



सत्यमेव जयते

# Report on WATER AUDIT OF IRRIGATION PROJECTS IN MAHARASHTRA 2005-06



**WATER RESOURCES DEPARTMENT**  
GOVERNMENT OF MAHARASHTRA, INDIA  
MARCH - 2007



**Report on  
Water Audit of Irrigation Projects in Maharashtra  
2005-06**

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**Government of Maharashtra  
Water Resources Department  
March 2007**

## FOREWORD

Government of Maharashtra has made it mandatory for all projects to maintain account of water received in the reservoirs. The water account consists details about sector-wise provisions, use, area irrigated by canals reservoir lifts, lifts on river & wells in command area. Induction of water accounting, publication of annual reports at State level, trainings & inspections have created awareness amongst the beneficiaries & field staff.

Water accounting proformas for maintaining rotation-wise & season-wise accounts are developed. Training programmes on the subject are conducted by WALMI Aurangabad for the concerned field staff.

An independent office of Chief Engineer, Maharashtra Water Resources Development Centre is entrusted with the work of water auditing of all water resources projects in the State. In addition to checking of annual water accounts, regular inspections of irrigation divisions, sub divisions & section offices are conducted by MWRDC & recommendations are made to Govt. for improvement in performance.

This is the third consecutive annual water audit report of the State containing 1945 projects. Presentation & analysis is extended up to individual major & medium projects.

I appreciate sincere efforts taken by Shri C.I.Sambutwad, Chief Engineer and his team for preparation of this report.

Comments & suggestions on this report will be appreciated.

**E. B. Patil**  
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## ABBREAVITIONS

CCA	Culturable Command Area
CRT	Converted Regular Temporary
cum	Cubic Metre
CWC	Central Water Commission
GOI	Government of India
GOM	Government of Maharashtra
ha	Hectare
IMD	India Meteorological Department
IWM	Irrigation Water Management
ISP	Irrigation System Performance (Area irrigated per unit of water utilised at source in ha/ Mcum)
K.T. Weirs	Kolhapur Type Weirs
Mha	Million hectares
MERI Nashik	Maharashtra Engineering Research Institute, Nashik
MWRDC	Maharashtra Water Resources Development Centre, Aurangabad (formerly MWIC)
MWSIP	Maharashtra Water Sector improvement Programme
NI Use	Non Irrigation Use
MWRRA	Maharashtra Water Resources Regulatory Authority Act, 2005
PIM	Participatory Irrigation Management
PR	Project Report
PIP	Preliminary Irrigation Programme
WALMI	Water and Land Management Institute, Aurangabad
WUA	Water Users' Association
AIC Akola	Akola Irrigation Circle, Akola
BIPC Buldhana	Buldhana Irrigation Projects Circle Buldhana
CADA Abad	Command Area Development Authority, Aurangabad
CADA Beed	Command Area Development Authority, Beed.
CADA Jalgaon	Command Area Development Authority, Jalgaon
CADA Nagpur	Command Area Development Authority, Nagpur
CADA Nashik	Command Area Development Authority, Nashik
CADA Pune	Command Area Development Authority, Pune
CADA Solapur	Command Area Development Authority, Solapur
CIPC Chandrapur	Chandrapur Irrigation Projects Circle, Chandrapur
GKLISC Bhandara	Gosi Khurd Lift Irrigation Scheme Circle, Bhandara
JIPC Jalgaon	Jalgaon Irrigation Projects Circle, Jalgaon
KIC Ratnagiri	Konkan Irrigation Circle, Ratnagiri
NIC Nagpur	Nagpur Irrigation Circle, Nagpur
NIC Nanded	Nanded Irrigation Circle, Nanded
NKIPC Thane	North Konkan Irrigation Project Circle, Thane
PIC Pune	Pune Irrigation Circle, Pune
SIC Sangli	Sangli Irrigation Circle, Sangli
TIC Thane	Thane Irrigation Circle, Thane
UWPC Amravati	Upper Wardha Project Circle, Amravati
YIC Yavatmal	Yavatmal Irrigation Circle, Yavatmal

## Chapter-1 Introduction

### 1.1.1 Background

The geographical area of Maharashtra is 307.78 lakh hectares of which the cultivable area is 225 lakh ha. The area is divided mainly into five major river basins of Godavari, Krishna, Tapi, Narmada and westward flowing the rivers comprising a basin group of 22 narrow sub-basins.

The Maharashtra Water and Irrigation Commission (1999) has proposed delineation of five river basins basically into 25 distinct sub basins for planning of water resources development in the State (Map 1). The categorisation of sub basins proposed is solely on the basis of natural availability of water. The basic characteristics of sub basins are dictated by the hydrological regime, which in turn, is a function of climate, rainfall distribution and the type and characteristic of draining area.

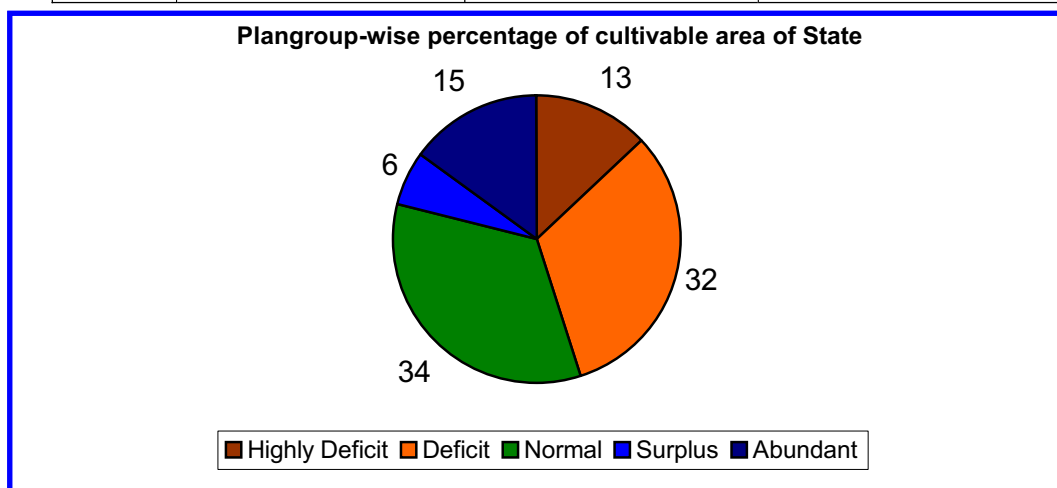
The sub basins are as follows:

Sr. No.	River Basin	Names of Sub basins	Abbreviated name	Categorisation for planning on the basis of availability of natural water
I	Godavari	1) Upper Godavari (Up to Paithan Dam)	Upper Godavari	Normal
		2) Lower Godavari (D/S of Paithan Dam)	Lower Godavari	Deficit
		3) Purna (including Dudhana)	Purna Dudhana	Deficit
		4) Manjra	Manjra	Deficit
		5) Godavari-Sudha-Swarna	Remaining Godavari	Normal
		6) Painganga	Painganga	Normal
		7) Wardha	Wardha	Normal
		8) Middle Wainganga	Middle Wainganga	Surplus
		9) Lower Wainganga	Lower Wainganga	Abundant
II	Tapi	10) Purna (Tapi)	Purna Tapi	Deficit
		11) Girna	Girna	Deficit
		12) Panzara	Panzara	Normal
		13) Middle Tapi	Middle Tapi (Satpuda)	Normal
			Middle Tapi (South)	Deficit
III	Narmada	14) Narmada	Narmada	Surplus
IV	Krishna	15) Upper Krishna (West)	Upper Krishna (W)	Abundant

Sr. No.	River Basin	Names of Sub basins	Abbreviated name	Categorisation for planning on the basis of availability of natural water
		16) Upper Krishna (East)	Upper Krishna (E)	Highly Deficit
		17) Upper Bhima (Up to Ujjani)	Upper Bhima	Normal
		18) Remaining Bhima	Remaining Bhima	Normal
		19) Sina-Bori-Benetura	Remaining Bhima Including Man	Highly Deficit
			Sina - Bori-Benetura	Highly Deficit
V	West Flowing Rivers in Konkan	20) Damanganga-Par	Damanganga-Par	Abundant
		21) North Konkan	North Konkan	Abundant
		22) Middle Konkan	Middle Konkan	Abundant
		23) Vashisthi	Vashishthi	Abundant
		24) South Konkan	South Konkan	Abundant
		25) Terekhol – Tillari	Terekhol – Tillari	Abundant

Categorisation of sub basins for planning, on the basis of naturally available quantum of water, is given below:

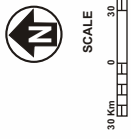
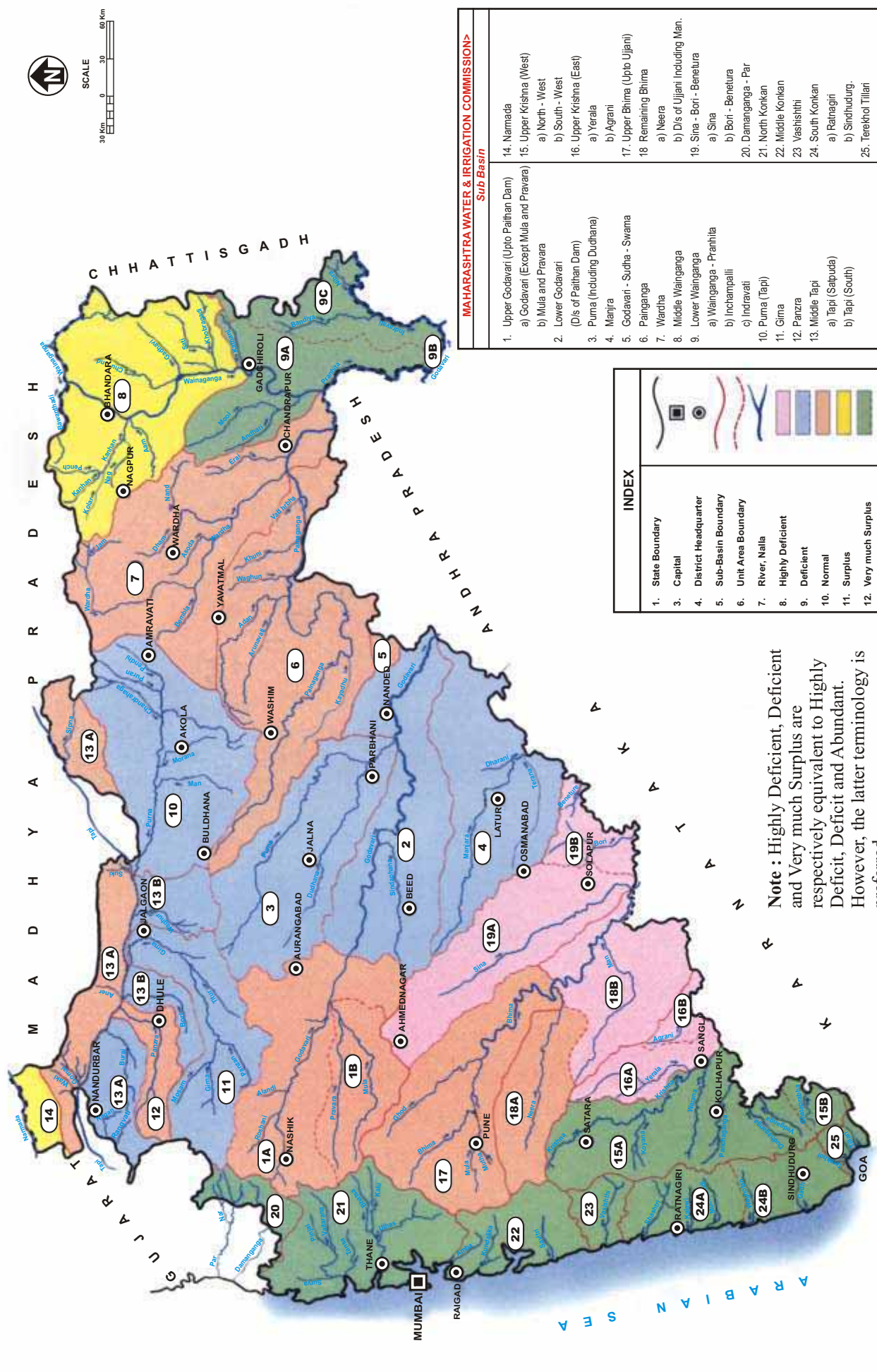
Sr. No.	Plangroup	Per ha availability (cum)	Percent of cultivable area of State
1	Highly Deficit	Below 1500	13
2	Deficit	1501-3000	32
3	Normal	3001-8000	34
4	Surplus	8001-12000	06
5	Abundant	Above 12000	15



A graph showing basin-wise availability of water is appended herewith.



SUB - BESINS IN MAHARASHTRA AS PROPOSED BY THE COMMISSION & CATEGORIZATION THEREOF IN PLANNING GROUPS

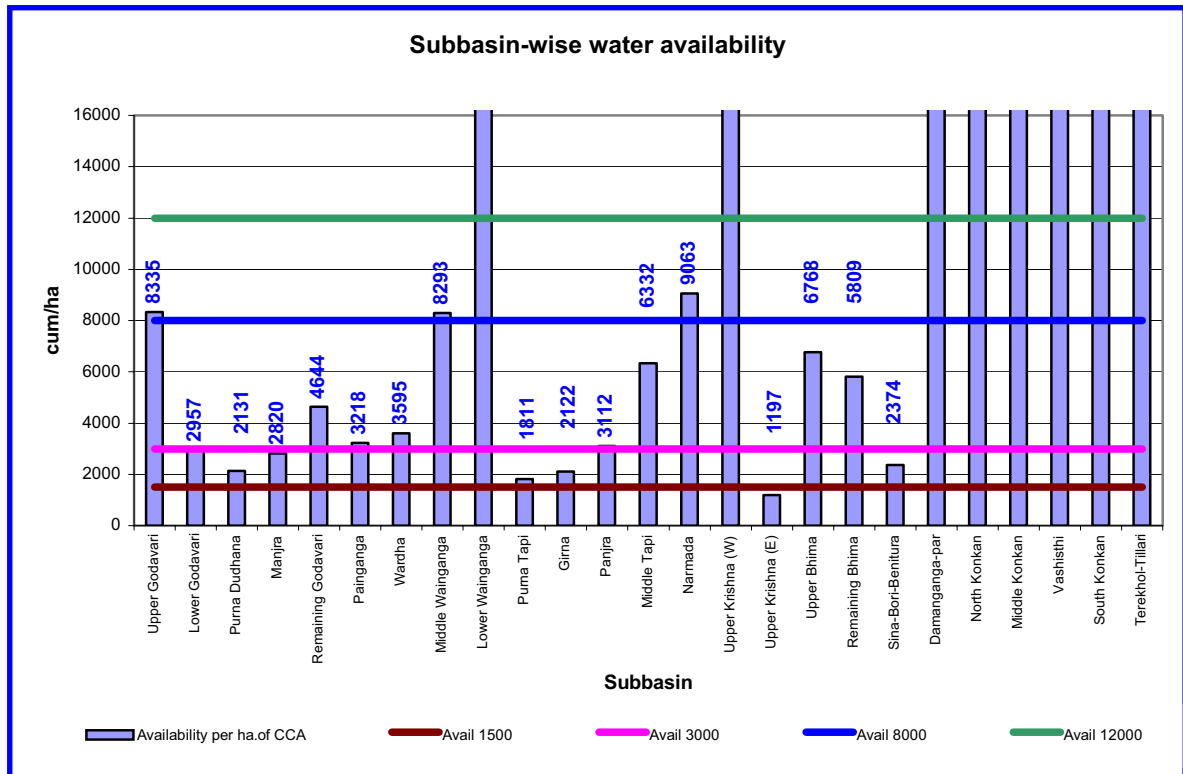


INDEX	
1. State Boundary	
2. Capital	
3. District Headquarter	
4. Sub-Basin Boundary	
5. Unit Area Boundary	
6. River, Nalla	
7. Highly Deficient	
8. Deficient	
9. Normal	
10. Surplus	
11. Very much Surplus	

MAHARASHTRA WATER & IRRIGATION COMMISSION> Sub Basin	
1. Upper Godavari (Upto Palthan Dam)	14. Namada
a) Godavari (Except Mula and Pravara)	15. Upper Krishna (West)
b) Mula and Pravara	a) North - West
2. Lower Godavari	b) South - West
(Dis of Palthan Dam)	16. Upper Krishna (East)
3. Purna (Including Dudhana)	a) Yerala
4. Marjira	b) Agrani
5. Godavari - Sudha - Swama	17. Upper Bhima (Upto Ujani)
6. Painganga	18. Remaining Bhima
7. Wardha	a) Neera
8. Middle Wainganga	b) Dis of Ujani including Man.
9. Lower Wainganga	19. Sina - Bori - Benetura
a) Wainganga - Pranhlita	a) Sina
b) Bori - Benetura	b) Bori - Benetura
c) Inchampalli	20. Damanganga - Par
10. Indravati	21. North Konkan
11. Purna (Tapal)	22. Middle Konkan
12. Panzra	23. Vashishthi
13. Middle Tapi	24. South Konkan
a) Tapi (Satpada)	a) Rainagiri
b) Tapi (South)	b) Sindhudurg.
	25. Tereshhol Tilari

**Note :** Highly Deficient, Deficient and Very much Surplus are respectively equivalent to Highly Deficit, Deficit and Abundant. However, the latter terminology is preferred.





It would be seen from the above table that basins, which are deficit and highly deficit, are likely to become more water scarce. With the growth of population in years to come the per capita water availability is going to be further reduced. Hence it is the need of the hour to use available water resource economically & efficiently. This can best be achieved by introducing Water Audit for each and every section of water use. Water Resources Department has already started water auditing of irrigation projects. Now, what is necessary is to have water auditing in drinking water and industrial water sector.

### 1.2.0 What is Water Auditing?

Water auditing is a systematic & scientific examination of water accounts of the projects. It is an intelligent & critical examination by independent organisation. It is a critical review of system of accounting. Water auditing is checking sector-wise water use against planning, Irrigation System Performance (ISP) and losses. As far as irrigation sector is concerned, water audit gives comparison of planned Irrigation System Performance (i.e. ha /Mcum) versus actual Irrigation System Performance (i.e. ha/ Mcum). This will provide information about loss of water in the system. Water audit helps in identifying the causes for it and initiate action to minimise the losses to improve the ISP.

Broadly water auditing involves checking the following parameters.

- 1) Actual water use in various sectors against planning,
- 2) Whether Irrigation System Performance in every season is as per planning
- 3) Checking whether the prescribed procedure for irrigation management is followed or not.
- 4) Whether records as per requirements are maintained or not.

### 1.3.0 Water Auditing Scenario:

The Central Water Commission, Ministry of Water Resources. GOI & Central Ground Water Board took an initiative in this regard and issued guidelines for water audit of projects in December 2005. These guidelines are only indicative and on broad spectrum. Every State is required to prepare its own guidelines considering peculiarities and necessities of individual State.

### 1.4.0 Water Auditing-State Scenario:

Large number of irrigation projects are constructed in Maharashtra to harness the water resources of the State. By June 2005, irrigation potential of 4.003 Mha is created through 53 major, 219 medium and 2470 State sector minor projects. Water auditing is performed since 2003-04. Yearly increase in audited projects is shown below:

Year	No. of Projects
2003-04	1229
2004-05	1624
2005-06	1957

With increasing population, urbanisation and industrialisation, the water demand is increasing day by day and competitive demands from various sectors are increasing. Table 1 shows the details of storages available, irrigation & non-irrigation water use & Irrigation system performance.

Table 1

#### Storages available, irrigation & non-irrigation water use & Irrigation system performance.

Irrigation Year	Design ed Storage (Mcum )	Actual Storage on 15th October (Mcum)	Water use for		Total water use (Mcum)	Potential created (Mha)	Potenti al utilised (Mha)	Potential utilised including wells (Mha)	ISP (ha/ Mcum) on canal flow	ISP includ- ing Wells (ha/ Mcum)
			Irrigation (Mcum)/ %	Non Irrigation (Mcum)/ %						
2000-01	26748	18947	13575/78	3858/22	17433	3.706	1.298	17.64	96	130
2001-02	28062	18717	12346/76	3980/24	16326	3.769	1.25	17.08	101	138
2002-03	28715	18936	12965/75	4236/25	17201	3.812	1.318	18.42	102	142
2003-04	28840	16941	10569/69	4790/31	15369	3.863	1.244	16.85	118	159
2004-05	28889	18298	10603/69	4860/31	15463	3.913	1.257	16.99	119	160
2005-06	29110	24860	13689/73	4926/26	18616	4.003	1.617	22.14	118	161

(Ref: Irrigation Status Report, 2005-06 GOM)

Auditing of water accounts of irrigation projects constructed through public investment is necessary to see that the water use, Irrigation system and evaporation & other losses are as per design. If there is any variation, water auditing enables to locate the reasons for the same and facilitate suitable corrective measures.

Maharashtra is the first state in India to incorporate the subject of water audit in State Water Policy as a sector reform in water management and has taken up the issue since 2003-04.

Government circular dated 26.06.2003 for water accounting and auditing of irrigation projects contains the related methodology. Administrative arrangements are set up by creating water audit units under Chief Engineer, Maharashtra Water Resources Development Centre, Aurangabad. The MWRDC office is carrying out the water audit of all State sector projects since last four years.

#### **1.5.0 Administrative set up for Irrigation Management**

A chart detailing out the administrative set up for the irrigation management from the level of Secretary (CAD) to Circle offices is enclosed at Annexure-V. The Chief Engineer at regional level deals with the general administration and the development and utilisation of the irrigation projects. The Superintending Engineer assists the Chief Engineer. The Superintending Engineer is the administrative head at the circle level. He has full powers to sanction use of irrigation water for different activities in the region. The Superintending Engineer has to approve yearly utilisation of the storage in reservoirs and modify & approve irrigation programmes from year to year as per the availability of water. The Superintending Engineer has full administrative and financial control over the budget provisions allocated by Government. In addition to above, the Superintending Engineer has to certify the safety of major and medium dams by inspecting them during pre and post monsoon periods.

The Superintending Engineer being managerial head of the project approves water planning and monitors the same through Executive Engineer & Stakeholders. Executive Engineer is responsible for maintenance of irrigation works and management of its irrigation in the field. Apart from technical duties, the Executive Engineer has to perform duties under the Irrigation Act and rules thereunder. The management of irrigation is an important work assigned to the Executive Engineer and has to play a very important role in day-to-day sanction and distribution of canal water to each individual irrigator or WUA. Map-2 showing location of irrigation circles is enclosed.

#### **1.6.0 Water Audit Procedure**

Government of Maharashtra vide circular dated 26.06.2003 has enforced the field officers to submit the annual water accounts of all State sector irrigation projects under a circle in prescribed proforma by 14th August every year. For effective implementation and analysis, a time-bound programme as mentioned below is framed.

Sr. No.	Particular	Scheduled Date
1	Submission of water accounts to MWRDC office by concerned irrigation circles	14 <sup>th</sup> August
2	Communication of remarks on water accounts to concerned irrigation circles by MWRDC.	31 <sup>st</sup> October
3	Compliance of remarks on water accounts by irrigation circles.	30 <sup>th</sup> November

4	Consolidation of water account data of different projects and preparation of draft Water Audit Report by MWRDC.	15 <sup>th</sup> January
5	Approval to the Water Audit Report by GOM.	20 <sup>th</sup> February
6	Publication of Water Audit Report	22 March (World Water Day)

On receipt of the water accounts, scrutiny is carried out in MWRDC Office. While scrutinizing the water account of a project, emphasis is given on following points.

- i) Total available live storage is tallied with different water uses, evaporation losses, leakages, replenishment received in June and unutilised water at the end of irrigation year.
- ii) Season-wise availability and extent of water use.
- iii) Irrigation System Performance actual observed as compared to norms fixed by GOM.
- iv) Actual evaporation losses as compared to designed evaporation losses.
- v) Percentage of leakages through dam and its location, efforts taken by field staff to minimise or stop the leakages.

Simultaneously, an annual programme for inspection of irrigation management divisions, is prepared and communicated to the field officers. According to this programme, inspections are conducted.

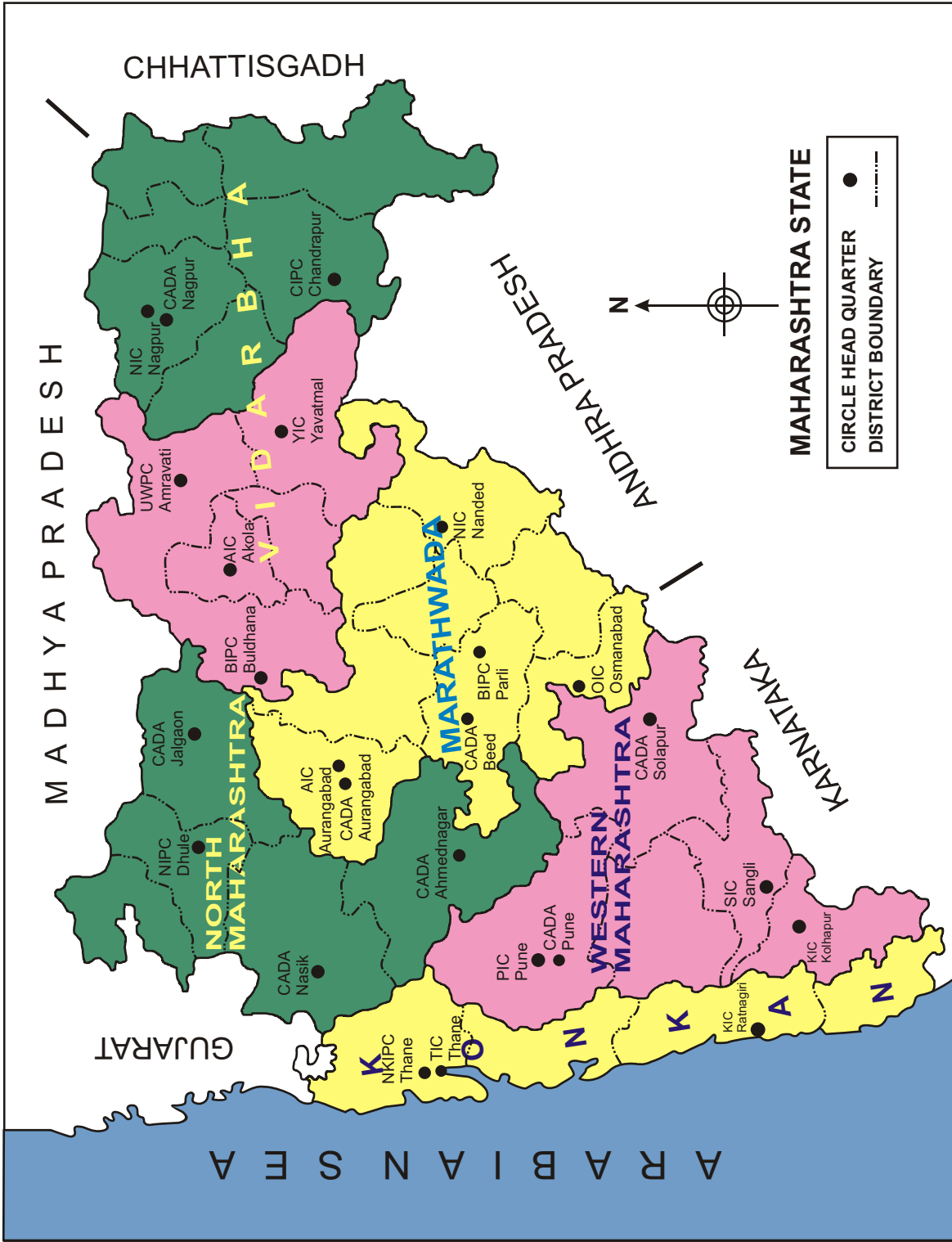
During such office inspections, to ascertain the validity of water account data submitted to MWRDC and efficient, economical use of available water, normally following records are checked.

