

7 YEAR STRATEGY PLAN
GOVT. OF AS SAM
WATER RESOURCES DEPARTMENT

The Water Resources Department has calculated the SDG indicators for it. The target as established in Assam Vision 2030 and the annual levels to be achieved. These are tabulated below:

Target	2014-15	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31
13.2 Proportion of people affected by flood (Annual average in %)	11.70 %	12.72 %	9.77 %	9.50 %	8.07 %	7.31 %	6.58 %	5.85 %	5.12 %	4.39 %	3.66 %	2.93 %	2.19 %	1.46 %	0.73 %	0 %
13.3 Total area to be protected from Flood (Lakh Hactare) (Annual average)		16.50	17.54	18.58	19.62	20.66	21.70	22.74	23.78	24.82	25.86	26.90	27.94	28.98	30.02	31.05

Note: *This Chart is for an ideal situation. However, due to unpredictable nature of flood & erosion, unforeseen reasons and the critical geographical position of the State, occurrence of floods in the State cannot be ruled out.*

List of major issues facing Department/Sector

Major issues confronting the Department are

- a) Expanding participation :** Apart from WR Deptt., effective role is played by Agricultural Deptt., Irrigation Deptt., Soil Conservation Deptt., P & RD Deptt., Autonomous Councils, NGOs etc. in flood mitigation works.
- b) Fostering Technological Innovations:** It is a constant endeavour of the Deptt. to modernize & upgrade technology with the help of renowned Institutions, Foreign Experts, NGOs etc.
- c) Policy & Institutional changes :**
- i) In obtaining clearances at various levels
 - ii) Review of existing Rules & Acts like Environment & Forest Acts, AFRBM Act etc.
 - iii) Capacity building of Engineers & field staff.
 - iv) In resource allocation
- d) Organizational Reforms:**
- i) Organisational change in the Deptt for implementation of projects involving inter-state & international aspects.
 - ii) More autonomy to the Deptt. so that clearances required from other Deptts. & Boards etc. are minimized.
 - iii) Empowering Quality Control Wing.
 - iv) Empowering AWRMI

Planning for Target Achievement

Actions	Indicator	Existing status	Anticipated Target by 2023-24	Supporting departments
Establishment of all required infrastructure for making Assam Water Mission fully functional	Infrastructure & secondment of staff for functioning of the Mission	No infrastructure & staff	All necessary infrastructure will be built along with secondment of staff	All Water Sector Departments.
Enactment of Rules & Regulations in order to empower Rules and Regulations.	Proper Rules & Regulations to administer management of water.	Existing AWM in isolation without any Rules & Regulations	All Rules & Regulations for AWM will be framed.	Do
Framing of Assam State Water Policy	Availability of State Policy as a tool for DSS in water issue.	No such Policy exists.	Assam State Water Policy will be framed to administer water use	Do
Fortification of embankment system & Construction of new embankment	Raising & Strengthening	Out of total 4474 Km length of dyke in Assam, a length of 738 Km has already been fortified	925 Km of fortification of existing embankment & const. of new embkt. in gaps of Brahmaputra, Borak, Beki, Manas, Aie, Subansisri & Buridehing	Govt. of India, External Agencies

Planning for Target Achievement

Actions	Indicator	Existing status	Anticipated Target by 2023-24	Supporting departments
Channelization & reclamation including River training Works & corrective dredging	To minimize loss of land due to erosion and to reduce widening of river	924 nos. important reaches already protected.	Further 130 Nos of important reaches to be protected and reclamation of 350 sq.km. of lost land.	Govt of India, External Agencies
Construction of detention reservoir for flood cushion	Flood cushioning	No detention reservoir is in place	Starting of implementation for selected tributaries	Govt. of India, CWC, State Govt.
Integrated watershed Management	Existence of Regional Basin Level common platform	Not yet established	Establishment of regional platform involving China Bangladesh, Bhutan, India & Nepal	Govt of India
Development of Advanced flood forecasting system	<ul style="list-style-type: none"> ➤ Effective early forecasting leading to timely evacuation ➤ Mitigation ➤ Reduced loss of life and livestock 	<p>CWC is issuing WL forecast with 12hrs lead time.</p> <p>NESAC - ASDMA issuing area specific flood warning (FLEWS) with lead time 24-48 Hrs.</p>	WL forecast with 3 days lead time having 60% accuracy	IMD, CWC, ASDMA

