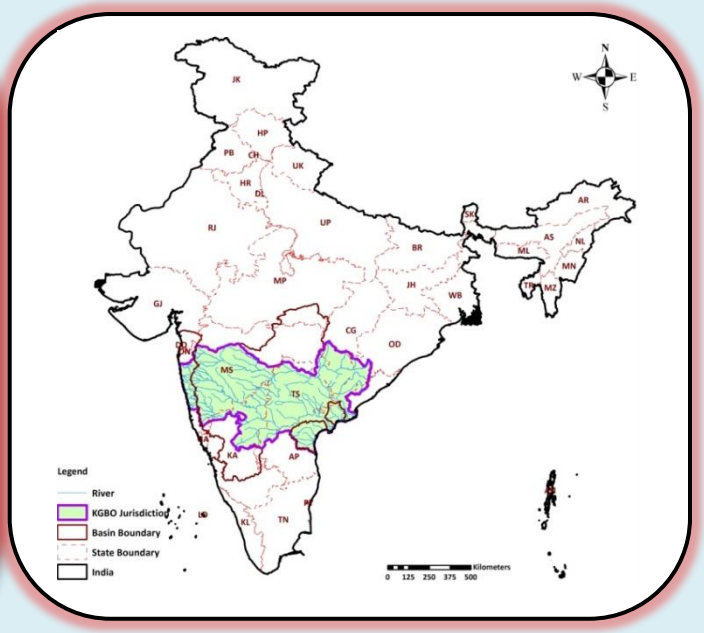
हर काम देश के नाम

सत्यमेव जयते

भारत सरकार
जल शक्ति मंत्रालय
जल संसाधन, नदी विकास और गंगा संरक्षण विभाग
केंद्रीय जल आयोग

Government of India
Ministry of Jal Shakti
Department of Water Resources, River Development & Ganga Rejuvenation
Central Water Commission

Activities of Krishna & Godavari Basin Organisation



Hyderabad
2020

Introduction

Krishna Godavari Basin Organisation (KGBO) is one of the fourteen regional organisations of the Central Water Commission (CWC). It is a field unit of the River Management(RM) Wing of CWC.

KGBO is headed by a Chief Engineer and consists of two Circle offices each headed by a Superintending Engineer and two Monitoring & Appraisal Directorates each headed by a Director. The structure of the organisation is given in next page.

The organisation is responsible for collection, processing, storage, publishing and retrieval of hydrometeorological data (River level, Discharge, Sediment & Rainfall etc.,) water quality monitoring, formulation and issue of flood forecasts in Krishna and Godavari River Basins & Surveys for river morphology studies etc. The Publication of Water Year Books, Sediment Year Books, Water Quality Year books, Flood Forecasting Appraisal Reports of Krishna & Godavari basins is done on annual Basis

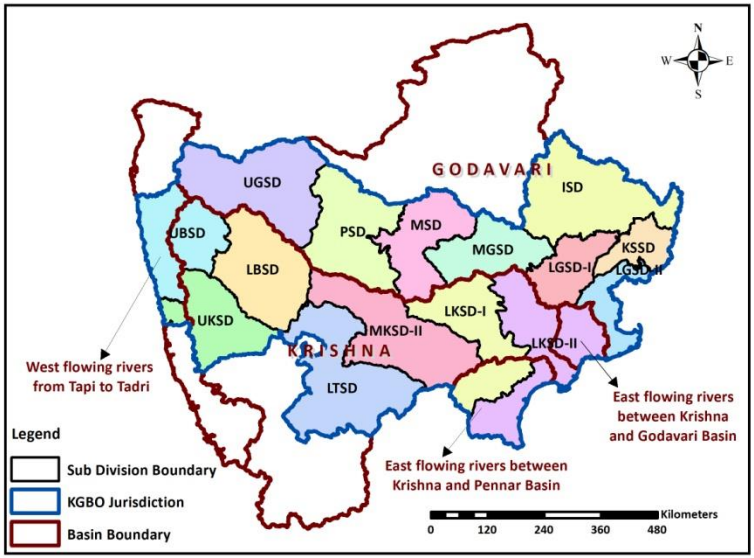
Monitoring and Appraisal Directorates of the organisation deal with

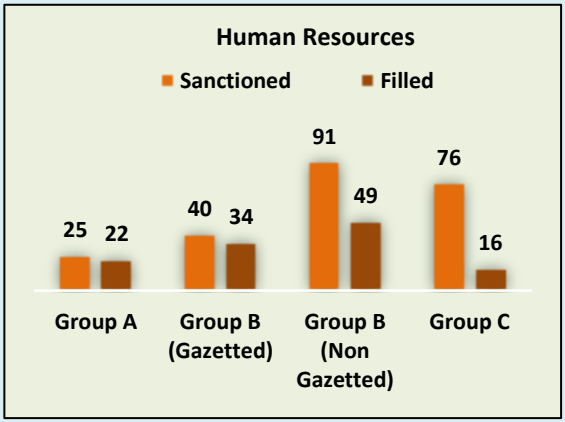
- Techno-economic appraisal of medium projects of Telangana and Andhra Pradesh States.
- Monitoring of schemes under Command Area Development (CAD) Programme, Accelerated Irrigation Benefit Programme (AIBP), Repair, Renovation and Restoration (RRR) of Water Bodies under (Pradhan Mantri Krishi Sinchayi Yojna (PMKSY) Scheme.

Mission Statement of CWC

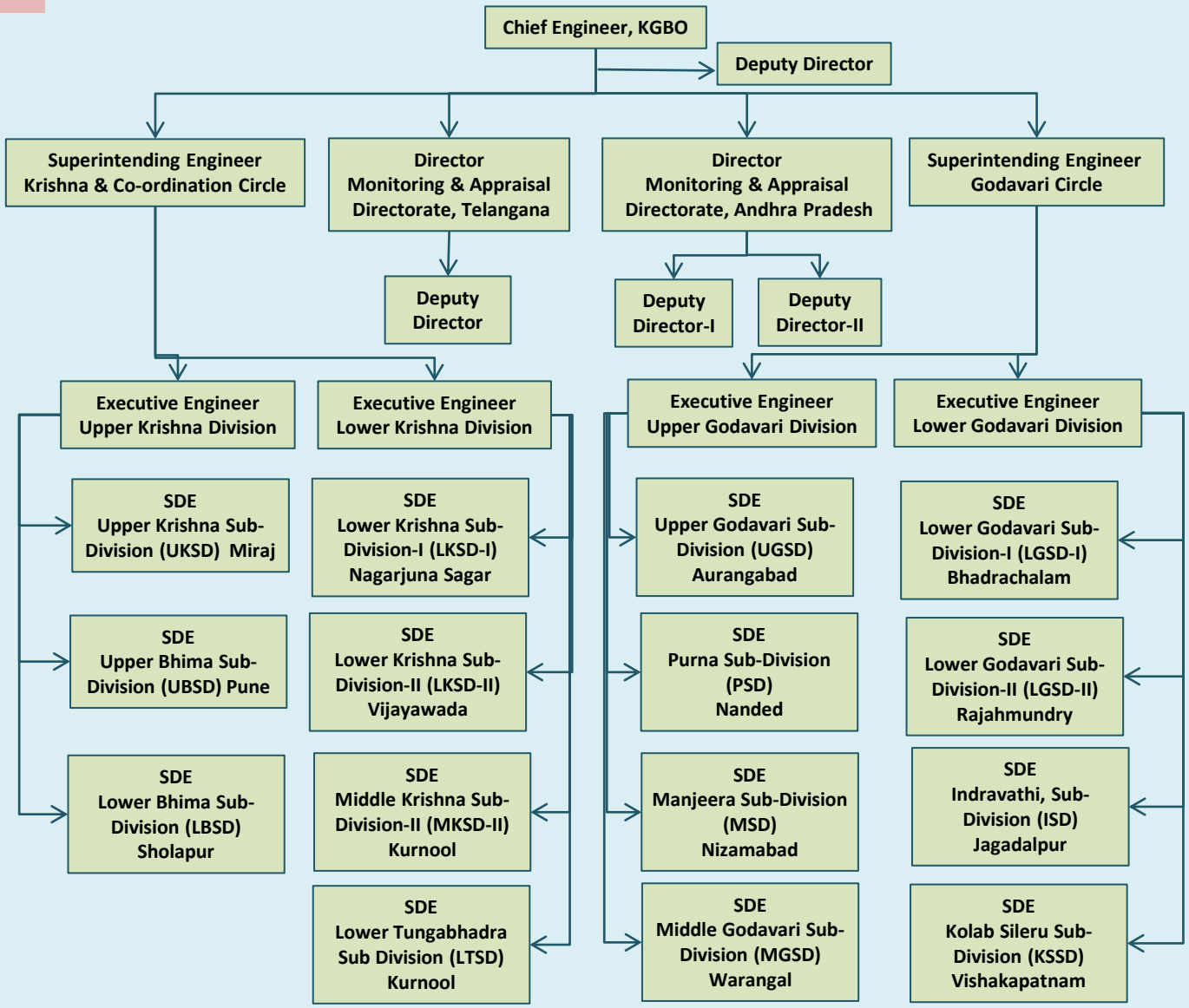
To Promote Integrated and Sustainable Development and Management of India's Water Resources by using State-of-art Technology and competency and by co-ordinating all Stake Holders

Jurisdiction of KGBO with Sub Basins





Organisation



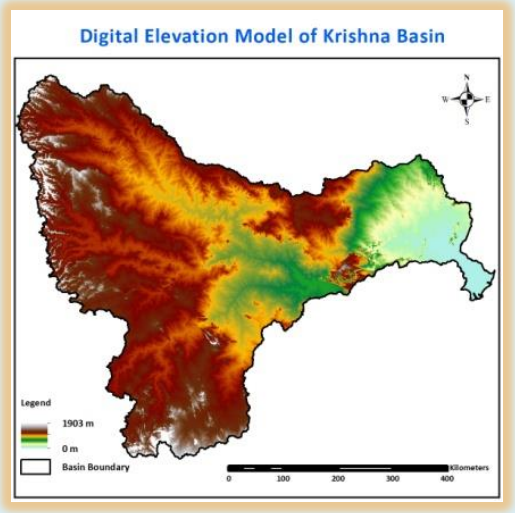
SDE –Sub Divisional Engineer

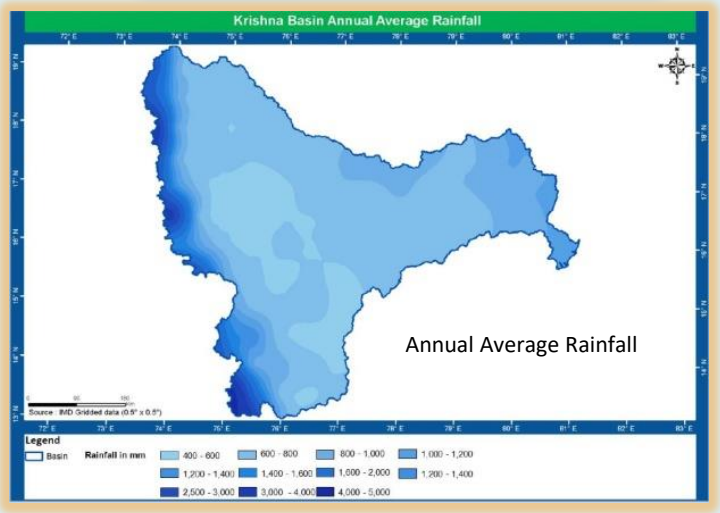
Krishna Basin

The River Krishna is the second largest eastward draining interstate river in Peninsular India, drains about 8% of the total geographical area of the country. The catchment area of the basin is 2,59,439 sq.km and is spread in the states of Maharashtra, Karnataka, Telangana and Andhra Pradesh. The basin of Krishna is situated between East longitudes 73^0 21' to 81^0 09' and North latitudes 13^0 07' to 19^0 25' in the Deccan Plateau.

