

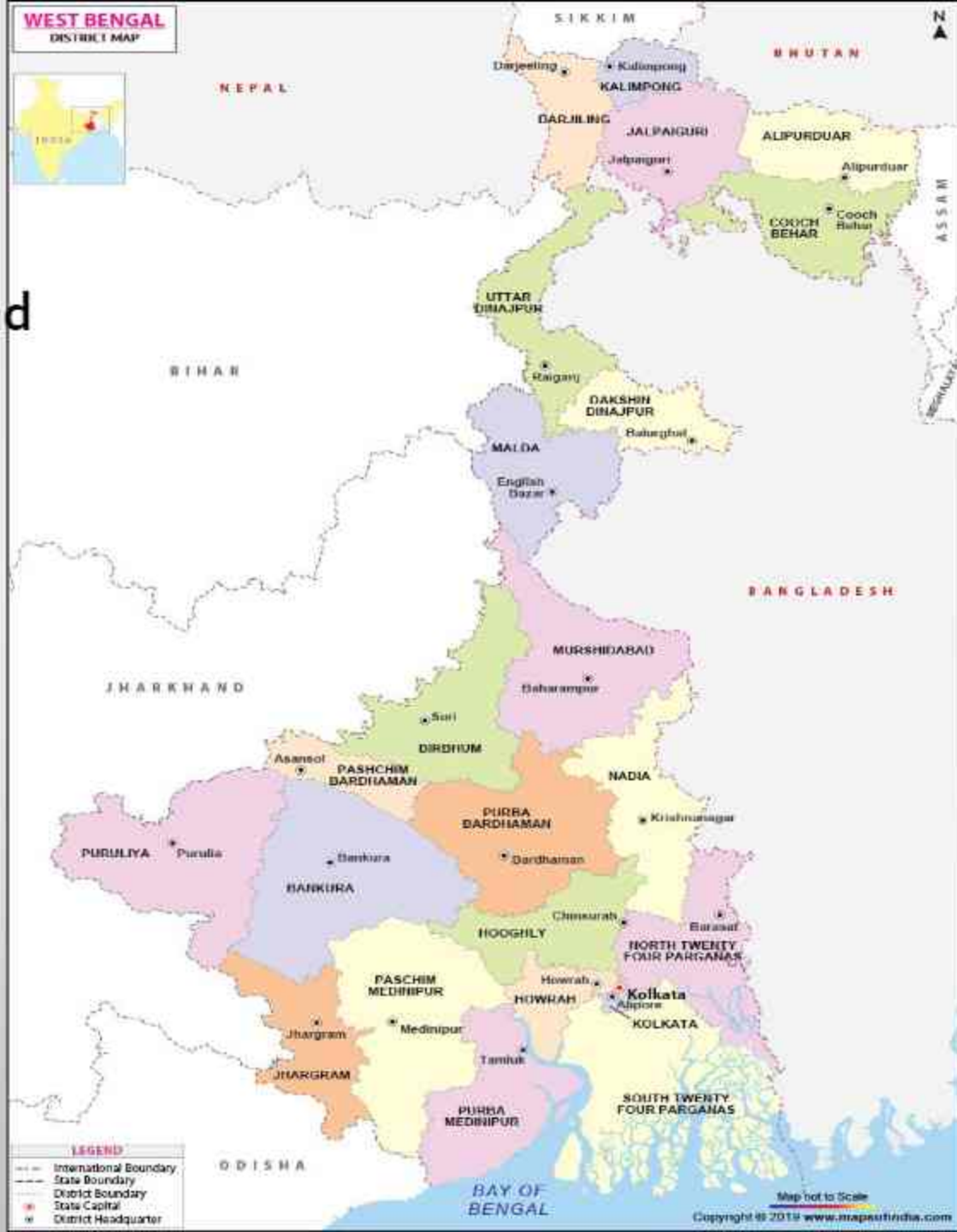


Overview of Disaster Risk Management in West Bengal

Deptt. of Disaster Management & Civil Defence
Government of West Bengal



State Profile: Social, Economic and Demographic



State Profile

Area

88,752 Sq Km

Connected States/ UTs

- Assam in the east;
- Jharkhand, Bihar, Orissa in the west;
- Sikkim in the north;

International Boundary

- West Bengal shares international boundary with**
- Bangladesh in the east (border 2,217 km);
 - Nepal in the north-west corner (border 100 km approx);
 - Bhutan in the north (border 183 km).