- i) Daily lake level & water storage register.
- ii) Daily evaporation record register (Major & Medium projects)
- iii) Main Canal gauge register to evaluate water let out in canal for irrigation (daily, rotation-wise, season-wise)
- iv) Agency-wise non irrigation water use register.
- v) Register for leakages through dam.
- vi) Record of measurement of irrigated area
- vii) Crop-wise area assessed.

Revenue recovery being an important aspect of irrigation management, a review of revenue assessed, recovered and balance at the end of the year is also taken during such inspections.

Preparation and sanction of Preliminary Irrigation Programme (PIP) within stipulated period, conducting meetings of canal advisory committee, timely and wide publicity to Public Notice, timely submission of rotation-wise water demands (proforma I and IA) and water use (Proforma III and IIIA) by field offices to

MAP SHOWING LOCATION OF IRRIGATION CIRCLES







controlling authorities, daily gauging of discharges through distributaries/minors plays an important role in efficient & economical water use on a project. Whether such procedure is followed or not is also verified by scrutinizing the relevant records during field office inspections. The lapses, deficiencies noted during the inspection are then communicated to concerned Executive Engineer under intimation to concerned Superintending Engineer, for submitting relevant clarification and improvement in future.

In order to streamline the working of water audit units, inspection/ methodology, procedure for compliance of water audit paragraphs etc, Water Audit Manual is under consideration for approval.

**1.7.0 Water Audit Report 2005-06:**

**1.7.1** During 2005-06, water accounts of 54 major, 182 medium & 1709 State sector minor projects were received and audited. The water audit report is limited to these projects only.

At present there are 60 divisions looking after irrigation management mainly of completed projects in the State. There are many projects under construction & irrigation potential is created partially where irrigation is managed by construction organization only. Water accounts of such projects are not received; hence those are not covered in this report.

**1.7.2** The annual inspection Programme for 2006-07 is prepared and communicated to respective management circles. The water audit units are conducting the water audit of management division/ Sub-division / section offices. The status of annual water audit done in year 2006-07(Audit year 2005-06) from September 2006 till December 2006 is as below:

Water audit unit No.	Number of Divisions	
	Total	Inspected
1	16	5
2	22	6
3	22	6
Total	60	15

**1.8.0 Supporting activities taken for improvement in IWM**

**1.8.1 Training & capacity building:**

WALMI, Aurangabad conducts short-term and long-term courses in Irrigation Water Management. The trainings are given to in-service engineers working in the department. Training of interdisciplinary nature, is given to the staff engaged in IWM and Land Development, in Water Resources and Agriculture Departments in various cadres, office bearers of WUA, farmers and women engaged in irrigated agriculture.

On farm trainings are also conducted by WALMI, Aurangabad on specific demands by Water Users' Associations or project field officers.

Sectional Engineers, Deputy Engineers working in irrigation Circles are expected to check the water accounts received from irrigation management divisions. While scrutinizing water accounts of different irrigation projects some

lapses, discrepancies were observed. To have accurate water account it was felt necessary, to impart training to these Sectional Engineers and Deputy Engineers. Accordingly, two days training course on water audit was conducted in June 2006 with the help of WALMI. Through this course, training has been given to 31 Sectional Engineers and 7 Subdivisional Engineers. All the irrigation circles responded to these training courses.

### 1.8.2 Guidelines for efficient and economical use of water

Detailed guidelines are issued from time to time by Government, for efficient and economical use of water available for irrigation. Some extracts from the Government Resolutions dated 14.03.1988, 02.11.1988, 7.3.2001, 05.12.2001; 21.11.2002 and 20.05.2004 are as follows.

- i) Irrigating maximum possible lands with available discharges.
- ii) Adopting rotational water supply.
- iii) Keeping flow period to the minimum possible by letting maximum possible discharge in canal to minimise the transit losses.
- iv) Encourage night irrigation.
- v) Encourage farmer's participation in irrigation planning and implementation through canal advisory committees, and village meetings.
- vi) Keeping water accounts rotation-wise and season-wise water accounts for watching the efficiency of water use by concerned field staff & officers.
- vii) Setting up evaporimeters at every project, having CCA more than 1000 ha, for correct assessment of evaporation.
- viii) Providing measuring devices on canals wherever necessary.
- ix) The responsibility of giving water account of minor projects rests with the concerned Sub Divisional Engineer and Executive Engineer and with the Executive Engineer & Superintending Engineer in case of major & medium projects.
- x) The norms for Irrigation System Performance in Rabi & Hot Weather season are decided as 150 ha/Mcum and 110 ha/Mcum respectively.
- xi) Percentage checking of cropped area by Executive Engineer, Sub-Divisional Engineer & Section Officer for assuring 100 percent assessment of irrigated area.
- xii) Norms for Quota of water for lift irrigation on reservoir and canals
- xiii) Agreement for water supply for Non Irrigation water use (by electronic meter) and assessment of water revenue.

A statement showing list of important Resolutions and circulars, issued by GOM, from time to time is appended as follows:

Important Government Resolutions / Circulars related with Water Account and Irrigation Management.		
Sr. No.	Particulars	Details of Acts / GRs / Circulars
1	Maharashtra Irrigation Act 1976	
2	Maharashtra Management of Irrigation System by Farmers Act 2005	
3	Maharashtra Water Resources Regulatory Authority Act 2005	

Important Government Resolutions / Circulars related with Water Account and Irrigation Management.		
Sr. No.	Particulars	Details of Acts / GRs / Circulars
4	Percentage checking of Cropped Area by Executive Engineer, Sub Divisional Engineer & Section Officer	P.W.D. Hand Book No. 25, Item No. 10.
5	Silt accumulation in live storage	Circular BKs 1091 / 468 / 91 / IMP dated 5.5.1992
6	Setting up Canal Advisory Committees	GR (Marathi) CME / 1099 / 179 / 99 IM (P) dated 22.8.2000.
7	Guidelines for Water Use in Reservoirs	GR Misc./ 10 (19/2000 IMP) dated 7.3.2001
8	Farmers' Participation in Irrigation Water Management	GR WUS / 1991 / 417 / IMP dated 5.7.2001 and 23.7.2001
9	Account of Water in Reservoirs	GR (Marathi) Misc. 11(760/01 IMP) dated 5.12.2001
10	Guidelines for sanction to lifting water from reservoir, canal, notified river etc.	GR (Marathi) Misc. 10.01/ (378/2001) IM (P) Dated 21.11.2002
11	Irrigation Management and Irrigation Sanctions	Misc. / 10 / 87 / 2001 / IMP dated 31.3.2003
12	Maharashtra State Water Policy 2003	GR Misc. 1002 / 250 / 2002 IM(P) dated 30.7.2003
13	Non Irrigation water supply, agreement and assessment of water revenue for NI water use	GR (Marathi) NIWS / 10 / 2001 / (713/2001) dated 11.06.03 and NIWS / 10 / 1001 (713/2001) dated 20.05.2004
14	Watershed Development Works can be taken in tail command if water does not reach the tail end.	GR (Marathi) EGS-1005 / 142 / EGS-6, dated 6.9.2005
15	Water Account and Audit Procedure	CDA / 1002 / 226 / 2002 CAD(W) dated 26.6.2003, 12.11.2003 and 14.9.2005

## Chapter-2 Annual Water Accounts 2005-06

### 2.1.0 Rainfall during 2005-06

The State received rains from South-West Monsoon from 19<sup>th</sup> June 2005. Rainfall received during the period from 19<sup>th</sup> June to 30<sup>th</sup> October 2005 was 119% of State's normal rainfall. As per IMD standards, in 2 districts, it was deficient (41% 80%) out of 33 districts in the state (excluding Mumbai and suburb districts). In 3 districts, it was 81 to 100% whereas in 28 districts it was above 100% of normal. As per standards specified by IMD, out of 353 Talukas in the state, only in Atpadi Taluka the rainfall received was scanty (upto 40% of normal), in 44 talukas it was deficient (between 41 to 80%) whereas in 73 Talukas it is normal (81to 100%). 235 Talukas receive more than 100% of the normal rainfall. Map showing the isolines of rainfall during 2005-06 is annexed as Map-3. The regionwise breakup of 45 Talukas which received rainfall below 80% of normal was as follows:

Region	No. of Talukas
Central Maharashtra (Pune & Nashik regions)	21
Vidharbha	15
Marathwada	8
Konkan	1
Total	45

With availability of rainfall, the storages in the reservoirs in State were as follows.

Sr. No.	Percent Storage	Major	Medium	Minor
1	80 to 100	39	107	1133
2	50 to 80	7	7	156
3	Below 50	9	57	420

The proforma and procedure to be adopted for Water Audit, were issued by GOM vide circular dated 26.06.2003, and 12.11.2003 and 14.09.05. It was observed that some of the aspects listed below were not covered in the prescribed proforma and therefore, accurate water accounting & assessment of irrigation system was not possible.

- i) Reservoir water account
- ii) Post monsoon flow
- iii) Season-wise account of NI use & reservoir losses.
- iv) Water account of water released in river.
- v) Number of rotations and crop-wise break up of irrigated area.
- vi) Season-wise break up of Water utilised for Non Irrigation use from rivers & canals.

The proforma for annual water account of major & medium projects was revised by Government vide circular dated 14.09.2005 & proformae 6(A) to 6(D) are issued.

- Proforma 6 (A): Annual Water Account of Reservoir
- Proforma 6 (B): Annual Water Use Area Irrigated & ISP
- Proforma 6 (C): Annual Crop-wise Irrigated Area by Canal/ reservoir/ lifts/ River / Wells
- Proforma 6 (D): Water Account of K.T. Weirs

Though irrigation potential of 4.003 Mha is created through 2752 projects, the water accounts of 1957 projects were received in MWRDIC office and the same were scrutinised. There is increase of 309 projects over last year for auditing. Moreover water accounts of 225 KT weirs/Ex. Malguzari tanks have also been audited but not included in this report. The plangroup-wise distribution of projects is as follows.

Plangroup	Major	Medium	Minor	Total
Highly Deficit	1	30	319	350
Deficit	14	81	786	881
Normal	23	34	218	275
Surplus	4	29	78	111
Abundant	13	19	308	340
<b>Total</b>	<b>55</b>	<b>193</b>	<b>1709</b>	<b>1957</b>

Some project complexes such as Khadakwasla, Bhatghar-Veer, Kukadi, Upper Godavari, Surya, Purna, Pench, Bagh, Lower Wunna, Makardhokla-Saiki are having more than one reservoir / Pickup weir hence these project complexes are considered as one project to have correct water accounts of these complexes.

The National Water Policy 2002, Maharashtra State Water Policy 2003 recommended planning, construction and management of water resources projects considering basin or sub-basin as a unit. Therefore, the analysis of water accounts is carried out subbasin-wise considering circle as a unit, as irrigation circle is a service provider in irrigation water management.

Some circles are having projects located in more than one category of Plangroup of sub-basins. Therefore, these circles will appear more than once in graphical representation of indicators.

### **2.2.0 About this report:**

For water audit report 2005-06, seven indicators are selected for major and medium projects. These are;

1. Water Availability in Reservoirs on 15<sup>th</sup> October
2. Percentage of Actual Evaporation to Live Storage
3. Percentage of Evaporation to Gross Utilisation
4. Water Use Pattern
5. Irrigation System Performance
  - a) Canals for Kharif, Rabi & Hot Weather season

- b) Reservoir lifts for Kharif, Rabi & Hot Weather season
  - c) River lifts for Kharif, Rabi & Hot Weather season
6. Percentage of Projected & Actual Non-Irrigation Use
  7. Percentage of Water Remained Unutilised to Live Storage.

Looking at the number and availability of data, the analysis for minor projects is restricted for the time being to the following four indicators only.

1. Water Availability in Tanks on 15<sup>th</sup> October.
2. Percentage of Actual Evaporation to Live Storage
3. Water Use Pattern
4. Irrigation System Performance

### **2.2.1 Water Availability in Reservoirs:**

The availability of water in the reservoirs depend upon the rainfall in the catchment, storages created on the upstream, watershed development works completed in the catchment. Moreover, for major reservoirs, which perform as flood control measures also, the reservoir filling is governed by reservoir operation schedule and earlier floods are required to be let out in the rivers and reservoir filling is expected at the end of monsoon. This indicator gives percentage of live storage available on the on-set of Rabi season i.e. on 15<sup>th</sup> October (15<sup>th</sup> December for projects in Konkan region) for use to the designed live storage of the project.

### **2.2.2 Percentage of Actual Evaporation to Live Storage:**

As the State experiences hot and arid climate, the extent of evaporation is high. The evaporation further depends upon the shape of reservoir, depth or shallowness and period of retention of water in it. As major quantity of water in the reservoirs is used for irrigation, Government has decided sequence of use as Kharif, Rabi and Hot Weather.

### **2.2.2 Percentage of Evaporation to Gross Utilisation:**

For optimum utilisation of available water resources, evaporation should be kept minimum. In order to have optimum utilisation of available water, it is necessary to watch the percentage of evaporation to gross utilisation.

### **2.2.4 Water Use Pattern:**

The major projects in the State are constructed as multipurpose projects. As per Maharashtra State Water Policy 2003, water supply for domestic purpose and industries has priorities above irrigation. Due to growing population, urbanisation and industrialisation, the demand for water for non-irrigation uses is increasing. Due to lowering of ground water table, many rural water supply schemes are also being planned considering reservoirs of water resources projects as their source of water supply.

Secondly, the cropping pattern established on the project in general is different than the projected cropping pattern. Naturally, the season-wise water use on the project has wide variation with projected water use. Water use on reservoir lift is distinguishable on some of the projects. Therefore, water use pattern in different projects will give an idea about water use in different sectors.

### **2.2.5 Irrigation System Performance:**

As the State's water resources are scarce, efficient use of water in all sectors of water use is essential. Moreover, the objective of water accounting and auditing is to see that the water in the reservoirs is used efficiently. Irrigation uses about 70 to 75 percent of available water. Presently, the indicator for performance of its use in irrigation sector is considered. Government have decided norms in terms of ha/Mcum Irrigation System Performance in Rabi and Hot weather season.

Though norms for Irrigation System Performance in Kharif season and for lift irrigation are not fixed by GOM, it is felt necessary at least to take review of the actual performance observed on the field.

### **2.2.6 Percentage of Projected & Actual Non Irrigation Use**

Keeping in view the priorities for different uses and reasons for growing demand for non-irrigation uses, it is necessary, to watch the deviations from projected allocations for different sectors of water use. This indicator will give an idea about trend in non-irrigation use and will be base for the reallocation for different uses, if required.

### **2.2.7 Percentage of Water Remained Unutilised to Live Storage**

The only source of water for the State is rainfall. About 88 percent of rainfall is received from June to September and 12 percent after October. Thus, water available in the reservoirs should be fully used (excluding carry over) before 30th June every year. This indicator helps in deciding whether there is any unutilised quantity (excluding carry over) in the reservoirs and if it is there, what are the reasons for un-utilisation and remedial measures for full utilisation.

### **Chapter - 3 Observations Major Projects**

#### **Indicator I : Water Availability in Reservoirs**

##### **Highly Deficit Plangroup:**

CADA Solapur: (Bhima) Ujjani project is having 100% live storage consistently since last two year.

##### **Deficit Plangroup**

AIC Akola: Though average live storage percentage on 15<sup>th</sup> October of projects, under AIC Akola was 40%, the individual live storage in Nalganga project was just 8%. Storage position of Katepurna project was slightly better. Its live storage on 15<sup>th</sup> October was 66% of design live storage.

BIPC Buldhana: Wan project under BIPC was 100% full on 15<sup>th</sup> of October .

CADA Aurangabad: Jayakwadi project received 100% live storage consistently since last two years.

CADA Beed: In Lower Terna there is increase in storage by 41%. Manjra & Majalgaon also received 100% yield during 2005-06 where there was no storage in 2004-05.

CADA Jalgaon: Girna & Chankapur projects received 100% live storage consistently since last two years

NIC Nanded: In Purna project there is increase in storage by 50 % over last year.

##### **Normal Plangroup**

AIC Akola: Actual live storages on 15<sup>th</sup> of October of Arunawati & Pus project were 76% & 100% respectively.

CADA Jalgaon & CADA Nashik: All the projects under these circles are having consistency in availability.

CADA Pune: All the projects are having consistency in availability of water, however, it has increased from 87% to 99%.

CIPC Chandrapur: Storage of Bor project was 76% of designed live storage. Live storage created on this project was comparatively better to its last year storage.

CADA Nagpur: Lower Wunna project had 99% of designed live storage.

NIC Nanded: In Upper Penganga project the availability has increased from 14 to 42 % over last year.

PIC Pune: All the projects are having consistency in availability of water. The overall availability was 91%. In Bhama Askhed it was only 27%.



### **Surplus Plangroup**

CADA Nagpur: On an average live storage of Bagh, Itiadh & Pench project on 15<sup>th</sup> October was 89%. Among these projects, Bagh had 77% of designed live storage, whereas Pench & Itiadh projects had 91% & 90% designed live storage respectively.

### **Abundant Plangroup:**

CADA Pune: Dhoni & Kahner projects are having 100% availability, consistently since last two years.

CIPC Chandrapur: Percentages of actual live storage to designed live storage on Asolamendha & Dina project were 76% & 67% respectively. During last year storages in Asolamendha & Dina were 60% & 100% respectively.

SIC Sangli: Radhanagari, Tulsi, Warna & Dudhganga are having 99 to 100% live storages since last two years.

TIC Thane: Bhatsa, Surya & Kal-Amba projects are having 75% live storage this year. As compared to last year it is reduced by 1%. This storage is of 15 December on onset of Konkan season.

## **Indicator II : Percent Evaporation to live storage on 15<sup>th</sup> October**

### **Highly Deficit Plangroup:**

CADA Solapur: In Bhima (Ujjani) project, the evaporation losses to live storage is 28% since last two years.

### **Deficit Plangroup**

AIC Akola: Percentage of evaporation as compared to 15<sup>th</sup> October live storage on Katepurna (34%) & Nalganga (75%) was on higher side. This may be due to reservation of water storage for Non Irrigation use on these projects. The data submitted in water account of these projects about evaporation suggests that, field officers are required to be more vigilant about evaporation data collection.

BIPC Buldhana: Percentage of evaporation with respect to live storage on Wan project indicates that there are some discrepancies in evaporation data collection & it's submission in water account. Project authorities are advised to explore the current procedure and rectify it where ever necessary so as to have precise evaporation data.

CADA Beed: In Lower Terna project, the availability was only 41% (37.523 Mcum). However, the evaporation is 38.48 Mcum. Total utilisation for irrigation & non irrigation is 14.21 Mcum. Field Officers are required to be more vigilant for proper utilisation. In Manjra Project, the evaporation is 36 % (63.252 Mcum) of live storage on 15th October. Water use in hot weather (49.417 Mcum) is more than 3 times in Rabi (15.156 Mcum) is the reason for higher values. Moreover 28.342 Mcum water is used for irrigation by lift on river in hot weather season. The field officers are required to take corrective measures.

### **Normal Plangroup**

AIC Akola: Evaporation percentage as compared to live storage in case of Pus project (15%) appears to be in normal range. But in case of Arunawati project it is high as much as 34%. Field officers are suggested to confirm the evaporation rate by verifying the procedure for data collection and empirical constants used while evaluating the evaporation loss.

CADA Jalgaon: In Hatnur project the percentage of evaporation is 39, which is in conformity with the projected value. More Non-irrigation water use (116.11 Mcum) & 17.7 Mcum water use in Hot Weather on reservoir lifts has contributed to more evaporation.

CADA Pune: Ghod & Kukadi projects have percentage of evaporation to live storage as 16%, It is slight increased by 1% compared to last year.

CIPC Chandrapur : On Bor project, 25% of live storage created on 15<sup>th</sup> October remained unutilised at the end of irrigation year, still the percentage of evaporation with respect to live storage is just 8 % only. The low percentage of evaporation show that the data collection about evaporation is erroneous. Site inspection also confirms the above conclusion. Field officers are required strictly to adhere to the procedure depicted in the concerned ISI code.

CADA Nagpur: Out of 187.7 Mcum Live storage created on Lower Wunna project, 56.6 Mcum of water is lost through evaporation. The ratio of evaporation to live storage works out to 30%. The data submission & field visit to project site confirms the need of proper attention of field officers towards evaporation data collection.

NIC Nanded: In Upper Penganga project under NIC Nanded, water use in Hot Weather is sizeable (127.355 Mcum) resulting in higher evaporation losses.

PIC Pune: Bhama Askhed, Chaskaman, Khadakwasla, Bhatgher (NLBC), Veer (NRBC) & Pawana, have average evaporation loss as 8% which is slightly decreased by 2% compared to last year.

UWPC Amravati: Evaporation losses on Upper Wardha project under UWPC Amravati commensurate with the project planning.

### **Surplus Plangroup**

CADA Nagpur: Evaporation losses in Bagh & PENCH project are 12 & 8% of actual live storage. Though about 50 % of total irrigation water use. in both the projects is in Hot weather, the percentage of evaporation losses is comparatively is low. On the contrary, evaporation losses on Itiadh project are 30% of live storage, though 50% of available storage is used in Hot weather. Project officers may explore the reasons for different rate of evaporation on Bagh & Itiadh project for similar meteorological and water use condition.

### **Abundant Plangroup:**

CADA Pune: Dhoni & Kanher projects have 10% evaporation losses. Which is found same as last year.

CIPC Chandrapur: Evaporation losses on Asolamendha (47%) and Dina (39%) project are comparatively high. The evaporation for these projects is evaluated by using the data of near by an Agricultural centre. For precise water accounting, field officers are advised to install evaporimeter at the project site proper.

TIC Thane: Bhatsa & Surya project have evaporation losses as 3% & 9% respectively to live storage on 15 December in Konkan season.

### **Indicator III : Percentage of Evaporation to Gross utilisation**

#### **Highly Deficit Plangroup:**

CADA Solapur: In Bhima (Ujjani) project, percentage of evaporation to gross utilisation is 26. Which is lowered by 5% compared to last year.

#### **Deficit Plangroup**

AIC Akola: As major portion of meager storage created on Nalganga project is lost in evaporation, the ratio of evaporation to Gross utilisation is quite high (52%). Considerable Non Irrigation water use and prolonged storage reservation for its use in Hot weather for irrigation on Katepurna Project has resulted in high evaporation losses as compared to gross utilisation.

On Pus project, 85% of available storage is utilised for irrigation, Non irrigation & Reservoir losses. There fore, evaporation loss compared to gross utilisation on the project is (12% ) marginal.

BIPC Buldhana: On Wan project, out of 81.95 Mcum water storage, about 31 Mcum of water is utilised in Hot weather for irrigation & Non Irrigation. Still water lost in evaporation as per project's water account is 2.81 Mcum only. It appears that, the data collected for assessing the evaporation loss is not correct. Project authorities are advised to pay more attention towards the data collection by installing evaporimeter at project site proper.

CADA Beed: In Lower Terna & Manjra projects, the percentage of evaporation to gross utilisation is 36 each. This is mainly due to more water use in HW compared to Rabi seasion.

#### **Normal Plangroup**

CADA Jalgaon: In Hatnur project under CADA Jalgaon, the percentage is 35, which fairly tallies to the projected value.

CADA Nashik: In Waldevi, Kashyapi & Mukane project under CADA Nashik, the percentage is 78, 94 & 57 respectively. Most of the water in these reservoirs is used for feeding Nandur Madhameshwar weir.

In Darna project under CADA Nashik, the percentage is 34. More non-irrigation use (26.313 Mcum) has contributed to higher evaporation. However, the evaporation tallies with the project report.

CADA Pune: In Kukdi & Ghod projects average evaporation loss to gross utilisation is 12% compared to last year it is increased by 4%.

CADA Nagpur: On Lower Wunna project, erroneous lower side evaporation data collection at field has resulted in low percentage of evaporation compared to gross utilisation.

PIC Pune: In Khadakwasla, Chaskaman, Bhama askhed, Veer (NRBC), Bhatghar (NLBC) & Pawana average evaporation loss to gross utilisation is 12% compared to last year it is increased by 4%.

UWPC Amravati: On Upper Wardha project, only 60% of available storage is utilised for various purposes. Naturally, evaporation loss compared to gross utilisation is relatively high.

### **Surplus Plangroup**

CADA Nagpur: As most of the available water storage on Bagh & Itiadh project is utilised in the irrigation year, ratio of evaporation to gross utilisation for these project is 13 & 22% respectively.

CIPC Chandrapur: Evaporation losses for Asolamendha & Dina are evaluated from the data collected at an Agriculture centre. Though 85% of available storage is utilised in the irrigation year, the percentage of evaporation to gross utilisation is on higher side.

### **Abundant Plangroup:**

CADA Pune: In Dhoni & Kanher projects the share of evaporation to gross utilisation is 11 & 10% respectively.

On Kanher project the evaporation loss is reduced by 10% compared to last year.

SIC Sangli: In Radhanagari, Dudhganga, Warna & Tulsi projects the average evaporation loss is 8%. Compared to last year it is increased by 4%.

TIC Thane: In Bhatsa & Surya projects the evaporation loss is 4 & 5% respectively. In Bhatsa project percentage evaporation has been reduced by 6% compared to last year.

## Indicator IV : Water Use Pattern

### Highly Deficit Plangroup:

CADA Solapur: Bhima (Ujjani) project is designed for 8 monthly cropping pattern, still the water use is predominantly in HW season (312.26 Mcum), reservoir lift (340.08 Mcum) & river lift (301.362 Mcum) out of total gross utilisation 1813.79 Mcum.

### Deficit Plangroup

AIC Akola: Out of 61.46 Mcum of gross utilisation on Katepurna project, 23 Mcum & 19.46 Mcum of water is used for irrigation & Non irrigation purpose respectively. On Nalganga project almost all water is lost (4.2 Mcum) in evaporation.

BIPC Buldhana: On Wan project, more than 50% of total water utilisation is for irrigation in Rabi season. 0.197 Mcum of water is utilised for pre-sowing of kharif cotton of irrigation year 2006-07.

CADA Aurangabad: In Jayakwadi Project Stage I, the water use for irrigation in HW season is 35% more than that in Rabi season.

CADA Beed: In Majalgaon Project, the water use by canal in HW Season is double that of Rabi season. For reservoir lift also the water use in HW is 10.01 Mcum out of total 14.57 Mcum.

In Manjra project the water use by canals in HW (49.417 Mcum) is more than 3 times that of Rabi (15.16 Mcum). In case of reservoir lift also the corresponding value in HW is 2.5 times that of Rabi. Total use by river lift in HW is (28.342 Mcum).

CADA Jalgaon: In Girna Project, the major water use is in Rabi season.

CADA Nashik: In Chankapur project, the major water use (62%) is for non irrigation.

NIC Nanded: In Vishnupuri Project, the water use by reservoir lift is more by 28% than that of canal. The project authorities are required to verify the projected use of water on reservoir lift.

In Marathwada region water use in Kharif season is nil as far as major projects are concerned.