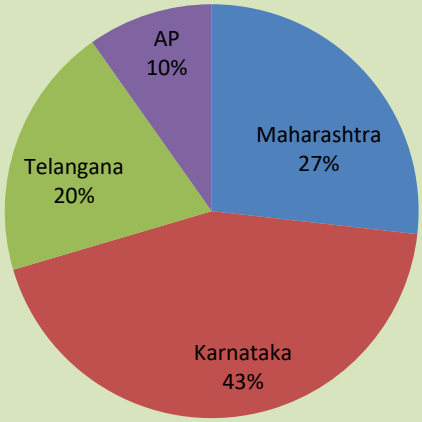
Facts

- Average annual Rainfall is 857 mm
- Average water availability is 73 BCM (2478 TMC)
- 75% dependable Yield is 61.5 BCM (2173 TMC)
- Utilisable Surface Water is 58.3 BCM (2060 TMC)
- Live Storage Capacity (Total : 54.81 BCM)
  - Completed : 50.65 BCM
  - Under Construction: 4.16 BCM





State	Length (Km)	Drainage area (sq km)	Drainage area (%)
Maharashtra	306	69044	26.6
Karnataka	483	113622	43.8
Telangana	612	51388	19.8
Andhra Pradesh		25385	9.8
Total		259439	100



Krishna Basin

The river Krishna rises in the Western Ghats at an altitude of 1337m just North of Mahabaleshwar, about 64 km from the Arabian Sea and flows from West to East through the States of Maharashtra, Karnataka, Telangana and Andhra Pradesh before joining the Bay of Bengal downstream of Vijayawada. There are about 13 major tributaries which join the river Krishna along its 1400 km course, out of which, six tributaries are on right bank and remaining seven are on left bank. Among the major tributaries, the Ghataprabha, Malaprabha and Tungabhadra are the principal right bank tributaries which together contribute 35.45% of the total catchment area, whereas the Bhima, Musi and Munneru are the principal left bank tributaries which together contribute 35.62% of the total catchment area.

S. No	Name of the River/Sub basin	Length of Tributary (km)	Catchment area (sq.km.)	Avg. annual rainfall (mm)
1	Upper Krishna	306	17,972	1,465
2	Ghataprabha	283	8,829	1,022
3	Malaprabha	304	11,549	781
4	Upper Bhima	548	46,066	752
5	Lower Bhima	313	24,548	810
6	Middle Krishna	483	17,558	600
7	Tungabhadra	531	47,827	710
8	Vedavathi	391	23,590	659
9	Lower Krishna	612	36,125	817
10	Musi	265	11,212	809
11	Paleru	152	3,263	900
12	Munneru	195	10,409	962

Hydrological Network under Krishna circle

The hydrological observation stations in the Krishna Circle are under the control of two field divisions

1. Upper Krishna Division with headquarters at Pune in the upper catchment of Krishna
2. Lower Krishna Division at Hyderabad in the Lower Krishna catchments.

Under Hydrology Project two softwares viz. SWDES and HYMOS were introduced for entry and analysis of Hydro-Meteorological data in the year 2000. The online platform e-SWIS was introduced in the year 2014 for online entry of Hydro-Meteorological data in two modules i.e. flood forecasting module and Hydrological observations module. Latest platform for data updation is Water Information Management System (WIMS).

Types of Sites

	Site	UKD	LKD	Total
1	G	4	11	15
2	GD	4	6	10
3	GDSQ	9	13	22
4	GDQ	8	4	12
5	GQ	1	2	03
	Total	26	36	62
6	RF	3	36	39
7	Wireless	3	27	30
8	Telemetry	12	50	62

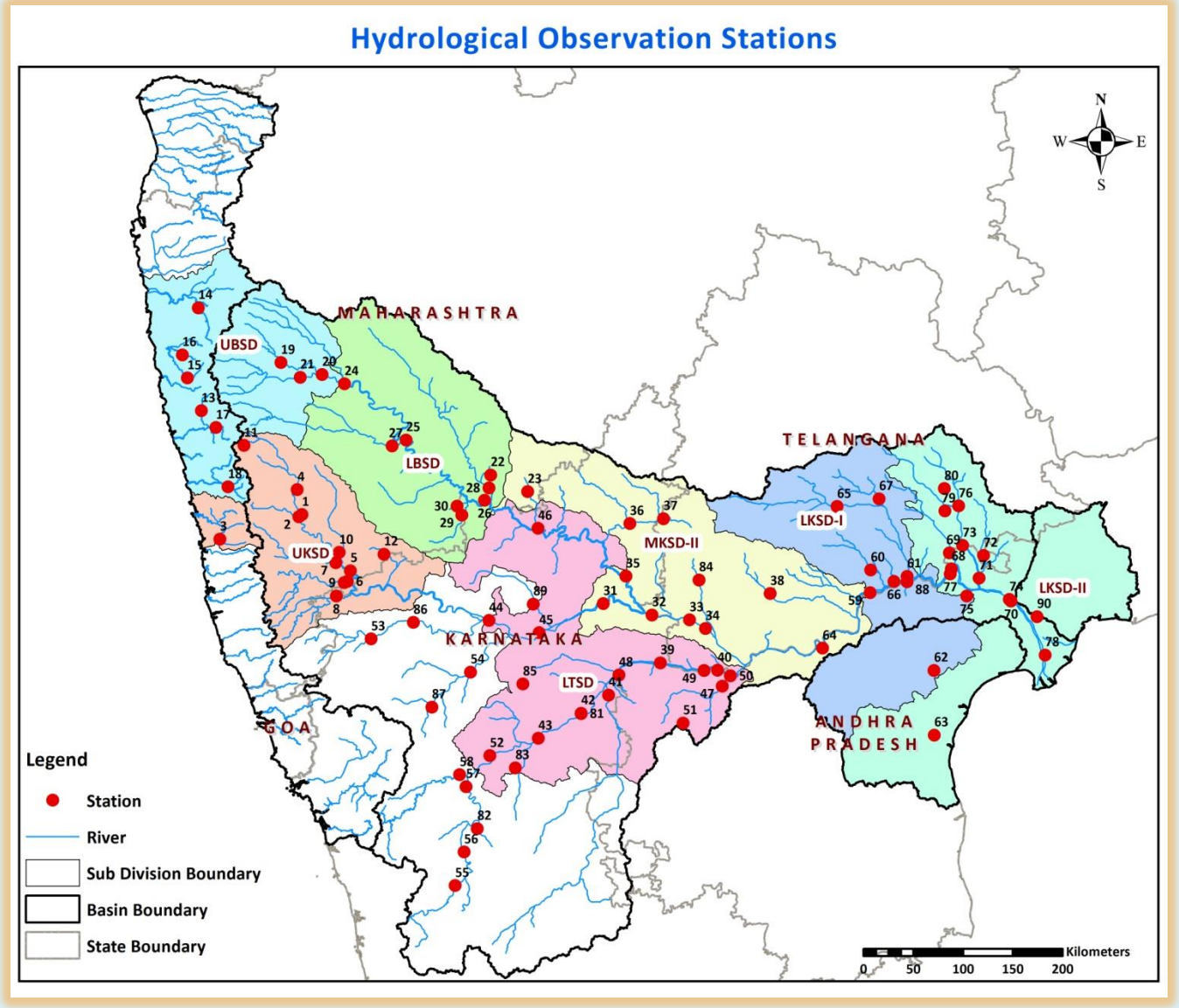
G- Gauge, D-Discharge, S-sediment,
Q-Water Quality, RF-Rainfall

Hydrological Observation Stations in Krishna Basin (under KGBO)

No	Name of site	Type of site	No	Name of site	Type of site	No	Name of site	Type of site
1	Karad	GDSQ, T-I	31	Huvenhedgi	GDSQ, T-II, W/L	61	Damercherla	GDSQ, T-I, FCS
2	Warunji	GDSQ	32	Deosugur	GQ, T-II, W/L	62	Marella	GDSQ
3	Nivali	G, W/L	33	P D Jurala	G, T-II, W/L	63	Vikkiralepeta	GD
4	Targaon	GD	34	K Agraharam	G, T-II, W/L	64	Srisailam	G, W/L, T-II
5	Arjunwad	GDSQ, T-I	35	Yadgir	GDSQ, T-II, W/L	65	Valigonda	GDQ
6	Kurunwad	GDSQ,WL, T-II	36	Malkhed	GDSQ, T-I	66	Veerlapalem	GD
7	Samdoli	GDSQ (S), T-I	37	Jewangi	G, T-I	67	Anantharam	GD
8	Sadalga	GD (S), T-II	38	Suddakallu	GDSQ, T-I	68	Wadenepalli	GDSQ, T-II, W/L
9	Terwad	GDQ (S)	39	Mantralayam	GDSQ, T-II, W/L, FCS	69	Paleru Bridge	GDSQ, T-II, W/L
10	Nandre	GD	40	Bawapurm	GDSQ, T-II	70	Vijayawada	GDSQ
11	Mahabaleshwar	T-I	41	T Ramapuram	GDQ, T-II, W/L	71	Keesara	GDSQ, T-II
12	Pandegaon	T-I	42	Oollenur	G (S), W/L	72	Madhira	GDSQ, T-II, W/L
13	Mangaon	GDSQ(S), RF	43	Tungabhadra Dam	G, W/L, T-II	73	Polampalli	G (S),T-II,W/L
14	Badlapur	GDSQ,RF	44	Almatti Dam	G, W/L, T-II	74	Prakasham Barrage	G, W/L, T-II
15	Nagathone	GDQ	45	Narayanpur Dam	G, W/L, T-II	75	Munugodu	GDQ
16	Pen	GDQ	46	Deongaon Bridge	GQ, T-II, W/L	76	Daredu	GD
17	Mahad	G	47	Doddipadu	GD, T-I	77	Pulichintala Project	T-II
18	Muradpur	GDQ	48	Megalnur	GD	78	Avanigadda	T-II
19	Phulgaon	GDQ (S)	49	Sunkesla Anicut	T-II	79	Pindiprolu	T-I
20	Paragaon	GDQ	50	Kurnool	T-I	80	Korvi/Kuravi	T-I
21	Mirawadi	GDQ	51	Venisompuram	T-I	81	Bennur Barrage	T-II
22	Solapur	T-I	52	Medalkatti	T-I	82	Byladahalli	T-I
23	Boriomerga	T-II	53	Gokak falls	W/L, T-II	83	Hagaribommanahalli	T-I
24	Dhond	GQ	54	Cholachiguda	W/L, T-II	84	Koilsagar	T-I
25	Narasingpur	GD, T-I, FCS	55	Shimoga	W/L, T-II	85	Kustagi	T-I
26	Takli	GDSQ, T-II, W/L	56	Honnalli	W/L, T-II	86	Mudhol	T-I
27	Sarati	GDSQ	57	Harlahali	W/L, T-II	87	Navalgund	T-I
28	Wadakbal	GDQ,T-II	58	Marol	W/L, T-II	88	Pondugala	T-I
29	Kokangaon	G	59	N S Dam	G, W/L, T-II	89	Talikot	T-I
30	Shirdhon	G	60	Halia	GDQ, T-II	90	Vuyyuru	T-I

