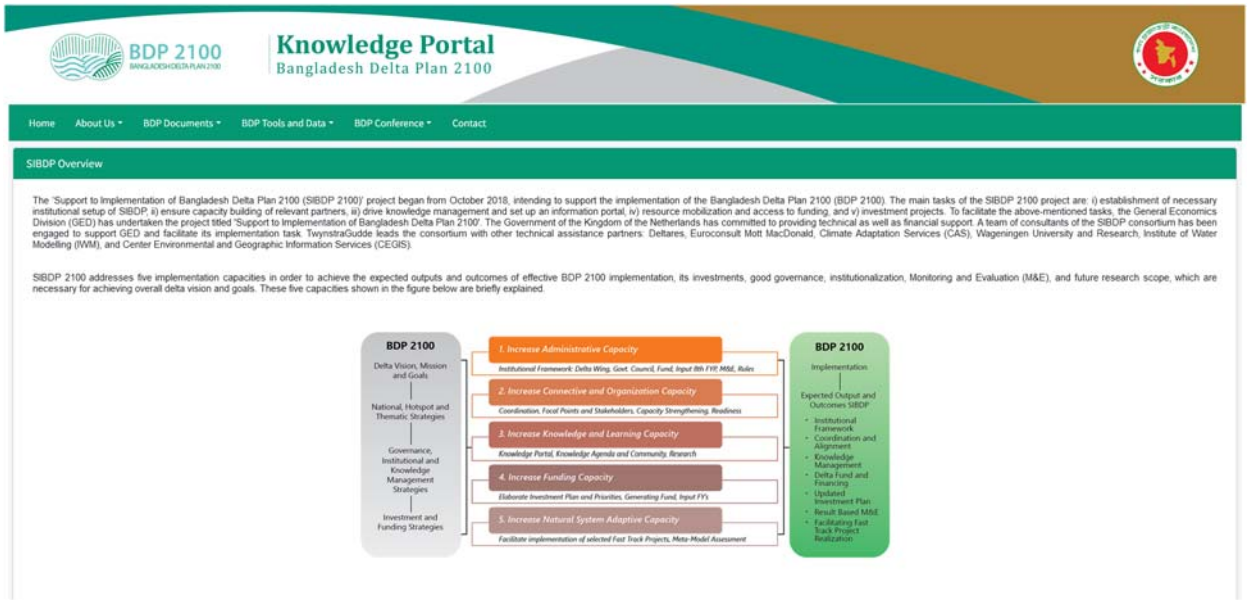


Figure 1.3: SIBDP Overview

a) Delta Governing Council (DGC)

This page contains an overview of the information of Delta Governing Council (DGC).

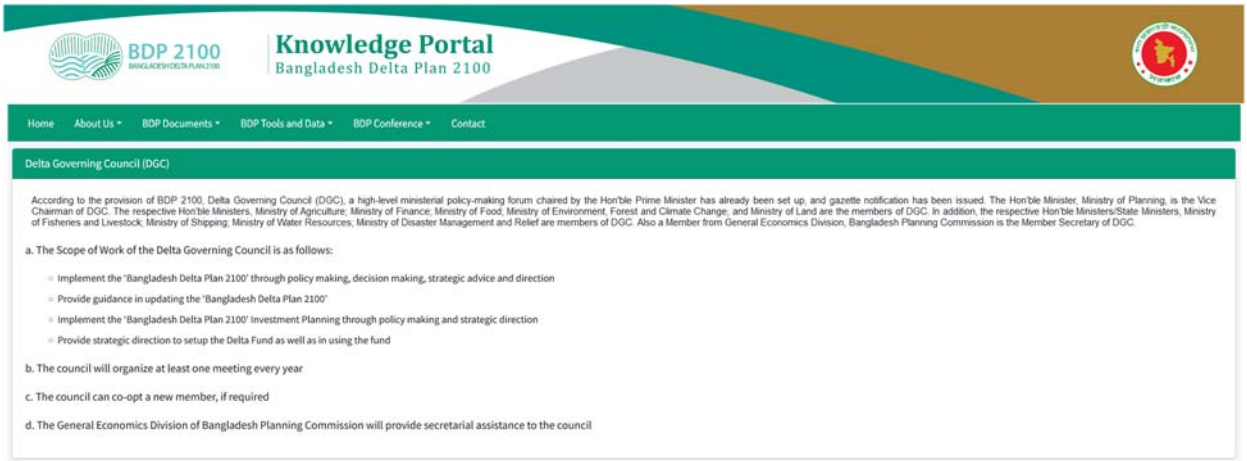


Figure 1.4: Delta Governing Council (DGC)

b) Guiding and Advisory Committees

This page contains an overview of the information of Guiding and Advisory Committees.