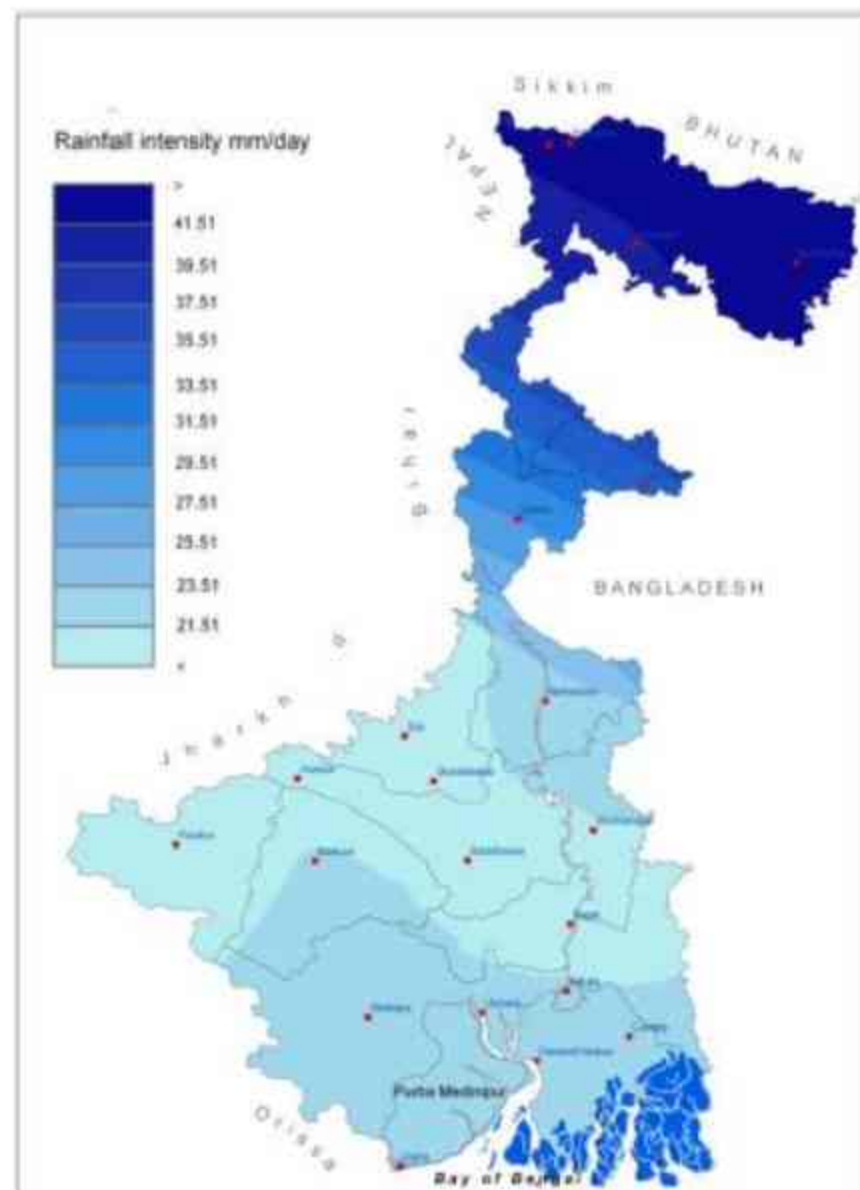
District wise Disaster Profile of West Bengal

Sl. No.	Districts	Hazard Profile of the District					
		Flood	Cyclone	Earthquake	Landslides	Drought	River Erosion
1	Alipurduar	Red	Yellow	Red	White	White	White
2	Bankura	Yellow	Yellow	Green	White	Red	White
3	Purba Bardwan	Red	Yellow	Yellow	White	Red	White
4	Paschim Bardwan	Red	Yellow	Yellow	White	Red	White
5	Birbhum	Red	Yellow	Yellow	White	Red	White
6	Dakishin Dinajpur	Red	Yellow	Yellow	White	White	White
7	Darjeeling	Yellow	Yellow	Yellow	Red	White	White
8	Kalimpong	Yellow	Yellow	Yellow	Red	White	White
9	Howrah	Red	Red	Yellow	White	White	White
10	Hoogly	Red	Red	Yellow	White	White	White
11	Jalpaiguri	Red	Yellow	Red	Red	White	White
12	Cooch Bihar	Red	Yellow	Red	White	White	Red
13	Kolkata	Red	Yellow	Yellow	White	White	White
14	Maldah	Red	Yellow	Yellow	White	White	Red
15	Murshidabad	Red	Yellow	Yellow	White	White	Red
16	Nadia	Red	Yellow	Yellow	White	White	White
17	North 24 Parganas	Red	Red	Yellow	White	White	White
18	Pachim Medinipur	Red	Red	Yellow	White	Red	White
19	Jhargaram	Red	Red	Yellow	White	Red	White
20	Purba Medinipur	Red	Red	Yellow	White	White	White
21	Purulia	Yellow	Yellow	Green	White	Red	White
22	South 24 Parganas	Red	Red	Yellow	White	White	White
23	Uttar Dinajpur	Red	Yellow	Yellow	White	White	White