G- Gauge, D-Discharge, S-sediment, Q-Water Quality, W/L Wireless, FCS-Full climate Station, T-I – rainfall Telemetry, T-II- Water Level Telemetry

Map of Krishna Basin showing H.O. Stations (under KGBO)

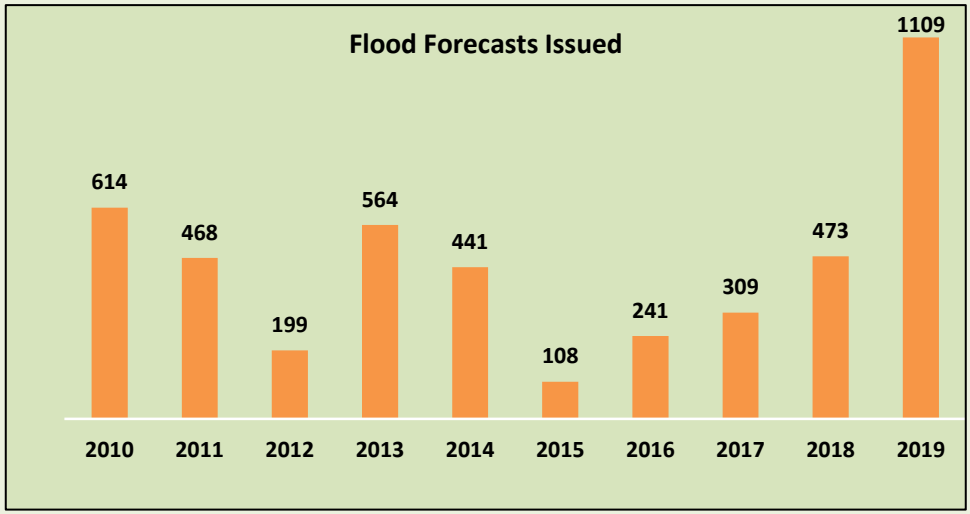


Flood Forecasting in Krishna Basin

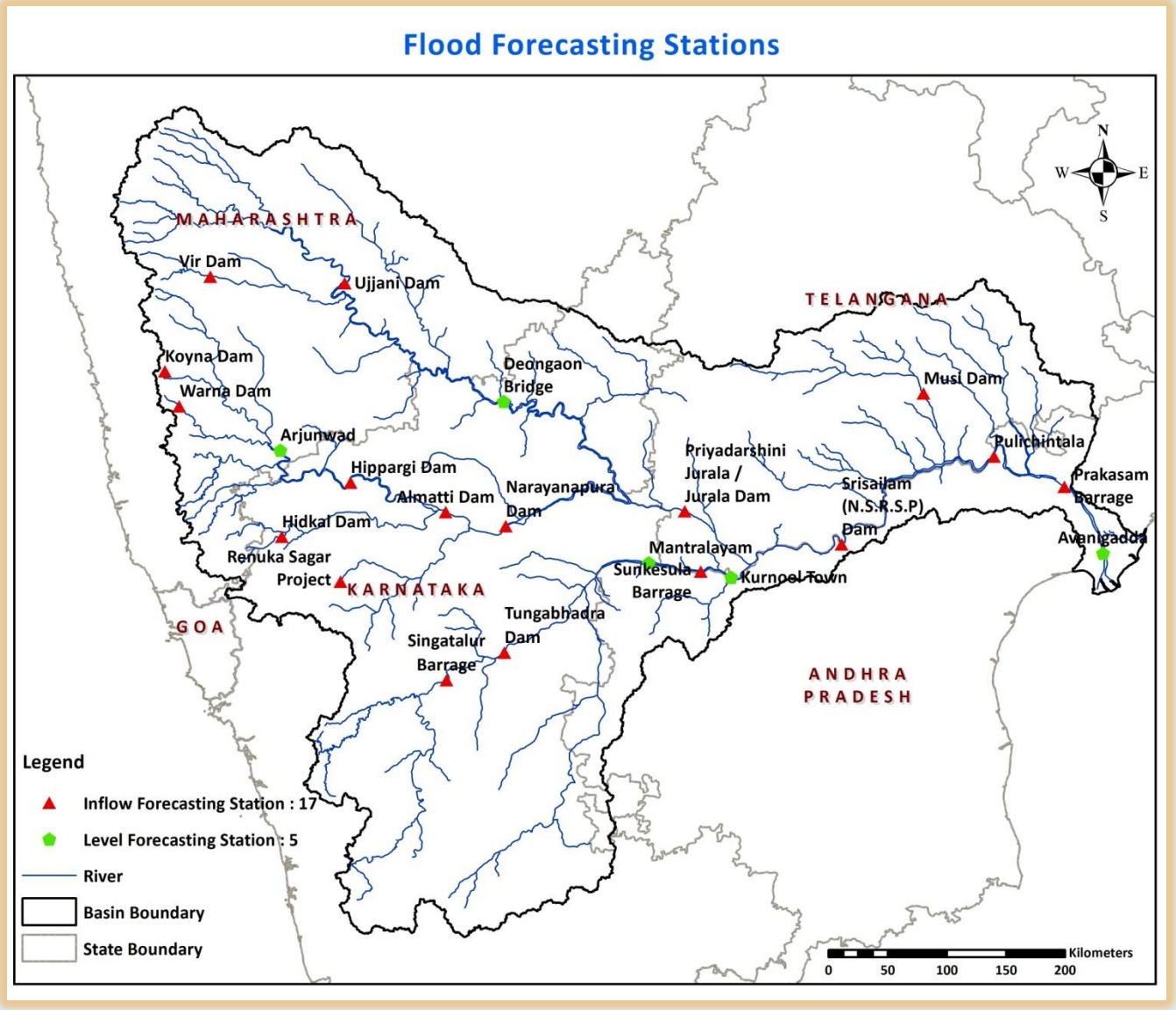
Flood Forecasting Activities in Krishna Basin

Flood Forecasting activities were started in Krishna Basin in 1981. The First Forecast was issued to Srisailam which was under construction and to Prakasam Barrage. Flood Forecast activity was started for Pennar Basin in 2002 and the same has been taken up by CSRO, Coimbatore in 2019. Flood Forecasts and Warnings in Krishna Basin are formulated and disseminated to the authorities concerned enabling them to take timely action to minimize the flood damages.

The gauge levels are observed 62 stations (26 stations in Upper Krishna Division & 36 Stations in Lower Krishna Division). Out of these 62 stations the discharge is measured at 44 Stations (21 Stations in Upper Krishna Division and 23 in Lower Krishna Division). Along with gauge and Discharge Data, Rainfall data is measured at 29 stations (3 Stations in Upper Krishna Division and 26 Stations in Lower Krishna Division). A total of 30 wireless stations and 62 wireless stations all under the control of Lower Krishna Division are available under Krishna Circle for transmitting data. Metrological forecasts and synoptic situations issued by Indian Meteorological Departments are also used for formulating the forecasts. There are two Control Rooms (one at Kurnool and another at Hyderabad). One Modelling Centre is functioning at Hyderabad. Every year Flood Forecasting Appraisal Report is published after monsoon season. Every year flood Forecasting Appraisal Report is published after Monsoon season.



Map Showing Krishna Basin Flood Forecasting Stations (under KGBO)

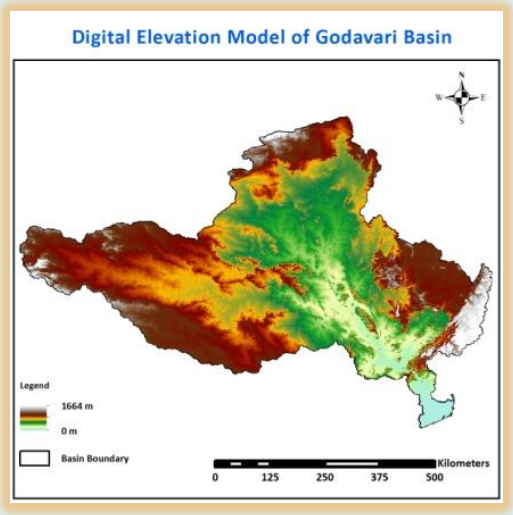


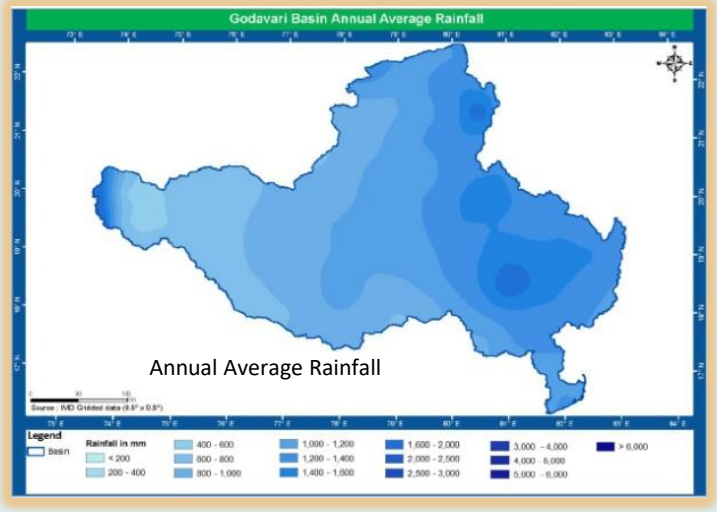
Godavari Basin

The river Godavari, the largest of the peninsular rivers, and third largest in India, drains about 10% of India's total geographical area. The catchment area of the river is 3,12,812 sq.km and is spread in the states of Maharashtra, Andhra Pradesh, Telangana, Madhya Pradesh, Chhattisgarh, Odisha and Karnataka. The basin lies in the Deccan plateau and is situated between latitude 16^0 16'00" and 22^0 36' 00" North and longitude 73^0 26' 00" and 83^0 07' 00" East.