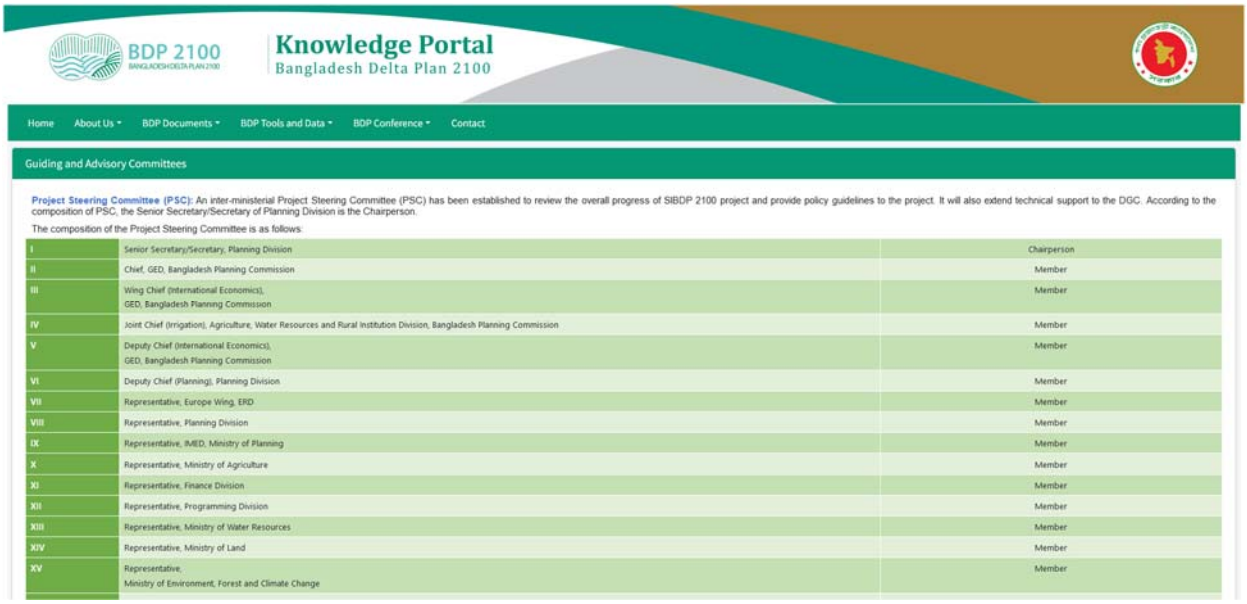


Figure 1.5: Guiding and Advisory Committees

c) Project Management Unit (PMU)

This page contains an overview of the information of Project Management Unit (PMU) .

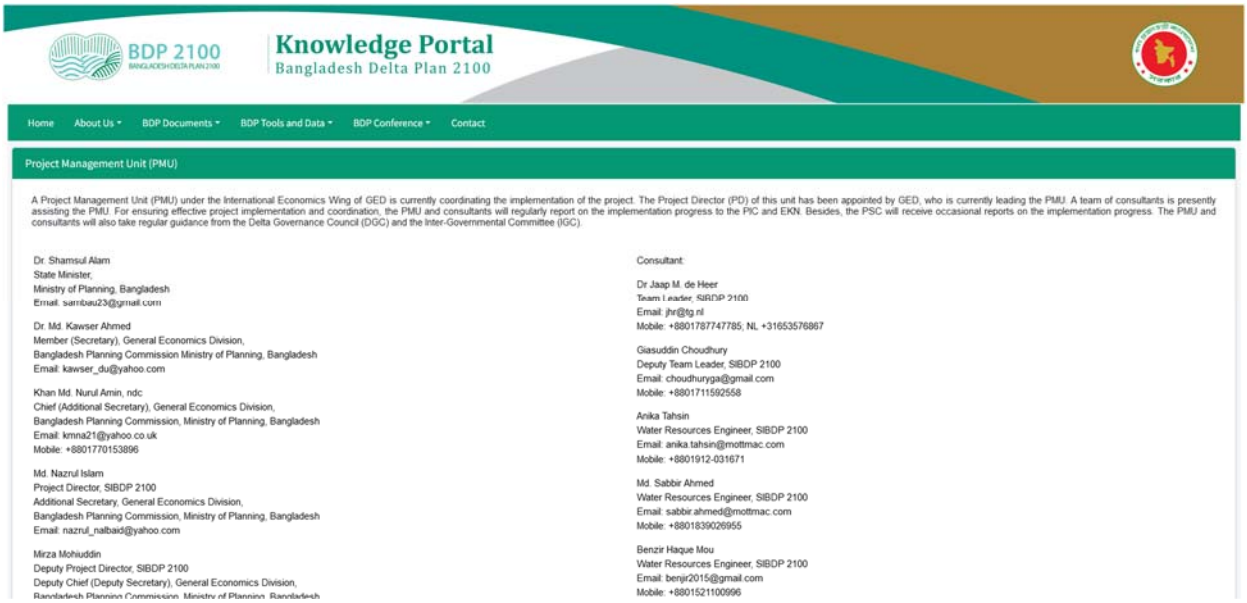
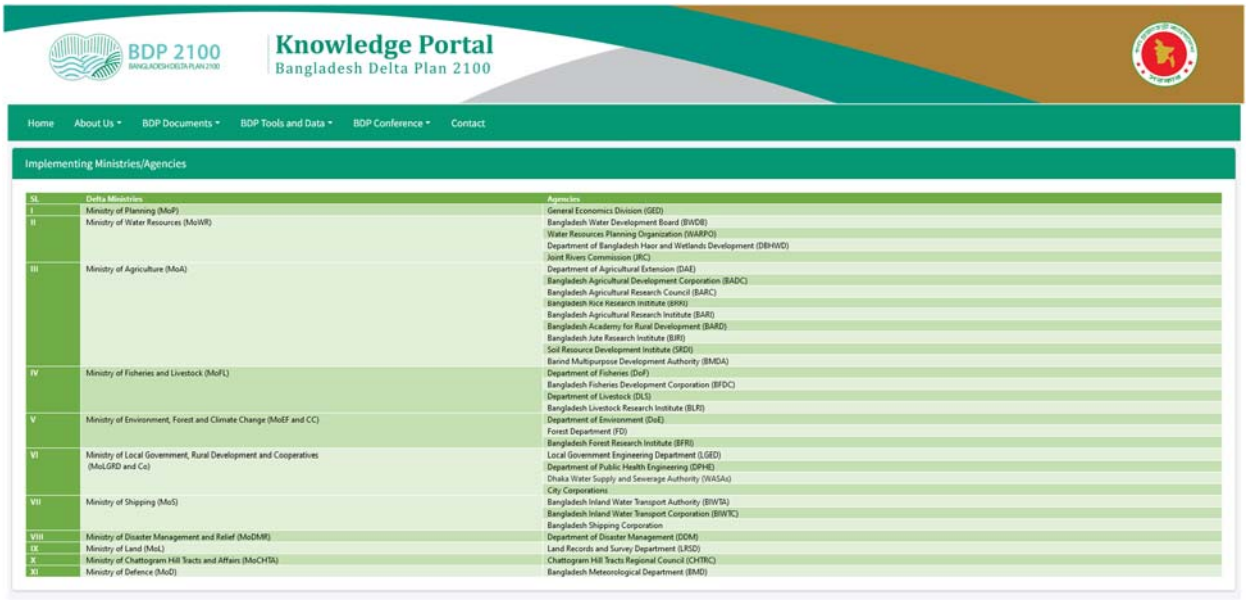


Figure 1.6: Project Management Unit (PMU)

d) Implementing Ministries/Agencies

This page contains an overview of the information of Implementing Ministries/Agencies .