### Normal Plangroup

AIC Akola: On Arunavati project 60% of total utilisation (66.15 Mcum) is for irrigation purpose. Water used for irrigation on canal in Rabi & HW is 30.76 Mcum & 33.3 Mcum respectively.

On Pus project, 80% of total water utilisation, about 60 Mcum is for irrigation on canal & reservoir lift. Water used for irrigation in Rabi & HW is nearly equal.

CADA Jalgaon: In Hatnur Project, the water use for irrigation by reservoir lift is more than annual water use by canals. It is observed that the sanctioned area of lift is more than permissible, the area on reservoir lifts is required to be lowered to the limit with increase in area under flow irrigation.

CADA Nashik: In Kashyapi, Mukane, Waldevi projects, there is no canal system and water is released in to river for feeding N M Weir. Water is used for irrigation by lifts on river upstream of Nandur Madhameshwar Weir.

CADA Pune: In Ghod & Kukdi projects most of water is utilised in Rabi & HW season.

CIPC Chandrapur: On Bor project, water used for irrigation in Rabi & HW is 51.15 & 21.43 Mcum which contributes to 80% of total water utilisation.

CADA Nagpur On Lower Wunna project, water is predominantly (52.49 Mcum) used for irrigation in Rabi season. 11.05 Mcum & 6.89 Mcum of water is used for irrigation on canal for HW & reservoir lift respectively. Total irrigation water use (70 Mcum) is about 55% of the total water utilisation.

PIC Pune: In Khadakwasla, Pawana and Chaskaman projects, non-irrigation use is very high mainly due to supply of water to Pune & Pimpri Chinchwad Municipal Corporations.

In NLBC (Bhatghar) & NRBC (Veer) projects the water use in all the seasons is fairly good.

UWPC Amravati: On upper Wardha project, 50% of total water use (186.67 Mcum) is in Rabi season for irrigation purpose. Though the project is designed as eight monthly project, 36 Mcum of water is used for irrigation in HW. Water use for irrigation on reservoir lift is 20.95 Mcum.

### **Surplus Plangroup**

CADA Nagpur: Bagh, Itiadh, & Pench projects, are being paddy predominant project, most of the water is used for Kharif & HW paddy only. On Bagh project 120.73 Mcum & 107.28 Mcum of water is used in Kharif & HW season respectively. On Itiadh project, irrigation water use in HW (149.66 Mcum) is comparatively more than it's use in Kharif (63.74 Mcum) & Rabi. (81.35 Mcum). On Pench project percentage of irrigation water use in Kharif, Rabi & HW is about 25%, 40%, & 14% of total water use respectively. For non irrigation purpose, (238 Mcum) 21% of water is supplied from the project.

### **Abundant Plangroup:**

CADA Pune: In Dhom & Kanher projects most of the water use is in Rabi & HW by canal (414.56 Mcum out of 560.89 Mcum)

CIPC Chandrapur: Asolamendha & Dina projects are Kharif dominating project. For Kharif paddy 52.54 Mcum & 46.134 Mcum of water is used on these projects.

SIC Sangli: In Radhanagri, Dudhganga, Krishna LIS, Tulsi & Warna project water use is predominant in Rabi & HW season principle crop is Sugarcane most of the water use by river lift (2732.345 Mcum) out of 3264.288 Mcum.

TIC Thane: In Bhatsa & Surya projects most of water is used for NI purposes. The supply of water is for Mumbai & its suburbs & industries in the area. Water use for irrigation by canals is in Konkan season (15 December, 30 April).

## **Indicator V : Irrigation System Performance (Canal)**

### **Highly Deficit Plangroup:**

CADA Solapur: In Bhima project ISP on canal for Kharif was 150 Ha/Mcum with one rotation, last year it was 330 ha/Mcum. In Rabi season ISP on canals with two rotations it was 130 Ha/Mcum this year as compared to last year (134 Ha/Mcum). In HW, with three rotations the ISP on canal was 58 Ha/Mcum which is improved over last year (47 Ha/Mcum).

### **Deficit Plangroup**

AIC Akola: On Katepurna project, in-spite of supply of irrigation water in 5 rotations, ISP in Rabi season is 160 ha/ Mcum which is more than the state norm. In HW, water used for irrigation is 7.53 Mcum. From the ancillary information from the field officers wheat crop, which is a major crop irrigated on the project, has spanned partly in Rabi & HW seasons. There fore, part of wheat area was supplied with irrigation water in last two rotations of Rabi season. This has lead to increase the ISP of project in Rabi season.

Storage on Nalganga project was very low. There fore in Rabi & HW season, water was supplied on volumetric basis and as a protective irrigation in initial reach of the canal system. Hence ISP observed on the project in Rabi (221 Ha/ Mcum) & HW (295 Ha/ Mcum) season are more than the state norm.

BIPC Buldhana: On Wan project, in HW Sunflower is the major crop. The crop has base period from January to April. Major area of Sunflower was supplied with the irrigation water in last two rotations of Rabi season. This has increased the ISP of project for Rabi season to 152 Ha/ Mcum. Over all Six rotations were executed in HW, there fore ISP of 90 Ha/ Mcum is realised on the project.

CADA Aurangabad: In Jayakwadi Project Stage-I, the irrigation system performance is low (Rabi 63 ha/ Mcum & HW 54 ha/ Mcum) than the State norms of 150 & 110 ha/Mcum respectively. Though there is slight improvement in performance in Rabi season over last year, the performance in HW is declined.

CADA Beed: Irrigation system performance in Majalgaon project has come down to less than 50% of last years value (156 ha/Mcum) in spite of more availability in the reservoir. Field officers are required to be more vigilant in improvement of irrigation system performance.

CADA Nashik: In Chankapur Project, the irrigation system performance in all the three seasons seems to be above norms but only one rotation is provided in each season similar to last year (2004-05).

NIC Nanded: In Purna Project under NIC Nanded, the irrigation system performance in HW season is very low.

### **Normal Plangroup**

AIC Akola: ISP on Arunavati project in Rabi and HW were 25 Ha/ Mcum & 44 Ha/ Mcum respectively. Which are too the low as compared to state norm. According to



field officers, due to appreciable leakages through HR & outlets, as well as through canal system, more transit losses have occurred. This has hampered the ISP of the project to large extent. ISP for HW is some what better as compared to Rabi season, as the area irrigated in former is more compact compared to later.

In case of Lower Pus, ISP observed for Rabi & HW is 49 & 41 Ha/ Mcum respectively only. Which is again low as compared to the State norm.

CADA Jalgaon: In Hatnur Project, only one rotation is supplied in Kharif resulting in high efficiency. In Rabi, four rotations were given but with scattered area for irrigation. However the performance is better in HW because of most of the area irrigated by canal lifts in initial reach.

CADA Nashik: In Kadwa project, the performance in all the three seasons is low. In spite of few rotations, there is no improvement over last year's performance. As per field officers there are more conveyance losses in the system for which remedial measures are proposed.

In Bhandardara Project, the performance in Rabi and HW seasons is 50% of State norms. The situation was same last year.

In Mula Project there is slight improvement in performance in Rabi & HW season over last year, however the performance of Right Bank Canal having more irrigated area is better than that of Left Bank Canal.

CADA Pune: In Ghod project only one rotation was given in Kharif season and ISP comes to 231, where as in Rabi season with two rotations ISP is 139 Ha/Mcum. ISP in HW season comes to 75 Ha/Mcum with two rotations and 100% perennial crops. The performance in Rabi season is improved by 18 Ha/Mcum but it is lowered by 11 Ha/Mcum in HW season.

In Kukdi project with one rotation Kharif performance is 245 Ha/Mcum. Whereas in Rabi the performance is 131 Ha/Mcum with three rotations. HW performance is 81 Ha/Mcum with two rotations and 100% perennial crops. In Rabi season the performance is enhanced by 8 Ha/Mcum and in HW season it is reduced by 12 Ha/Mcum.

CIPC Chandrapur: On Bor Project, ISP observed in Rabi & HW is 78 Ha/ Mcum & 21 Ha/ Mcum respectively, which is low compared to the State norm. From the field offices feedback, realisation of low ISP as compared to State norm is on account of old canal system which needs major repairs. But the details of number of water rotations executed and area irrigated along with inspection of concerned office records, it appears that ISP can be substantially improved.

CADA Nagpur: In case of Lower Wunna project, ISP observed in Rabi & HW is 107 Ha/ Mcum & 104 Ha/ Mcum respectively. Better realisation of ISP to on this project as compared to Bor & other projects in the Plangroup is due to supply of irrigation water in just 3 rotations in each season. From the water account of the project, each rotation lasted for 30 days. It means in Rabi & HW, instead of supplying irrigation water at 21 & 14 days, it was supplied at more time interval. To have increase in crop yield, all field officers including Lower Wunna are advised to plan and strictly implement the water rotations as per W.R. Department guide lines.

NIC Nanded: In Upper Penganga Project, the performance in HW season is 50% of State norms. More than 50% of irrigated area being under Sugarcane & Banana crops in HW season has attributed to low performance.

PIC Pune: In Khadakwasla project Kharif performance is 61 Ha/Mcum with one rotation, Rabi performance is 53 Ha/Mcum with three rotations and HW performance is 29 Ha/Mcum with three rotations.

Rabi performance is substantially reduced by 41 Ha/Mcum which is very low as compared to State norm of 150 Ha/ Mcum and 110 Ha/ Mcum in HW. Whereas in HW season it is reduced by 18 Ha/ Mcum. Field officers should improve the ISP in all the seasons.

In Chaskaman project Rabi irrigation system performance is 61 Ha/ Mcum with three rotations and in HW season it is 26 Ha/ Mcum with three rotations and 100% perennial crops. Performance is reduced by 13 Ha/ Mcum and in HW it is reduced by 15 Ha/ Mcum.

In NLBC, Kharif performance is 110 Ha/ Mcum with three rotations, in Rabi season it is 101 Ha/ Mcum with three rotations. The Rabi performance is reduced by 20 Ha/ Mcum and in HW it is increased by 4 Ha/ Mcum. The performance is very low as compared to State norm.

In NRBC, Kharif performance is 153 Ha/ Mcum. Rabi performance is 118 Ha/ Mcum HW performance is 86 Ha/ Mcum with three rotations in each season.

As compared to last year Rabi performance is reduced by 7 Ha/ Mcum and HW season it slightly increased by 2 units. This is also lower performance as compared to state norm.

UWPC Amravati: On Upper Wardha project, ISP realised in both Rabi & HW, is quite below the State norms. It is even low compared to it's last years performance. As per project authorities, apathy of farmers towards night irrigation & scattered irrigated area are the main causes for low performances. For improving the ISP, along with creating the awareness among the farmers for night irrigation, Upper Wardha being Major project, proper planning, implementation co-ordination among concerned irrigation divisions and monitoring of day to day water rotation schedule at Circle level is necessary to curb the operational losses on the project.

### **Surplus Plangroup**

CADA Nagpur: ISP realised in kharif season on Bagh & Pench project is close to 200 Ha/ Mcum. On Itiadh project it is 279 Ha/ Mcum. On an average the ISP on the projects has shown improvement as compared to it's last year performance. ISP observed in Rabi & HW season on Pench project is low compared to the State norm. According to the project officers, the canal system is old.. Which needs to run the canal for longer period. Ultimately it leads to increase in transit losses. There fore, ISP realised is low compared to the State norm. On Bagh project ISP realised in HW is 62 Ha/ Mcum ISP is probably low as HW Paddy is the only crop irrigated which requires more water. Nine water rotations were implemented to supply irrigation water in HW season.

### **Abundant Plangroup:**

CADA Pune: In Dhom project Rabi performance is 103 Ha/ Mcum in four rotations. HW performance is 46 Ha/ Mcum with five rotations and 100% perennial crops.

In Rabi season performance is increased by 24 Ha/ Mcum and in HW it is increased by 14 Ha/ Mcum. However, it is still below State norms.

In Kahner project, there was no utilisation in Kharif whereas in Rabi season the performance is 51 Ha/ Mcum with five rotations. In HW season performance is 22 Ha/ Mcum with three rotations and 100% perennial crops.

As compared to last year Rabi performance is reduced by 10 Ha/ Mcum. Whereas HW performance is reduced by 6 Ha/ Mcum. The performance far below the State norms.

CIPC Chandrapur: ISP of Asolamendha & Dina project in kharif season is 222 Ha/ Mcum & 234 Ha/ Mcum respectively. ISP of above projects in HW is comparatively low. Paddy crop irrigated in scattered command area is the main cause for realising low ISP.

SIC Sangli: In Warna project the Rabi performance is 119 Ha/ Mcum with three rotations whereas in HW season it is 52 Ha/ Mcum with 3 rotations.

As compared with last year, the Rabi performance is reduced by 33 Ha/ Mcum and HW performance is substantially reduced.

In Doodhganga project Rabi performance is 37 Ha/ Mcum where as HW performance is 29 Ha/ Mcum. The performance in both the seasons is substantially reduced and far below the State norms. All field officers need to take necessary measures to increase the ISP up to State norms.

TIC Thane: In all the projects the irrigation is in Konkan season only with Paddy as a principal crops field to field irrigation system is practiced in this area.

In Surya project the Konkan season performance is 340 Ha/Mcum with six rotations. This performance remained same as last year.

In Bhatsa project the Konkan season performance is 46 Ha/Mcum which is increased by 22 Ha/Mcum.from last year.

In Kal-Amba project ISP is 36 Ha/Mcum which is increased by four Ha/Mcum.

## **Indicator V : Irrigation System Performance (Reservoir Lift)**

### **Highly Deficit Plangroup:**

CADA Solapur: In Bhima (Ujjani) project Kharif performance is 259 Ha/Mcum, Rabi performance is 117 Ha/Mcum and HW performance is only 93 Ha/Mcum. Sugarcane is irrigated on large scale on reservoir lift of Bhima project. As water use lifted and conveyed by pipe system performance in Rabi & HW season must be at least 35% above State's norms & canal i.e. 200 Ha/Mcum & 150 Ha/Mcum respectively. Field officer should take necessary action to improve performance.

### **Deficit Plangroup**

AIC Akola: On Katepurna project Rabi & HW season ISP realised is 333 Ha/ Mcum & 83 Ha/ Mcum respectively. Type of crops irrigated in both the seasons are near about same.

Still the ISP for the two seasons has wide variation. Field officers are required to explore the reasons for the same.

CADA Beed: In Majalgaon project, the performance in Hot Weather season is low. The field officers are required to ascertain assessment of total irrigated area and water utilised by reservoir lift.

### **Normal Plangroup**

AIC Akola: ISP expected on the reservoir lift is 200 Ha/ Mcum. But in case of Pus project, it is 100 Ha/ Mcum & 66 Ha/ Mcum respectively. Project authorities are required to determined the reasons for low achievement.

CADA Nagpur: ISP observed on Lower Wunna project is 150 Ha/ Mcum

CADA Jalgaon: In Hatnur project, the performance in Rabi & HW season is low owing to 93% area under Sugarcane & Banana crops.

CADA Nashik: In Mula project, the performance in Rabi season is very low in spite of absence of highly water intensive crops. Field officers are required to ascertain the assessment of total irrigated area and water utilisation by reservoir lifts.

CADA Pune: In Ghod project irrigation system performance in Kharif, Rabi & HW seasons is 175, 245 & 261 Ha/Mcum respectively. Performance is satisfactory.

In Kukdi complex area under reservoir lifts is very meager. ISP in all seasons is satisfactory.

PIC Pune: Area under reservoir lift in Khadakwasla, Bhatghar, Veer & Chaskaman is very meager as compared to canal irrigation. The performance is satisfactory. HW performance in Khadakwasla is abnormally high.

In Pawana project, river irrigation is practiced. The ISP is 151, 151, 120 Ha/Mcum in Kharif, Rabi & HW seasons respectively.

UWPC Amravati: Upper Wardha project is 150 Ha/ Mcum

**Abundant Plangroup:**

CADA Pune: In Dhom project Rabi performance is satisfactory. HW performance is very poor. i.e. 21 Ha/Mcum .

In Kahner project Rabi & HW season ISP is 184 Ha/Mcum and 175 respectively which is satisfactory.

SIC Sangli: Reservoir lift is observed only on Tulsi project, i.e. 180 Ha/Mcum in Rabi season it is satisfactory.

TIC Thane: No reservoir lift is irrigation is observed

## **Indicator VI : Percentage of Actual to Projected Non-irrigation Use**

### **Highly Deficit Plangroup:**

CADA Solapur: In Bhima (Ujjani) project irrigation on River lift downstream of Bhima project is substantial letting out water through Bhima –Sina Link canal in Sina river irrigation is practical. ISP in Kharif, Rabi & HW season is 175, 140 & 112 Ha/Mcum respectively, ISP in HW season is below State norms of 150 Ha/Mcum.

### **Deficit Plangroup**

BIPC Buldhana: On Wan project, actual NI use as compare to quota reserved in PIP is 58% only.

### **Normal Plangroup**

AIC Akola: Actual NI water use on Arunavati project & Pus are 62% & 55% of water storages reserved in PIP. Same is the case with Upper Wardha project, where, actual NI use is 75% of the PIP.

On all above projects, substantial quantity of water is remained unutilised at the end of irrigation year. Field officers are required to be more careful while framing the PIP of the project, so that the storages available during the year will be fully utilised during the year only.

CADA Nashik: In Bhandardara, Kadwa & Upper Godawari complex the actual non-irrigation use is higher than that considered in project report as well as in PIP. The field officers are required to prepare the PIP as per actual requirement. Sanction to the enhanced NI use shall be accorded by the competent authority.

NIC Nanded: Upper Penganga project the actual non-irrigation use is higher than that considered in project report as well as in PIP. The field officers are required to prepare the PIP as per actual requirement. Sanction to the enhanced NI use shall be accorded by the competent authority.

### **Abundant Plangroup:**

SIC Sangli: In Dudhaganga, Radhanagari, Tulsi, Warna Projects, project planning for Non-irrigation is nil, where as Non irrigation use on Radhanagri is 93 times more than PIP provision, most of Non-irrigation use for domestic purpose. The field officer are required to give proper attention for NI provision in PIP.

TIC Thane: In Bhatsa & Surya projects actual NI water use is 132%, which is more than planned one.

## **Indicator VII : Percentage of Unutilised Water to Storage on 15<sup>th</sup> October**

### **Highly Deficit Plangroup:**

CADA Solapur: In Bhima project, unutilised water at the end of irrigation year is nil.

### **Deficit Plangroup**

AIC Akola: 53 % unutilised storage on Nalganga project is due to inflow in March 2006 of the irrigation year.

CADA Beed: In Lower Terna project, the percentage of unutilised water is 39%. The availability in the reservoir was only 41% of live storage, water could not be utilised to the fullest extent.

CADA Nashik: In Chankapur project, the unutilised quantity of water at June end is 20% of available storage. As per field officers the excessive balance is due to non utilisation of reserved water for NI purposes.

### **Normal Plangroup**

AIC Akola: In case of Pus project, unutilised storage is 12 percentage. According to the field officers, unutilised storage of the project is due to low water demand from the cultivators. However, to have full water utilisation necessary steps, efforts are needed at the field level.

CADA Pune: In Kukadi & Ghod projects unutilised water at the end of irrigation year is nil.

CIPC Chandrapur In Bor unutilised storage is 24 percentage. According to the field officers, unutilised storage of the project is due to low water demand from the cultivators. However, to have full water utilisation necessary steps, efforts are needed at the field level.

CADA Nagpur In Lower Wunna unutilised storage is 24 percentage. According to the field officers, unutilised storage of the project is due to low water demand from the cultivators. However, to have full water utilisation necessary steps, efforts are needed at the field level.

PIC Pune: In Pawana & Bhama-Askhed projects 32 & 21% is unutilised respectively.

Unutilised water is slightly increased by 2% compared with last year.

UWPC Amravati: On Upper Wardha project 44% of available storage is remained unutilised at the end of irrigation year. The project is eight monthly project. The command area is mainly traversed by Black Cotton Soil. Also the command area lies in assured rainfall zone. Therefore, practically there is very low demand for water for kharif Jowar & cotton (which contributes substantially in designed cropping pattern) kharif & Rabi season. Therefore according to project authorities water remains unutilised at the end of the irrigation year. For better water utilisation, a new cropping pattern is approved by the competent authority. Preparation and

implementation of PIP as per new cropping pattern will help in utilising available storages in future.

### **Surplus Plangroup**

CADA Nagpur: In Itiadh project, due to considerable (45 Mcum) in-flow in March & April 2006, the utilised storage at the end of irrigation year appears to be more (66.86 Mcum)

### **Abundant Plangroup:**

CADA Pune: In Dhoni & Kanher projects unutilised water is 25% & 18% respectively. Project authorities should pay attention for full utilisation.

CIPC Chandrapur: Unutilised storage in case of Asolamendha & Dina which are basically kharif dominant projects, is considerable in spite of field officers' efforts to utilise available storage in HW season.

SIC Sangli: In Tulsi & Dudhganga projects unutilised water is 33% & 26% respectively. Unutilised percentage is reduced by 15% compared to last year.

TIC Thane: In Bhatsa project unutilised water is 17%.



## Medium Projects

### Indicator I : Water Availability in Reservoirs.

#### Highly Deficit Plangroup:

CADA Beed: The availability of water in Turori, Kurnoor & Khasapur has increased to 100% over last year from 60, 62 & 21% respectively, whereas in Jakapur & Chandani there was no water available during 2004-05, the availability has increased to 70% in 2005-06. Kadi, Mehkari, Rooty & Talwar had no water available in 2005-06.

CADA Pune: Yeralwadi project is 100% storage.

CADA Solapur: Hingni Pargaon & Ashti projects have storages 100% & 90% respectively other projects, Bhudhihal, Mangi, Ekrukh & Jawalgon have storages in the range of 6 to 65%.

PIC Pune: Nher & Khairy projects are filled 100%, Sina project has 18% storage, The overall storages of projects are increase by 40% than last year storages.

SIC Sangli: Only Siddhewadi reservoir has 100 % storage, other projects have nil live storages this year.

#### Deficit Plangroup

AIC Akola: Nirguna, Shahanoor, Uma projects had 74 to 100% live storage during the irrigation year. Storages in remaining projects under this circle had quite low storages ranging between 3% to 37%.

BIPC Buldhana: Live storages in Man, Torna & Utawali projects were below 10%.

CADA Aurangabad: Girja & Upper Dudhana had no yield consecutively for two years (2004-05 & 2005-06). In Khelna project, the yield has reduced from 95% (2004-05) to 42% (2005-06) whereas in Kalyan, Karpara, Kalyan Girja & Masoli projects, the yield has increased to nearly 100% (2005-06) from 0, 13, 22 & 34 % respectively over last year.

CADA Beed: In all the projects, there is increase in yield over last year. Sindaphana & Gharni projects received 100% yield for consecutively two years (2004-05 & 2005-06).

CADA Jalgaon: Rangawali & Burai had full storage available for two consecutive years (2004-05 & 2005-06). The yield was reduced in Agnawati, Hivara, Manyad & Tondapur from 100% to 79, 64, 50 & 0 % respectively over last year.

CADA Nashik: In Haranbari & Kelzar, the yield was 100% for consecutive two years (2004-05 & 2005-06). In Nagya Sakya, the yield was reduced from 100% (2004-05) to 35% this year. In Ghatshil Pargaon, there was no yield for successive two years, (2004-05 & 2005-06).

NIC Nanded: In all the projects except Pethwadaj there is increasing trend in yield over last year (2004-05). In Mahalingi project the yield is increased from 0 (2004-

05) to 100% (2005-06) whereas in Pethwadaj the yield is 100% for successive two years.

UWPC Amravati: Chandrabhaga project had 100% live storage on 15<sup>th</sup> of October.

### **Normal Plangroup**

AIC Akola: Except Koradi (77%) & Borgaon (99%) remaining seven projects were (100%) full.

CADA Aurangabad: Ambadi & Dheku projects had 70% & 38% yield respectively in 2004-05 whereas there was no yield this year.

CADA Jalgaon: In Karwand project, the yield was reduced from 100% to 33%, whereas in Aner project the yield was increased from 36% to 100% in 2005-06. In Jamkhedi, Malangaon and Panzara projects the yield received was 100% for two successive years.

CADA Nashik: In all the projects the yield was 100% for successive two years.

CADA Pune: Visapur Project 98% storages.

CIPC Chandrapur: Actual live storage of all four projects was between 98 to 100%

NIC Nanded: In Nagzari & Dongargaon projects, the yield was increased from 53 & 34% respectively to 100 % over last year.

PIC Pune: Andhali, Nazare, Wadiwale projects are having 100%, storages this year where as remaining projects Ranand, Tisangi & Kasarai has 99%, 98% & 78% storages respectively. Only Mhaswad project has 18% storage.

### **Surplus Plangroup**

CADA Nagpur: Live storages of projects in Middle Wainganga sub basin had wide variation i.e. from 44 to 100%. Three projects had live storage below 50%. Live storage of 8 projects was between 50 to 75%. Remaining Nine projects had above 90% live storage.

CIPC Chandrapur: Four projects had live storage between range of 84 to 100%.

### **Abundant Plangroup:**

CIPC Chandrapur: Under this Plangroup Naleshwar & Ghorazari project had 57% & 76% live storage respectively.

KIC Ratnagiri : Natuwadi project has storage 98%.

NKIPC Thane: Hetwane project has storage 16%.

PIC Pune: Uttar Mand project has 100%.

SIC Sangli: Kadvi, Kasari, Chitri, Jangamathi, Yeoti (masoli), Morna (Sangli) projects have filled 100% whereas Patgaon, Kumbhi, Chikotra have filled 76%, 79% & 87% respectively this year.

TIC Thane: Rajanala complex & Wandri projects have filled 72% & 94% respectively this year.

## **Indicator II: Percent Evaporation to live storage on 15<sup>th</sup> October**

### **Highly Deficit Plangroup:**

CADA Beed: In Benitura project, the percentage of evaporation is 42, only 13% & 17% available water was used for flow & lift irrigation respectively. Last year also field officers were informed about higher water losses and asked to be vigilant in future. In Harni project the quantity of evaporation is constant in 2004-05 & 2005-06 though availability is reduced from 100% (2004-05) to 58% (2005-06). In Kada project the availability was 33% therefore the percentage of evaporation appears very high.

CADA Pune: Yeralwadi project has 39% evaporation as compared to last year it is increased by 14% .

CADA Solapur: Ashti, Bhudhihal, Ekruk, Hingni (Pargaon), Jawalgaon & Mangi projects has average percentage evaporation is 31%. It is reduced by 16% compared to last year.

PIC Pune: Khairy, Nher & Sina projects have percentage of evaporation 21%, 25% & 83% respectively. Overall percentage evaporation is reduced by 7% compared to last year.

SIC Sangli: Siddhwadi project has percentage of evaporation is 36%. It is 10% Less than last year.

### **Deficit Plangroup**

AIC Akola: Percentage of evaporation on all projects except Mus & Paldhag was between 8% to 36%. Evaporation percentage of Mas (326%) & Paldhag (153%) projects was exceptionally high, as it includes evaporation from Dead storage also.

BIPC Buldhana: Due to low live storage on three projects, almost all live storage was lost in evaporation. Hence the ratio has value greater than 74%.

CADA Aurangabad: In Gadadgad project, the percentage of evaporation is very high in spite of most of the water is used in Rabi. Field officers are required to assess the evaporation losses correctly. In Jui & Lahuki project the availability was very less and therefore there was no use by flow irrigation resulting high percentage of evaporation. In Karpara & Kalyan Girja project water use for irrigation in HW is more causing more evaporation.