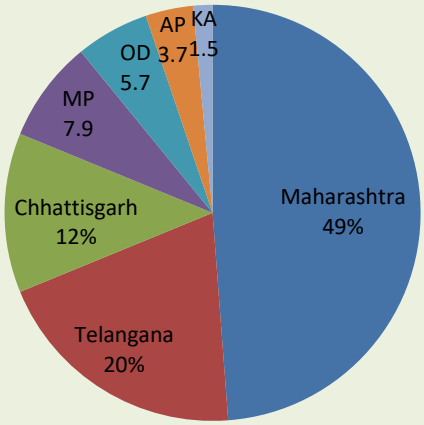
Facts

- Average annual Rainfall is 1117 mm
- Average water availability is 117.74 BCM (4158 TMC)
- 75% dependable Yield is 87.67 BCM (3096 TMC)
- Utilisable Surface Water is 76.3 BCM (2694 TMC)
- Live Storage Capacity (Total : 43.416 BCM)
  - Completed : 35.04 BCM
  - Under Construction: 8.412 BCM





State	Basin Area in sq. km.	Drainage area %
Maharashtra	1,52,652	48.80
Telangana	62,562	20
Chhattisgarh	38,789	12.40
Madhya Pradesh	24,712	7.90
Odisha	17,830	5.70
Andhra Pradesh	11,574	3.70
Karnataka	4,692	1.50
Total	3,12,812	100



Godavari Basin

The river Godavari rises at an elevation of 1,067 m in the Western Ghats near Thriambak Hills in the Nasik district of Maharashtra. After flowing for about 1,465 km., in a generally south-east direction, it falls into the Bay of Bengal.The largest tributary of the Godavari is the Pranhita with about 34.87% of drainage area. The Pravara, Manjira and Maner are right bank tributaries covering about 16.14%, the Purna, Pranhita, Indravathi and Sabari are important left bank tributaries, covering nearly 59.7% of the total catchment area of the basin. The Godavari in the upper, middle, and lower reaches make up for the balance 24.16%.

Sl.No	Name of the River	Length of Tributary (km)	Catchment area (sq.km.)	Avg. annual rainfall (mm)
1	Upper Godavari	675	33502	770
2	Pravara	208	6537	606
3	Purna	373	15579	797
4	Manjira	724	30844	846
5	Middle Godavari	328	17205	955
6	Maner	225	13106	932
7	Penganga	676	23898	960
8	Wardha	483	24087	1055
9	Pranhita	721	61093	1363
10	Lower Godavari	462	24869	1208
11	Indravati	535	41665	1588
12	Sabari	418	20427	1433

Hydrological Network under Godavari Circle

The hydrological observation stations in the Godavari Circle are under the control of two field divisions

1. Upper Godavari Division with headquarters at Hyderabad in the upper catchment of Godavari
2. Lower Godavari Division at Hyderabad in the Indravathi, Sabari sub-basins, and Lower Godavari catchments.

Under Hydrology Project two software's viz. SWDES and HYMOS were introduced for entry and analysis of Hydro-Meteorological data in the year 2000. The online platform e-SWIS was introduced in the year 2014 for online entry of Hydro-Meteorological data in two modules i.e. flood forecasting module and Hydrological observations module. Latest platform for data updation is Water Information Management System (WIMS).

Types of Sites

	Site	UGD	LGD	Total
1	G	13	10	23
2	GD	10	19	29
3	GDSQ	8	4	12
4	GDQ	5	4	09
5	GQ	01	2	03
	Total	37	39	76
6	RF	28	22	50
7	Wireless	21	16	37
8	Telemetry	38	33	71

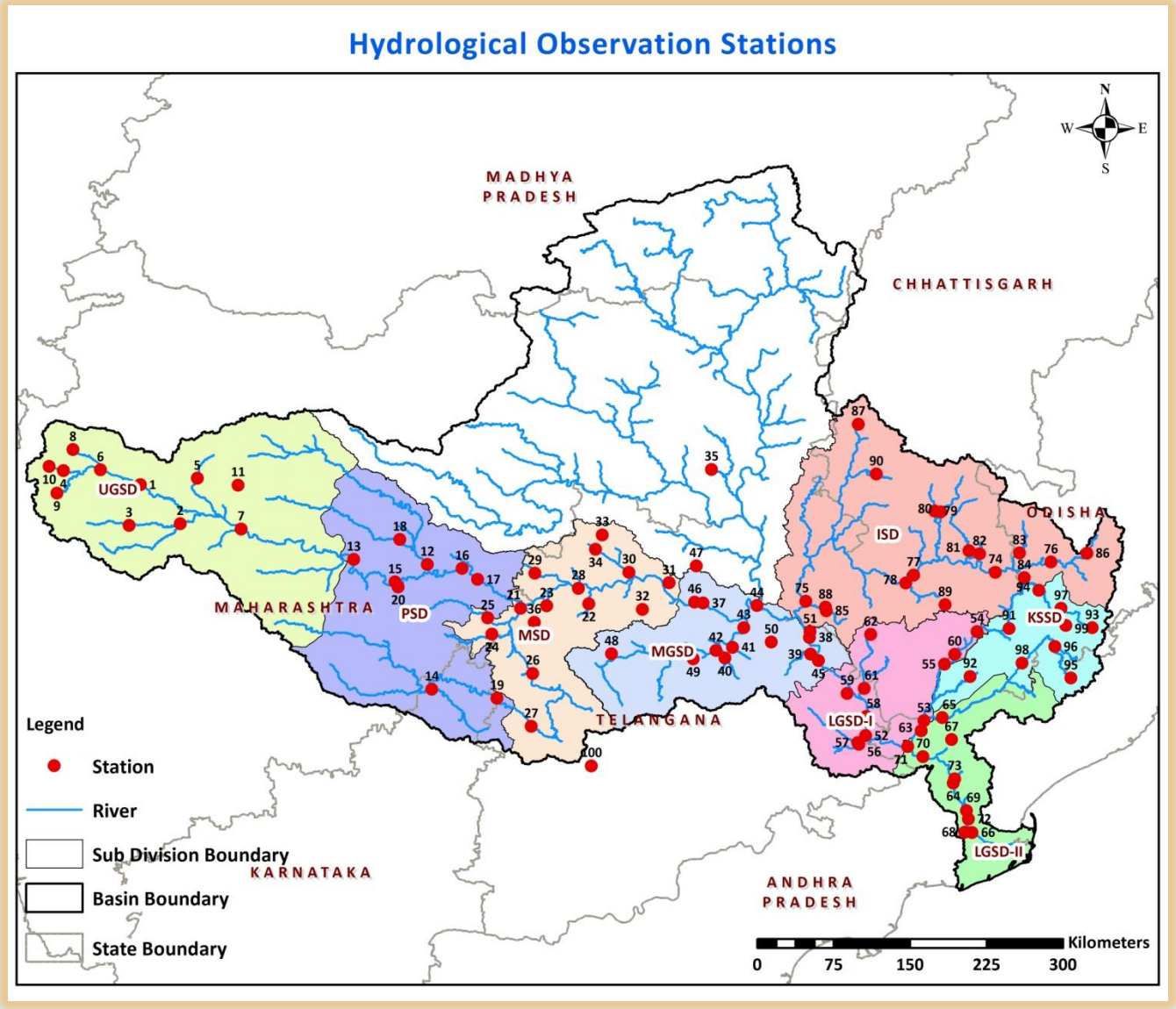
G- Gauge, D-Discharge, S-sediment,
Q-Water Quality, RF-Rainfall

Hydrological Observation Stations in Godavari Basin (under KGBO)

S No	Name of site	Type of site	S No	Name of site	Type of site	S No	Name of site	Type of site
1	Kopergaon	GDSQ, T-2 , W/L	34	Venkatapoor	T-1	67	Valamur	GD
2	Pachegaon	GDSQ, T-2 , W/L	35	Nandgur	T-1	68	Kanuru Agraharam	GD
3	Pratappur	GDQ	36	Nizamabad	T-1	69	Godavari Rly Bridge	GQ, T-2
4	Nasik	GQ, T-2 , W/L	37	Mancherial	GDSQ, T-2 , W/L	70	Koida	G, T-2 , W/L
5	Lasur	G, T-2 , W/L	38	Perur	GDSQ, T-2 , W/L	71	Kunavaram	G, T-2 , W/L
6	NMD Wier	G, T-2 , W/L	39	Allamvari Ghanpur	GD	72	Dowlaiswaram	G, T-2
7	Jaikwadi Dam	G, T-2 , W/L	40	Ankushapur	GD	73	Polavaram Project	T-2
8	Palkhed	G, W/L	41	Garimillapalli	GD	74	Jagdalpur	GDSQ, T-2
9	Dharna Dam	G	42	Nagaram	GD	75	Pathagudem	GDSQ, T-2 , W/L
10	Gangapur Dam	G	43	Somanpally	GD, T-2	76	Nowrangpur	GDQ, T-2 , W/L
11	Aurangabad	W/L	44	Kaleswaram	G, T-2 , W/L	77	Chindnar	GDQ, T-2 , W/L
12	Purna	GDSQ, T-2 , W/L	45	Eturunagaram	G, T-2 , W/L	78	Tumnar	GD, T-2 , W/L
13	Dhalegaon	GDSQ, T-2 , W/L	46	Sri Pada Yellampalli	T-2	79	Cherribeda	GD, T-2
14	Saigaon	GDSQ, T-2 , W/L	47	Gollet	T-1	80	Kiwaibalenga	GD, T-2
15	G.R.Bridge	GDQ, T-2	48	Racharla Gollapally	T-1	81	Ambabal	GD, T-2
16	Nanded	GDQ, T-2	49	Gaddapaka	T-1	82	Sonarpal	GD, T-2
17	Yelli	GDQ, T-2	50	Nagaram	T-1	83	Kosagumda	GD, T-2 , W/L
18	Zari	GD, T-2 , W/L	51	Devadula Project	T-2	84	Murthandi	GD, T-2
19	Janwada	GD	52	Bhadrachalam	GDQ, T-2	85	Sangampalli	GD
20	Gangakhed	G, T-2 , W/L	53	Konta	GDSQ, T-2 , W/L	86	Upper Indravati	G
21	Saloora	GDSQ	54	Talnar	GD	87	Kahdabari	T-1
22	Gandlapet	GDQ	55	Kerlapal	GD	88	Pegadpalli	T-1
23	Janepally	GD	56	Sangam (Murredu)	GD, T-2	89	Gatam	T-1
24	Degloor	GD, T-2 , W/L	57	Sangam (Kinnerasani)	GQ	90	Jiramtarai	T-1
25	Betmogra	GD, T-2 , W/L	58	Dummagudem	G, T-2 , W/L	91	Saradaput	GDQ, T-2 , W/L
26	Nizam Sagar	G, T-2 , W/L	59	Elchireddipalle	G	92	Potteru	GD, T-2
27	Singur(Snl)	G, T-2 , W/L	60	Sukma	G, T-2 , W/L	93	Sirmoda	GD
28	Sriram Sagar	G, T-2	61	Taliperu	T-2	94	Jeeraguda	GD
29	Bhainsa	G, T-2 , W/L	62	Basaguda	T-1	95	Kunturla	GD
30	Kaddam Project	T-2	63	Chinturu(Tallegudem)	T-2	96	Jalaput Dam	G
31	Dandepally	T-1	64	Polavaram	GDSQ, T-2 , W/L	97	Upper Kolab Reservoir	G
32	Jagtial	T-1	65	Kothapalle	GD	98	Balimela Reservoir	G
33	Sirikonda	T-1	66	Vadapalli	GD, T-2	99	Tikra Pada	T-1
						100	Hyderabad	W/L