Sl.	Delta Ministries	Agencies
I	Ministry of Planning (MoP)	General Economics Division (GED)
II	Ministry of Water Resources (MoWR)	Bangladesh Water Development Board (BWDB)
		Water Resources Planning Organization (WARPO)
		Department of Bangladesh Haor and Wetlands Development (DBHWD)
		Joint Rivers Commission (JRC)
III	Ministry of Agriculture (MoA)	Department of Agricultural Extension (DAE)
		Bangladesh Agricultural Development Corporation (BADC)
		Bangladesh Agricultural Research Council (BARC)
		Bangladesh Rice Research Institute (BRRI)
		Bangladesh Agricultural Research Institute (BARI)
		Bangladesh Academy for Rural Development (BARD)
		Bangladesh Jute Research Institute (BJRI)
		Soil Resource Development Institute (SRDI)
		Barind Multipurpose Development Authority (BMDA)
IV	Ministry of Fisheries and Livestock (MoFL)	Department of Fisheries (DoF)
		Bangladesh Fisheries Development Corporation (BFDC)
		Department of Livestock (DLS)
		Bangladesh Livestock Research Institute (BLRI)
V	Ministry of Environment, Forest and Climate Change (MoEF and CC)	Department of Environment (DoE)
		Forest Department (FD)
		Bangladesh Forest Research Institute (BFRI)
VI	Ministry of Local Government, Rural Development and Cooperatives (MoLGRD and Co)	Local Government Engineering Department (LGED)
		Department of Public Health Engineering (DPHE)
		Dhaka Water Supply and Sewerage Authority (WASAs)
		City Corporations
VII	Ministry of Shipping (MoS)	Bangladesh Inland Water Transport Authority (BIWTA)
		Bangladesh Inland Water Transport Corporation (BIWTC)
		Bangladesh Shipping Corporation
VIII	Ministry of Disaster Management and Relief (MoDMR)	Department of Disaster Management (DDM)
IX	Ministry of Land (MoL)	Land Records and Survey Department (LRSD)
X	Ministry of Chattogram Hill Tracts and Affairs (MoCHTA)	Chattogram Hill Tracts Regional Council (CHTRC)
XI	Ministry of Defence (MoD)	Bangladesh Meteorological Department (BMD)

Figure 1.7: Implementing Ministries/Agencies

e) Technical Assistance Partners

This page contains an overview of the information of Technical Assistance Partners.

Figure 1.8: Technical Assistance Partners

f) Stakeholder Consultation Workshop

This page contains an overview of the information of the Stakeholder Consultation Workshop.

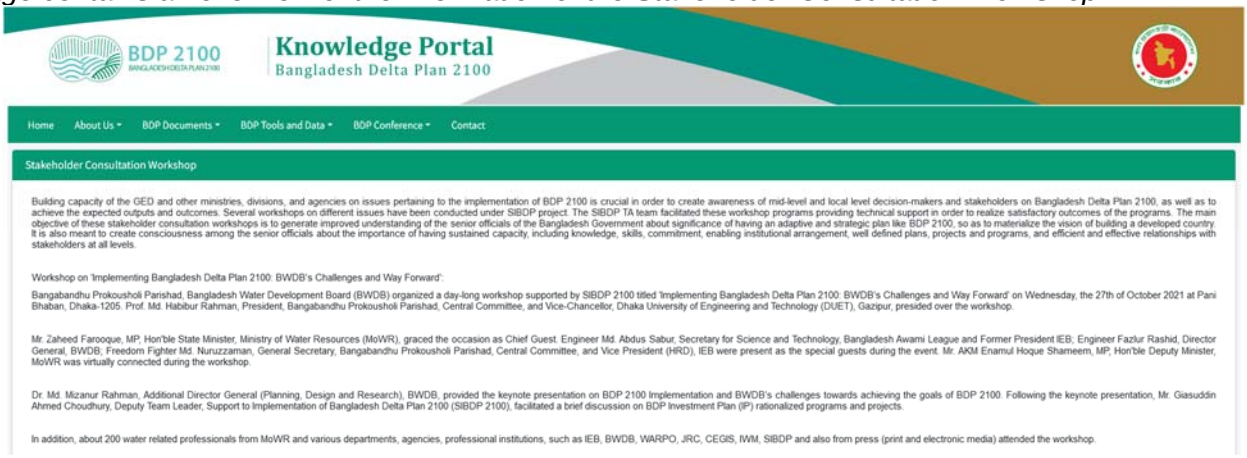


Figure 1.9: Stakeholder Consultation Workshop

1.2.3 BDP Documents

This page contains all the reports and documents about the Delta Plan 2100. The user can also navigate and download from this menu. The BDP Documents consists of four sub menu. They are as follows:

1.2.3.1 BDP 2100 Published Documents:

This page contains report of BDP 2100 Published Documents.

Figure 1.10: BDP 2100 Published Documents

1.2.3.2 SIBDP Project Documents

This page contains report of SIBDP Project Documents.