CADA Beed: In Masalga project, though the percentage of evaporation with respect to actual live storage as on 15<sup>th</sup> October seems to be very high the project receives post monsoon flow causing reduction in percentage with total availability. In Renapur, Terna, Tiru, Tawarja & Rui project the field officers are required to take efforts to use water in Rabi instead of using in HW to reduce the present higher evaporation losses.

CADA Jalgaon: In Bori & Hiwara project, the field officers are required to assess the evaporation correctly.

JIPC Jalgaon: In Bahula project, evaporation seems to high as water could not be utilised for want of completion of disnet works.

### **Normal Plangroup**

AIC Akola: Evaporation percentage on all projects, except Lower Pus (36%), Saikheda (48%) was below 31%.

Evaporation rate on lower Pus & Saikheda was appreciably high, due to large non utilisation of storages on these projects.

BIPC Buldhana: Live storage in Pen Takli project, was just 1% on 15<sup>th</sup> October. Obviously, evaporation from the dead storage has raised the ratio to 604%

CADA Pune: Visapur project is having 13% percentage evaporation to live storage, which is reduced by 6% compared to last year.

PIC Pune: Andhali, Kasari, Mhaswad, Nazare, Ranand, Tisangi & Wadiwale projects are having average 23% evaporation loss to live storage which is nearly same as last year.

### **Surplus Plangroup**

CADA Nagpur: Percentage of evaporation on projects was well below 30%. However, the evaporation rate on projects Sorna (49%) Betekar Bothli (40%), Rengepar (38%) and Managad (1%) Khanolibara (7%) Khekarnalla (8%) Chorkharama (8%) were exceptionally high or low. This evaporation rate along with water account of these projects suggests that, field officers are required to pay immediate attention towards the evaporation data collection.

CIPC Chandrapur: Percentage of evaporation on projects Chargaon (55%) Labhansarad (53%) were exceptionally high. This evaporation rate along with water account of these projects suggest that, field officer are require to pay immediate attention towards the evaporation data collection.

### **Abundant Plangroup:**

CIPC Chandrapur: Evaporation with respect to live storage on Ghorazari (35%) and Naleshwar (92%) also emphasizes the need of correct data collection at project level.

KIC Ratnagiri: Natuwadi project is having 7% evaporation. Chikotra, Chitri, Jagamhatti, Kadvi, Kasari, Krisna canal & Khodsi, Kumbhi, Morna (Sangli), Patgaon & Yeoti Masoli average evaporation is 10%.

NKIPC Thane : Hetwane project has 11% evaporation loss.

PIC Pune : Uttarmand project has 42 % evaporation loss which is abnormal evaporation under this Plangroup.

### **Indicator III: Percentage of Evaporation to Gross utilisation**

#### **Highly Deficit Plangroup:**

CADA Beed: In Kada & Talwar projects, the water availability was 33% & 51% respectively, therefore, regular flow irrigation could not be possible, utilisation through reservoir lift was resorted to fulfill commitments. The percentage seems to be high due to lesser availability of water.

CADA Pune : Yeralwadi project has 32% evaporation.

CADA Solapur : Ashti, Budhihal, Ekruk, Hingni (Pargaon), Jawalgaon & Mangi have average 36% evaporation ranges from 22% of Jawalgaon to 85% in Bhudhihal project.

PIC Pune: Projects Khairy, Nher & Sina projects have average percentage of evaporation is 35% as compared to last year it is decreased by 11%.

SIC Sangli: Siddhewadi project has 36% evaporation as compared to last year 49% .

#### **Deficit Plangroup**

AIC Akola: Exceptionally high percentage of evaporation on Mas (88%) Paldhag (96%) was due to low live storages created on this project. Almost all live storages is lost through evaporation.

BIPC Buldhana: Exceptionally high percentage of evaporation on Man (69%), Torna (93%) was due to low live storages created on this project. Almost all live storages is lost through evaporation.

CADA Aurangabad: In Lahuki & Jui projects, the water availability was 37 & 12% respectively therefore regular flow irrigation could not be possible, utilisation through reservoir lift was resorted to fulfill commitments. The percentage of evaporation seems to be high due to lesser water utilisation. In Kalyan Girja project the availability was 100%, however, water use by canals in Rabi, HW was 4 & 3% respectively and on reservoir lift it was 21% & 26% water remain unutilised at the end of this year. The field officers are required to manage the available resources judiciously.

CADA Beed: In Masalga project, the water availability was 35%. The field officers are required to manage the available resources judiciously. In Renapur & Rui project the water availability more than 80% but there was no utilisation through canals and water use by reservoir lift was 32 & 23% respectively. The evaporation losses were 55 & 68% respectively with respect to live storage as on 15<sup>th</sup> October which seems to be very high, this could have been reduced by proper utilisation of available water. In Terna project the water use for irrigation very less resulting in to 54% evaporation losses with respect to gross utilisation.

CADA Jalgaon: In Hivara project, water use for irrigation is very less resulting in to 45% evaporation losses with respect to gross utilisation.

### **Normal Plangroup**

AIC Akola: In all projects except Waghadi & Saikheda, the evaporation loss with respect to gross utilisation was below 30%. Unutilisation of largely available live storage has caused evaporation at appreciable rate. Same is the case with Navargaon project (46%) under YIC Yeotmal

CADA Aurangabad: In Dheku & Ambadi project, there was no live storage available hence evaporation losses seem to be very high.

CADA Pune: Visapur project has 11% evaporation losses compared to gross utilisation.

PIC Pune: Maswad, Ranand, Nazare, Tisangi, Wadiwale, Andhali, Kasarsai are having average 23% evaporation to gross utilisation is range from 11% on Maswad to 66% on Andhali.

### **Surplus Plangroup**

CADA Nagpur: Unutilisation of large available storage on Sorna has increased the percentage of evaporation to gross utilisation to 36%. Exceptionally low loss on projects Managad (1%), Sangrampur (5%), Khekranall (12%) & Kanholibara (12%) appears due to erroneous evaporation data collection. Same is the case with Chargaon (35%), Labhansarad (36%) under CIPC Chandrapur.

### **Abundant Plangroup:**

KIC Ratnagiri: Natwadi project has 40% evaporation to gross utilisation.

NKIPC Thane: Hetwane project has 14% evaporation where as it was 22% in last year.

PIC Pune: Uttarmand project has 63% evaporation compared to gross utilisation.

SIC Sangli: Yeoti masoli, Patgaon, Morna (Sangli), Khumbi, Krishna Canal & Khodsi, Kasari, Kadvi, Jagmahati, Chikotra & Chitri average evaporation is 10% which ranges from 6% in chitri to 41% in Morna (Sangli).

TIC Thane: Rajnalla complex & Wandri are having 42 & 12% evaporation respectively.

## **Indicator IV: Water Use Pattern**

### **Highly Deficit Plangroup:**

CADA Beed: In Kurnoor project, 100% yield was available. Water use by canal in all the seasons was to the extent of 59%. Similarly, in Mahasangvi 56% water was used during Rabi season.

In Benitura project the water use by canals in Rabi & HW season was merely 7% & 6% respectively and in Turori only 3% water was used and that too in HW season, in spite of 100% availability in both these project.

CADA Pune : Yerlwadi project most of water use on canal in Rabi season predominantly.

CADA Solapur: Ashti, Budhihal, Ekruk, Hingni (Pargaon) Jawalgaon & Mangi project most of the water use by reservoir lift (38.74 Mcum out of 108.9 Mcum ) in rabi & HW season non irrigation use is 5.409 Mcum.

PIC Pune: Khairy, Nher, Sina projects most of water use by reservoir lift & canal in Rabi season. (24 Mcum out of 38.90 Mcum).

SIC Sangli: Siddhewadi project under SIC Sangli most of water use on reservoir lift in Rabi & HW season.

### **Deficit Plangroup**

AIC Akola: On Morna, Nirguna & Uma projects, irrigation water use is predominant in Rabi season. On Shahanoor project, irrigation water use in Rabi & HW is more or less same.

CADA Aurangabad: Kalyan Girja, Masoli & Karpara projects had 100% yield but the use of water by canals was very less. Project officers are required to be more vigilant about utilisation of available water judiciously.

CADA Beed: In Sakol & Sangameshwar projects, there was no water use by canal in any season, whereas in Borna, Devarjan, Kundlika, Tiru, Wan & Whati projects utilisation by flow irrigation is less than 20% in spite of 100% availability on 15<sup>th</sup> October.

CADA Jalgaon: In Burai, Rangawali & Sonwad projects, the utilisation of available water is reasonably good.

CADA Nashik: In Kelzar project, there was no water use by canal in any season, whereas in Haranbari project only 65 ha area was irrigated in Rabi season using 1% of available water, in spite of 100% water availability in both the projects. The field officers are required to be more vigilant to utilise available water fully.

NIC Nanded: All the medium projects had 100% yield, however, in Pethwadaj project the utilisation by canal is 76% where as in remaining projects it is ranging from 30 to 50% only.

## **Normal Plangroup**

AIC Akola: Adan, Goki, Lower Pus & Waghadi projects had more or less same irrigation water use in Rabi & HW season. However, in case of other projects water use in Rabi season is more than HW season. On Navargaon project under YIC Yeotmal, major irrigation water use is in Rabi season.

BIPC Buldhana: On Pen Takli project, actual live storage on 15<sup>th</sup> October was 0.71 Mcum only. However, water use for irrigation & non irrigation shows that, water is drawn from dead storage which is an encroachment over the live storage of next year.

CADA Jalgaon: Aner, Malangaon, Panzara & Suki projects were having 100% availability. The water use by canals in these projects was below 60%.

In Jamkhedi project in spite of 100% availability, there was no water use by canals and by reservoir lifts for irrigation. However, 51% (6.258 Mcum) water was used for irrigation through releases in river.

CADA Pune: Visapur project most of the water use in Rabi & HW by canal (47.89 Mcum out of 57.96 Mcum).

CIPC Chandrapur: On all projects & Navargaon under YIC Yeotmal, major irrigation water use is in Rabi season. On Dham project irrigation water use in HW & reservoir lift is appreciable compared to total irrigation water use.

NIC Nanded: Dongargaon & Nagzari projects had 100% yield during 2005-06. In Dongargaon project 62% water was utilised during HW only. In Nagzari 41% water was utilised in Rabi season only. Field officers should pay attention for proper utilisation of available water to the fullest extent.

PIC Pune: Andhali, Kasarsai, Maswad, Nazare, Ranand, Tisangi, Wadiwale most of water use in Rabi season by canal. Non irrigation use is 8.83 Mcum.

## **Surplus Plangroup**

CADA Nagpur: In Bagheda, Betekar (Bothli), Bodalkasa, Chandpur, Chorkharamara, Chulband, Rengepar, Sangrampur, irrigation water use is predominant in kharif season.

Chandrabhaga, Kanholibara, Khekranalla, Kolar, Makar Dhokada, Pandhrabodi, had more irrigation water use in Rabi season.

Irrigation water use in HW season is appreciable on Chulband, Kanholibara, Khairbanda & Khekranalla.

Except Kolar & Chandrabhaga projects there is no irrigation water use on reservoir lift.

There is no water use for non irrigation on all projects except Chandrabhaga, Kesarnalla, Kolar, Makar Dhokada, Pandharabodi

CIPC Chandrapur: Available storage is utilised for catering water mainly in Rabi season.



**Abundant Plangroup:**

CIPC Chandrapur: On Ghorazari project, the available live storage is utilised in all the three seasons. However, it is predominant in kharif season. On Naleshwar project 70% of available storage is utilised for kharif season.

KIC Ratnagiri: Natuwadi project most of the water use for non irrigation which is 50% of gross utilisation i.e. 2.40 Mcum out of 4.50 Mcum.

NKIPC Thane: Hetwane project most of the water use for non irrigation 35.61 Mcum out of 44.24 Mcum.

PIC Pune: Uttarmand project has river lift utilisation 35% over gross utilisation.

SIC Sangli: Chikotra, Chitri, Jangamhati, Kadvi, Kasari, Krishna canal, Kumbi, Morna (Sangli), Patgaon and Yeoti Masoli projects has water use on river lift through KT wair as there as no canal system on these projects and reservior lift for irrigation which is 283.114 Mcum out of 387.97 Mcum.

TIC Thane: Rajnalla complex and Wandri projects most of water use in Konkan season (15 Dec. to 30 April) which is 51.79 Mcum out of 84.57 Mucm.

## **Indicator V: Irrigation System Performance (Canal)**

### **Highly Deficit Plangroup:**

CADA Beed: In Khasapur and Chandani projects, the irrigation system performance in Rabi is high as only one rotation was provided.

In Sakat project only two rotations were given in Rabi season and, therefore, the performance seems better.

CADA Pune: In Yeralwadi project Irrigation system performance on canal in Rabi season is 42 ha/Mcum which is very poor. Whereas on reservoir lift Irrigation system performance is 307 and 222 ha/Mcum in Rabi & HW season which is good.

CADA Solapur: In projects of CADA Solapur ISP on canal 137, 117, 153, 177 ha/Mcum is observed in Rabi season of Ekhrukh, Hingni (paragaon), Jawalgaon & Mangi respectively. Jawalgaon & Hingani paragaon ISP on reservoir lift is very poor i.e. 58 & 66 ha/Mcum.

PIC Pune: In Khairy, Nher, Sina project ISP on reservoir lift in Rabi season 175, 235 & 170 ha/Mcum. In HW season the sina project has ISP on reservoir lift is very low i.e. 25 ha/Mcum. as compared to state norm.

### **Deficit Plangroup:**

AIC Akola: ISP realised on Morna (63 ha/ Mcum), Nirguna (75 ha/ Mcum) in Rabi season are low compared to State norm.

CADA Aurangabad: In Sukhana project, the performance in Rabi & HW seasons is 174 & 196 ha/Mcum respectively. The area irrigated in Rabi and HW seasons is 617 ha with 5 rotations & 94 ha with 3 rotations respectively.

In Jivrekha project though the value in Rabi is 185 ha/Mcum, only 3 rotations were given. In Karpara and Gadadgad projects, the values are 121 & 125 respectively in Rabi season where 4 rotations were given. In Kalyan Girja only 3 rotations in Rabi & 2 in HW were given, therefore, the values appear higher.

In Masoli project, the performance in Rabi is low (81 ha/Mcum) in spite of only 3 rotations but it is some what better in HW (89 ha/Mcum) when 6 rotations were supplied. In Kalyan project, the performance in Rabi appears very good, but only protective irrigation was given.

CADA Beed: In Tiru, Sindphana, Whati & Gharni projects, four rotations each in Rabi were provided but there is large variation in performance in these projects.

In Tawarja project, there was no irrigation in any season in 2004-05. The performance in HW is good (94 ha/Mcum) whereas in Rabi it is low with 102 ha/Mcum in spite of 6 rotations given each in Rabi and HW of 2005-06.

CADA Jalgaon: In Rangawali and Sonwad projects, the performance in Kharif seems very good but only protective irrigation was provided in these projects.

In Kanoli, Hivara, Burai and Sonwad projects, there is variation in performance in Rabi season from 132 ha/Mcum to 71 ha/Mcum in spite of same number of rotation (4) in these projects.

In Manyad project, the performance in Rabi is as low as 71 ha/Mcum. Cotton (461ha), Rabi Jowar (164 ha) & other pulses (2 ha) totaling to 627 ha were irrigated with only one rotation due to lesser availability. The field officers are required to be vigilant for making judicious use of water. The performance in HW is 147 ha/Mcum, which seems very good but only one rotation was given to irrigate only 86 ha of area.

In Rangawali project, the ratio is high in Rabi as only two rotations were supplied, however, the performance in HW is very low (65ha/Mcum). The reason for lower performance is total area irrigated being under water intensive crops (Sugarcane 162 ha and HW Groundnut 264 ha). In all 5 rotations were provided in HW.

NIC Nanded: In Pethwadaj project under NIC Nanded, the performance in Rabi is very low. The field officers are required to be vigilant for making judicious use of water.

#### **Normal Plangroup:**

AIC Akola: On Waghadi, Lower Pus, Goki, Adan, & Saikheda projects ISP observed in both Rabi & HW season is below 70 ha/ Mcum. On Borgaon ISP for Rabi (120 ha/ Mcum) & HW (335 ha/ Mcum) is better on account of limited water rotations implemented on project.

According to field officers, low realisation of ISP on the above mentioned project is due to apathy of farmers towards night irrigation maintenance of field channel and more seepages in canal system. However, from the details of water rotations submitted in water account and concerned office inspections, prescribed methodology for calling water demands, sanctioning of water rotation schedule by competent authority and day to day monitoring of water rotation schedule at higher level is not scrupulously followed. This contributes large operational losses in the irrigation system.

CADA Jalgaon: In Aner and Suki projects, only protective irrigation was provided in Kharif resulting in to higher performance.

In Panzara, Abhora & Aner projects, there is variation in performance of Rabi season in spite of 4 rotations each in all these projects. In Panzara project only 3 rotations were provided in HW. Therefore the value is high.

In Suki project, 5 rotations were supplied in Rabi, but the performance is low owing to more area under crops like sugarcane (48 ha), Groundnut (57 ha) & Banana (26 ha), however, its performance in HW is very good with 120 ha/Mcum even after providing 6 rotations.

In Malangaon project the performance seems to be improved over last year, though 3 rotations in Rabi & 2 in HW were provided.

CADA Nashik: In Mandohol project, the performance is very low. The field officers are required to take steps for improvement in the same.

SIC Sangli: Siddhewadi project has ISP in Rabi season on reservoir lift is 109 ha/Mcum & 110 ha/Mcum in HW season. Field officers should give more attention to improve the ISP.

### **Normal Plangroup**

CADA Pune: In Visapur project has ISP in Rabi season on canal is 104 ha/Mcum & in HW season 77 ha/Mcum which is very low. ISP on reservoir lift is 144 and 137 ha/Mcum in Rabi & HW season respectively.

CIPC Chandrapur: ISP realisation on Dham & Dongargaon projects in Rabi season is 70 ha/ Mcum & 60 ha/ Mcum respectively.

PIC Pune: Andhali, Kasarsai, Maswad, Nazare, Ranand, Tisangi, and Wadiwale project having average ISP is 169 ha/Mcum in Rabi season & 135 ha/Mcum in HW season where as on reservoir lift average ISP is 237 ha/Mcum and 231 ha/Mcum in Rabi and HW season repectively.

### **Surplus Plangroup**

CADA Nagpur: In HW ISP realised on Kolar (46 Ha/ Mcum) Khekranalla (10 Ha/ Mcum) Sangrampur (57 Ha/ Mcum) are low compared to the State norm. According to field officers irrigation over scattered area is the main cause for more water utilisation per unit area irrigated on these projects. But the reasoning for low ISP as mentioned in case of projects under CADA Nagpur, CIPC Chandrapur under normal Plangroup is also applicable to these projects.

CIPC Chandrapur: ISP realised in Rabi season on Khekranalla (30 ha/ Mcum), Tekepar (39 ha/ Mcum) Sorna (53 ha/ Mcum), Betekar Bothli. (16 ha/ Mcum), under CADA Nagpur & Chandai (59 ha/ Mcum) are very low compared to the State norm.

### **Abundant Plangroup:**

KIC Ratnagiri : Natuwadi project of KIC Ratnagiri is 46 ha/Mcum.

NKIPC Thane: Hetwane project of NKIPC Thane is 52 ha/Mcum. in Konkan season receptively.

SIC Sangli: Chitri, Yeoti, Masoli, Patgaon, Morna (Sangli) Kumbi, Kasari, Jangamhatti, Chikotra and Kadvi most of water use by river lift. The average ISP in Rabi and HW season is 166 Ha/Mcum and 124 ha/Mcum respectively.

TIC Thane : In Rajanalla & Wandri project ISP on canal in Konkan season is 76 ha/Mcum and 33 ha/Mcum respectively.

## **Indicator V: Irrigation System Performance (Reservoir Lift)**

### **Highly Deficit Plangroup:**

CADA Beed: In Jakapur & Turori projects, the performance in Rabi is similar but the area under water intensive crops reported in Turori (36%) is more than 2.5 times that in Jakapur (14%).

In Harni project the performance in Rabi is low in spite of only 10 ha reported under Sugarcane out of 70 ha total irrigated area in the season. The performance in HW is very low (55Ha/Mcum) as 100% area irrigated (55ha) in HW is under Sugarcane.

In Khandala project the performance in Rabi & HW is reasonable in spite of more 45% area under Sugarcane in Rabi & 100% under Sugarcane & Groundnut in HW.

In Kurnoor project the performance is as low as 94 ha/Mcum where only 81 ha (28%) out of 291 ha total irrigated area is reported under Sugarcane. The field officers are required to take steps for improvement in the performance.

In Benitura project the performance is low owing to more area under Sugarcane (68% in Rabi & 98% in HW)

In Mahasangvi project, the performance in HW is good in spite of 75% of area irrigated in HW being under Groundnut.

In Turori the performance in HW seems to be very good in spite of 78% of area under Groundnut & Sugarcane. The field officers are required to be vigilant for measurement of water use.

### **Deficit Plangroup**

AIC Akola: ISP observed on Shahanoor (87 Ha/ Mcum) & Uma project (47 Ha/ Mcum) for reservoir lift irrigation is quite low. Figures indicate that either area irrigated or water utilised for irrigation is not properly measured.

CADA Beed: In Van project the performance in Kharif is low as 100% area is under Sugarcane.

In Devanjan project the performance in Rabi is very low as 77% of area irrigated is under Sugarcane.

In Sindphana project the performance seems to be very low in Rabi even though the area under Sugarcane is only 27% of total irrigated area. The field officers are required to take actions for improvement.

CADA Jalgaon: In Bhokarbari project, the performance in Rabi is very low. Similarly in Manyad project the performance in HW is very low. The field officers are required to take actions for improvement

### **Normal Plangroup**

AIC Akola: ISP realised on Borgaon project is excessively high (1000 Ha/ Mcum) as Gram crop which has very low water demand was irrigated. In Rabi & HW, ISP observed on Saikheda project is 98 Ha/ Mcum & 47 Ha/ Mcum, which is very low compared to the expected ISP of 200 Ha/ Mcum.

Waghadi project has realised low ISP for both Rabi & HW season.

CADA Nashik: In Adhala project, the performance in Rabi & HW is very low.

CIPC Chandrapur: Dham, Pothra, Dongargaon projects also have realised low ISP for both Rabi & HW season.

NIC Nanded: In Nagzari project, the performance in Rabi is very low. The field officers are required to take efforts for improvement of performance of above projects.

### **Surplus Plangroup**

CIPC Chandrapur: Due to improper assessment of water utilisation on reservoir lift, ISP observed on Chargaon & Labhansarad project is quite low in kharif & Rabi season.

## **Indicator V: Irrigation System Performance (River Lift)**

### **Normal Plangroup:**

PIC Pune: In Wadivale project performance in Rabi & HW season 182 94 Ha/Mcum performance in HW season is needs to improvement.

Kasarsai Irrigation system performance in Kharif, Rabi & HW season 196, 115 & 143 respectively.

In Nazare project water is utilised in Rabi season only the performance is 109 Ha/Mcum which is needs to improve.

### **Abundant :**

PIC Pune: In Uttarmand project performance in Rabi & HW season is 707 & 264 Ha/Mcum which is abnormally high.

SIC Sangli: In Nine medium project in Kolhapur District average performance in Rabi & HW season 166 & 124 Ha/Mcum respectively which needs to improved.

## **Indicator VI: Percentage of Actual to Projected Non-irrigation Use**

### **Highly Deficit Plangroup:**

CADA Pune: In Yeralwadi project percentage of non irrigation use as per PIP provision

CADA Solapur: In Ekrukh project non-irrigation use double than the PIP provision.

PIC Pune: In Sina project has only 12% NI use of PIP.

SIC Sangli: Siddhewad project of SIC Sangli has 22% N.I. use of PIP.

### **Deficit Plangroup**

AIC Akola: Actual non irrigation use on Mas, Paldhag & Morna projects is very low compared to the quota reserved in PIP of the project. Low utilisation of water against NI reservation curtails the water availability for irrigation. There fore, more attention is needed at project level while reserving water storages for NI use in PIP

CADA Aurangabad: In Jivrekha project, there is no provision for non-irrigation use in the project report. However 1.54 Mcum water is used for NI use against the provision of 0.21 Mcum in PIP, hence the sudden rise of 733% is observed. The project authorities should be careful in assessing the realistic demand while preparing PIP.

In case of Kalyan project the actual NI use is more than that anticipated in PIP.

CADA Jalgaon: In Agnavati project under CADA Jalgaon actual NI use is more than projected. As per the field officers the increased use is as per demand of rural water supply schemes.

NIC Nanded: In Karadkhed project under NIC Nanded the actual NI use is more by 149% over PIP provision.

### **Normal Plangroup**

CIPC Chandrapur: Actual non irrigation use on Amalnala, Dham project, is very low compared to the quota reserved in PIP of the project. Low utilisation of water against NI reservation curtails the water availability for irrigation. There fore, more attention is needed at project level while reserving water storages for NI use in PIP

PIC Pune: Maswad, Wadiwale and Nazare project has non-irrigation use 1.63 Mcum, 2.86 Mcum and 3.34 Mcum respectively. Non-irrigation use on Maswad project is increased by 30 % over PIP provision.

### **Surplus Plangroup**

CADA Nagpur: Actual non irrigation use on Kolar is very low compared to the quota reserved in PIP of the project. Low utilisation of water against NI reservation curtails



the water availability for irrigation. There fore, more attention is needed at project level while reserving water storages for NI use in PIP.

**Abundant Plangroup:**

KIC Ratnagiri : Natuwadi non-irrigation water use is 2.41 Mcum, for this project there is no provision in PIP.

NKIPC Thane : In Hetwane project non-irrigation use is 35.61 Mcum out 39.533 Mcum project report water is supplied to Washi New Mumbai

SIC Sangli: Chikotra, Chitri, Jagamahatti, Patgaon, Kasari, Krishn canal & Kudhsi, Kumbi Morna (Sangli), Yeoti masoli project average non-irrigation use is 86% of PIP provision.

## **Indicator VII: Percentage of Unutilised Water to Storage on 15<sup>th</sup> October**

### **Highly Deficit Plangroup:**

CADA Beed: In Jakapur & Turori projects under CADA Beed the percentage of unutilised water is 42 & 31% respectively, lesser utilisation in Rabi & HW are the main causes for water remaining balance at the end of June. The field officers should take a serious note of this and act accordingly to make proper utilisation.

CADA Pune: Yeralwadi project percentage of unutilised water is 2%.

CADA Solapur: Ekrukh, Hingni (Pargaon), Mangi, Asti, Bhudhihal Jawalgaon projects average 22% water remain unutilised in the range from 6% to 26%, compared to last year, it is reduced to 10% overall.

### **Deficit Plangroup**

AIC Akola: Unutilised storage compared to 15<sup>th</sup> October storage on Shahanoor, Uma & Morna projects is above 42%. This indicates that, more efforts are necessary at project level for maximum utilisation of available live storage. In case of Mas & Paldhag project, the percentage of unutilised storage to 15<sup>th</sup> October live storage is more as appreciable in flow was received in March 2006.

CADA Aurangabad: In Kalyan Girja & Kalyan projects, the water use in Rabi and HW is very less. Therefore, the percentage of unutilised water is more (26% and 42% respectively).

CADA Beed: In Bodhegaon project, more water has remained balance by June end (35%) due to lesser utilisation in Rabi & HW.

NIC Nanded: In Loni project, more water has remained balance by June end (39%) due to lesser utilisation in Rabi & HW.