G- Gauge, D-Discharge, S-sediment, Q-Water Quality,, T-Telemetry, W/L Wireless, FCS-Full climate Station, T-I – rainfall Telemetry, T-II- Water Level Telemetry

Map of Godavari Basin showing H.O. Stations (under KGBO)

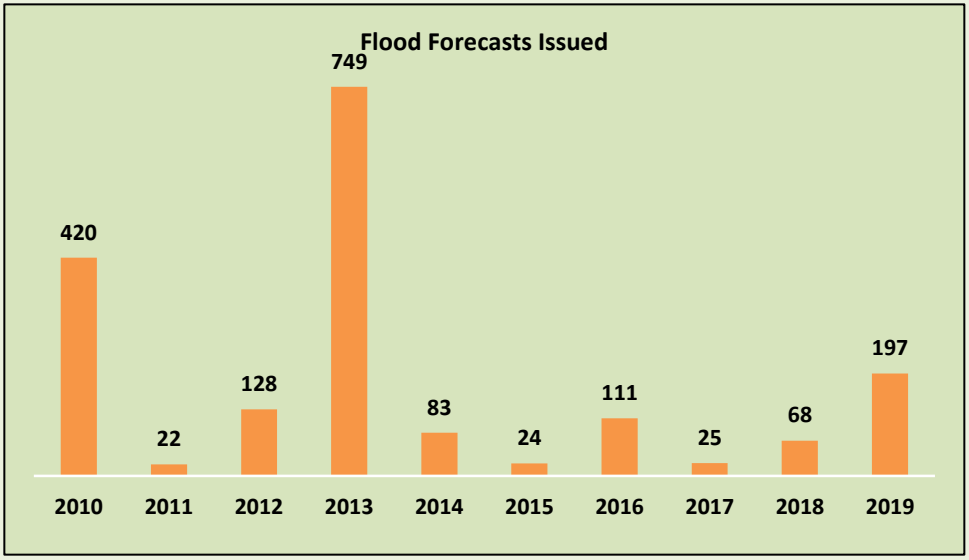


Flood Forecasting in Godavari Basin

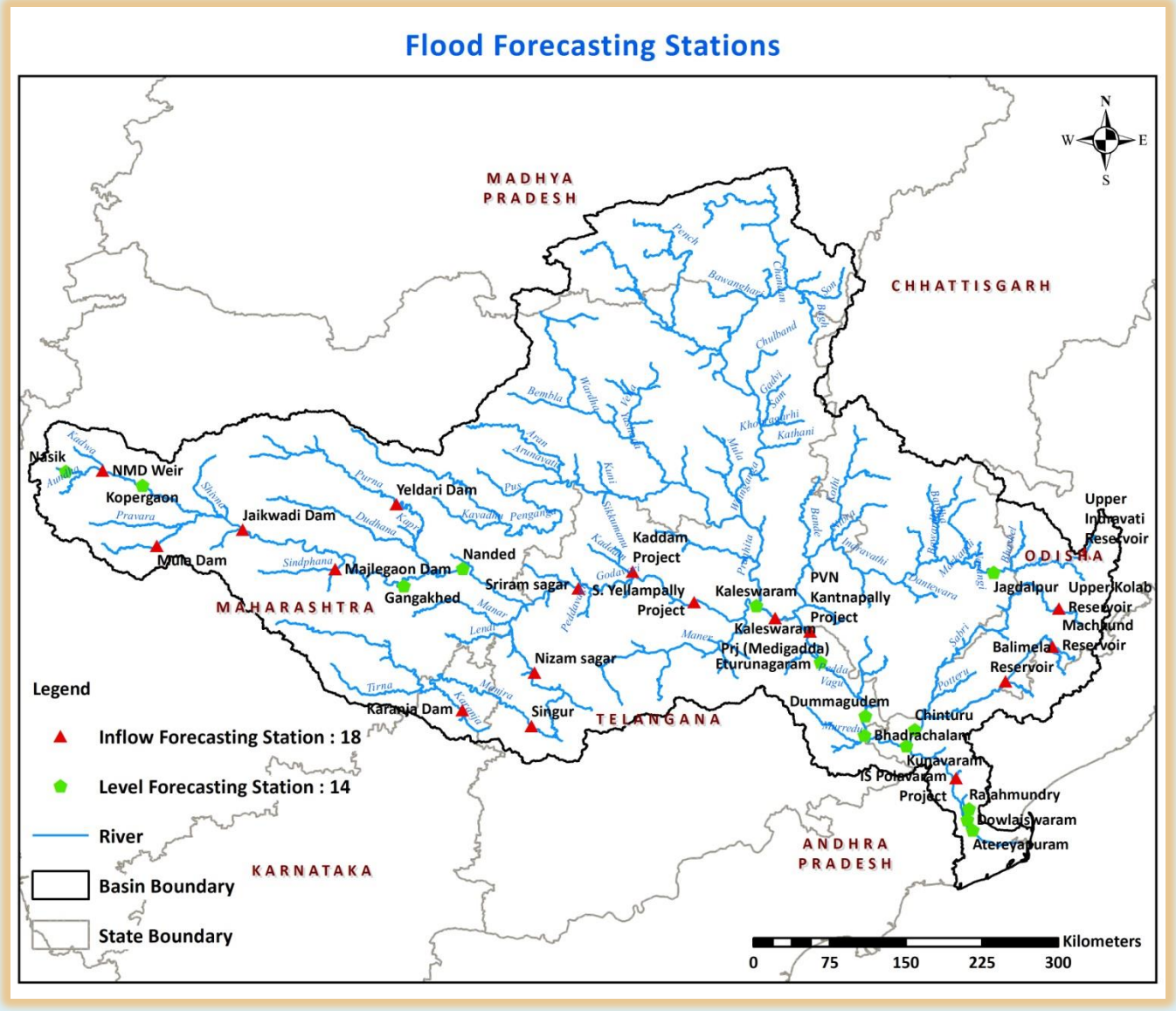
FLOOD FORECASTING NETWORK IN GODAVARI BASIN

The flood forecasting activities started in the year 1975, with the forecasts for Dowlaiswaram Barrage which is situated in Andhra Pradesh. At present flood level forecasts are being issued for 32 Stations which comprises of fourteen (14) level forecasting stations and eighteen (18) inflow forecasting stations. The inflow forecasts include major Reservoirs such as Jaikwadi, Sriramsagar, Yellampalli, Singur, Nizamsagar.

The flood forecasting network comprises of hydro-meteorological and wireless communication stations and real time data collection system for obtaining the real-time data on stage, discharge, rainfall and weather condition etc., which are used for formulating the forecast. The gauge levels are observed 76 stations (37 stations in Upper Godavari Division & 39 Stations in Lower Godavari Division). Out of these 76 stations the discharge is measured at 50 Stations (23 Stations in Upper Godavari division and 27 in Lower Godavari Division). Along with gauge and Discharge Data, Metrological data is measured at 50 stations (28 Stations in Upper Godavari Division and 22 Stations in Lower Godavari Division). A total of 37 wireless stations (21 in Upper Godavari Division and 16 Stations in Lower Godavari Division) and 71 Telemetry Stations (38 in Upper Godavari Division and 33 in Lower Godavari division) are available under Godavari Circle for transmitting data. Metrological forecasts and synoptic situations issued by Indian Meteorological Departments are also used for formulating the forecasts. The Lower Godavari division, Hyderabad is the responsible authority for issuing the flood forecasts in the entire Godavari Basin. One Modelling centre is functioning at Hyderabad. Every year flood Forecasting Appraisal Report is published after Monsoon season.

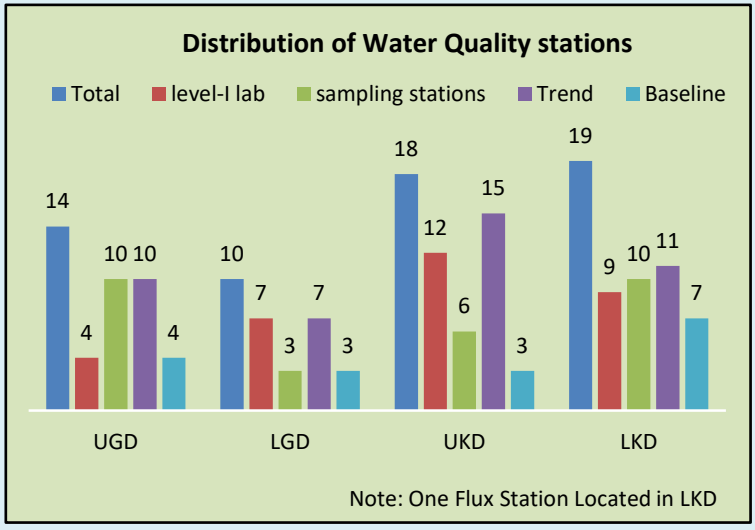


Map Showing Godavari Basin Flood Forecasting Stations under KGBO



Water Quality Monitoring

The Water Quality analysis under Krishna & Godavari Basin Organisation has started since July 1978 in Hydrological Observations and Flood Forecasting (South) Circle, Hyderabad. A total of 61 Water Quality Stations are currently operational in this Organisation. Three Type of Labs Level-I lab, Level-II lab and Level-III lab are currently operational. For baseline and trend stations samples are collected once in a month and for flux stations samples are collected thrice per month.