ACTIONS	INDICATOR	Existing status	Anticipated Target by 2023-24	Supporting departments
Comprehensive morphological studies	Study of the morphology and suggestions for sustainable measures for erosion control	No comprehensive study available	Cover Brahmaputra , Borak & major tributaries	IIT(G), NIT(Sil), AEC, JEC, NESAC, WB & ADB
Improvement of drainage system & dewatering.	Reduction in artificial flooding, inundation of major towns & other important areas	De-watering measures by pumping in Guwahati city	Implementation of similar facility in Dibrugarh, Jorhat, Silchar & Dhubri towns	Town & Country Planning, Urban Development Deptt. etc.
Development of Centre of Excellence in the field of Water Resource Sector	Development of State of Art Technology in the field of R&D	RRS, Basistha has been upgraded as AWRMI	Establishment of all required wings for R&D in AWRMI	To be supported by GoI, GoA & External Agencies

Action Plan to Achieve the Targets

Target Item	Present Status	Target 2023-24	Action Plan			Remarks
			By 2019-20	By 2021-22	By 2023-24	
Establishment of all required infrastructures for making AWM functional	No staff & infrastructure	Make AWM functional.	Completion of Mission Directorate & Staff recruitment with completion of infrastructure	Establishment of Monitoring unit as subject matter specialty unit	All necessary infrastructure will be built	
Enactment of Rules & Regulations in order to empower AWM	No Rules & Regulations for functioning of AWM	Implementation of Rules & Regulations.	Draft Rules & Regulations will be framed, circulated to all Water user deptt. & finalize the same		All Rules & Regulations of AWM will be framed to administer management of water.	
Framing of Assam State Water Policy	No such policy exists	Implementation of State Water Policy			The State of Assam will have a formal State Water Policy as a tool for DSS in water issue.	
Fortification of embankment system & Construction of new embankment	In 738 Km. fortification works completed	925 Km of fortification & const. of new embkt. in gaps of Brahmaputra, Borak & Tributaries	<ul style="list-style-type: none"> ▪ Additional 410.00 Km fortification ▪ Const. of new embkt. in gaps of Brahmaputra. 	<ul style="list-style-type: none"> ▪ Additional 265 Km fortification. ▪ Const. of new embkts. in gaps of Borak , Buridehing & Subansiri 	<ul style="list-style-type: none"> ▪ Additional 250Km fortification ▪ Const. of new embkts. in gaps of Beki, Aie &Manas. 	To be implemented with funding from Gol, External Agencies & State Govt.