### **Normal Plangroup**

AIC Akola: Unutilised storage on Waghadi (15.01 Mcum), Saikheda (15.78 Mcum), Lower Pus (18.75 Mcum), and Adan project (23.05 Mcum), are too large as compared to its live storages on 15<sup>th</sup> October. According to field officers in spite of routine efforts for water utilisation, there was low water demand from farmers particularly in HW season.

NIC Nagpur: In Jam & Kar project there is 21% & 26% unutilised storage with respect to 15<sup>th</sup> October live storage. This was on account of partial irrigation potential development.

PIC Pune: Andheli, Wadiwale, Kasarsai, Tisangi, Ranand, Mahawad & Nazare project has unutilised water average 18% in the range from 0% to 59%.

### **Surplus Plangroup**

CADA Nagpur: Percentage of unutilised storages compared to 15<sup>th</sup> October live storage in case of all project under CADA Nagpur except Sangrampur, Rengepar, Pandharbodi, Managad & Makardhokada vary between 10% to 64%. Project

authorities may explore the projectwise reasons for under utilisation of available storages.

CIPC Chandrapur: Percentage of unutilised storages compared to 15<sup>th</sup> October live storage in case of Panchdhara & Wunna project under CIPC Chandrapur.

**Abundant Plangroup:**

CIPC Chandrapur: On Naleshwar project unutilised storage with respect to 15<sup>th</sup> October live storage is also very high.

KIC Ratnagiri: Natuwadi project unutilised water is 45% as against last year 27%.

NKIPC Thane: Hetwane project unutilised water is 9% as against last year 44%.

PIC Pune: In uttarmand project unutilised water percentage is 100% as there is no utilisation.. The project authority has to think seriously over it & give attention to make use of it.

SIC Sangli: Chitri, Yeoti Masoli, Patgaon, Morna (Sangli) Khumbhi, Krisna canals, Kasari, Jagamhati, Chikotra, Kadvi project has average unutilised water is 15% overall, which range from 4% in chitri to 56% in Kadvi.

TIC Thane: Rajanala complex & Wandri projects average unutilised water is 6% as against last year 1%

## **Minor Projects**

### **Indicator I Water Availability in the Tanks**

#### **Highly Deficit Plangroup:**

SIC Sangli: Average water availability 48%.

PIC Pune: Average water availability 68%

CADA Beed: Average availability in projects is 72 percent, which is more than the availability in 2004-05 (50%).

#### **Deficit Plangroup**

BIPC Buldhana: Average storages are in the range of 48% to 100 %

AIC Akola: Average storages are in the range of 48% to 100 %

CADA Beed: The average availability is 91 percent.

YIC Yavatmal: In minor projects, water availability in MI Tanks is 100 %

#### **Normal Plangroup**

NIC Nanded: The availability has increased over last year from 26% to 71% due to good rains.

PIC Pune: Average storage is 86%.

CADA Nashik: The storages were up to 87 percent of designed capacity. The availability is reduced slightly from 94 percent in 2004-05.

CADA Nagpur: Due to satisfactory rain during monsoon average live storages in minor projects is in the range of 92 to 100 %

CIPC Chandrapur: Due to satisfactory rain during monsoon average live storages in minor projects is in the range of 92 to 100 %

NIC Nagpur: Due to satisfactory rain during monsoon average live storages in minor projects is in the range of 92 to 100 %

#### **Surplus Plangroup**

CADA Nagpur: Due to satisfactory rain during monsoon average live storages in minor projects is in the range of 92 to 100 %

CIPC Chandrapur: Due to satisfactory rain during monsoon average live storages in minor projects is in the range of 92 to 100 %

NIC Nagpur: Due to satisfactory rain during monsoon average live storages in minor projects is in the range of 92 to 100 %

#### **Abundant Plangroup:**

NKIPC Thane: Average water availability is 95%.

KIC Ratnagiri: Average water availability is 97%.

SIC Sangli: Average water availability is 87%

TIC Thane: Average water availability is 100%

CIPC Chandrapur: Due to satisfactory rain during monsoon average live storages in minor projects is in the range of 92 to 100 %

CADA Nagpur: Due to satisfactory rain during monsoon average live storages in minor projects is in the range of 92 to 100 %

NIC Nagpur: Due to satisfactory rain during monsoon average live storages in minor projects is in the range of 92 to 100 %

## **Indicator II Percent Evaporation to live storage on 15<sup>th</sup> October**

### **Highly Deficit Plangroup:**

SIC Sangli : Average percentage evaporation to live storage is 22%

PIC Pune: Average percentage evaporation to live storage is 24%

CADA Beed: The percentage of evaporation is 28% which is slightly lesser than that in 2004-05 (30%).

### **Deficit Plangroup**

CADA Nashik: The percentage of evaporation is 19. It is observed that the field officers have taken efforts to utilise the water judiciously in Rabi and Hot Weather seasons for reducing the evaporation losses.

CADA Beed: The value is alarming viz. 37%. The field officers are required to pay more attention on proper utilisation of water.

CADA Jalgaon: The percentage of evaporation is 24. It is observed that the field officers have taken efforts to utilise the water judiciously in Rabi and Hot Weather seasons for reducing the evaporation losses.

NIC Nanded: The percentage of evaporation is 24. It is observed that the field officers have taken efforts to utilise the water judiciously in Rabi and Hot Weather seasons for reducing the evaporation losses.

AIC Akola: In Minor project the rate of evaporation is high (29 to 37%) as evaporation is measured either by using data of near by laboratory or on adhoc basis.

CADA Aurangabad: The value is alarming viz. 41%. The field officers are required to pay more attention on proper utilisation of water.

### **Normal Plangroup**

CADA Nashik: The value of percentage of evaporation losses is slightly lesser than that of 2004-05.

CADA Jalgaon: The value of percentage of evaporation losses is slightly lesser than that of 2004-05.

PIC Pune: Average percentage evaporation to live storage is 18%

BIPC Buldhana: In Minor project the rate of evaporation is high (29 to 37%) as evaporation is measured either by using data of near by laboratory or on adhoc basis.

2. Percentage of Evaporation is low in case of minor projects under CADA Nagpur (18% to 27%), CIPC Chandrapur (19% to 22%) & NIC Nagpur has comparatively high rate of evaporation that is (26% to 31%).Variation in temperature range and adhoc measurement of evaporation may be attributed to high rate of evaporation.

CADA Nagpur: In Minor project under AIC Akola & BIPC Buldhana (Deficit) the rate of evaporation is high (29 to 37%) as evaporation is measured either by using data of near by laboratory or on adhoc basis.

2. Percentage of Evaporation is low in case of minor projects under CADA Nagpur (18% to 27%), CIPC Chandrapur (19% to 22%) & NIC Nagpur has comparatively high rate of evaporation that is (26% to 31%).Variation in temperature range and adhoc measurement of evaporation may be attributed to high rate of evaporation.

NIC Nanded: There is a reduction of 7 % in the ratio as compared to last year which is note worthy.

NIC Nagpur: Percentage of Evaporation is low in case of minor projects has comparatively high rate of evaporation that is (26% to 31%).Variation in temperature range and adhoc measurement of evaporation may be attributed to high rate of evaporation.

### **Surplus Plangroup**

CIPC Chandrapur: In minor projects due to satisfactory rain during manson average live storages are in the range of 92 to 100 %

NIC Nagpur: In minor projects due to satisfactory rain during manson average live storages are in the range of 92 to 100 %

CADA Nagpur: In minor projects due to satisfactory rain during manson average live storages are in the range of 92 to 100 %

### **Abundant Plangroup:**

TIC Thane: Average percentage evaporation to live storage is 12%

NKIPC Thane: Average percentage evaporation to live storage is 14%

KIC Ratnagiri: Average percentage evaporation to live storage is 14%

SIC Sangli: Average percentage evaporation to live storage is 16%

### **Indicator III: Water Use Pattern**

#### **Highly Deficit Plangroup:**

CADA Beed: Nearly 27% of available water in projects was used for irrigation on reservoir lifts as there are 73 Storage tanks, where water use by only lifts is proposed.

PIC Pune: Water use for irrigation in Rabi season on reservoir lift & canal irrigation.

SIC Sangli : Water use for irrigation in Rabi season on reservoir lift & canal irrigation.

#### **Deficit Plangroup**

AIC Akola: In case of Minor projects water use is predominant in Rabi season. In AIC Akola 13 % of storage is utilised through reservoir lift.

BIPC Buldhana In case of Minor projects water use is predominant in Rabi season.

CADA Beed: In CADA Beed and NIC Nanded, the availability was 91% and 93% respectively. The water use in Rabi season and reservoir lifts was prominent. In addition, the non-irrigation use was also prominent (37%) in CADA Beed.

CADA Jalgaon: In CADA Jalgaon, in spite of only 41% availability, the use of water in Rabi and Hot Weather was quite good. In addition 11 percent of water was used for non-irrigation purposes. The overall effect was seen in lowering the value of evaporation percentage.

CADA Nashik In CADA Nashik, even though the availability was 73 %, use of water by reservoir lifts was prominent (35%).

NIC Nanded: In CADA Beed and NIC Nanded, the availability was 91% and 93% respectively. The water use in Rabi season and reservoir lifts was prominent. In addition, the non-irrigation use was also prominent (37%) in CADA Beed.

YIC Yavatmal In case of Minor projects water use is predominant in Rabi season.

#### **Normal Plangroup**

CADA Nashik: In projects under CADA Nashik, water was used in all the three seasons and by reservoir lifts as well. This has effected in lowering the evaporation to 14% only.

PIC Pune: Most of water use is on reservoir lift for irrigation.

#### **Abundant Plangroup:**

KIC Ratnagiri: Max. water use for irrigation in Konkan season (15Dec. to 30 April) on canal.

NKIPC Thane: Max. water use for irrigation in Konkan season (15Dec. to 30 April) on canal

SIC Sangli: Max. water use for irrigation on reservoir lift

TIC Thane: Max. water use for irrigation in Konkan season (15Dec. to 30 April) on canal



## **Indicator IV: Irrigation System Performance**

### **Highly Deficit Plangroup:**

CADA Beed: The irrigation system performance in hot weather for flow irrigation is very high due to providing only protective irrigation. Even though the water use from reservoir lifts was 31% of live storage, the performance is far below (56 Ha/Mcum).

CADA Solapur: Max. water use in Rabi & HW on reservoir lift. Irrigation system performance in Rabi is 152 ha/Mcum and in HW is 150 ha/Mcum on reservoir lift.

PIC Pune: Max. water use on reservoir use in irrigation system performance is 104 ha/Mcum.

SIC Sangli : Max. water use on reservoir use in irrigation system performance is 115 ha/Mcum.

### **Deficit Plangroup**

AIC Akola: In Deficit group, water use efficiency for project under AIC Akola, YIC Yeotmal is too low compared to State norm for all the seasons. Where as, for the projects under Buldhana, the water is efficiency observed for Rabi is above the State norm.

2. In Normal & Surplus group, the projects under BIPC Buldhana, CADA Nagpur, CIPC Chandrapur & NIC Nagpur have achieved water use efficiency close to State norm. But projects under AIC Akola & UWPC Amarwati , YIC Yeotmal the water use efficiency comparatively low than the State norm for Rabi & HW season.

3. In Abundant- Plangroup the performances of projects under CADA Nagpur, CIPC Chandrapur in Rabi season are comparatively satisfactory, but have comparatively low performances in Hot weather season.

The field officers are required to plan and implement the irrigation management more efficiently in case of low efficiency performing projects.

CADA Aurangabad: The system performance in Rabi and Hot Weather seasons are slightly lower than the targeted values.

CADA Beed: The system performance in Rabi and Hot Weather seasons are slightly lower than the targeted values.

CADA Nashik: The system performance in Rabi and Hot Weather seasons are slightly lower than the targeted values.

NIC Nanded: The performance in HW is lower than the state norms. The field officers are required to plan and implement the system efficiently in order to bring out improvement.

CADA Jalgaon: The performance in HW is lower than the state norms. The field officers are required to plan and implement the system efficiently in order to bring out improvement.

YIC Yavatmal : In Deficit group, water use efficiency for project under AIC Akola, YIC Yeotmal is too low compared to State norm for all the seasons. Where as, for the projects under Buldhana, the water is efficiency observed for Rabi is above the State norm.

2. In Normal & Surplus group, the projects under BIPC Buldhana, CADA Nagpur, CIPC Chandrapur & NIC Nagpur have achieved water use efficiency close to State norm. But projects under AIC Akola & UWPC Amarwati , YIC Yeotmal the water use efficiency comparatively low than the State norm for Rabi & HW season.

3. In Abundant- Plangroup the performances of projects under CADA Nagpur, CIPC Chandrapur in Rabi season are comparatively satisfactory, but have comparatively low performances in Hot weather season.

The field officers are required to plan and implement the irrigation management more efficiently in case of low efficiency performing projects.

## Chapter -4

### Common observations & Conclusion

#### Observations

The annual water accounts received from field officers are scrutinised in MWRDC office. The remarks of scrutiny are communicated to the respective offices for compliance. The major common remarks are;

- Water Accounts are maintained in old proformas, instead of recent proformas I to V (rotation wise water accounts) prescribed by GoM.
- Flow measuring devices are not workable in some of major and medium projects.
- Sufficient technical trained management staff is not available on all projects.
- Water meters are not provided by the users for measuring the water lifted for irrigation and domestic uses.
- Season wise irrigation system performance observed on most of the projects is less than the State norms.
- The water use in hot weather is increasing.
- Water use for non irrigation purposes is increasing.
- Water remains unutilised at the end of the year on a few projects.
- Area irrigated is assessed as per sanctioned area. Actual measurement of irrigated area is not carried out in some projects.
- Schedule of assessment is not followed as prescribed by GoM.
- The conveyance losses shall be assessed properly.
- Silt accumulation in reservoirs should be assessed at every 10 year interval for major/medium projects.
- Norms for the Kharif season & Lift irrigation shall be decided.

#### Conclusions:

The water auditing process is institutionalised in the department. With the consistent efforts, improving efficiency in water use in irrigation is possible, which will help in bringing additional area under irrigation.

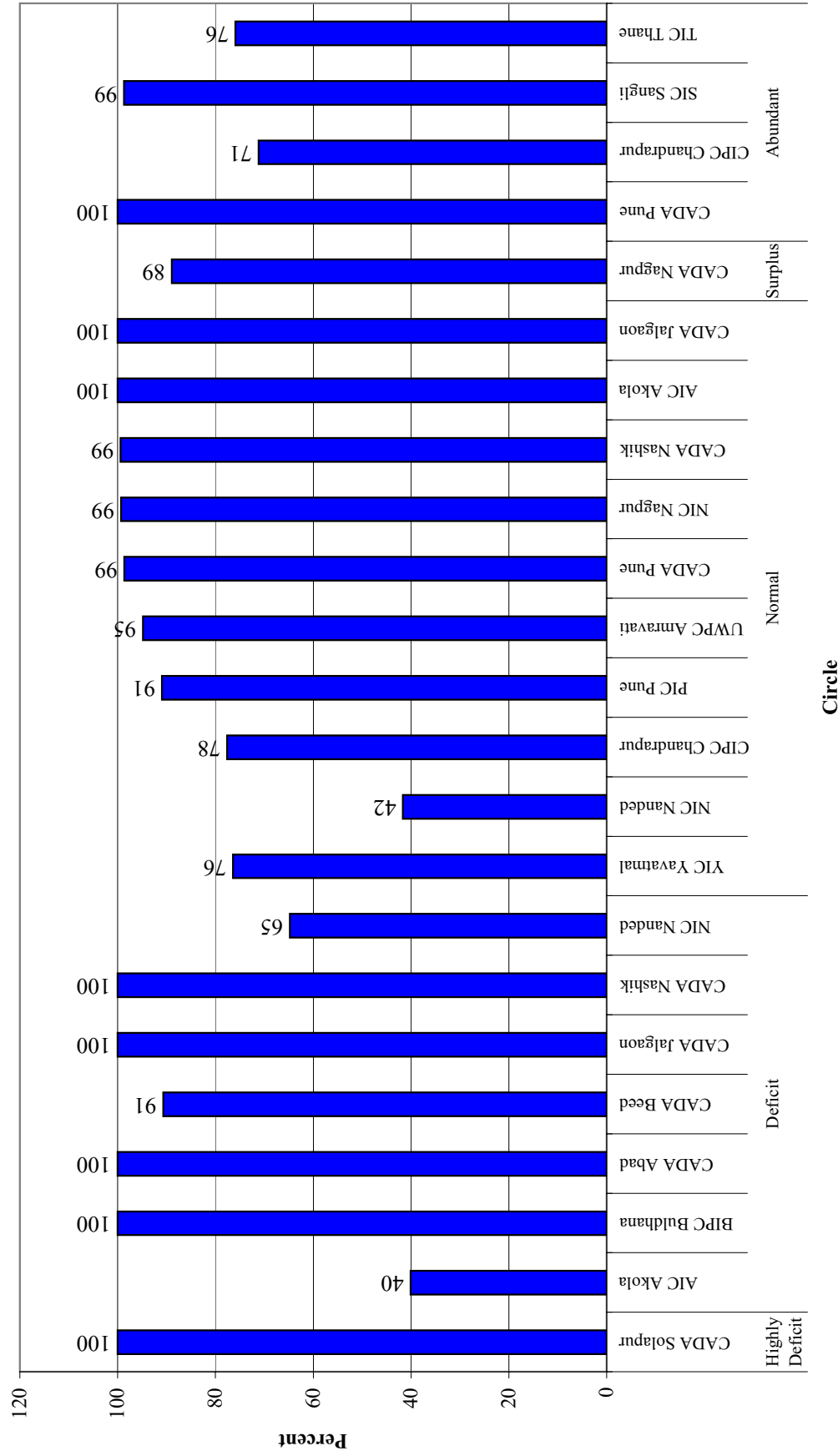
Following are the conclusions in brief:

1. Water accounting and auditing is necessary to improve the performance of irrigation systems.
2. Water losses, their locations and causes are identified.
3. It helps field officers to pay attention to specific problems
4. Water auditing has resulted in to healthy competition among the field officers.

**Annexure I**  
**Indicators of Major Projects**



**Indicator I: Water Availability in Reservoirs**



**Indicator I: Water Availability in Reservoirs**  
**Major Projects**

Unit: Mcum

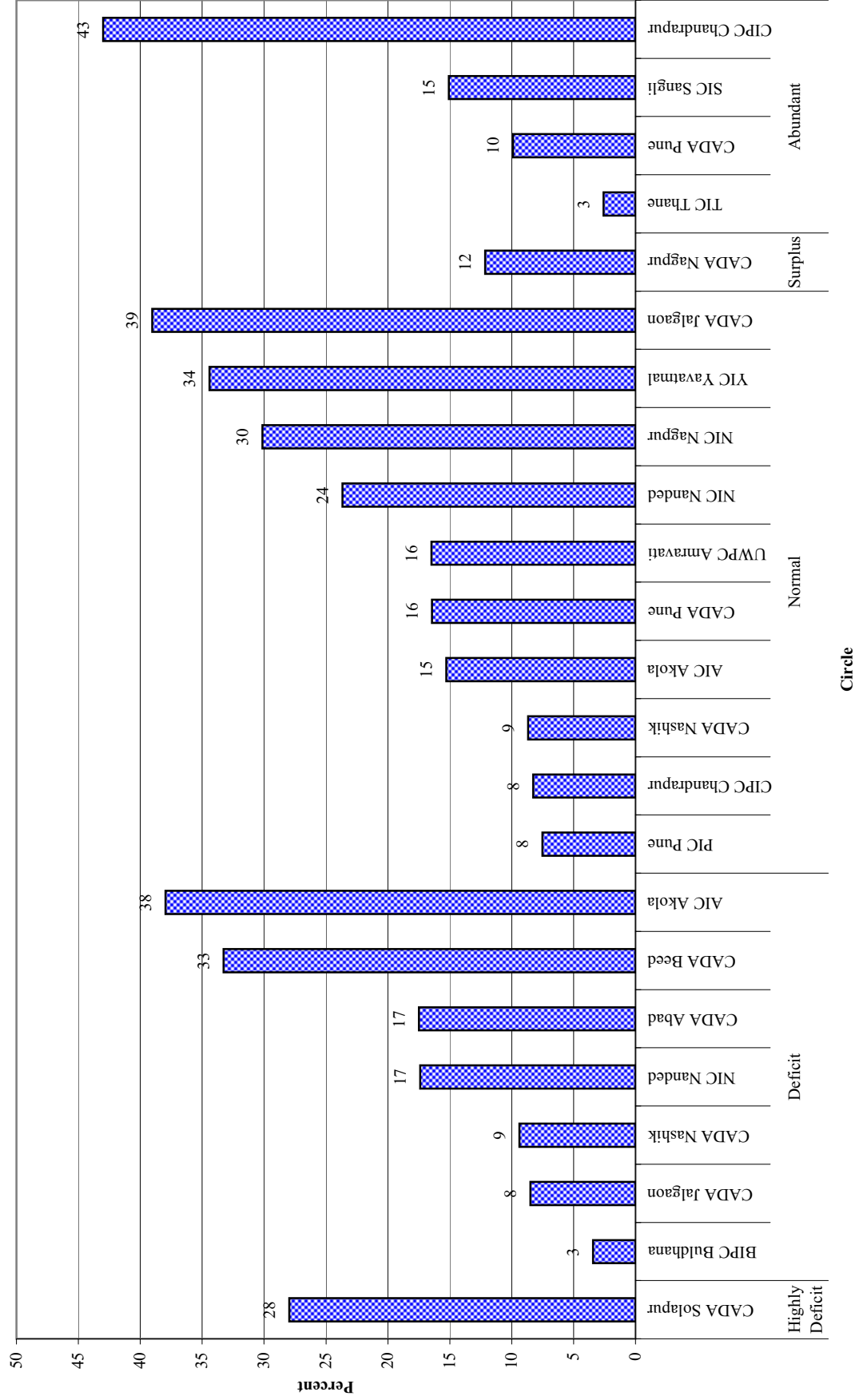
Subbasin/ Plangroup	Project/ Circle	Live Storage on 15th Oct	Designed Live Storage	Percentage Live Storage
<b>Highly Deficit</b>				
Remaining Bhima+Man	Bhima	1688.150	1688.150	100
	<b>CADA Solapur</b>	<b>1688.150</b>	<b>1688.150</b>	<b>100</b>
<b>Highly Deficit</b>		<b>1688.150</b>	<b>1688.150</b>	<b>100</b>
<b>Deficit</b>				
Purna (Tapi)	Katepurna	56.739	86.350	66
	Nalganga	5.630	69.320	8
	<b>AIC Akola</b>	<b>62.369</b>	<b>155.670</b>	<b>40</b>
Purna (Tapi)	Wan	81.955	81.955	100
	<b>BIPC Buldhana</b>	<b>81.955</b>	<b>81.955</b>	<b>100</b>
Lower Godavari	Jayakwadi Stage I	1927.719	1927.719	100
	<b>CADA Abad</b>	<b>1927.719</b>	<b>1927.719</b>	<b>100</b>
Lower Godavari Manjra	Jayakwadi Stage II (Majalgaon)	312.000	312.000	100
	Jayakwadi Stage II (PRBC)	0.000	0.000	
Lower Godavari	Lower Terna	37.523	91.221	41
	Manjra	176.495	176.963	100
	<b>CADA Beed</b>	<b>526.018</b>	<b>580.184</b>	<b>91</b>
Girna	Girna+Panzan	523.550	523.550	100
	<b>CADA Jalgaon</b>	<b>523.550</b>	<b>523.550</b>	<b>100</b>
Girna	Chankapur	76.850	76.850	100
	<b>CADA Nashik</b>	<b>76.850</b>	<b>76.850</b>	<b>100</b>
Purna+Dudhna	Manar	138.330	138.330	100
Lower Godavari Manjra	Purna	499.314	890.223	56
	Vishnupuri	80.790	80.790	100
	<b>NIC Nanded</b>	<b>718.434</b>	<b>1109.343</b>	<b>65</b>
<b>Deficit</b>		<b>3916.895</b>	<b>4455.271</b>	<b>88</b>
<b>Normal</b>				
Penganga	Arunavati	129.690	169.670	76
	<b>YIC Yavatmal</b>	<b>129.690</b>	<b>169.670</b>	<b>76</b>
	Pus	91.260	91.265	100
	<b>AIC Akola</b>	<b>91.260</b>	<b>91.265</b>	<b>100</b>
Middle Tapi	Hatnur	255.000	255.000	100
	<b>CADA Jalgaon</b>	<b>255.000</b>	<b>255.000</b>	<b>100</b>

Subbasin/ Plangroup	Project/ Circle	Live Storage on 15th Oct	Designed Live Storage	Percentage Live Storage
Upper Godavari	Bhandardara	303.730	304.100	100
	Darna	200.220	202.430	99
	Gangapur	158.480	159.420	99
	Kadwa	52.910	52.910	100
	Kashyapi	52.420	52.420	100
	Mukane	125.230	125.330	100
	Mula	608.890	608.890	100
	NMWeir	6.630	7.280	91
	Upper Godavari Complex	334.529	336.200	100
	Waldevi	27.090	32.090	84
	<b>CADA Nashik</b>	<b>1870.129</b>	<b>1881.070</b>	<b>99</b>
Upper Bhima	Ghod	154.800	154.800	100
Upper Bhima	Kukadi Complex	850.560	864.390	98
	<b>CADA Pune</b>	<b>1005.360</b>	<b>1019.190</b>	<b>99</b>
Wardha	Bor	98.900	127.420	78
	<b>CIPC Chandrapur</b>	<b>98.900</b>	<b>127.420</b>	<b>78</b>
Middle Wainganga	Lower Wunna	187.878	189.182	99
	<b>NIC Nagpur</b>	<b>187.878</b>	<b>189.182</b>	<b>99</b>
Penganga	Upper Penganga	401.706	964.099	42
	<b>NIC Nanded</b>	<b>401.706</b>	<b>964.099</b>	<b>42</b>
Upper Bhima	Bhama Askhed	58.300	217.100	27
	Chaskaman	205.150	214.500	96
	Khadakwasla	778.480	776.820	100
R Bhima (Neera)	NLBC	665.430	665.500	100
	NRBC	253.000	266.440	95
Upper Bhima	Pawana	235.680	274.000	86
	<b>PIC Pune</b>	<b>2196.040</b>	<b>2414.360</b>	<b>91</b>
Wardha	Upper Wardha	582.860	614.800	95
	<b>UWPC Amravati</b>	<b>582.860</b>	<b>614.800</b>	<b>95</b>
<b>Normal</b>		<b>6818.823</b>	<b>7726.056</b>	<b>88</b>
<b>Surplus</b>				
Middle Wainganga	Bagh	207.780	268.960	77
	Itiadh	287.080	318.850	90
	Pench	1249.736	1374.000	91
	<b>CADA Nagpur</b>	<b>1744.596</b>	<b>1961.810</b>	<b>89</b>
<b>Surplus</b>		<b>1744.596</b>	<b>1961.810</b>	<b>89</b>