Level-I Lab

- A total of 32 Level I labs are distributed across the jurisdiction of KGBO.
- Six parameters namely color, odour, electrical conductivity, Dissolved oxygen, temperature, pH are being measured in this lab

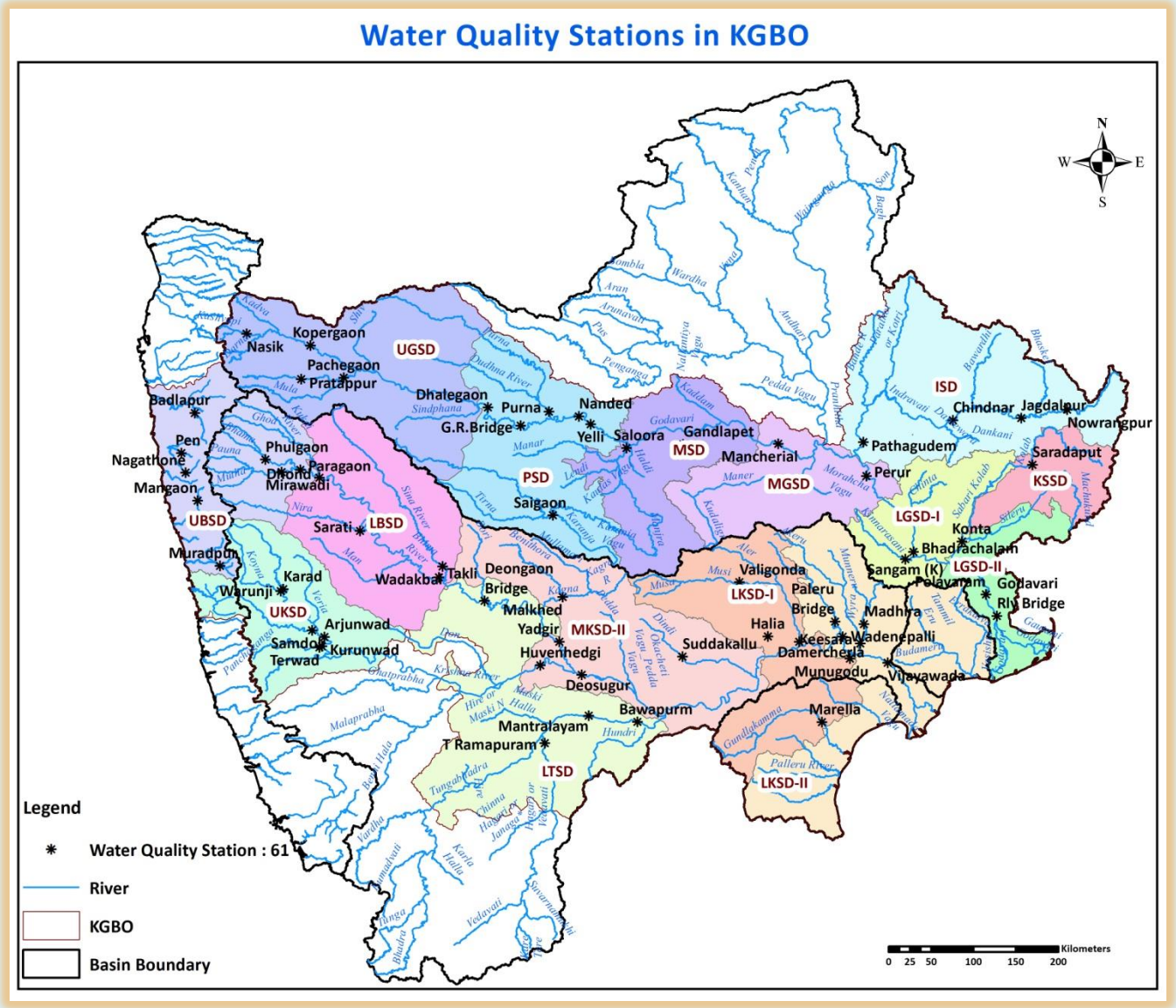
Level-II Lab : UKDWQL Pune

- One level-II lab is attached to Upper Krishna Division, Pune.
- NABL Accredited for 11 parameters (Certificate No TC-8138).
- The following parameters are analysed in Level-II Lab.
- **Physico – Chemical Parameters (21 No's):** pH, Electrical Conductance, Total Dissolved Solids, Turbidity, Alkalinity- Total, Boron, Calcium, Chloride, Carbonate, Fluoride, Iron, Bicarbonate, Sodium, Potassium, Magnesium , Ammonical-Nitrogen, Nitrate-Nitrogen, Nitrite-Nitrogen, Ortho-Phosphorous- Phosphate, Silica, Sulfate .
- **Biological Parameters (3 No's):** Dissolved Oxygen, Bio-chemical Oxygen Demand, Chemical Oxygen Demand
- **Bacteriological Parameters(2 No's):** Total Coliform count, Fecal Coliform count

Level-III Lab : KGRWQL, Hyderabad

- One level-III lab is attached to Upper Godavari Division, Hyderabad
- NABL Accredited for 20 parameters (Certificate No TC-6055)
- All the parameters in Level-II are analysed in Level –III Lab with additional Parameters mentioned below
- **Organo-chloro Pesticides (5 No's):** Aldrin, BHC, Dieldrin, DDT, Endosulphan
- **Trace & Toxic Elements (8 No's):** Arsenic, Cadmium, Chromium, Mercury, Nickel, Lead, Zinc, Copper
- **Total Organic Carbon**

Map Showing Water Quality Network in KGBO



Publications

The following are the publications every year for Godavari and Krishna Basins

- Water Year Book
  - Volume-1 : Hydrological Data
  - Volume-2 : Sediment Data
  - Volume-3 : Water Quality Data
  - Volume-4 : Metrological Data
- Flood Forecasting Appraisal Report

Hydrological Data

- River system
- Rainfall Pattern
- Data Observation
- History sheet
- Annual Maximum/Minimum discharge & Water Level Annual Runoff
- Stage discharge Data
- Histogram-Hydrograph
- Monthly Runoff
- Pre monsoon & Post monsoon Cross Section
- Historic annual runoff
- Historic Monthly Average Runoff

Sediment Data

- Suspended Sediment Data
- Bed Material Data
- History sheet
- Daily Observed Suspended Sediment
- Annual Sediment Load
- Historic annual Sediment Load
- Seasonal Sediment Load
- Bed Material analysis Data (Pre-Monsoon, Monsoon, Post Monsoon)

Water Quality Data

- Sampling
- Analysis Techniques
- Parameters Analysed in WQ Lab
- Details of Samples
- History sheet of Sites
- Water Quality Summary
- Water Quality seasonal average (June to Oct, Nov- Feb, March-May
- Behaviour of Parameters at Different Sites

Metrological Data

- Basin Description
- Past Record of Meteorological Data
- Observation Technique
- Annual rainfall
- Annual Average Rainfall
- Rainfall
- Temperature
- Wind Direction, Velocity
- Evaporation
- Humidity

Flood Forecasting Appraisal Report

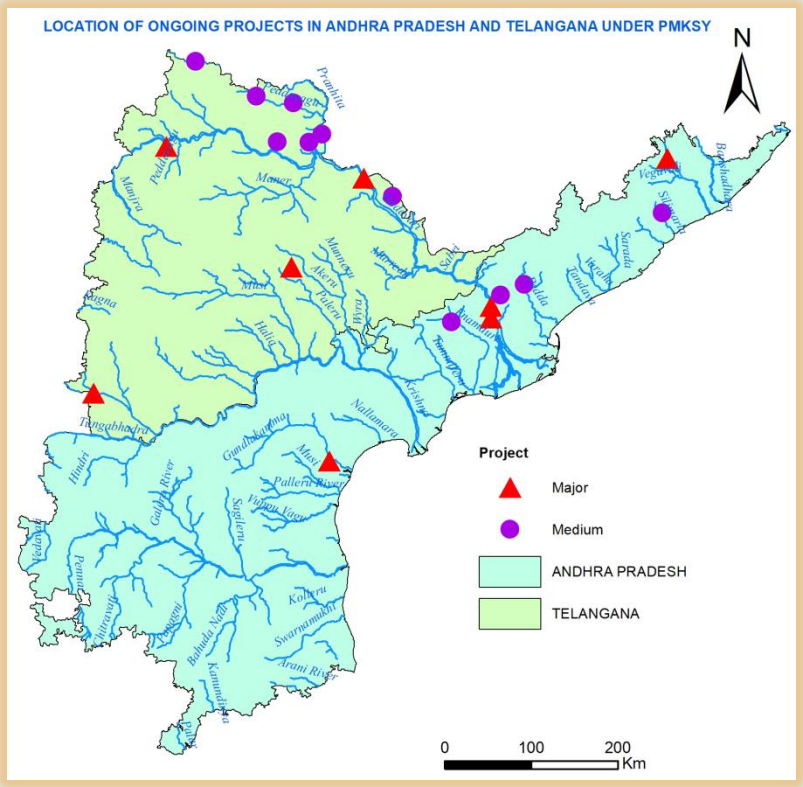
- River system
- Flood forecast Activities
- South West monsoon
- Flood Events
- Peak levels at Various Forecast Stations
- High flood Situation
- Forecast Performance

Monitoring & Appraisal Directorate

Monitoring & Appraisal Directorate looks after monitoring of selected Major and Medium Irrigation Projects and Appraisal of new Medium projects. These directorates provide technical assistance in water resources development. They act as liason office between State government and the Ministry of Jal Shakti. There are two Monitoring Directorates, one for each state Telangana and Andhra Pradesh, both stationed at Hyderabad.