(a)

A. Drainage basin of West Bengal



(b)

B. Rainfall intensity across West Bengal

West Bengal Flood Prone Areas



(a)

A. Flood prone areas of West Bengal

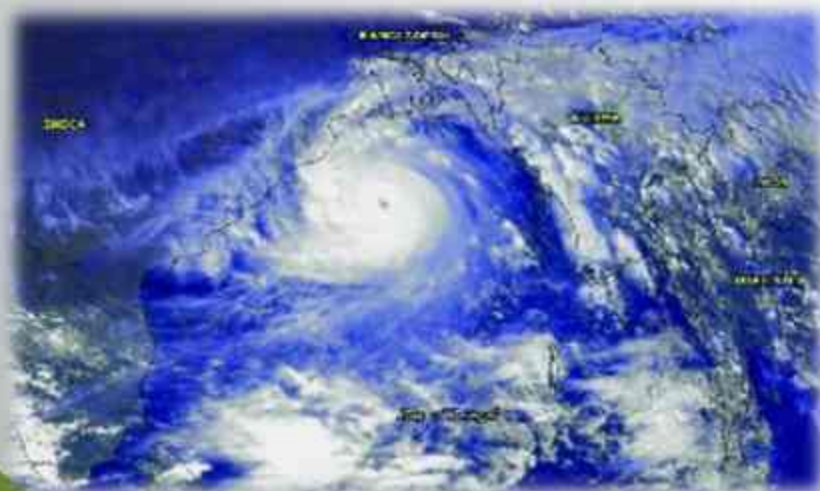
West Bengal Drought affected blocks



(b)

B. Drought prone areas of West Bengal

Present and emerging disaster risk scenario in the State



Climate changes Observed and Projected in West Bengal

Observed trends:

- Minimal decrease in maximum temperatures of the order of 0.25 to -0.50 C in between 1969-2005
- Perceptible increase in minimum temperatures have been observed which ranges between +0.25 to +1.50 C within the same period
- The total amount of monsoon rainfall, which accounts for more than 75% of total annual rainfall has not changed significantly between 1969-2015
- A clear positive trend in post monsoon (Oct-Nov-Dec) rainfall in almost all over the state has been observed during 1969-2015.
- The intensity of extreme rain fall events has increased in West Bengal as concluded by the IMD.
- In the coastal region, severe cyclonic storms are on the rise, the total number of cyclones is annually increasing
- High rate of sea level rise at the rate of 5.7 mm/yr observed along West Bengal coast wrt other stations along the entire Indian coast line.

Emerging trend

- Cyclonic storm – twice a year - During May & November
- Flash Flood due to excessive water release from Dams located in adjacent states & country
- Urban Flooding
- Landslide Incidents



Institutional arrangements in State/UT and notified structure of SDMA/DDMA

- **WBSDMA**
- **SEC**
- **SDRF**
- **Directorate - Disaster Management & Civil Defence**
- **Special Disaster Management Cadre Officer at District, Sub-Division & Block**
- **SEOC - State of the Art Centre at State Secretariat**
- **DEOCs**
- **Civil Defence, WBNVF, WWCD**
- **QRTs**

Updated Status on SDMP/DDMP

- First developed in the year 2016
- Updated in every year
- Revision made in the year 2019 - 2020
- Again it was revised in the year 2020-21

Issues like Metro Rail Accident, Heritage DM plan, COVID Management were included in state and district plans



Implementation of NDMA Projects/Schemes

- **CAP**

- Nodal Officer Identified
- Two phases training of State & District Officials completed
- Hand hold support required for implementation and support from NDMA, C-DOT is expected soon