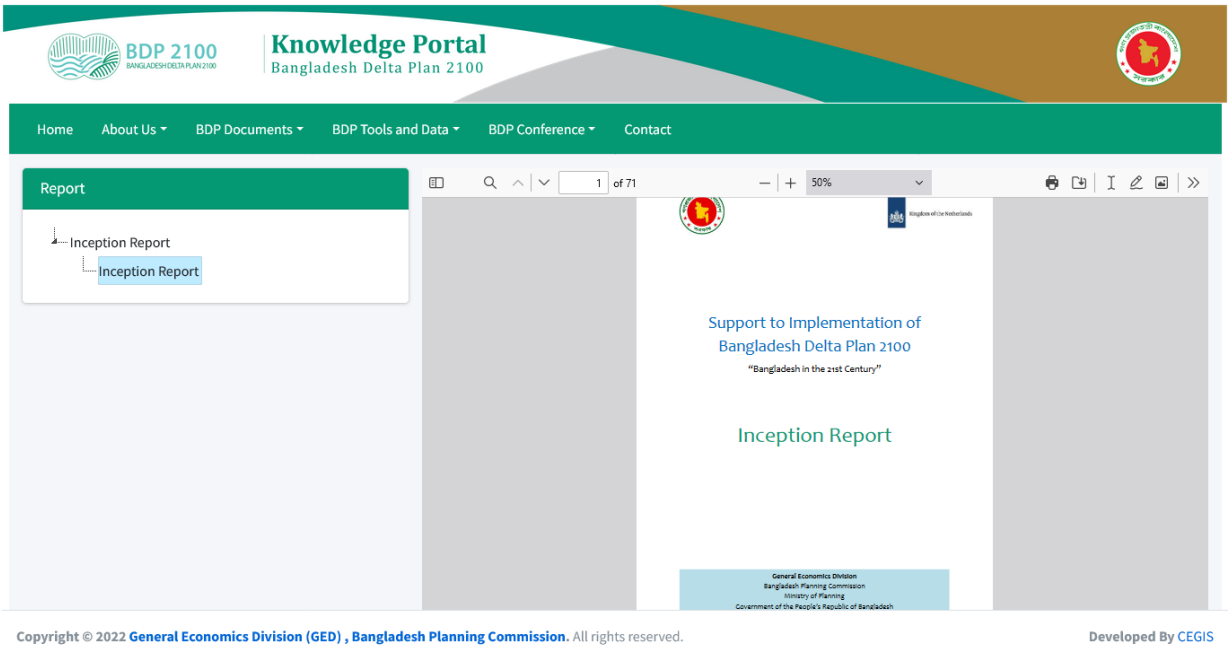


Figure 1.11: SIBDP Project Documents

1.2.3.3 Communication Materials:

This page contains the Communication Materials as in Leaflet.

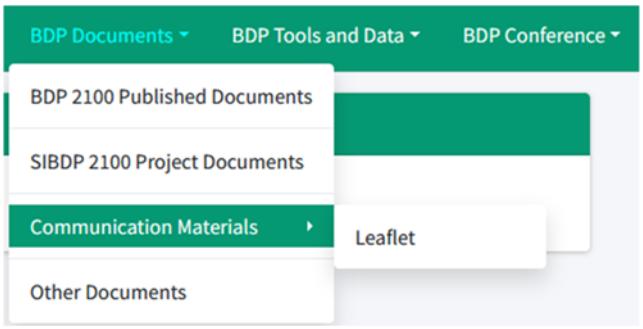


Figure 1.13: Communication Materials

1.2.3.4 Other Documents:

This page contains report of the other Project Documents.

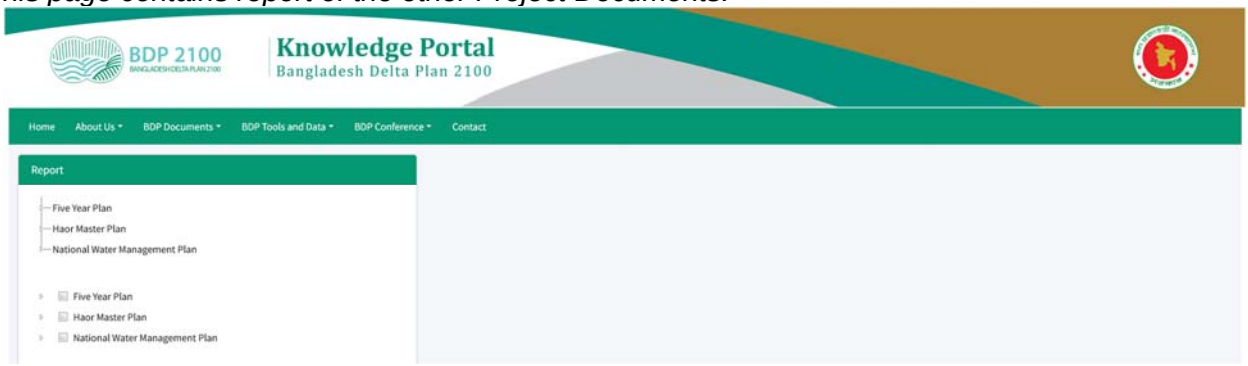


Figure 1.14: Other Documents

1.2.1 BDP Tools and Data

1.2.1.1 Map Viewer:

This is the main component of the portal. This tool has been designed to display spatial and attributes data. Zoom in, zoom out, pan, super imposed and other standard facilities of spatial data viewer has been incorporated into the tool. The Map Explorer also provides facilities to view identity and attribute information of the spatial data layers. The Map Explorer interface contains three separate panels: Left Panel, Middle Panel and Right Panel.

Left Panel, Middle Panel and Right Panel

This panel contains tree of Map Layers and Legend

Table 1.1: Map Data

Data Group	Data layer	
Basic Data	*Coastal Area*	*Regional Road*
	District Head Quarter	*Zilla Road*
	District	*Upazilla Boundary*
	Division	*BIWTA Route*
	International Boundary	*Coastal Line*
Water Resources	*GBM Basin*	*Coastline 1973-2010*
	Embankment	*Channel Jamuna*
	Hydrological Region	*Drainage Map*
	Polder Boundary	*Waterbodies 2010*
	Soil Salinity 2009	*Bankline 2014*
	Arsenic	*Flood Regime Land Type*
	BWDB Project	*Rennels River System*
	Catchment	*River Flood Return Period*
	Transboundary Catchment	*Ground Water Zone*
	Char Land	*Coastline 2010*
	Haor Boundary Type	*LGED Project*
	Haor Boundary	*GBM Basin*
	Irrigation Demand	
Disaster Management	*Seismic Zone*	*Hazard Indics Map*
	Cyclone Risk Area	*SRDI Drought*
	Flood Prone Area	*Drought Map Kharif 1*
	Hazard Area	*Drought Map Kharif 2*
	Flood Zone	*Rabi Drought*
Spatial Planning and Landuse	*Erosion Accretion*	*Dhaka Landuse 2010*
	Hotspot	*General Landuse*
	Physiographic	*Crop Suitability*
	Crop Area	
Environmental Management	*Forest Type*	*Bio-ecological Zone*
	Sundarban Forest Landuse	*Eco - system*
Food Security	*Food Demand*	
Economic Finance	*Poverty 2010*	*Electricity*
	Income	