Target Item	Present Status	Target 2023-24	By 2019-20	By 2021-22	By 2023-24	Remarks
Channelization & reclamation including River Training Works & corrective dredging	<ul style="list-style-type: none"> ▪ 924 nos. of important reaches already protected. ▪ DCI, submitted a preliminary report on dredging to Deptt. after reconnaissance survey. 	Addl. 130 Nos of important reaches to be protected and reclamation of 350 sq.km. of lost land.	<ul style="list-style-type: none"> ▪ 30 nos. of important reaches to be protected ▪ Reclamation of 100 sq Km. ▪ Completion of feasibility study for dredging & implementation of pilot project as required. 	<ul style="list-style-type: none"> ▪ Completion of protection to 50 nos. of reaches ▪ Reclamation of 100 sq Km. ▪ Dredging in lower reaches of Brahmaputra as may be feasible. 	<ul style="list-style-type: none"> ▪ Remaining 50 nos. important reaches to be protected. ▪ Reclamation of 150 sq Km. ▪ Dredging in middle reaches of Brahmaputra as may be feasible. 	To be implemented with funding from Gol, External Agencies & State Govt.
Construction of detention reservoir for flood cushioning	No such reservoir is in existence now	Starting of implementation of reservoir projects in selected tributaries	Detailed survey for project formulation	Project formulation and starting of preliminary work.	Starting of project	Projects will be implemented with funding from Gol, External Agencies.
Integrated watershed Management	Not yet established	Establishment of regional platform involving China Bangladesh, Bhutan, India & Nepal	Identification of basins requiring priority attention & correspondence with MoWR, Gol will be initiated.	Establishment of regional platform involving China, Bangladesh, Bhutan, India & Nepal	Initiation of integrated watershed programme	Programme will be implemented through a Basin Level Organisation constituted by Govt of India
Development of Advanced flood forecasting system	CWC issues WL forecast with 12hrs lead time. NESAC - ASDMA issuing area specific flood warning (FLEWS) with lead time 24-48 Hrs.	WL forecast with 3 days lead time having 60% accuracy	WL forecast with 1 day lead time having 70% accuracy	WL forecast with 2 day lead time having 65% accuracy	WL forecast with 3 day lead time having 60% accuracy	System is to be developed jointly by IMD, CWC, ASDMA , NESAC

Target Item	Present Status	Target 2023-24	By 2019-20	By 2021-22	By 2023-24	Remarks
Comprehensive Morphological studies	No study available	Brahmaputra, Borak & major tributaries	Completion of studies of Brahmaputra & Borak	Completion of studies of North Bank major tributaries of Brahmaputra	Completion of study of South Bank major tributaries of Brahmaputra & major tributaries of Borak.	Studies will be taken up by the renowned institutions of the State & country.
Improvement of Drainage & de-watering	De-watering measures by pumping in Guwahati city	Implementation of similar facility in Dibrugarh, Jorhat, Silchar & Dhubri towns	Completion of resource generation & award of work for providing such facilities in Dibrugarh, Jorhat, Silchar & Dhubri	Intermediate review of works in progress	Completion of drainage projects in proposed towns of the State.	To be implemented by Town & Country Planning Deptt., Urban Development Deptt.etc. Resources may be arranged through GoI funding & External Agencies.
Development of Centre of Excellence in the field of Water Resource Sector	RRS, Basistha has been upgraded as AWRMI	Establishment of all R&D wings in AWRMI & inception of collaborative functions.	Establishment of training & capacity building entre and knowledge centre	Establishment of Centre of Water Resource Management.	Establishment of School of Studies & inception of collaborative functions.	To be supported by GoI, GoA & External Agencies

Requirement of Fund to achieve the Targets

Target Item	Amount Involved (Rs. in Crore)				Available Resources
	2017-18	2018-19	2019-20	2019-20 to 2023-24	
Fortification of embankment system & Construction of new embankment	350.00	800.00	1200.00	4650.00	Tentative availability of resources from FMP, NABARD, NEC etc. are expected to the tune of 1900 Crore. Some projects may be executed through PPP mode.
Channelization & reclamation including River training Works & corrective Dredging	1100.00	1200.00	1500.00	4200.00	
Construction of detention reservoir for flood cushion	150.00	400.00	2500.00	7000.00	Initiation and fund to be arranged by Gol.
Integrated watershed Management	0.50	1.00	1.00	1.50	- Do -
Development of Advanced flood forecasting system	2.00	2.00	2.00	4.00	Fund required is tentative. Action to be taken jointly by ASDMA, CWC, NESAC, WRD.
Comprehensive morphological studies	3.00	3.00	4.00	10.00	Fund required is tentative. A part of resource may be available from the projects under World Bank
Improvement of drainage & de-watering	50.00	75.00	100.00	200.00	Works to be taken up by TCP & UDD and resource may be generated by convergence of existing programme or through central funding or through funding from external agency.
Development of Centre of Excellence	10.00	15.00	20.00	40.00	To be supported by Gol, GoA & External Agency