Subbasin/ Plangroup	Project/ Circle	Live Storage on 15th Oct	Designed Live Storage	Percentage Live Storage
<b>Abundant</b>				
Upper Krishna (W)	Dhom	331.050	331.050	100
	Kanher	271.680	271.680	100
	<b>CADA Pune</b>	<b>602.730</b>	<b>602.730</b>	<b>100</b>
Lower Wainganga	Asolamendha	42.630	56.375	76
	Dina	37.320	55.940	67
	<b>CIPC Chandrapur</b>	<b>79.950</b>	<b>112.315</b>	<b>71</b>
Upper Krishna (W)	Dudhaganga	672.665	679.110	99
	Krishna LIS	0.000	0.000	
	Radhanagari	226.254	236.790	96
	Tulshi	91.921	91.921	100
	Warana	773.401	779.340	99
	<b>SIC Sangli</b>	<b>1764.241</b>	<b>1787.161</b>	<b>99</b>
North Konkan	Bhatsa	838.633	942.100	89
Middle Konkan	Kal-Amba	332.070	522.760	64
North Konkan	Surya	158.690	286.310	55
	<b>TIC Thane</b>	<b>1329.393</b>	<b>1751.170</b>	<b>76</b>
<b>Abundant</b>		<b>3776.314</b>	<b>4253.376</b>	<b>89</b>
<b>Major Projects</b>		<b>17944.778</b>	<b>20084.663</b>	<b>89</b>

**Indicator II: Percentage Evaporation Losses to Live Storage**



**Indicator II: Percentage of Evaporation to Live Storage  
Major Projects**

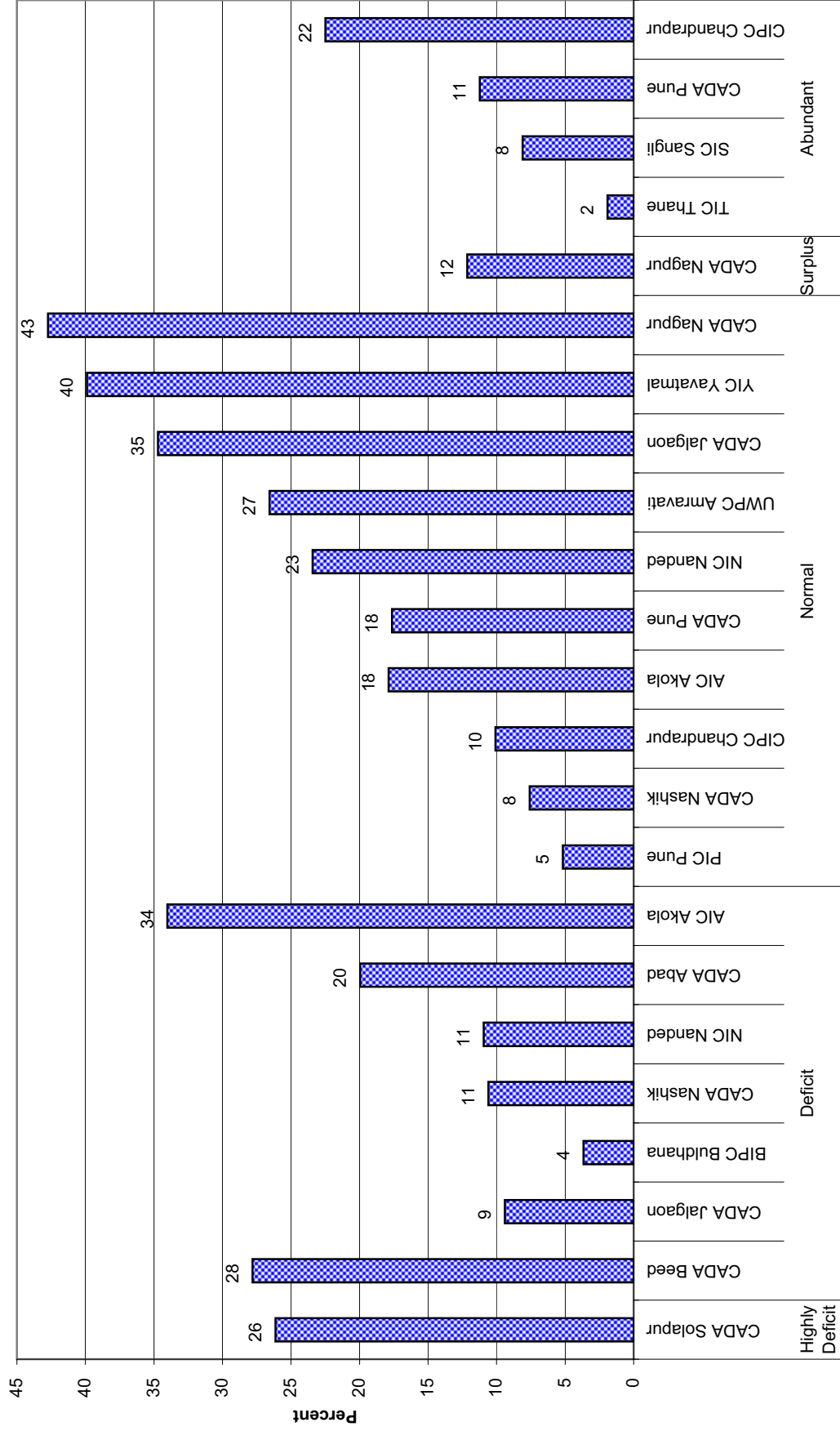
Unit: Mcum

Subbasin/ Plangroup	Project/ Circle	Evaporation	Actual Live Storage	Percentage of Evaporation
<b>Highly Deficit</b>				
Remaining Bhima + Man	Bhima	472.210	1688.150	28
	<b>CADA Solapur</b>	<b>472.210</b>	<b>1688.150</b>	<b>28</b>
<b>Highly Deficit</b>		<b>472.210</b>	<b>1688.150</b>	<b>28</b>
<b>Deficit</b>				
Purna (Tapi)	Katepurna	19.459	56.739	34
Purna (Tapi)	Nalganga	4.220	5.630	75
	<b>AIC Akola</b>	<b>23.679</b>	<b>62.369</b>	<b>38</b>
Purna (Tapi)	Wan	2.809	81.955	3
	<b>BIPC Buldhana</b>	<b>2.809</b>	<b>81.955</b>	<b>3</b>
Lower Godavari	Jayakwadi Stage I	337.210	1927.719	17
	<b>CADA Abad</b>	<b>337.210</b>	<b>1927.719</b>	<b>17</b>
Lower Godavari	Jayakwadi Stage II (Majalgaon)	73.260	312.000	23
	Jayakwadi Stage II (PRBC)	0.000	0.000	
Manjra	Lower Terna	38.480	37.523	103
	Manjra	63.252	176.495	36
<b>CADA Beed</b>		<b>174.992</b>	<b>526.018</b>	<b>33</b>
Girna	Girna+Panzan	44.470	523.550	8
	<b>CADA Jalgaon</b>	<b>44.470</b>	<b>523.550</b>	<b>8</b>
Girna	Chankapur	7.200	76.850	9
	<b>CADA Nashik</b>	<b>7.200</b>	<b>76.850</b>	<b>9</b>
Manjra	Manar	25.840	138.330	19
Purna+Dudhna	Purna	86.110	499.314	17
Lower Godavari	Vishnupuri	12.911	80.790	16
	<b>NIC Nanded</b>	<b>124.861</b>	<b>718.434</b>	<b>17</b>
<b>Deficit</b>		<b>715.221</b>	<b>3916.895</b>	<b>18</b>
<b>Normal</b>				
Penganga	Arunavati	44.632	129.690	34
	<b>YIC Yavatmal</b>	<b>44.632</b>	<b>129.690</b>	<b>34</b>
	Pus	13.943	91.260	15
	<b>AIC Akola</b>	<b>13.943</b>	<b>91.260</b>	<b>15</b>
Middle Tapi (Satpuda)	Hatnur	99.550	255.000	39
	<b>CADA Jalgaon</b>	<b>99.550</b>	<b>255.000</b>	<b>39</b>

Subbasin/ Plangroup	Project/ Circle	Evaporation	Actual Live Storage	Percentage of Evaporation
Upper Godavari	Bhandardara	5.434	303.730	2
	Darna	19.140	200.220	10
	Gangapur	16.936	158.480	11
	Kadwa	6.070	52.910	11
	Kashyapi	4.960	52.420	9
	Mukane	10.471	125.230	8
	Mula	55.640	608.890	9
	NMWeir	0.000	6.630	0
	Upper Godavari Complex	39.402	334.529	12
	Waldevi	4.260	27.090	16
	<b>CADA Nashik</b>	<b>162.313</b>	<b>1870.129</b>	<b>9</b>
Upper Bhima	Ghod	34.160	154.800	22
	Kukadi Complex	131.116	850.560	15
	<b>CADA Pune</b>	<b>165.276</b>	<b>1005.360</b>	<b>16</b>
Wardha	Bor	8.160	98.900	8
	<b>CIPC Chandrapur</b>	<b>8.160</b>	<b>98.900</b>	<b>8</b>
Middle Wainganga	Lower Wunna	56.600	187.878	30
	<b>NIC Nagpur</b>	<b>56.600</b>	<b>187.878</b>	<b>30</b>
Penganga	Upper Penganga	95.090	401.706	24
	<b>NIC Nanded</b>	<b>95.090</b>	<b>401.706</b>	<b>24</b>
Upper Bhima	Bhama Askhed	5.840	58.300	10
	Chaskaman	16.238	205.150	8
	Khadakwasla	54.234	778.480	7
Remaining Bhima (Neera)	NLBC	48.470	665.430	7
	NRBC	22.690	253.000	9
Upper Bhima	Pawana	17.549	235.680	7
	<b>PIC Pune</b>	<b>165.021</b>	<b>2196.040</b>	<b>8</b>
Wardha	Upper Wardha	96.056	582.860	16
	<b>UWPC Amravati</b>	<b>96.056</b>	<b>582.860</b>	<b>16</b>
<b>Normal</b>		<b>906.641</b>	<b>6818.823</b>	<b>13</b>
<b>Surplus</b>				
Middle Wainganga	Bagh	33.030	207.780	16
	Itiadh	84.895	287.080	30
	Pench	93.831	1249.736	8
	<b>CADA Nagpur</b>	<b>211.756</b>	<b>1744.596</b>	<b>12</b>
<b>Surplus</b>		<b>211.756</b>	<b>1744.596</b>	<b>12</b>

Subbasin/ Plangroup	Project/ Circle	Evaporation	Actual Live Storage	Percentage of Evaporation
<b>Abundant</b>				
Upper Krishna (W)	Dhom	34.660	331.050	10
	Kanher	25.011	271.680	9
	<b>CADA Pune</b>	<b>59.671</b>	<b>602.730</b>	<b>10</b>
Lower Wainganga	Asolamendha	19.970	42.630	47
	Dina	14.401	37.320	39
	<b>CIPC Chandrapur</b>	<b>34.371</b>	<b>79.950</b>	<b>43</b>
Upper Krishna (W)	Dudhaganga	22.610	672.665	3
	Krishna LIS	192.822	0.000	
	Radhanagari	11.930	226.254	5
	Tulshi	7.630	91.921	8
	Warana	30.889	773.401	4
	<b>SIC Sangli</b>	<b>265.881</b>	<b>1764.241</b>	<b>15</b>
North Konkan	Bhatsa	24.720	838.633	3
Middle Konkan	Kal-Amba	0.000	332.070	0
North Konkan	Surya	9.500	158.690	6
	<b>TIC Thane</b>	<b>34.220</b>	<b>1329.393</b>	<b>3</b>
<b>Abundant</b>		<b>394.143</b>	<b>3776.314</b>	<b>10</b>
<b>Major Projects</b>		<b>2699.971</b>	<b>17944.778</b>	<b>15</b>

**Indicator III: Percentage of Evaporation to Gross Utilisation**



**Circle**

**Indicator III: Percentage of Evaporation to Gross Utilisation**  
**Major Projects**

Unit: Mcum

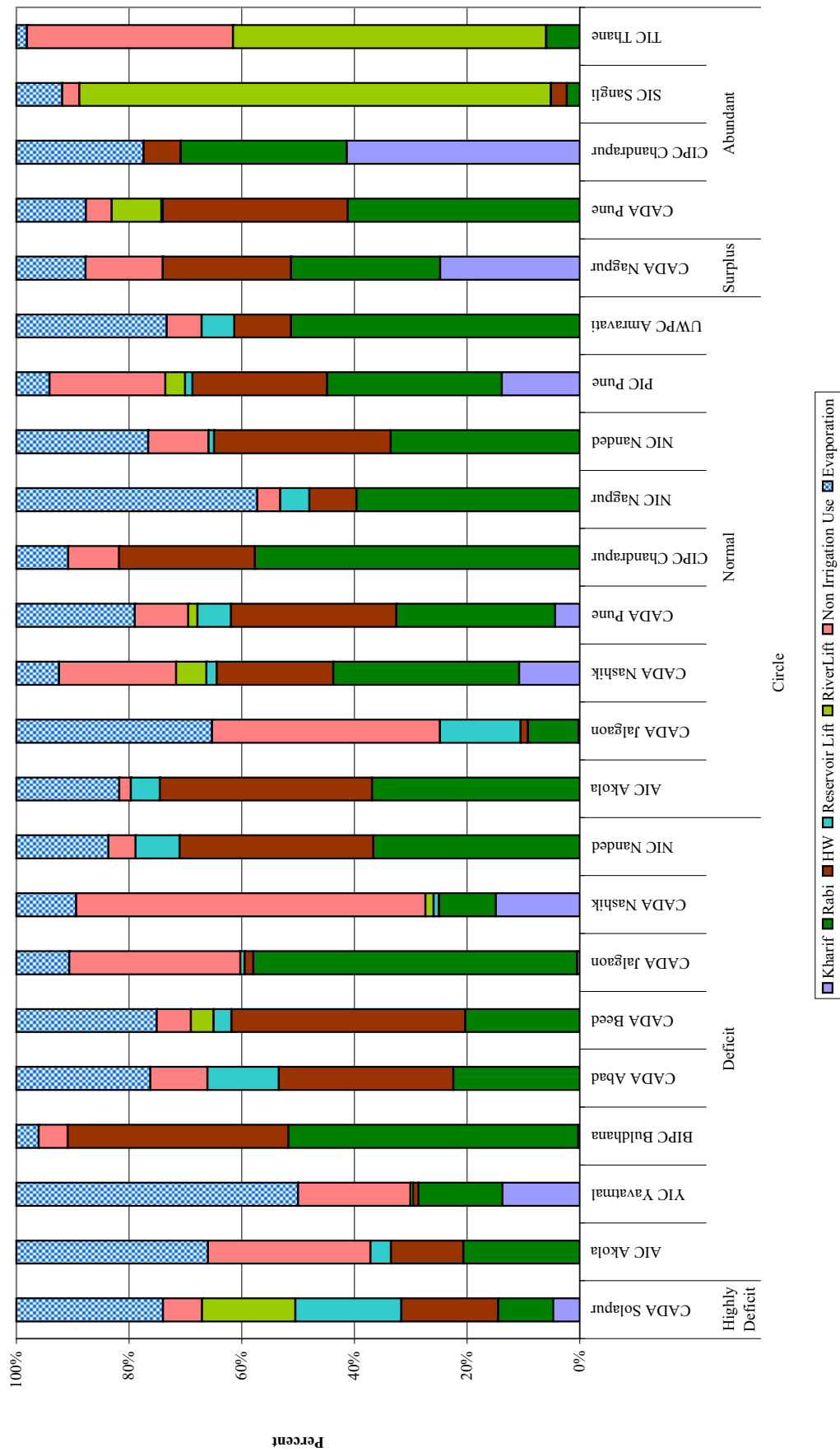
Subbasin/ Plangroup	Project/ Circle	Evaporation	Gross Utilisation	Percent of Evaporation
<b>Highly Deficit</b>				
Remaining Bhima + Man	Bhima	472.210	1806.776	26
	<b>CADA Solapur</b>	<b>472.210</b>	<b>1806.776</b>	<b>26</b>
<b>Highly Deficit</b>		<b>472.210</b>	<b>1806.776</b>	<b>26</b>
<b>Deficit</b>				
Purna (Tapi)	Katepurna	19.459	61.469	32
	Nalganga	4.220	8.150	52
	<b>AIC Akola</b>	<b>23.679</b>	<b>69.619</b>	<b>34</b>
Purna (Tapi)	Wan	2.809	76.945	4
	<b>BIPC Buldhana</b>	<b>2.809</b>	<b>76.945</b>	<b>4</b>
Lower Godavari	Jayakwadi Stage I	337.210	1690.230	20
	<b>CADA Abad</b>	<b>337.210</b>	<b>1690.230</b>	<b>20</b>
Lower Godavari	JP Stage II (PRBC)	0.000	0.000	
	JP Stsge II (Majalgaon)	73.260	281.890	26
Manjra	Lower Terna	38.480	173.820	22
	Manjra	63.252	173.729	36
	<b>CADA Beed</b>	<b>174.992</b>	<b>629.439</b>	<b>28</b>
Girna	Girna+Panzan	44.470	473.380	9
	<b>CADA Jalgaon</b>	<b>44.470</b>	<b>473.380</b>	<b>9</b>
Girna	Chankapur	7.200	67.915	11
	<b>CADA Nashik</b>	<b>7.200</b>	<b>67.915</b>	<b>11</b>
Manjra	Manar	25.840	144.057	18
Purna+Dudhna	Purna	86.110	892.645	10
Lower Godavari	Vishnupuri	12.911	104.853	12
	<b>NIC Nanded</b>	<b>124.861</b>	<b>1141.555</b>	<b>11</b>
<b>Deficit</b>		<b>715.221</b>	<b>4149.083</b>	<b>17</b>
<b>Normal</b>				
Penganga	Arunavati	44.632	111.889	40
	<b>YIC Yavatmal</b>	<b>44.632</b>	<b>111.889</b>	<b>40</b>
Penganga	Pus	13.943	77.960	18
	<b>AIC Akola</b>	<b>13.943</b>	<b>77.960</b>	<b>18</b>
Middle Tapi (Satpuda)	Hatnur	99.550	286.814	35
	<b>CADA Jalgaon</b>	<b>99.550</b>	<b>286.814</b>	<b>35</b>

Subbasin/ Plangroup	Project/ Circle	Evaporation	Gross Utilisation	Percent of Evaporation
Middle Wainganga	Lower Wunna	56.600	132.429	43
	<b>CADA Nagpur</b>	<b>56.600</b>	<b>132.429</b>	<b>43</b>
Upper Godavari	Bhandardara	5.434	462.397	1
	Darna	19.140	56.504	34
	Gangapur	16.936	199.864	8
	Kadwa	6.070	59.410	10
	Kashyapi	4.960	5.300	94
	Mukane	10.471	18.215	57
	Mula	55.640	667.620	8
	NMWeir	0.000	295.525	0
	Upper Godavari	39.402	369.472	11
	Waldevi	4.260	5.475	78
		<b>CADA Nashik</b>	<b>162.313</b>	<b>2139.782</b>
Upper Bhima	Ghod	34.160	225.820	15
	Kukadi Complex	131.116	711.301	18
	<b>CADA Pune</b>	<b>165.276</b>	<b>937.121</b>	<b>18</b>
Wardha	Bor	8.160	80.860	10
	<b>CIPC Chandrapur</b>	<b>8.160</b>	<b>80.860</b>	<b>10</b>
Penganga	Upper Penganga	95.090	405.790	23
	<b>NIC Nanded</b>	<b>95.090</b>	<b>405.790</b>	<b>23</b>
Upper Bhima	Bhama Askhed	5.840	49.290	12
	Chaskaman	16.238	265.340	6
	Khadakwasla	54.220	1271.500	4
	NLBC	48.470	397.790	12
Remaining Bhima (Neera)	NRBC	22.690	1008.150	2
Upper Bhima	Pawana	17.549	203.060	9
	<b>PIC Pune</b>	<b>165.007</b>	<b>3195.130</b>	<b>5</b>
Wardha	Upper Wardha	96.056	361.589	27
	<b>UWPC Amravati</b>	<b>96.056</b>	<b>361.589</b>	<b>27</b>
<b>Normal</b>		<b>906.627</b>	<b>7729.364</b>	<b>12</b>
<b>Surplus</b>				
Middle Wainganga	Bagh	33.030	263.050	13
	Itiadoh	84.895	379.656	22
	Pench	93.831	1101.140	9
	<b>CADA Nagpur</b>	<b>211.756</b>	<b>1743.846</b>	<b>12</b>
<b>Surplus</b>		<b>211.756</b>	<b>1743.846</b>	<b>12</b>



Subbasin/ Plangroup	Project/ Circle	Evaporation	Gross Utilisation	Percent of Evaporation	
<b>Abundant</b>					
Upper Krishna (W)	Dhom	34.660	281.990	12	
	Kanher	25.011	249.420	10	
		<b>CADA Pune</b>	<b>59.671</b>	<b>531.410</b>	<b>11</b>
Lower Wainganga	Asolamendha	19.970	83.673	24	
	Dina	14.401	69.192	21	
		<b>CIPC Chandrapur</b>	<b>34.371</b>	<b>152.865</b>	<b>22</b>
Upper Krishna (W)	Dudhaganga	22.610	233.830	10	
	Krishna LIS	192.822	712.905	27	
	Radhanagari	11.930	371.000	3	
	Tulshi	7.630	43.755	17	
	Warana	30.889	1918.947	2	
			<b>SIC Sangli</b>	<b>265.881</b>	<b>3280.437</b>
North Konkan	Bhatsa	24.720	683.590	4	
Middle Konkan	Kal-Amba	0.000	952.540	0	
North Konkan	Surya	9.500	152.490	6	
		<b>TIC Thane</b>	<b>34.220</b>	<b>1788.620</b>	<b>2</b>
<b>Abundant</b>		<b>394.143</b>	<b>5753.332</b>	<b>7</b>	
<b>Major Projects</b>		<b>2699.957</b>	<b>21182.401</b>	<b>13</b>	

**Indicator IV: Water Use Pattern**



Indicator IV : Water Use Pattern  
Major Projects

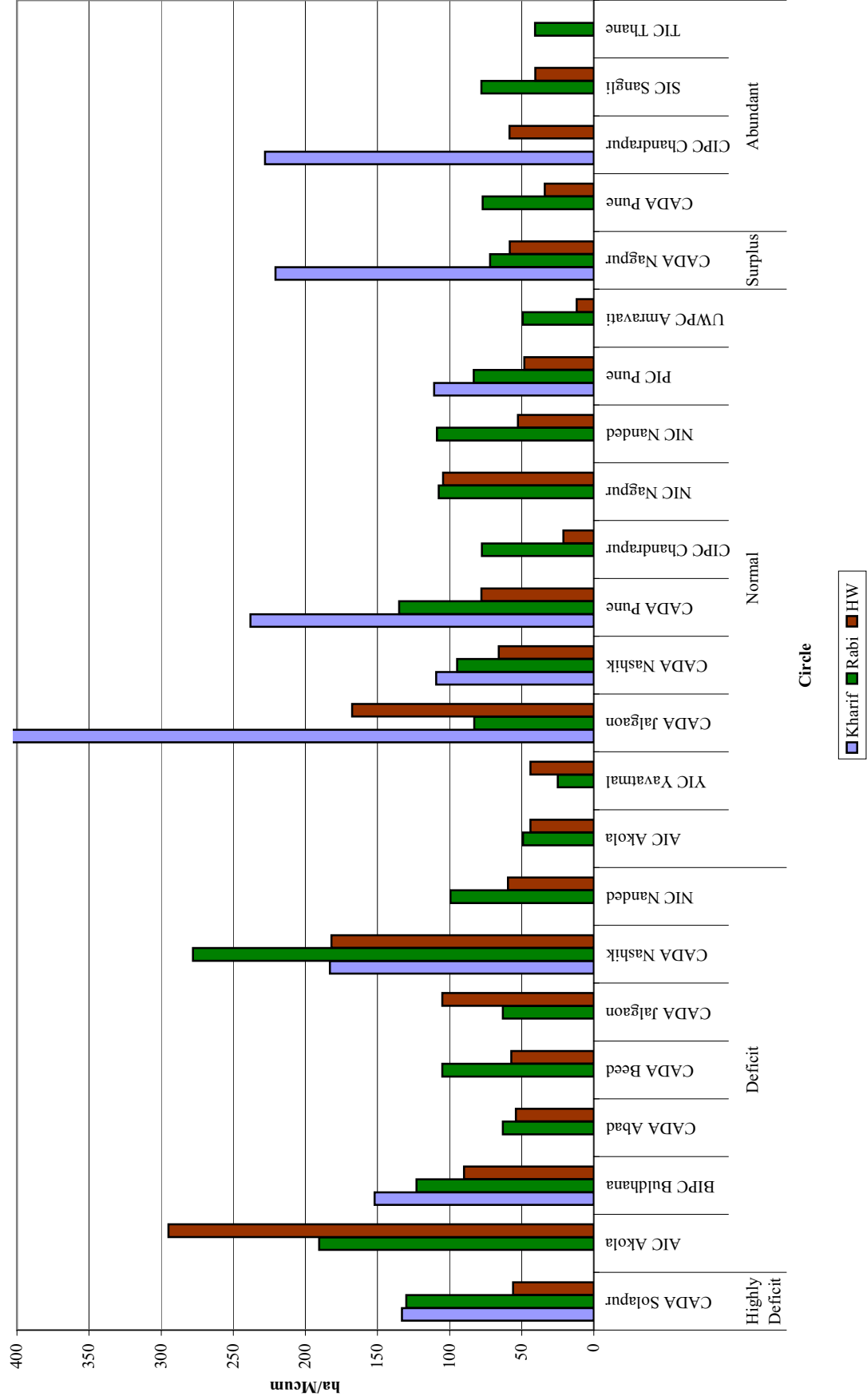
Unit: Mcum

Project/ Circle	On canals			Reservoir Lift	RiverLift	Non Irrigation Use	Evaporation	Gross Utilisation
	Kharif	Rabi	HW					
<b>Highly Deficit</b>								
Bhima	85.870	176.930	312.260	340.080	301.362	125.080	472.210	1813.792
<b>CADA Solapur</b>	<b>85.870</b>	<b>176.930</b>	<b>312.260</b>	<b>340.080</b>	<b>301.362</b>	<b>125.080</b>	<b>472.210</b>	<b>1813.792</b>
<b>Highly Deficit</b>	<b>85.870</b>	<b>176.930</b>	<b>312.260</b>	<b>340.080</b>	<b>301.362</b>	<b>125.080</b>	<b>472.210</b>	<b>1813.792</b>
<b>Deficit</b>								
Katepurna	0.000	14.060	7.350	2.020	0.000	18.580	19.459	61.469
Nalganga	0.000	0.330	1.570	0.530	0.000	1.500	4.220	8.150
<b>AIC Akola</b>	<b>0.000</b>	<b>14.390</b>	<b>8.920</b>	<b>2.550</b>	<b>0.000</b>	<b>20.080</b>	<b>23.679</b>	<b>69.619</b>
Wan	0.197	36.277	27.583	0.000	0.000	3.621	2.809	70.487
<b>BIPC Buldhana</b>	<b>0.197</b>	<b>36.277</b>	<b>27.583</b>	<b>0.000</b>	<b>0.000</b>	<b>3.621</b>	<b>2.809</b>	<b>70.487</b>
Jayakwadi Stage I	0.000	318.056	438.949	179.237	0.000	143.869	337.210	1417.321
<b>CADA Abad</b>	<b>0.000</b>	<b>318.056</b>	<b>438.949</b>	<b>179.237</b>	<b>0.000</b>	<b>143.869</b>	<b>337.210</b>	<b>1417.321</b>
JP II (Majalgaon)	0.000	60.691	120.445	14.569	0.000	6.530	73.260	275.495
JP II (PRBC)	0.000	61.970	117.580	0.000	0.000	21.486	0.000	201.036
Lower Terna	0.000	5.106	4.349	3.139	0.000	1.620	38.480	52.694
Manjra	0.000	15.156	49.417	4.498	28.342	13.020	63.252	173.685
<b>CADA Beed</b>	<b>0.000</b>	<b>142.923</b>	<b>291.791</b>	<b>22.206</b>	<b>28.342</b>	<b>42.656</b>	<b>174.992</b>	<b>702.910</b>
Girna+Panzan	2.150	272.180	7.340	3.500	0.000	143.760	44.470	473.400
<b>CADA Jalgaon</b>	<b>2.150</b>	<b>272.180</b>	<b>7.340</b>	<b>3.500</b>	<b>0.000</b>	<b>143.760</b>	<b>44.470</b>	<b>473.400</b>
Chankapur	10.110	6.860	0.011	0.640	0.970	42.124	7.200	67.915
<b>CADA Nashik</b>	<b>10.110</b>	<b>6.860</b>	<b>0.011</b>	<b>0.640</b>	<b>0.970</b>	<b>42.124</b>	<b>7.200</b>	<b>67.915</b>
Manar	0.000	66.760	39.350	10.760	0.000	1.347	25.840	144.057
Purna	0.000	184.367	223.509	11.620	0.000	11.785	86.110	517.391
Vishnupuri	0.000	28.840	0.000	36.940	0.000	23.912	12.911	102.603
<b>NIC Nanded</b>	<b>0.000</b>	<b>279.967</b>	<b>262.859</b>	<b>59.320</b>	<b>0.000</b>	<b>37.044</b>	<b>124.861</b>	<b>764.051</b>
<b>Deficit</b>	<b>12.457</b>	<b>1070.653</b>	<b>1037.453</b>	<b>267.453</b>	<b>29.312</b>	<b>433.154</b>	<b>715.221</b>	<b>3565.703</b>
<b>Normal</b>								
Arunavati	0.000	30.760	33.300	2.090	0.000	1.107	44.632	111.889
<b>YIC Yavatmal</b>	<b>0.000</b>	<b>30.760</b>	<b>33.300</b>	<b>2.090</b>	<b>0.000</b>	<b>1.107</b>	<b>44.632</b>	<b>111.889</b>
Pus	0.000	28.182	28.774	3.930	0.000	1.573	13.943	76.402
<b>AIC Akola</b>	<b>0.000</b>	<b>28.182</b>	<b>28.774</b>	<b>3.930</b>	<b>0.000</b>	<b>1.573</b>	<b>13.943</b>	<b>76.402</b>
Hatnur	0.474	25.960	3.770	40.950	0.000	116.110	99.550	286.814
<b>CADA Jalgaon</b>	<b>0.474</b>	<b>25.960</b>	<b>3.770</b>	<b>40.950</b>	<b>0.000</b>	<b>116.110</b>	<b>99.550</b>	<b>286.814</b>