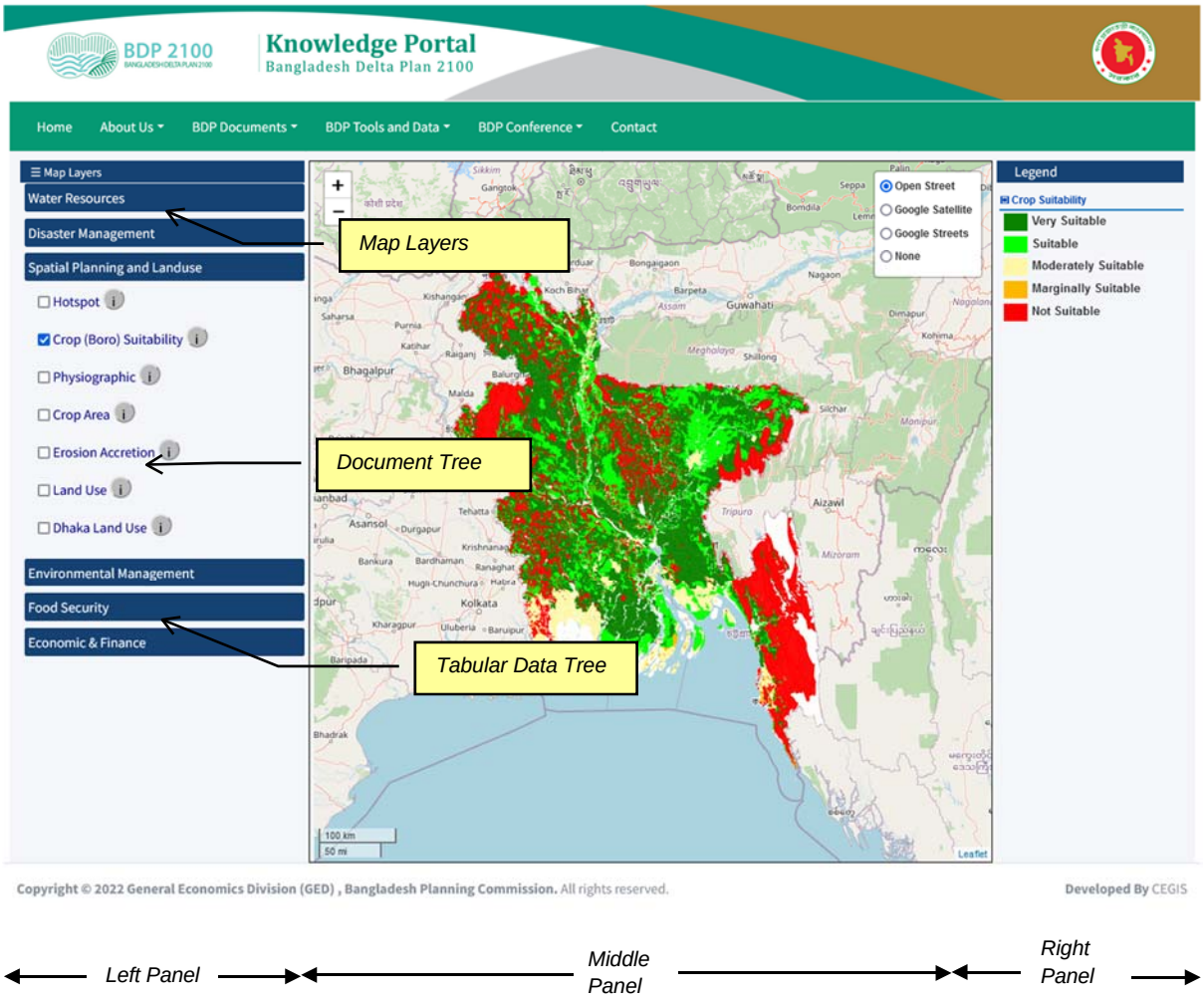


Figure 1.15: Map Viewer

Map Layers

The data available in the database are categorized into different data groups for better management. Each data group contains several data layers. The Spatial Layers Tree contains different data groups as parent nodes and corresponding data layers as child nodes. Table 1.1 shows data groups and corresponding data layers used in the system.

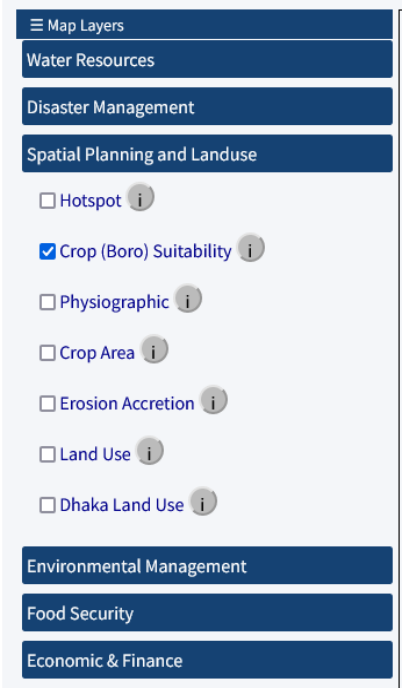


Figure 1.16: Spatial Layers Tree

In order to view spatial data, select Data Layers from the Spatial Layers Tree as follows:

a) Expand a Data Group such as Water Resources node from the Spatial Layers Tree.

b) Select a Data layer such as "Crop Suitability" by clicking the corresponding checkbox.

c) Data (Crop Suitability) will be displayed map in the Middle Panel.