- **ERSS**

- MOU signed, Nodal Officer Identified
- Bank A/C details forwarded to NDMA
- Necessary arrangements and location and infrastructure identified , C-DAC needs to take it forward

- **Upscaling of Aapda Mitra Scheme**

- MOU signed, Nodal Officers Identified
- Bank A/C details forwarded to NDMA, 1st instalment received
- Training centres identified at state and districts, the guide book on Aapda Mitra is in the process of translation into Bengali, Hindi and Nepali
- More than 1000 community volunteers identified. Trainings will start in April

Implementation of NDMA Projects/Schemes

• NCRMP

- Completion of construction of **146 nos.** of MPCCS followed by formation and registration of MPCSMMC for proper Management & Maintenance of the MPCCS.
- Completion of construction of UG cabling work replacing the overhead Power Supply System for providing uninterrupted Power supply system and also to mitigate the risk of electrocution during natural calamities in the Digha-Sankarpur area.
- To impart Capacity Building Training at officer level of five core sectors and Shelter Level Training to local Task Force and stakeholders.
- Taking up for construction/ installation of Early Warning Dissemination System (EWDS) to alert the local population and the local level Authority well in advance to take measures to safeguard the lives & property.

Ganga Sagar Mela



EOC of GS Mela(monitoring by CCTV camera)



Deployment of speed boats deployed by NDRF and Civil Defence - Water Wing



Civil defence volunteers performing duties during GS Mela



SEOC
&
Mock
Drill





Damages due to AMPHAN



027 Road WB (L. 0001), Block Hingalgaon, Dist. North 24 Parganas out of 18.9 km of road 12 km submerged & affected

Duare Tran: Providing Relief at the Doorsteps of Affected Persons

To make the damage assessment and quick disbursement of relief to most affected districts storm YAAS, the GoWB launched "Duare Tran" in severely affected districts.

North 24 Parganas, South 24 Parganas, Howrah, Purba Medinipur, Paschim Medinipur, Hooghly and Birbhum



Status of State Disaster Response Force (SDRF)

Sl. No.	Name of the DMG Squad
1	SAP 4th Bn. Kasba, Raiganj
2	SAP 6th Bn. Barrackpore
	SSF Bn. Barrackpore
3	SAP 7th Bn. Asansol
4	SAP 8th Bn. Barrackpore
5	SAP 9th Bn. Sandhya, Krishnanagar
6	SAP 10th Bn., Dabgram, Jalpaiguri
	SAP 12th Bn., Dabgram, Jalpaiguri
7	SAP 13th Bn., Barjora, Bankura

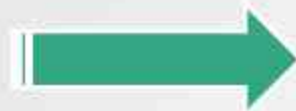
Status of Incident Response System (IRS) notification

- Notification done in the year 2017
- Districts are following the IRTs in last disasters
- During mock drills on Tsunami, EQ & Chemical (Industrial) IRT teams were activated.
- During COVID management also it worked significantly

DRR Initiatives by State

- Bengal Government planted 5 Crore Mangrove Trees in Sundarbans after Super Cyclone AMPHAN
- Desiltation under process in all major rivers.
- Kolkata Metropolis Drainage - Drainage Problems In and Around Kolkata Metropolis and their Disposal
- Keleaghai & Kapaleswari & Lower Damodar Drainage Scheme
- Post AILA reconstruction and rehabilitation programmes
- Post AMPHAN reconstruction and rehabilitation programmes
- Kandi Master Plan - A comprehensive flood management scheme for Murshidabad and Birbhum
- Ghatal Master Plan – under consideration
- Mobile treatment units - 28 numbers of MTUs, deployed at strategic locations in districts, proactively provide safe & clean drinking water within a short span of time
- A programme named "Jal Dharo-Jal Bharo" was launched during 2011-12 for rain water harvesting

Way Forward



- More 28 Multi Purpose Flood Shelters have been sanctioned.
- Working on SDMF for new projects
- New EOC proposed jointly with Irrigation Department
- Extension of the existing SEOC under consideration
- Digha Reconstruction Plan after AMPHAN & YAAS
- Sundarbans Reconstruction Plan after AMPHAN & YAAS



Thank You

Dushyant Nariala, IAS
Principal Secretary, Department of Disaster Management & Civil Defence

Phone No.:033 – 22535085, 22501003; Fax No.:033 2214-4005
Email ID- secrelief@wb.gov.in

**Department of Disaster Management
& Civil Defence**

Towards Safe and Resilient State