Project/ Circle	On canals			Reservoir Lift	RiverLift	Non Irrigation Use	Evaporation	Gross Utilisation
	Kharif	Rabi	HW					
Bhandardara	113.061	107.336	87.136	0.011	73.399	76.020	5.434	462.397
Darna	0.000	0.000	0.000	7.560	3.491	26.313	19.140	56.504
Gangapur	0.708	11.346	12.210	2.063	29.850	126.751	16.936	199.864
Kadwa	9.400	28.450	5.380	3.330	2.950	3.830	6.070	59.410
Kashyapi	0.000	0.000	0.000	0.340	0.000	0.000	4.960	5.300
Mukane	0.000	0.000	0.000	2.704	3.480	1.560	10.471	18.215
Mula	27.270	330.680	186.740	12.020	0.000	55.270	55.640	667.620
NMWeir	65.900	101.726	94.286	0.000	0.000	33.613	0.000	295.525
Upper Godavari	14.090	125.789	57.019	10.733	1.477	120.962	39.402	369.472
Waldevi	0.000	0.000	0.000	0.345	0.870	0.000	4.260	5.475
<b>CADA Nashik</b>	<b>230.429</b>	<b>705.327</b>	<b>442.771</b>	<b>39.106</b>	<b>115.517</b>	<b>444.319</b>	<b>162.313</b>	<b>2139.782</b>
Ghod	9.275	42.434	64.201	19.850	5.900	4.110	34.160	179.930
Kukadi Complex	25.160	179.084	166.400	26.770	6.793	70.380	131.116	605.703
<b>CADA Pune</b>	<b>34.435</b>	<b>221.518</b>	<b>230.601</b>	<b>46.620</b>	<b>12.693</b>	<b>74.490</b>	<b>165.276</b>	<b>785.633</b>
Bor	0.000	51.150	21.430	0.000	0.000	8.000	8.160	88.740
<b>CIPC Chandrapur</b>	<b>0.000</b>	<b>51.150</b>	<b>21.430</b>	<b>0.000</b>	<b>0.000</b>	<b>8.000</b>	<b>8.160</b>	<b>88.740</b>
Lower Wunna	0.000	52.490	11.050	6.890	0.000	5.400	56.600	132.430
<b>NIC Nagpur</b>	<b>0.000</b>	<b>52.490</b>	<b>11.050</b>	<b>6.890</b>	<b>0.000</b>	<b>5.400</b>	<b>56.600</b>	<b>132.430</b>
Upper Penganga	0.000	136.087	127.355	3.890	0.000	43.410	95.090	405.832
<b>NIC Nanded</b>	<b>0.000</b>	<b>136.087</b>	<b>127.355</b>	<b>3.890</b>	<b>0.000</b>	<b>43.410</b>	<b>95.090</b>	<b>405.832</b>
Bhama Askhed	0.000	0.000	0.000	0.000	41.350	0.000	5.840	47.190
Chaskaman	60.050	61.721	50.220	11.908	36.950	4.990	16.238	242.077
Khadakwasla	112.190	238.130	236.160	5.200	0.000	362.190	54.240	1008.110
NLBC	58.280	179.950	147.510	10.210	0.000	12.050	48.470	456.470
NRBC	156.880	389.120	235.350	6.700	0.000	60.260	22.690	871.000
Pawana	0.000	0.000	0.000	1.840	20.150	136.097	17.549	175.636
<b>PIC Pune</b>	<b>387.400</b>	<b>868.921</b>	<b>669.240</b>	<b>35.858</b>	<b>98.450</b>	<b>575.587</b>	<b>165.027</b>	<b>2800.483</b>
Upper Wardha	0.000	184.676	36.175	20.950	0.000	22.442	96.056	360.299
<b>UWPC Amravati</b>	<b>0.000</b>	<b>184.676</b>	<b>36.175</b>	<b>20.950</b>	<b>0.000</b>	<b>22.442</b>	<b>96.056</b>	<b>360.299</b>
<b>Normal</b>	<b>652.738</b>	<b>2305.071</b>	<b>1604.466</b>	<b>200.284</b>	<b>226.660</b>	<b>1292.438</b>	<b>906.647</b>	<b>7188.304</b>
<b>Surplus</b>								
Bagh	120.730	0.000	107.280	0.000	0.000	0.000	35.040	263.050
Itiadhoh	63.740	81.350	149.660	0.000	0.000	0.101	84.895	379.746
Pench	246.220	379.882	139.571	0.000	0.000	238.000	93.831	1097.504
<b>CADA Nagpur</b>	<b>430.690</b>	<b>461.232</b>	<b>396.511</b>	<b>0.000</b>	<b>0.000</b>	<b>238.101</b>	<b>213.766</b>	<b>1740.300</b>
<b>Surplus</b>	<b>430.690</b>	<b>461.232</b>	<b>396.511</b>	<b>0.000</b>	<b>0.000</b>	<b>238.101</b>	<b>213.766</b>	<b>1740.300</b>
<b>Abundant</b>								
Dhom	0.000	127.361	107.127	0.971	0.000	21.704	34.660	291.823
Kanher	0.000	71.554	51.349	0.199	42.700	0.190	25.011	191.003
<b>CADA Pune</b>	<b>0.000</b>	<b>198.915</b>	<b>158.476</b>	<b>1.170</b>	<b>42.700</b>	<b>21.894</b>	<b>59.671</b>	<b>482.826</b>
Asolamendha	29.945	27.190	6.568	0.000	0.000	0.000	19.970	83.673
Dina	33.008	17.667	3.483	0.000	0.000	0.000	14.401	68.559
<b>CIPC Chandrapur</b>	<b>62.953</b>	<b>44.857</b>	<b>10.051</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>34.371</b>	<b>152.232</b>

Project/ Circle	On canals			Reservoir Lift	RiverLift	Non Irrigation Use	Evaporation	Gross Utilisation
	Kharif	Rabi	HW					
Dudhaganga	0.000	71.480	88.140	0.000	42.278	0.218	22.610	224.726
Krishna LIS	0.000	0.000	0.000	0.000	475.690	44.130	192.822	712.642
Radhanagari	0.000	0.000	0.000	0.000	311.503	47.567	11.930	371.000
Tulshi	0.000	0.000	0.000	1.533	33.838	0.754	7.630	43.755
Warana	0.000	2.650	3.400	0.000	1869.036	6.190	30.889	1912.165
<b>SIC Sangli</b>	<b>0.000</b>	<b>74.130</b>	<b>91.540</b>	<b>1.533</b>	<b>2732.345</b>	<b>98.859</b>	<b>265.881</b>	<b>3264.288</b>
Bhatsa	0.000	28.691	0.540	0.000	3.910	586.000	24.720	643.861
Kal-Amba	0.000	0.000	0.000	0.260	951.580	0.700	0.000	952.540
Surya	0.000	75.000	0.000	0.000	11.658	50.827	8.000	145.485
<b>TIC Thane</b>	<b>0.000</b>	<b>103.691</b>	<b>0.540</b>	<b>0.260</b>	<b>967.148</b>	<b>637.527</b>	<b>32.720</b>	<b>1741.886</b>
<b>Abundant</b>	<b>62.953</b>	<b>421.593</b>	<b>260.607</b>	<b>2.963</b>	<b>3742.193</b>	<b>758.280</b>	<b>392.643</b>	<b>5641.232</b>
<b>Major Projects</b>	<b>1244.708</b>	<b>4435.479</b>	<b>3611.297</b>	<b>810.780</b>	<b>4299.527</b>	<b>2847.053</b>	<b>2700.487</b>	<b>19949.331</b>

**Indicator V: Irrigation System Performance (Canals)**



Indicator V: Irrigation System Performance (Canals)

**Major Projects**

Unit: ha/ Mcum

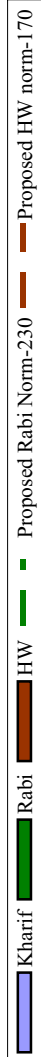
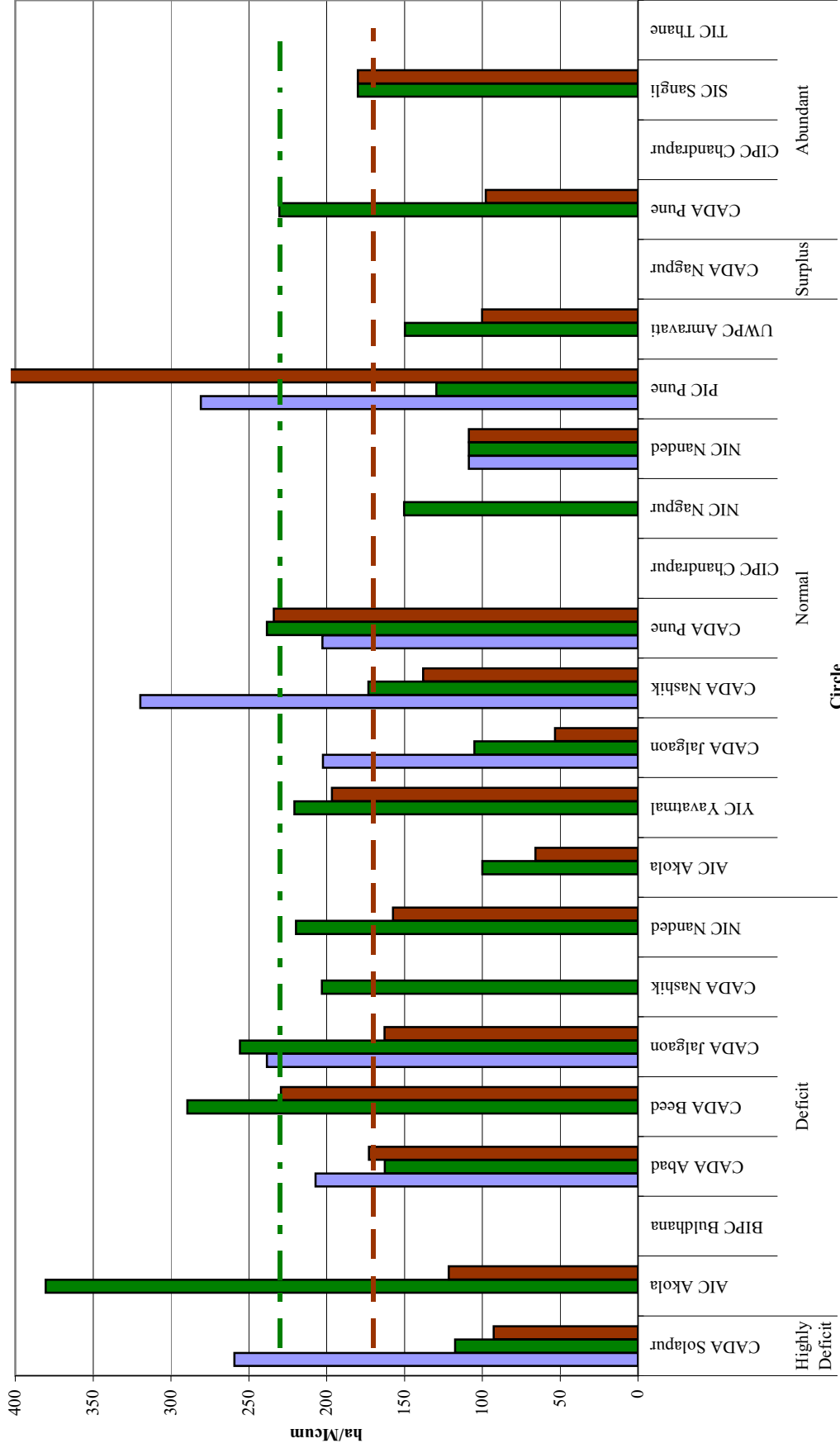
Subbasin/ Plangroup	Project /Circle	Seasons		
		Kharif	Rabi	HW
<b>Highly Deficit</b>				
Remaining Bhima + Man	Bhima	133	130	56
	<b>CADA Solapur</b>	<b>133</b>	<b>130</b>	<b>56</b>
<b>Highly Deficit</b>		<b>133</b>	<b>130</b>	<b>56</b>
<b>Deficit</b>				
Purna (Tapi)	Katepurna	0	160	0
	Nalganga	0	221	295
	<b>AIC Akola</b>		<b>191</b>	<b>295</b>
Purna (Tapi)	Wan	152	123	90
	<b>BIPC Buldhana</b>	<b>152</b>	<b>123</b>	<b>90</b>
Lower Godavari	Jayakwadi Stage I	0	63	54
	<b>CADA Abad</b>		<b>63</b>	<b>54</b>
Lower Godavari	JP Stage II (Majalgaon)	0	68	36
	JP Stage II (PRBC)	0	80	41
	Manjra	0	110	81
Manjra	Manjra	0	162	71
	<b>CADA Beed</b>		<b>105</b>	<b>57</b>
	Girna	100	63	105
Girna	<b>CADA Jalgaon</b>	<b>100</b>	<b>63</b>	<b>105</b>
	Chankapur	183	278	182
Girna	<b>CADA Nashik</b>	<b>183</b>	<b>278</b>	<b>182</b>
	Purna	0	128	48
Purna+Dudhna	Manar	0	73	71
Manjra	Vishnupuri	0	97	0
	<b>NIC Nanded</b>		<b>99</b>	<b>60</b>
<b>Deficit</b>		<b>145</b>	<b>132</b>	<b>120</b>
<b>Normal</b>				
Penganga	Arunavati	0	25	44
	<b>YIC Yavatmal</b>	<b>0</b>	<b>25</b>	<b>44</b>
	Pus	0	49	44
	<b>AIC Akola</b>	<b>0</b>	<b>49</b>	<b>44</b>
Middle Tapi (Satpuda)	Hatnur	603	83	168
	<b>CADA Jalgaon</b>	<b>603</b>	<b>83</b>	<b>168</b>

Subbasin/ Plangroup	Project /Circle	Seasons		
		Kharif	Rabi	HW
Upper Godavari	Kadwa	48	36	30
	Bhandardara	54	77	51
	Waldevi	0	0	0
	Upper Godavari Complex	123	125	93
	NMWeir	105	109	48
	Mula	90	91	78
	Kashyapi	0	0	0
	Gangapur	236	131	95
	Darna	0	0	0
	Mukane	0	0	0
	<b>CADA Nashik</b>	<b>109</b>	<b>95</b>	<b>66</b>
Upper Bhima	Kukadi Complex	245	131	81
	Ghod	231	139	75
	<b>CADA Pune</b>	<b>238</b>	<b>135</b>	<b>78</b>
Wardha	Bor	0	78	21
	<b>CIPC Chandrapur</b>	<b>0</b>	<b>78</b>	<b>21</b>
Middle Wainganga	Lower Wunna	0	107	104
	<b>NIC Nagpur</b>	<b>0</b>	<b>107</b>	<b>104</b>
Penganga	Upper Penganga	0	109	53
	<b>NIC Nanded</b>	<b>0</b>	<b>109</b>	<b>53</b>
Upper Bhima	Khadakwasla	61	53	29
	Chaskaman	0	61	26
	Bhama Askhed	0	0	0
Remaining Bhima (Neera)	NRBC	153	118	86
	NLBC	118	101	52
Upper Bhima	Pawana	0	0	0
	<b>PIC Pune</b>	<b>111</b>	<b>83</b>	<b>48</b>
Wardha	Upper Wardha	0	49	12
	<b>UWPC Amravati</b>	<b>0</b>	<b>49</b>	<b>12</b>
<b>Normal</b>		<b>265</b>	<b>88</b>	<b>66</b>
<b>Surplus</b>				
Middle Wainganga	Itiadh	279	0	72
	Pench	187	72	41
	Bagh	196	0	62
	<b>CADA Nagpur</b>	<b>221</b>	<b>72</b>	<b>58</b>
<b>Surplus</b>		<b>221</b>	<b>72</b>	<b>58</b>



Subbasin/ Plangroup	Project /Circle	Seasons		
		Kharif	Rabi	HW
<b>Abundant</b>				
Upper Krishna (W)	Dhom	0	103	46
	Kanher	0	51	22
	<b>CADA Pune</b>	<b>0</b>	<b>77</b>	<b>34</b>
Lower Wainganga	Asolamendha	222	0	44
	Dina	234	0	73
	<b>CIPC Chandrapur</b>	<b>228</b>	<b>0</b>	<b>59</b>
Upper Krishna (W)	Krishna LIS	0	0	0
	Tulshi	0	0	0
	Warana	0	119	52
	Radhanagari	0	0	0
	Dudhaganga	0	37	29
	<b>SIC Sangli</b>	<b>0</b>	<b>78</b>	<b>41</b>
	North Konkan	Surya	0	40
Middle Konkan	Kal-Amba	0	36	0
North Konkan	Bhatsa	0	46	0
	<b>TIC Thane</b>	<b>0</b>	<b>41</b>	<b>0</b>
<b>Abundant</b>		<b>114</b>	<b>49</b>	<b>44</b>
<b>Major Projects</b>		<b>176</b>	<b>94</b>	<b>69</b>

**Indicator V: Irrigation System Performance (Reservoir Lifts)**



**Indicator V: Irrigation System Performance (Reservoir Lift)**  
**Major Projects**

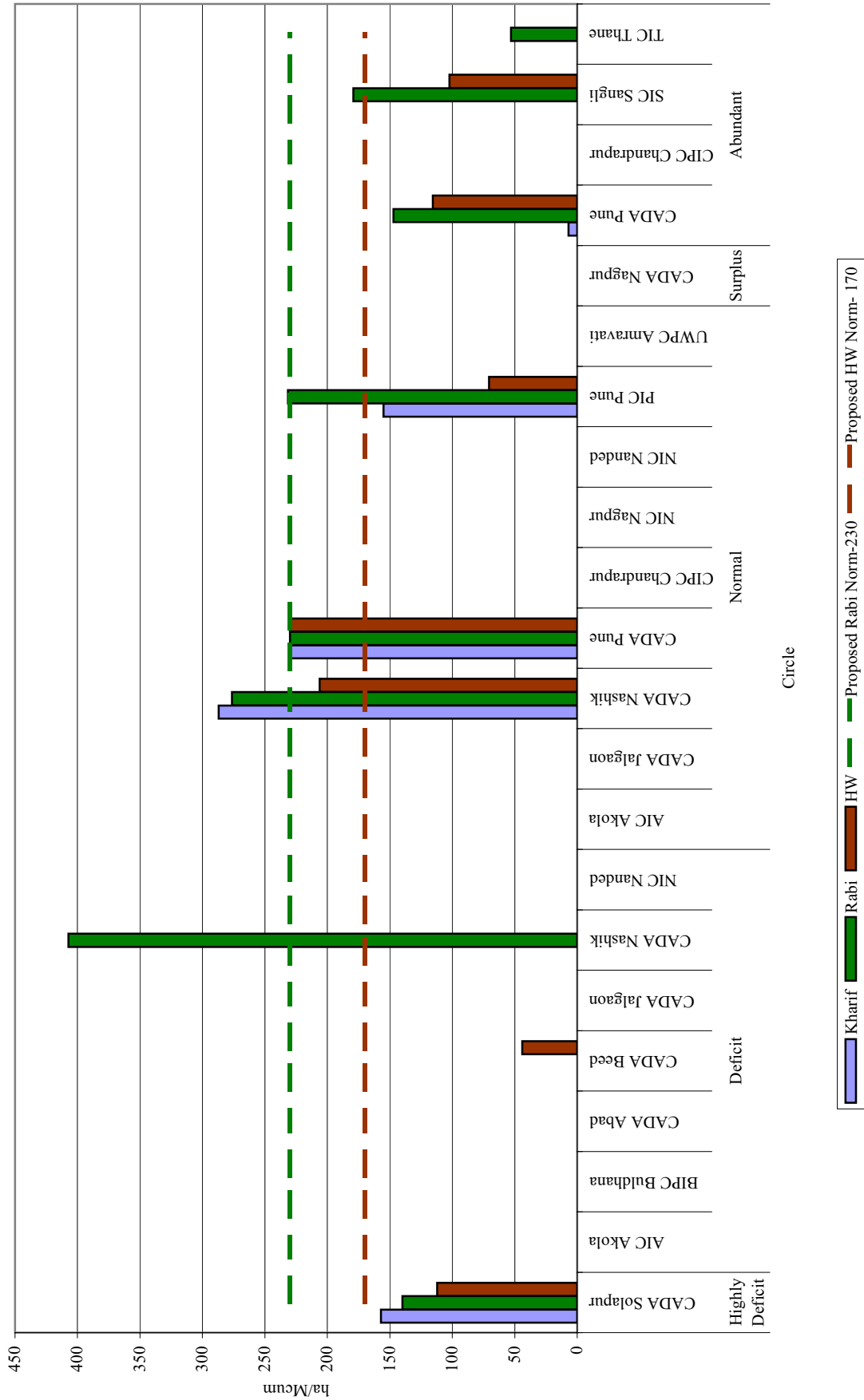
Unit: ha/ Mcum

Subbasin/ Plangroup	Project /Circle	Seasons		
		Kharif	Rabi	HW
<b>Highly Deficit</b>				
Remaining Bhima	Bhima	259	117	93
	<b>CADA Solapur</b>	<b>259</b>	<b>117</b>	<b>93</b>
<b>Highly Deficit</b>		<b>259</b>	<b>117</b>	<b>93</b>
<b>Deficit</b>				
Purna (Tapi)	Katepurna	0	333	83
	Nalganga	0	428	161
	<b>AIC Akola</b>		<b>380</b>	<b>122</b>
Purna (Tapi)	Wan	0	0	0
	<b>BIPC Buldhana</b>			
Lower Godavari	Jayakwadi Stage I	207	163	173
	<b>CADA Abad</b>	<b>207</b>	<b>163</b>	<b>173</b>
Lower Godavari	JP Stage II (Majalgaon)	0	146	73
	JP Stage II (PRBC)	0	0	0
Manjra	Lower Terna	0	322	393
Manjra	Manjra	0	401	222
	<b>CADA Beed</b>		<b>290</b>	<b>229</b>
Girna	Girna+Panzan	238	256	163
	<b>CADA Jalgaon</b>	<b>238</b>	<b>256</b>	<b>163</b>
Girna	Chankapur	0	203	0
	<b>CADA Nashik</b>		<b>203</b>	
Manjra	Manar	0	132	120
Purna+Dudhna	Purna	0	246	197
Lower Godavari	Vishnupuri	0	281	155
	<b>NIC Nanded</b>		<b>220</b>	<b>157</b>
<b>Deficit</b>		<b>223</b>	<b>216</b>	<b>141</b>
<b>Normal</b>				
Penganga	Arunavati	0	221	197
	<b>YIC Yavatmal</b>	<b>0</b>	<b>221</b>	<b>197</b>
	Pus	0	100	66
	<b>AIC Akola</b>	<b>0</b>	<b>100</b>	<b>66</b>
Middle Tapi	Hatnur	202	105	53
	<b>CADA Jalgaon</b>	<b>202</b>	<b>105</b>	<b>53</b>

Subbasin/ Plangroup	Project /Circle	Seasons		
		Kharif	Rabi	HW
Upper Godavari	Bhandardara	417	333	0
	Darna	252	122	127
	Gangapur	0	209	138
	Kadwa	130	121	104
	Kashyapi	0	169	0
	Mukane	255	122	110
	Mula	149	53	197
	NMWeir	0	0	0
	Upper Godavari Complex	714	326	182
	Waldevi	0	104	108
	<b>CADA Nashik</b>	<b>320</b>	<b>173</b>	<b>138</b>
Upper Bhima	Ghod	175	245	261
	Kukadi Complex	230	232	207
	<b>CADA Pune</b>	<b>203</b>	<b>238</b>	<b>234</b>
Wardha	Bor	0	0	0
	<b>CIPC Chandrapur</b>	<b>0</b>	<b>0</b>	<b>0</b>
Middle Wainganga	Lower Wunna	0	150	0
	<b>NIC Nagpur</b>	<b>0</b>	<b>150</b>	<b>0</b>
Penganga	Upper Penganga	0	146	134
	<b>NIC Nanded</b>	<b>109</b>	<b>109</b>	<b>109</b>
Upper Bhima	Bhama Askhed	0	0	0
	Chaskaman	0	41	7
	Khadakwasla	363	125	2620
Remaining Bhima	NLBC	0	153	133
	NRBC	329	178	246
Upper Bhima	Pawana	151	151	120
	<b>PIC Pune</b>	<b>281</b>	<b>130</b>	<b>625</b>
Wardha	Upper Wardha	0	150	100
	<b>UWPC Amravati</b>	<b>0</b>	<b>150</b>	<b>100</b>
<b>Normal</b>		<b>186</b>	<b>128</b>	<b>147</b>
<b>Surplus</b>				
Middle Wainganga	Bagh	0	0	0
	Itiadh	0	0	0
	Pench	0	0	0
	<b>CADA Nagpur</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Surplus</b>		<b>0</b>	<b>0</b>	<b>0</b>