Legend

Legend is information about map which describes the information about the attribute of the data.

Figure 1.17: Legend

Metadata Viewer

Metadata is information about data which describes the content, quality, condition, and other appropriate characteristics of data. Metadata Viewer helps to display metadata of each data layer. This  *shows the metadata of the layer*

OverView :	
Title	Sundarban Forest Landuse
Abstract	The Sundarbans Reserved Forest (SRF) is the largest single forest resource in the country, covering approximately 6 000 sqkm of mangroves .This data layer contains different types of vegetation, species, block number of Sundarbans Reserved Forest.
General :	
Title	Sundarban Forest Landuse
Purpose of Production	It will help too promote and implement a system of biodiversity conservation and sustainable management of forest.
Completeness	The data layer covers sundarban forest area of Bangladesh identified by DoFo.
Quality	Quality of this data layer depends on the data collection process of the source organization.
History of the Dataset	Source of the dataset was produced by Department of Forest. Data was derived from 1:50,000 SPOT satellite imagery, 1989. Amended by using 1:15000 air photography flown by QASco Ltd., 1995 under the Forest Resources Management Project of Bangladesh Forest
Process Description	Data has been collected from Department of Forest into digital format and stored this data layer as it was collected from the Forestry Department.
Type of Dataset	Shapefile
Dataset Language	English
Additional Information Source for the Dataset	

Figure 1.18: Metadata Viewer

In order to view Metadata, click on Metadata icon menu, then select metadata from the new window as Metadata (Sundarban Forest Landuse) will be displayed in the new window.

1.2.1.2 Climate Atlas:

In Climate Atlas shows in this menu and available in the portal. The Climate Atlas (Figure 1.19) contains writeup and interface in this menu.

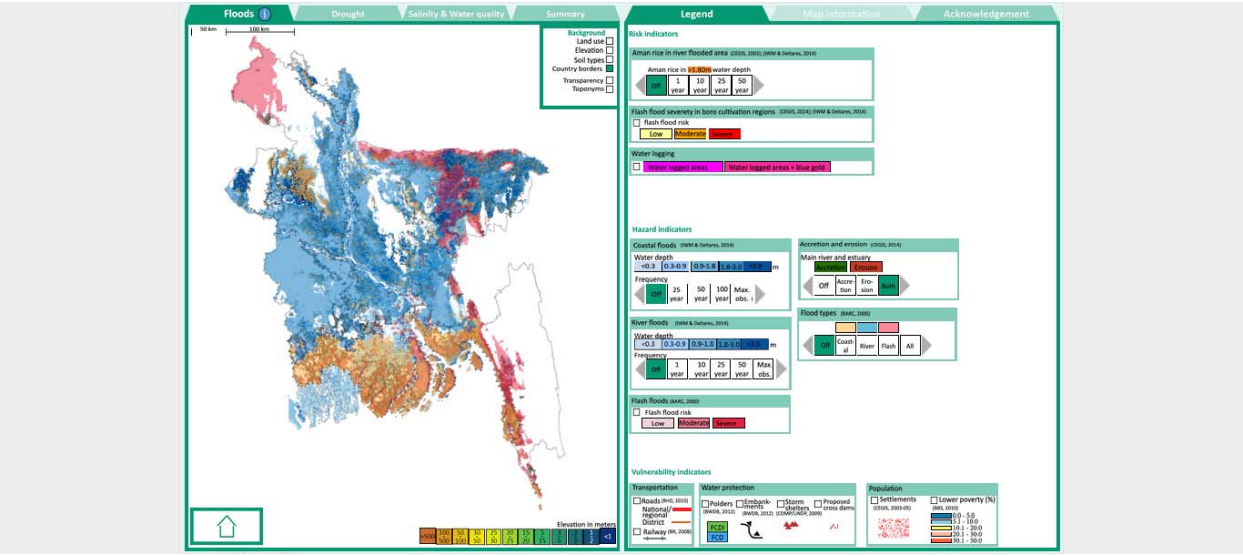


Figure 1.19: Climate Atlas

1.2.1.3 Meta Model

In Meta Model shows in this menu and available in the portal. The Meta Model (Figure 1.20) contains writeup and interface in this menu.

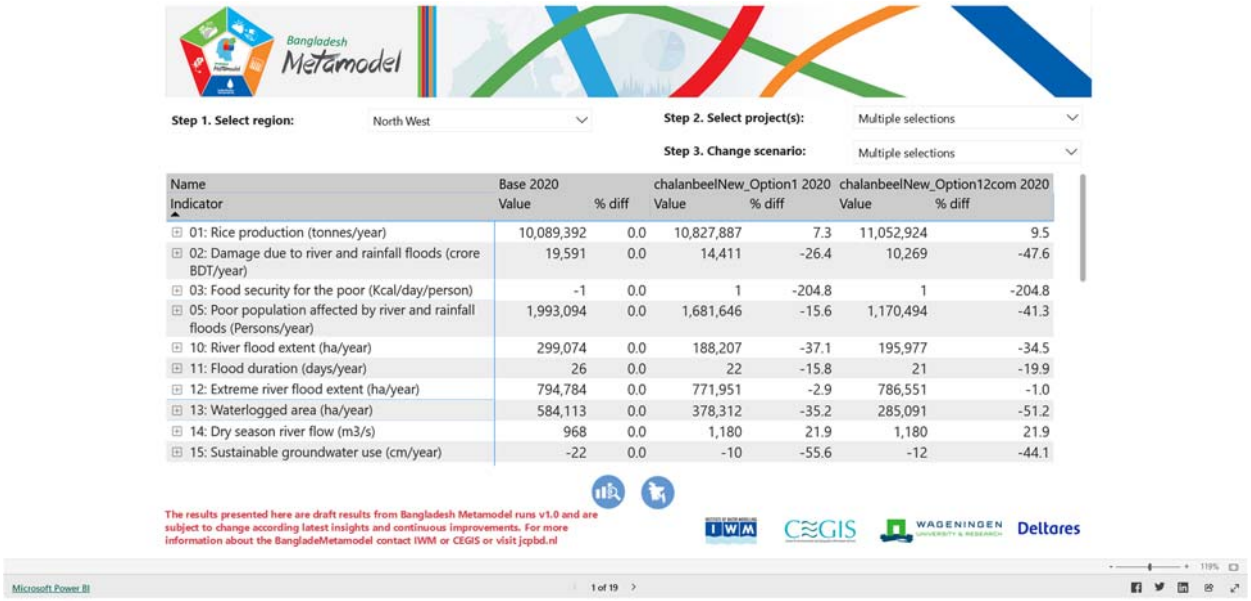


Figure 1.20: Meta Model

1.2.1.4 Urban Resilience

In Urban Resilience shows in this menu and available in the portal. The Urban Resilience (Figure 1.21) contains writeup and interface in this menu.