Following Schemes under Pradhan Mantri Krishi Sinchayi Yojna (PMKSY) are presently ongoing in the Monitoring Directorates

- Monitoring under Accelerated Irrigation Benefits Programme (AIBP)
- Monitoring under Command Area Development & Water Management (CADWM)
- Monitoring of Works under Repair, Renovation & Restoration (RRR) of Water Bodies



RECENT STUDIES

1. Assessment of Ultimate Irrigation Potential, Irrigation Potential created, Irrigation Potential Utilised
2. Assessment of Storage levels of Reservoirs

Telangana - PMKSY

- No of Projects: 11 (AIBP), 9(CADWM), 575 (RRR)
- Total CA Released : 4321 cr
- Latest Estimated cost : 23626cr
- Total Expenditure incurred : 19036cr
- Ultimate Irrigation Potential (AIBP): 636 th.ha
- Irrigation Potential Created (AIBP) : 334 th. ha

Andhra Pradesh- PMKSY

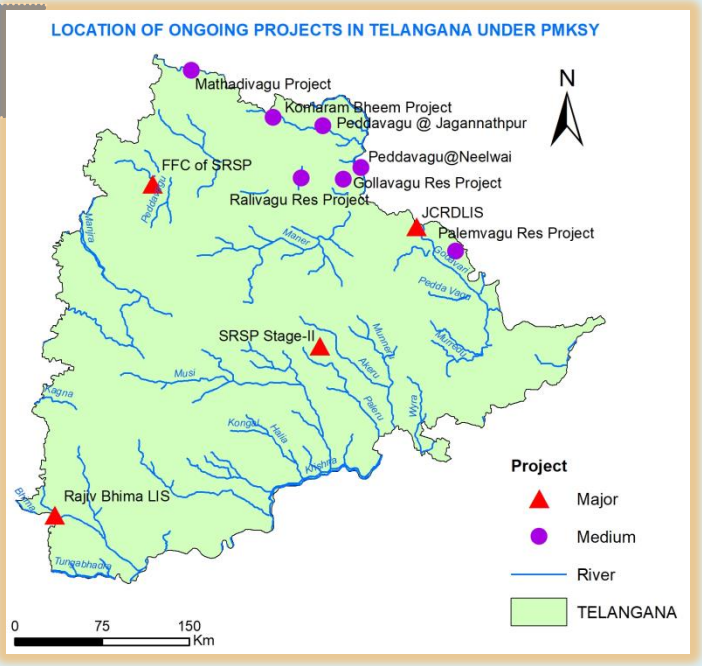
- No of Projects: 8 (AIBP), 7 (CADWM), 235 (RRR)
- Total CA Released : 540Cr
- Latest Estimated cost : 5364Cr
- Total Expenditure incurred : 2698Cr
- Ultimate Irrigation Potential : 297 Th.Ha
- Irrigation Potential Created : 221Th.Ha

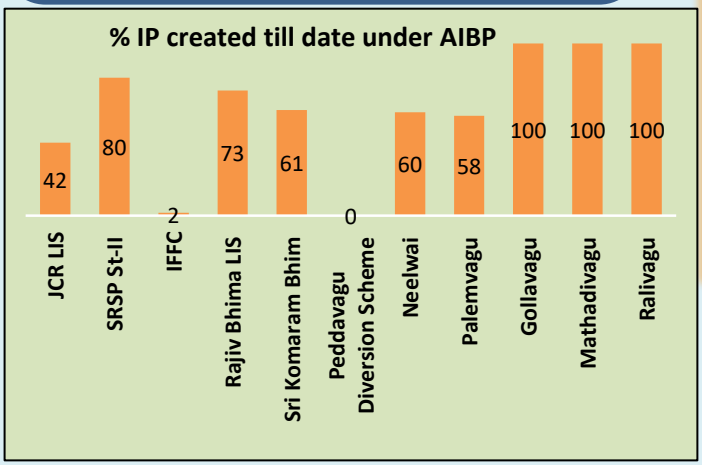
upto March 2020

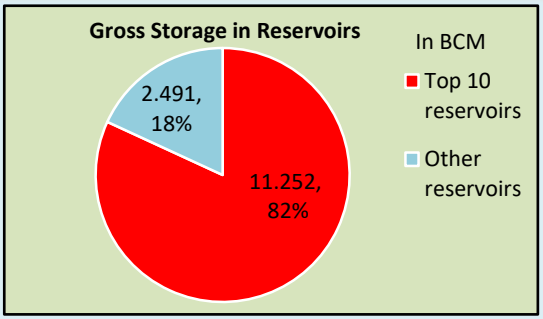
Telangana

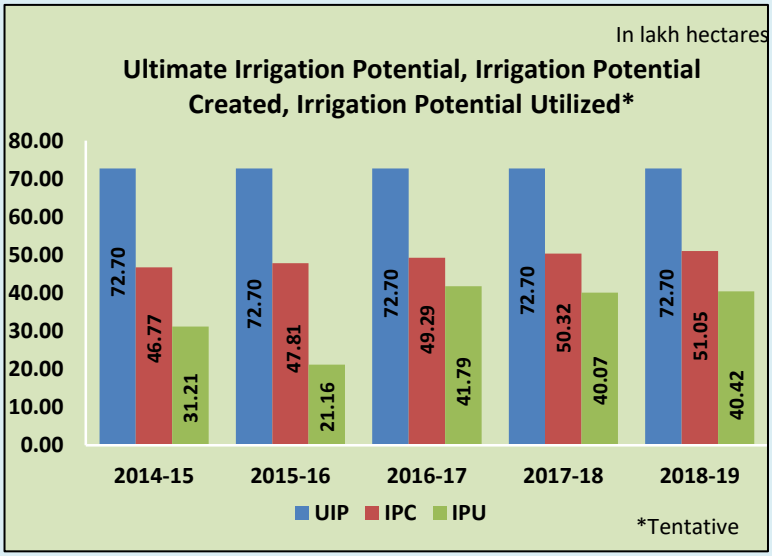
PMKSY

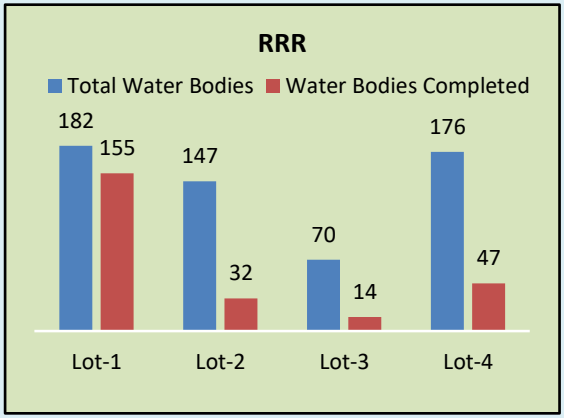
1. Monitoring of 11 Projects (4 Major +7 Medium Projects (3 completed)) of AIBP
2. Monitoring of 9 Projects (3 Major + 6 Medium Projects) of CADWM
3. Monitoring of 575 Water Bodies under RRR Scheme







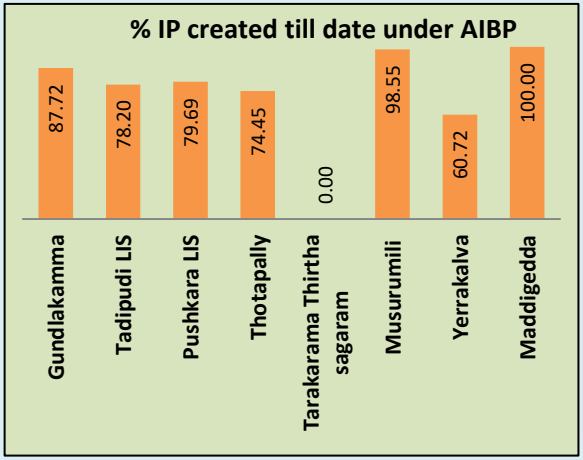


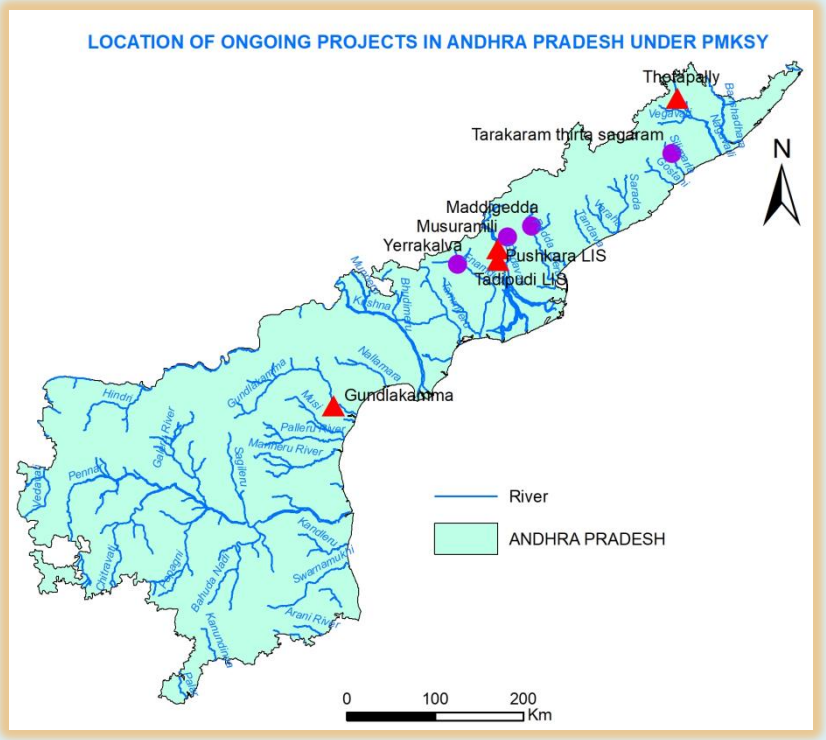


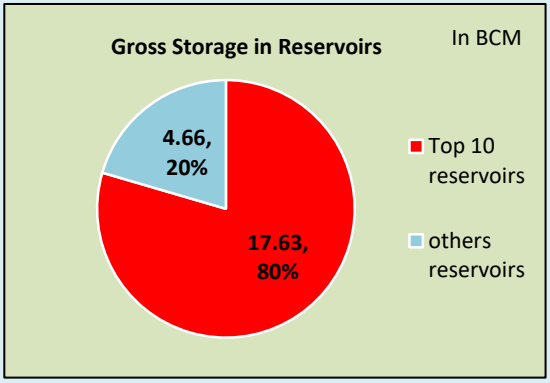
Andhra Pradesh

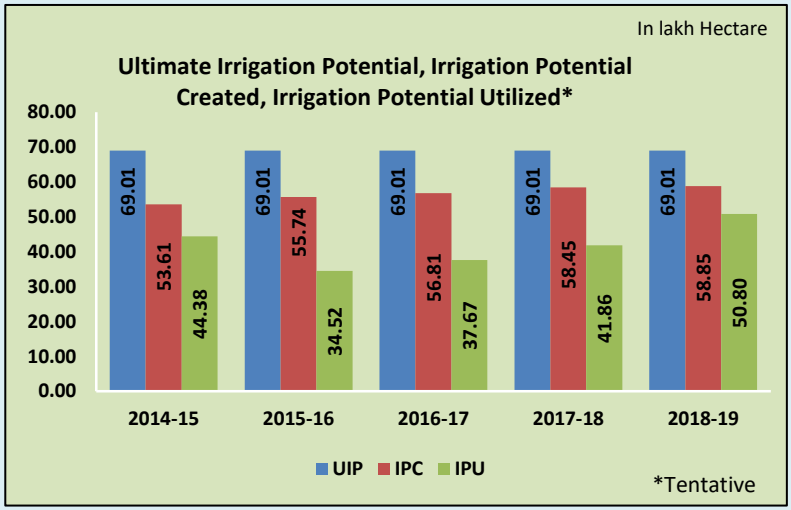
PMKSY

1. Monitoring of 8 Projects (4 Major + 4 Medium Projects (1 completed)) of AIBP
2. Monitoring of 7 Projects (4 Major + 3 Medium Projects) of CADWM
3. Monitoring of 235 Water Bodies under RRR Scheme









Other Activities

Coastal Management Information System

- As per MoU signed between CWC, NIO and Governments of Goa & Maharashtra the activities on Coastal Management Information System, for Goa and South Maharashtra has commenced in 2020. Two sites in Goa and one site in Maharashtra have been identified.
- Parameters to be observed: Wave (2) Current (3) tide (4) Riverine Data (5) Wind (6) Coastal Sediment (7) Beach profile (8) Bathymetry (9) Shoreline Change.