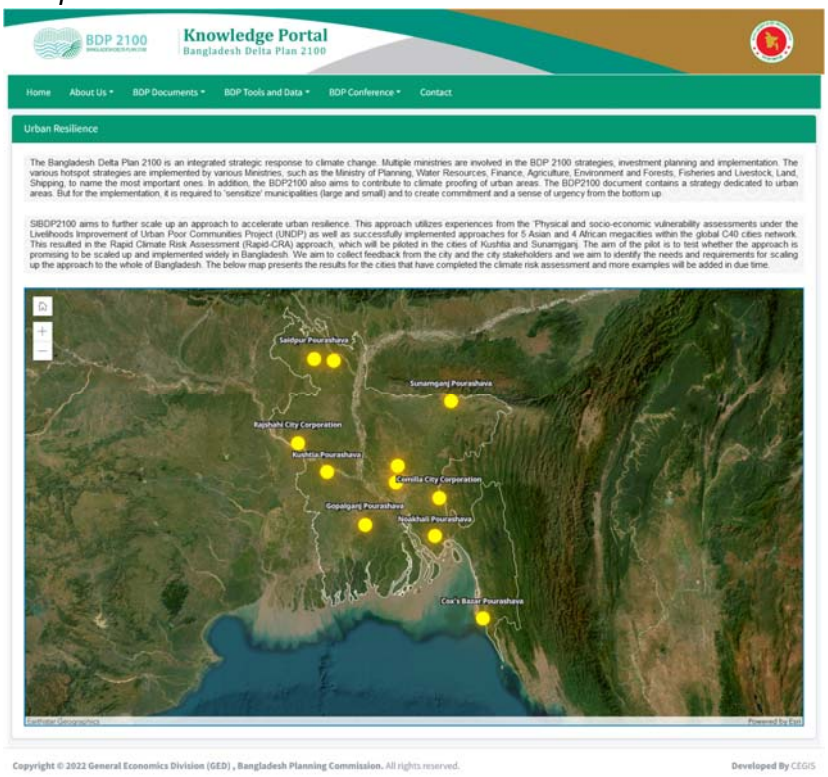


Figure 1.21: Urban Resilience

1.2.1.5 Blue Gold Wiki

In Blue Gold Wiki shows in this menu and available in the portal. The Blue Gold Wiki (Figure 1.22) contains writeup and interface in this menu.

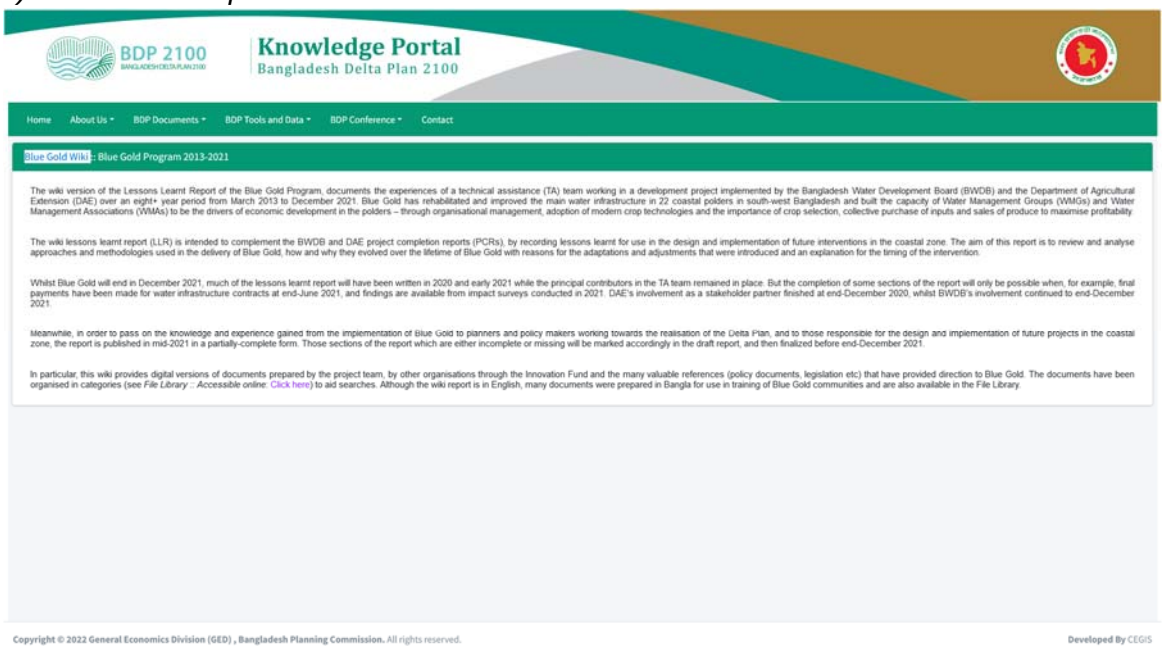


Figure 1.22: Blue Gold Wiki

1.2.1.6 Erosion Monitoring

In Erosion Monitoring shows in this menu and available in the portal. The Erosion Monitoring (Figure 1.23) contains map analysis interface in a new window.

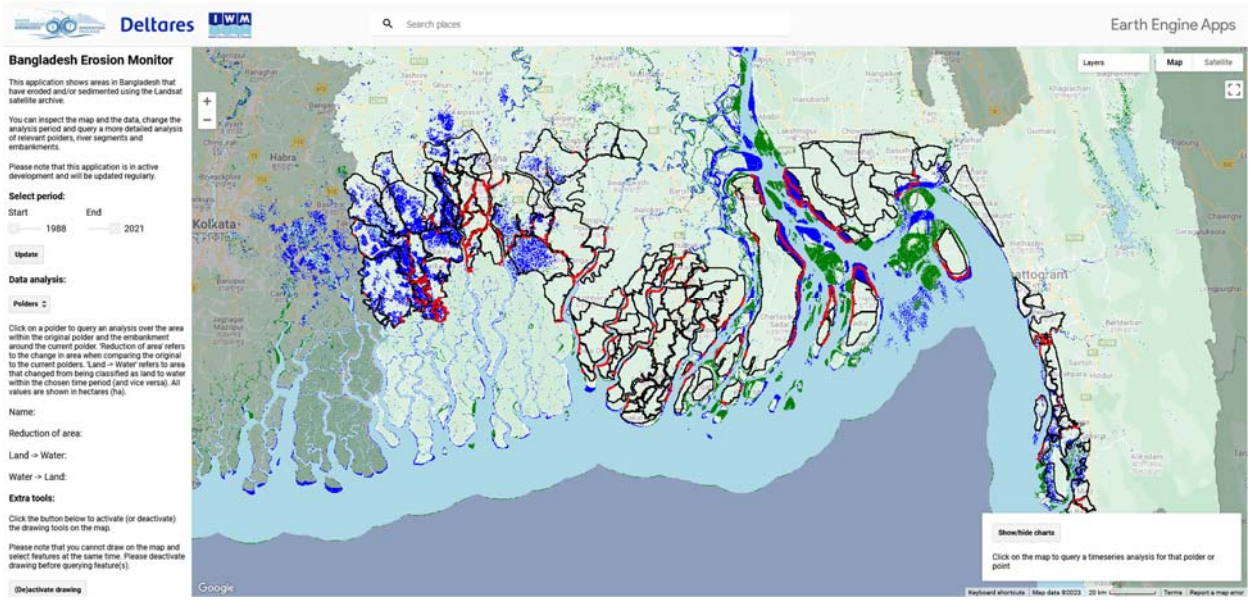


Figure 1.23: Erosion Monitoring

1.2.1.7 BDP Conference

Conference details shows in this menu and available in the portal. The Conference details (Figure 1.24) contains writeup and pictures in this menu.

Figure 1.24: BPD Conference

2) Contact

Contact details shows in this menu and available in the portal. The Contact details (Figure 1.25) shows in this menu.

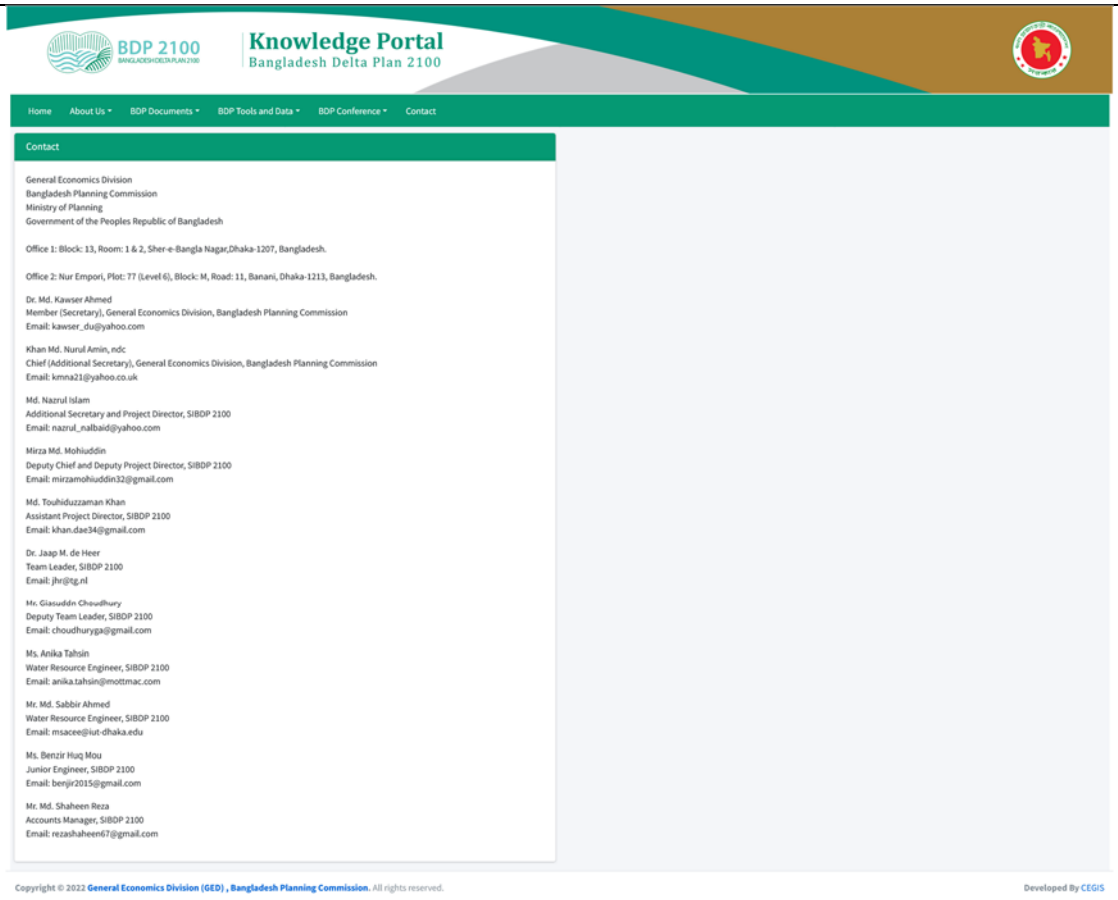


Figure 1.25: Contact