Ultimate Irrigation Potential, Irrigation Potential Created & Irrigation Potential Utilized

- Assessment of Ultimate Irrigation Potential, Irrigation Potential Created and Irrigation Potential Utilised has been finalised for Telangana and Andhra Pradesh State for the last five years and activity will be continued for every year

Survey for Morphological Studies of Krishna Basin

- Morphological Survey on river Krishna and Tungabhadra started from the year 2009-10 and 2008-09 respectively. 129 cross sections on river Krishna at 10 km interval and 38 cross sections on Tungabhadra at 10 km interval are being taken during non monsoon season of every year.

E-Governance

- KGBO developed first micro site for Basin Organisation in CWC in the year 2011.
- The use of GIS is prominent in all the Offices functioning under KGBO
- E-office is being used in KGBO

National Water Mission Awards

- Ground truthing of shortlisted applications for National Water Mission Awards has been performed and reports were sent

Storage levels of Reservoirs

- Reports for the Storage Position in Reservoirs for the States of Telangana and Andhra Pradesh have been Prepared

Other Activities

- In-house training programmes as per training calendar of CWC every year.
- Association with Central teams for flood / drought damage assessments as and when required.
- Flood Preparedness meeting every year with all stake holders.
- Association with Parliamentary Committee on Water Resources as and when required.
- Training to Field Staff on HO Activities

Representation in Committees

Chief Engineer

- Member of State Level Sanctioning Committee (PMKSY) of Telangana State and Andhra Pradesh State.
- Member of State Level Steering Committee under National Hydrology Project (NHP) of Telangana State and Andhra Pradesh State.
- Member of State Level Procurement Committee under National Hydrology Project (NHP) for Telangana State and Andhra Pradesh State
- Chairman of sub group constituted for reassessment of Ultimate Irrigation potential (UIP), Irrigation Potential Created (IPC) & Irrigation Potential Utilized (IPU) for Telangana State and Andhra Pradesh State.
- Member of the committee constituted by Krishna River Management Board (KRMB) to ensure supply of Krishna water to augment drinking water supply to Chennai city
- Member of Regional Co-ordination Committee (RCC) for Hard Rock Regional Centre, National Institute of Hydrology, Belagavi.
- Member of Regional Co-ordination Committee (RSS) for Deltaic Regional Centre, National Institute of Hydrology, Kakinada.

Director, M&A (TS)

- Member in State Level Technical Advisory Committee for Techno-economic appraisal of DPR pertaining to RRR Schemes for Telangana State
- Member Secretary for the of sub group constituted for reassessment of Ultimate Irrigation potential (UIP), Irrigation Potential Created (IPC) & Irrigation Potential Utilized (IPU) for Telangana State

Director, M&A (AP)

- Member in State Level Technical Advisory Committee for Techno-economic appraisal of DPR pertaining to RRR Schemes for Andhra Pradesh State
- Member Secretary for the of sub group constituted for reassessment of Ultimate Irrigation potential (UIP), Irrigation Potential Created (IPC) & Irrigation Potential Utilized (IPU) for Andhra Pradesh State

Superintending Engineer KCC & Superintending Engineer GC

- Member of Central Team for Drought and Flood Damage Assessment in the State of Telangana & Andhra Pradesh

Other Activities

Jal Shakti Abhiyan

Jal Sahkthi abhiyan is a time bound campaign with a mission mode approach intended to improve conditions in drought affected water stressed or over-exploited districts with water conservation related Central Programmes. In this campaign seven officers from KGBO have participated in various districts around the country

Training

KGBO organised the following in house training for skill up gradation of their employees

1. HO observations, Water Quality, Telemetry System & e-SWIS for field staff of KGBO.
2. Usage of e-Tools (ARC GIS, PFMS, GEM, E-procurement, e-office, e-HRMS, Bhavishya)
3. Disciplinary proceedings and Preventive Vigilance.

Swachtha Hi Sewa

Swachhata Hi Sewa is a massive country wide awareness and mobilization campaign with a special focus on 'Plastic Waste Awareness and Management'. KGBO (HQ) and its field units have participated in the campaign for making a clean public places and to avoid plastic usage.

Hindi Pakhwada

Hindi Pakhwada is celebrated from 16.10.2019 to 30.10.2019. During this period officials were encouraged to perform all the official duties in Hindi. A set of competitions were organised among the officials for encouragement.

Opening of New Offices under KGBO

Kolab Sileru Sub division

A New Sub division Kolab Sileru Sub Division at Vishakapatnam was started on 22.11.2019. The new sub Division was inaugurated by Shri M. Raghuram , Superintending Engineer, Godavari circle.

Middle Godavari Sub division

A New Sub Division Middle Godavari Sub Division at Warangal was started on 01.05.2019. The new sub Division was inaugurated by Shri M. Raghuram Superintending Engineer, Godavari circle.

Zari Site Office Building

A New site office building at Zari site was inaugurated by Shri M. K. Srinivas, Chief Engineer, Krishna & Godavari Basin Organisation. On 24.02.2020.

History of KGBO

1962

Krishna Godavari Commission in their report of July, 1962 recommended "*establishment on a permanent basis and on scientific lines, of daily discharge observations at 38 sites on the Krishna River System and 38 sites on the Godavari River System*". To take up this work, Central Water and Power Commission opened the Central Gauging Circle in July, 1963 with its headquarters at Hyderabad and two Divisions namely Krishna Gauging Division and Godavari Gauging Division for the two River Systems.

1979

Two regional offices of CWC were opened in 1979 viz., Southern region at Hyderabad and Northern region at Patna. The Peninsular river basins under the jurisdiction of the Southern region were Krishna Basin, Godavari Basin, Cauvery Basin,Subarnarekha Basin, Brahmani and Baitarni Basin, Mahanadi Basin, Pennar Basin, Mahi Basin, Sabarmati Basin, Narmada Basin, Tapi Basin, West flowing rivers from Tapi to Tadri, West flowing rivers from Tadri to Kanyakumari , East flowing rivers between Mahanadi and Pennar, East flowing rivers between Pennar and Kanya kumari, West flowing rivers of Kutch and Saurashtra including Luni covering the states of Andhra Pradesh, Telangana, Karnataka, Tamil Nadu, Kerala, Maharashtra, Madhya Pradesh, Odisha, Goa Chattisgarh, Gujarat and UT of Puducherry.

1995

Following the opening of more regional offices in the country in 1995 , the Southern region was renamed as KGBO with the following jurisdiction

- Krishna Basin
- Godavari Basin
- East flowing rivers draining into Bay of Bengal between Godavari and Pennar
- West flowing rivers draining into Arabian sea like Purna Mindhola, Auranga, Ulhas, Savitri, Jog, Vashishti, Shastri Kodavali, Machkandi, Gad, Mandavi, Bhogeshwari, Amda Kajri, Kal.
- Covering the states of Andhra Pradesh, Telangana Karnataka, Goa, Maharashtra, Chattisgarh, Odisha .

Present Day Jurisdiction

- Krishna Basin except Upper Tungabhadra and Upper Krishna region in Karnataka
- Godavari Basin except Pranahitha basin
- East flowing rivers draining into Bay of Bengal between Godavari & Pennar
- West flowing rivers draining into Arabian sea like Ulhas , Bhogeshwari , Amba , Kal , Kajri , Gad
- Covering the states of Maharashtra, Telangana Chattishgarh, Odisha, AndhraPradesh, Karnataka

Incumbency of Chief Engineer, CWC, Hyderabad

S.No	Name of Chief Engineer	From	To
1	Sh.R.D.Agarwal	01-11-1979	31-01-1982
2	Sh.G.S.Singh(A/C)	01-02-1982	12-12-1982
3	Sh.T.Kumar Das	13-12-1982	26-09-1985
4	Sh.K.K.Rao	27-09-1985	30-09-1985
5	Sh.T.Kumar Das	01-10-1985	31-05-1988
6	Sh.A.D.Mohille	01-06-1988	21-04-1990
7	Sh.C.Subba Rao	04-05-1990	31-08-1993
8	Sh.B.Pyda Raju	01-09-1993	30-04-1994
9	Sh.K.C.Agarwal(A/C)	01-05-1994	31-08-1994
10	Sh.R.Jaya Seelan(A/C)	01-09-1994	19-08-1995
11	Sh.R.V.Godbole	19-08-1995	31-10-1996
12	Sh.T.D.Sundara Babu	01-11-1996	31-03-1997
13	Sh.P.C.Lau	01-04-1997	28-04-1999
14	Sh.V.R.Sastry(A/C)	28-04-1999	24-05-1999
15	Sh.A.Sekhar	24-05-1999	16-12-2000
16	Sh.R.Jaya Seelan(A/C)	17-12-2000	28-01-2001
17	Sh.V.K.Jyothi	29-01-2001	04-12-2006
18	Sh.R.P.Saxena(A/C)	05-12-2006	30-04-2007
19	Sh.O.P.Khanda	30-04-2007	26-07-2009
20	Sh.V.N.Wakpanjar	27-07-2009	14-01-2013
21	Sh. P. Ramachandra Rao	14-01-2013	28-02-2014
22	Sh.K.S. Jacob (A/C)	01-03-2014	31-08-2014
23	Sh. S.K.Srivastava (A/C)	01-09-2014	13-02-2015
24	Sh.R.K.Gupta (A/C)	14-02-2015	28-08-2017
25	Sh.R.K.Jain (A/C)	29-08-2017	22-10-2017
26	Sh.D. Ranga Reddy	23-10-2017	17.01.2020
27	Sh. M.K.Srinivas	17.01.2020	till date

A/C –Additional Charge

KGBO Team

M. K. Srinivas
Chief Engineer
KGBO

M. Raghuram
Superintending Engineer, GC

P. Devender Rao
Director, M&A (AP)

Srinivasu Bairy
Superintending Engineer, KCC

K. Rekha Rani
DD, M&A (TS)

M. N. R .Meher Vani
EE, LKD

K. Shankar
DD, M&A (AP)

N. Srinivas Rao
EE, UGD

M. Ganga Bhawani
DD, O/o CE, KGBO

D. Ganesh Kumar
DD, M&A (AP)

Abhishek Gaurav
EE, UKD

K. V. K. Kuchel
EE, LGD

Krishna Godavari Bhawan

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