Subbasin/ Plangroup	Project /Circle	Seasons		
		Kharif	Rabi	HW
<b>Abundant</b>				
Upper Krishna (W)	Dhom	0	277	21
	Kanher	0	184	175
	<b>CADA Pune</b>	<b>0</b>	<b>230</b>	<b>98</b>
Lower Wainganga	Asolamendha	0	0	0
	Dina	0	0	0
	<b>CIPC Chandrapur</b>	<b>0</b>	<b>0</b>	<b>0</b>
Upper Krishna (W)	Dudhaganga	0	0	0
	Krishna LIS	0	0	0
	Radhanagari	0	0	0
	Tulshi	0	180	180
	Warana	0	0	0
	<b>SIC Sangli</b>	<b>0</b>	<b>180</b>	<b>180</b>
North Konkan	Bhatsa	0	0	0
Middle Konkan	Kal-Amba	0	0	0
North Konkan	Surya	0	0	0
	<b>TIC Thane</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Abundant</b>		<b>0</b>	<b>205</b>	<b>93</b>
<b>Major Projects</b>		<b>134</b>	<b>133</b>	<b>95</b>

**Indicator V: Irrigation System Performance (River)**



**Indicator V: Irrigation System Performance ( River Lifts)**  
**Major Projects**

Unit: ha/Mcum

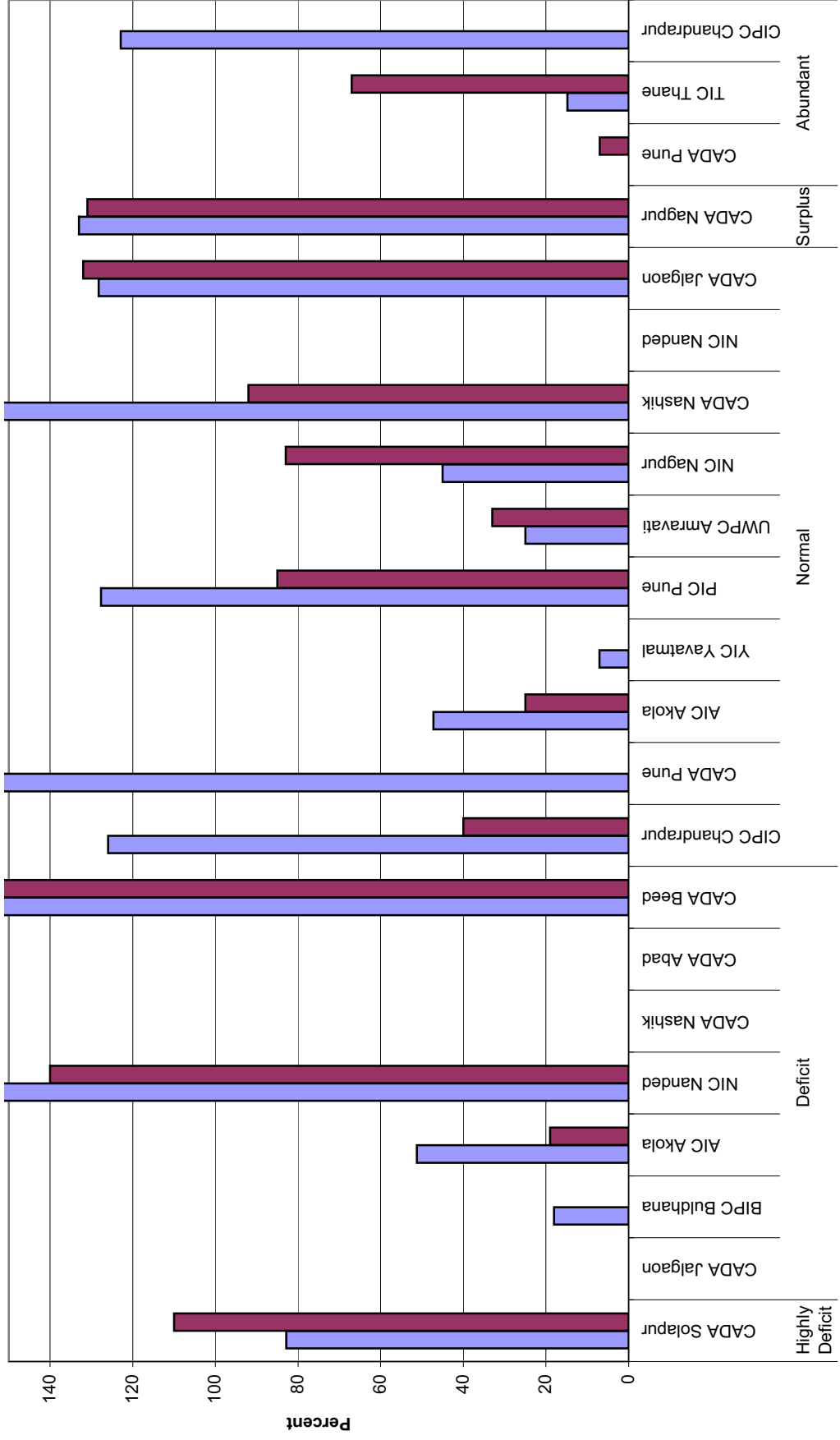
Subbasin/Plangroup	Project/Circle	Season		
		Kharif	Rabi	HW
<b>Highly Deficit</b>				
Remaining Bhima + Man	Bhima	157	140	112
	<b>CADA Solapur</b>	<b>157</b>	<b>140</b>	<b>112</b>
<b>Highly Deficit</b>		<b>157</b>	<b>140</b>	<b>112</b>
<b>Deficit</b>				
Purna (Tapi)	Nalganga	0	0	0
	Katepurna	0	0	0
	<b>AIC Akola</b>	<b>0</b>	<b>0</b>	<b>0</b>
Purna (Tapi)	Wan	0	0	0
	<b>BIPC Buldhana</b>	<b>0</b>	<b>0</b>	<b>0</b>
Lower Godavari	Jayakwadi Stage I	0	0	0
	<b>CADA Abad</b>	<b>0</b>	<b>0</b>	<b>0</b>
Manjra	Manjra	0	0	44
	Lower Terna	0	0	0
Lower Godavari	JP Stage II (Majalgaon)	0	0	0
	JP Stage II (PRBC)	0	0	0
	<b>CADA Beed</b>	<b>0</b>	<b>0</b>	<b>44</b>
Girna	Girna+Panzan	0	0	0
	<b>CADA Jalgaon</b>	<b>0</b>	<b>0</b>	<b>0</b>
Girna	Chankapur	0	407	0
	<b>CADA Nashik</b>	<b>0</b>	<b>407</b>	<b>0</b>
Manjra	Manar	0	0	0
Lower Godavari	Vishnupuri	0	0	0
Purna+Dudhna	Purna	0	0	0
	<b>NIC Nanded</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Deficit</b>		<b>0</b>	<b>204</b>	<b>44</b>
<b>Normal</b>				
Penganga	Arunavati	0	0	0
	Pus	0	0	0
	<b>AIC Akola</b>	<b>0</b>	<b>0</b>	<b>0</b>
Middle Tapi (Satpuda)	Hatnur	0	0	0
	<b>CADA Jalgaon</b>	<b>0</b>	<b>0</b>	<b>0</b>

Subbasin/Plangroup	Project/Circle	Season			
		Kharif	Rabi	HW	
Upper Godavari	Kashyapi	0	0	0	
	Mukane	0	148	104	
	Waldevi	0	320	647	
	Bhandardara	412	300	44	
	Darna	135	372	177	
	Gangapur	355	354	153	
	Upper Godavari Complex	246	387	0	
	NMWeir	0	0	0	
	Kadwa	0	54	112	
	Mula	0	0	0	
		<b>CADA Nashik</b>	<b>287</b>	<b>276</b>	<b>206</b>
Upper Bhima	Kukadi Complex	230	230	230	
	Ghod	0	0	0	
		<b>CADA Pune</b>	<b>230</b>	<b>230</b>	<b>230</b>
Wardha	Bor	0	0	0	
		<b>CIPC Chandrapur</b>	<b>0</b>	<b>0</b>	<b>0</b>
Middle Wainganga	Lower Wunna	0	0	0	
		<b>NIC Nagpur</b>	<b>0</b>	<b>0</b>	<b>0</b>
Penganga	Upper Penganga	0	0	0	
		<b>NIC Nanded</b>	<b>0</b>	<b>0</b>	<b>0</b>
Upper Bhima	Bhama Askhed	0	73	21	
Remaining Bhima (Need)	NRBC	0	0	0	
	NLBC	0	0	0	
Upper Bhima	Khadakwasla	0	0	0	
	Chaskaman	0	0	0	
	Pawana	155	390	120	
		<b>PIC Pune</b>	<b>155</b>	<b>232</b>	<b>71</b>
		<b>UWPC Amravati</b>	<b>0</b>	<b>0</b>	<b>0</b>
Wardha	Upper Wardha	0	0	0	
		<b>UWPC Amravati</b>	<b>0</b>	<b>0</b>	<b>0</b>
	<b>Normal</b>	<b>224</b>	<b>246</b>	<b>169</b>	
	<b>Surplus</b>				
Middle Wainganga	Bagh	0	0	0	
	Itiadoh	0	0	0	
	Pench	0	0	0	
		<b>CADA Nagpur</b>	<b>0</b>	<b>0</b>	<b>0</b>
	<b>Surplus</b>	<b>0</b>	<b>0</b>	<b>0</b>	



Subbasin/Plangroup	Project/Circle	Season		
		Kharif	Rabi	HW
<b>Abundant</b>				
Upper Krishna (W)	Kanher	7	127	82
	Dhom	0	167	149
	<b>CADA Pune</b>	<b>7</b>	<b>147</b>	<b>116</b>
Lower Wainganga	Dina	0	0	0
	Asolamendha	0	0	0
	<b>CIPC Chandrapur</b>	<b>0</b>	<b>0</b>	<b>0</b>
Upper Krishna (W)	Dudhaganga	0	126	97
	Krishna LIS	0	157	86
	Radhanagari	0	226	122
	Warana	0	208	114
	Tulshi	0	0	92
	<b>SIC Sangli</b>	<b>0</b>	<b>179</b>	<b>102</b>
North Konkan	Surya	0	0	0
	Bhatsa	0	53	0
Middle Konkan	Kal-Amba	0	0	0
	<b>TIC Thane</b>	<b>0</b>	<b>53</b>	<b>0</b>
<b>Abundant</b>		<b>7</b>	<b>126</b>	<b>73</b>
<b>Major Projects</b>		<b>78</b>	<b>143</b>	<b>79</b>

# Indicator VI: Non Irrigation Use



Circle

2005-06 2004-05

**Indicator VI: Non Irrigation Use  
Major Projects**

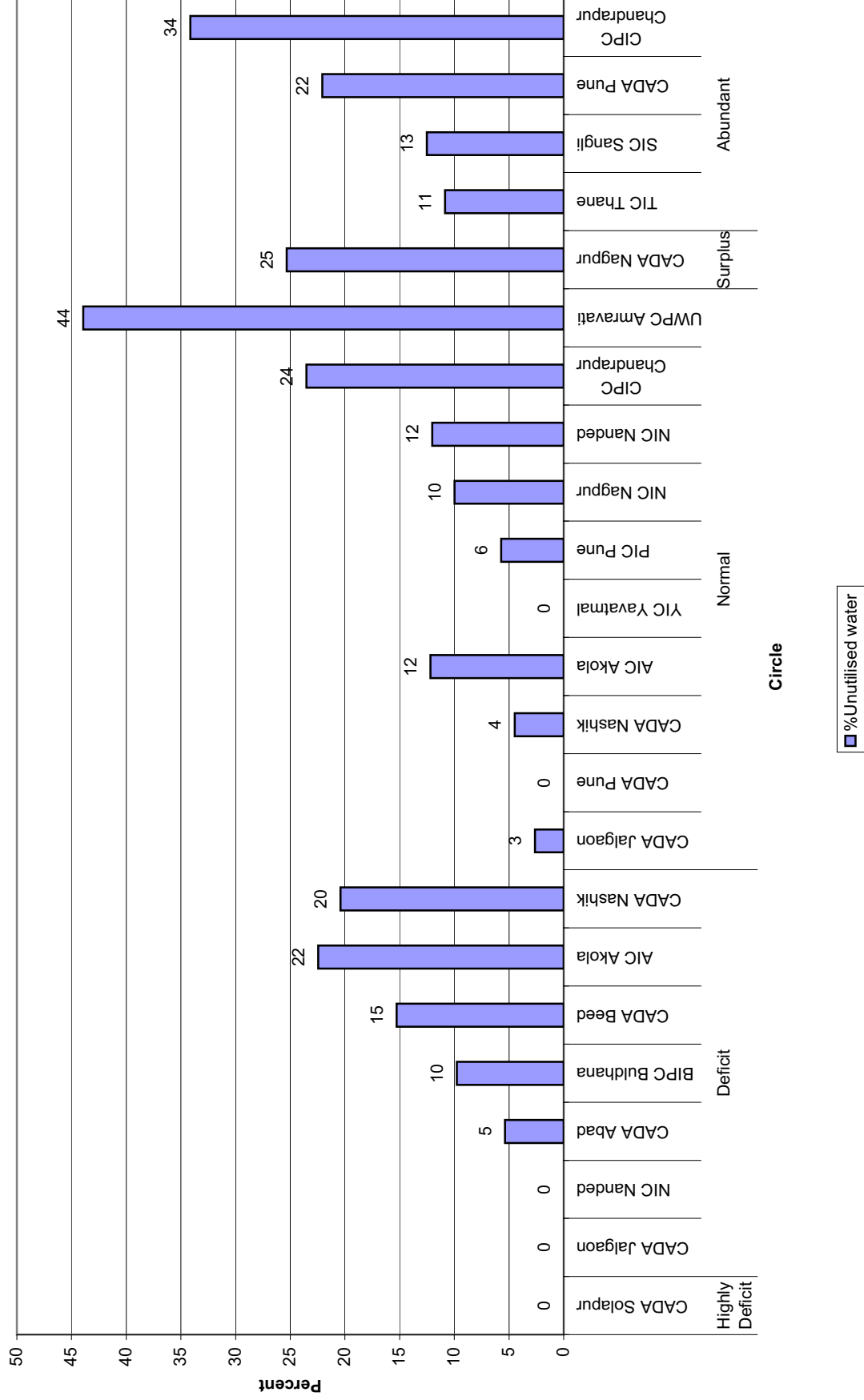
Unit: Mcum

Project	Non Irrigation Use	NI Use as per Project Report	NI Use as per PIP	Percentage of NI Use as per PR	Percentage of NI Use as per PIP
<b>Highly Deficit</b>					
Bhima	125.080	150.950	100.000	83	125
<b>CADA Solapur</b>	<b>125.080</b>	<b>150.950</b>	<b>100.000</b>	<b>83</b>	<b>125</b>
<b>Highly Deficit</b>	<b>125.080</b>	<b>150.950</b>	<b>100.000</b>	<b>83</b>	<b>125</b>
<b>Deficit</b>					
Katepurna	18.580	32.650	32.650	57	57
Nalganga	1.500	6.510	0.740	23	203
<b>AIC Akola</b>	<b>20.080</b>	<b>39.160</b>	<b>33.390</b>	<b>51</b>	<b>60</b>
Wan	3.621	20.079	6.200	18	58
<b>BIPC Buldhana</b>	<b>3.621</b>	<b>20.079</b>	<b>6.200</b>	<b>18</b>	<b>58</b>
Jayakwadi Stage I	143.870	0.000	180.991		79
<b>CADA Abad</b>	<b>143.870</b>	<b>0.000</b>	<b>180.991</b>		<b>79</b>
Jayakwadi Stage II (Majalgaon)	6.530	0.000	15.000		44
Jayakwadi Stage II (PRBC)	21.486	18.000	0.000	119	
Lower Terna	1.620	0.000	4.850		33
Manjra	13.020	2.830	17.351		75
<b>CADA Beed</b>	<b>42.656</b>	<b>20.830</b>	<b>37.201</b>	<b>205</b>	<b>115</b>
Girna+Panzan	143.760	0.000	178.300		81
<b>CADA Jalgaon</b>	<b>143.760</b>	<b>0.000</b>	<b>178.300</b>		<b>81</b>
Chankapur	42.124	0.000	61.910		68
<b>CADA Nashik</b>	<b>42.124</b>	<b>0.000</b>	<b>61.910</b>		<b>68</b>
Manar	1.347	2.620	4.240	51	32
Purna	11.785	0.000	32.000		37
Vishnupuri	23.912	0.000	23.750		101
<b>NIC Nanded</b>	<b>37.044</b>	<b>2.620</b>	<b>59.990</b>	<b>1414</b>	<b>62</b>
<b>Deficit</b>	<b>433.155</b>	<b>82.689</b>	<b>557.982</b>	<b>524</b>	<b>78</b>
<b>Normal</b>					
Arunavati	1.107	15.652	1.800	7	62
<b>YIC Yavatmal</b>	<b>1.107</b>	<b>15.652</b>	<b>1.800</b>	<b>7</b>	<b>62</b>
Pus	1.573	3.330	2.860	47	55
<b>AIC Akola</b>	<b>1.573</b>	<b>3.330</b>	<b>2.860</b>	<b>47</b>	<b>55</b>
Hatnur	116.110	90.530	0.000	128	
<b>CADA Jalgaon</b>	<b>116.110</b>	<b>90.530</b>	<b>0.000</b>	<b>128</b>	

Project	Non Irrigation Use	NI Use as per Project Report	NI Use as per PIP	Percentage of NI Use as per PR	Percentage of NI Use as per PIP
Bhandardara	76.020	0.000	39.900		191
Darna	26.313	1.530	56.780	1720	46
Gangapur	126.751	2.730	128.690	4643	98
Kadwa	3.830	0.600	0.250	638	1532
Kashyapi	0.000	0.000	0.000		
Mukane	1.560	0.000	0.000		
Mula	55.270	59.130	78.950	93	70
NMWeir	33.613	0.000	0.000		
Upper Godavari Complex	120.962	23.460	28.870	516	419
Waldevi	0.000	12.170	0.000	0	
<b>CADA Nashik</b>	<b>444.319</b>	<b>99.620</b>	<b>333.440</b>	<b>446</b>	<b>133</b>
Ghod	4.110	5.220	0.000	79	
Kukadi Complex	70.380	8.680	167.360	811	42
<b>CADA Pune</b>	<b>74.490</b>	<b>13.900</b>	<b>167.360</b>	<b>536</b>	<b>45</b>
Bor	8.000	6.350	0.150	126	5333
<b>CIPC Chandrapur</b>	<b>8.000</b>	<b>6.350</b>	<b>0.150</b>	<b>126</b>	<b>5333</b>
Lower Wunna	5.400	12.000	5.780	45	93
<b>NIC Nagpur</b>	<b>5.400</b>	<b>12.000</b>	<b>5.780</b>	<b>45</b>	<b>93</b>
Upper Penganga	43.410	0.000	25.000		174
<b>NIC Nanded</b>	<b>43.410</b>	<b>0.000</b>	<b>25.000</b>		<b>174</b>
Chaskaman	4.990	0.000	34.375		15
Khadakwasla	362.190	141.480	408.460	256	89
NLBC	12.050	141.000	0.000	9	
NRBC	60.260	0.000	75.520		80
Pawana	136.097	168.320	248.491	81	55
<b>PIC Pune</b>	<b>575.587</b>	<b>450.800</b>	<b>766.846</b>	<b>128</b>	<b>75</b>
Upper Wardha	22.442	89.719	30.000	25	75
<b>UWPC Amravati</b>	<b>22.442</b>	<b>89.719</b>	<b>30.000</b>	<b>25</b>	<b>75</b>
<b>Normal</b>	<b>1292.438</b>	<b>781.901</b>	<b>1333.236</b>	<b>165</b>	<b>97</b>
<b>Surplus</b>					
Bagh	0	0	0.000		
Itiadh	0.101	0.000	0.000		
Pench	238.000	179.000	226.000	133	105
<b>CADA Nagpur</b>	<b>238.101</b>	<b>179.000</b>	<b>226.000</b>	<b>133</b>	<b>105</b>
<b>Surplus</b>	<b>238.101</b>	<b>179.000</b>	<b>226.000</b>	<b>133</b>	<b>105</b>

Project	Non Irrigation Use	NI Use as per Project Report	NI Use as per PIP	Percentage of NI Use as per PR	Percentage of NI Use as per PIP
<b>Abundant</b>					
Dhom	21.704	54.77	14.500	40	150
Kanher	0.190	93.120	10.000	0	2
CADA Pune	21.894	147.890	24.500	15	89
Asolamendha	0.000	0.000	0.000		
Dina	0.000	0.000	0.000		
<b>CIPC Chandrapur</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>		
Dudhaganga	0.218	0.000	80.210		0
Krishna LIS	44.130				
Radhanagari	47.567	0.000	0.510		9327
Tulshi	0.754	0.000	0.510		148
Warana	6.190	0.000	26.370		23
<b>SIC Sangli</b>	<b>98.859</b>	<b>0.000</b>	<b>107.600</b>		<b>92</b>
Bhatsa	586.000	464.100	0.000	126	
Kal-Amba	0.700	54.710	2.640	1	27
Surya	50.827	0.000	37.700		135
TIC Thane	<b>637.527</b>	<b>518.810</b>	<b>255.540</b>	123	249
<b>Abundant</b>	<b>758.280</b>	<b>666.700</b>	<b>280.040</b>	<b>114</b>	<b>271</b>
<b>Major Projects</b>	<b>2847.054</b>	<b>1861.240</b>	<b>2497.258</b>	<b>153</b>	<b>114</b>

### Indicator VII: Percentage of Unutilised Water



**Indicator VII: Percentage of Unutilised Water to Live Storage**  
**Major Projects**

Unit: Mcum

Subbasin/ Plangroup	Project/ Circle	Live Storage on 30June	CarryOver	Replenishment in June	NetBalance	Live Storage on 15th Oct	Percentage of Unutilised Water
<b>Highly Deficit</b>							
Remaining Bhima + Man	Bhima	148.000	0.000	213.820	0.000	1688.150	0
	<b>CADA Solapur</b>	<b>148.000</b>	<b>0.000</b>	<b>213.820</b>	<b>0.000</b>	<b>1688.150</b>	<b>0</b>
<b>Highly Deficit</b>		<b>148.000</b>	<b>0.000</b>	<b>213.820</b>	<b>0.000</b>	<b>1688.150</b>	<b>0</b>
<b>Deficit</b>							
Purna (Tapi)	Katepurna	11.000	0.000	0.000	11.000	56.739	19
	Nalganga	5.000	0.000	2.000	3.000	5.630	53
	<b>AIC Akola</b>	<b>16.000</b>	<b>0.000</b>	<b>2.000</b>	<b>14.000</b>	<b>62.369</b>	<b>22</b>
Purna (Tapi)	Wan	8.000	0.000	0.000	8.000	81.955	10
	<b>BIPC Buldhana</b>	<b>8.000</b>	<b>0.000</b>	<b>0.000</b>	<b>8.000</b>	<b>81.955</b>	<b>10</b>
Lower Godavari	Jayakwadi Stage I	549.000	382.000	63.660	103.340	1927.719	5
	<b>CADA Abad</b>	<b>549.000</b>	<b>382.000</b>	<b>63.660</b>	<b>103.340</b>	<b>1927.719</b>	<b>5</b>
Lower Godavari Manjra	JP Stage II (Majalgaon)	47.000	0.000	0.000	47.000	312.000	15
	Manjra	30.000	4.420	7.100	18.480	176.495	10
	Lower Terna	24.000	0.000	9.180	14.820	37.523	39
	JP Stage II (PRBC)	0.000	0.000	0.000	0.000	0.000	
	<b>CADA Beed</b>	<b>101.000</b>	<b>4.420</b>	<b>16.280</b>	<b>80.300</b>	<b>526.018</b>	<b>15</b>
Girna	Girna+Panzan	53.000	155.650	5.280	0.000	523.550	0
	<b>CADA Jalgaon</b>	<b>53.000</b>	<b>155.650</b>	<b>5.280</b>	<b>0.000</b>	<b>523.550</b>	<b>0</b>
Girna	Chankapur	16.000	0.000	0.310	15.690	76.850	20
	<b>CADA Nashik</b>	<b>16.000</b>	<b>0.000</b>	<b>0.310</b>	<b>15.690</b>	<b>76.850</b>	<b>20</b>
Lower Godavari Manjra	Vishnupuri	7.000	7.380	71.600	0.000	80.790	0
	Manar	22.000	23.630	0.000	0.000	138.330	0
Purna+Dudhna	Purna	23.000	243.520	0.000	0.000	499.310	0
	<b>NIC Nanded</b>	<b>52.000</b>	<b>274.530</b>	<b>71.600</b>	<b>0.000</b>	<b>718.430</b>	<b>0</b>
<b>Deficit</b>		<b>795.000</b>	<b>816.600</b>	<b>159.130</b>	<b>221.330</b>	<b>3916.891</b>	<b>6</b>
<b>Normal</b>							
Penganga	Arunavati	43.000	72.000	6.950	0.000	129.690	0
	<b>YIC Yavatmal</b>	<b>43.000</b>	<b>72.000</b>	<b>6.950</b>	<b>0.000</b>	<b>129.690</b>	<b>0</b>
	Pus	29.000	8.495	9.383	11.122	91.260	12
	<b>AIC Akola</b>	<b>29.000</b>	<b>8.495</b>	<b>9.383</b>	<b>11.122</b>	<b>91.260</b>	<b>12</b>
Middle Tapi (Satpuda)	Hatnur	40.000	0.000	33.290	6.710	255.000	3
	<b>CADA Jalgaon</b>	<b>40.000</b>	<b>0.000</b>	<b>33.290</b>	<b>6.710</b>	<b>255.000</b>	<b>3</b>
Upper Godavari	Bhandardara	25.000	0.000	13.640	11.360	303.730	4
	Darna	41.000	4.240	15.380	21.380	200.220	11
	Gangapur	34.000	11.320	34.940	0.000	158.480	0
	Kadwa	4.000	0.000	0.000	4.000	52.910	8
	Kashyapi	1.000	0.000	1.437	0.000	52.420	0
	Mukane	5.000	0.000	6.900	0.000	125.230	0
	Mula	4.000	28.320	18.310	0.000	608.890	0
	NMWeir	5.000	0.000	8.000	0.000	6.630	0
	Upper Godavari Complex	55.000	0.000	8.820	46.180	334.529	14
	Waldevi	1.000	0.000	0.020	0.980	27.090	4
	<b>CADA Nashik</b>	<b>175.000</b>	<b>43.880</b>	<b>107.447</b>	<b>83.900</b>	<b>1870.129</b>	<b>4</b>
Upper Bhima	Ghod	32.000	0.000	33.606	0.000	154.800	0
	Kukadi Complex	170.000	128.950	350.253	0.000	850.560	0
	<b>CADA Pune</b>	<b>202.000</b>	<b>128.950</b>	<b>383.859</b>	<b>0.000</b>	<b>1005.360</b>	<b>0</b>
Wardha	Bor	24.000	0.000	0.730	23.270	98.900	24
	<b>CIPC Chandrapur</b>	<b>24.000</b>	<b>0.000</b>	<b>0.730</b>	<b>23.270</b>	<b>98.900</b>	<b>24</b>

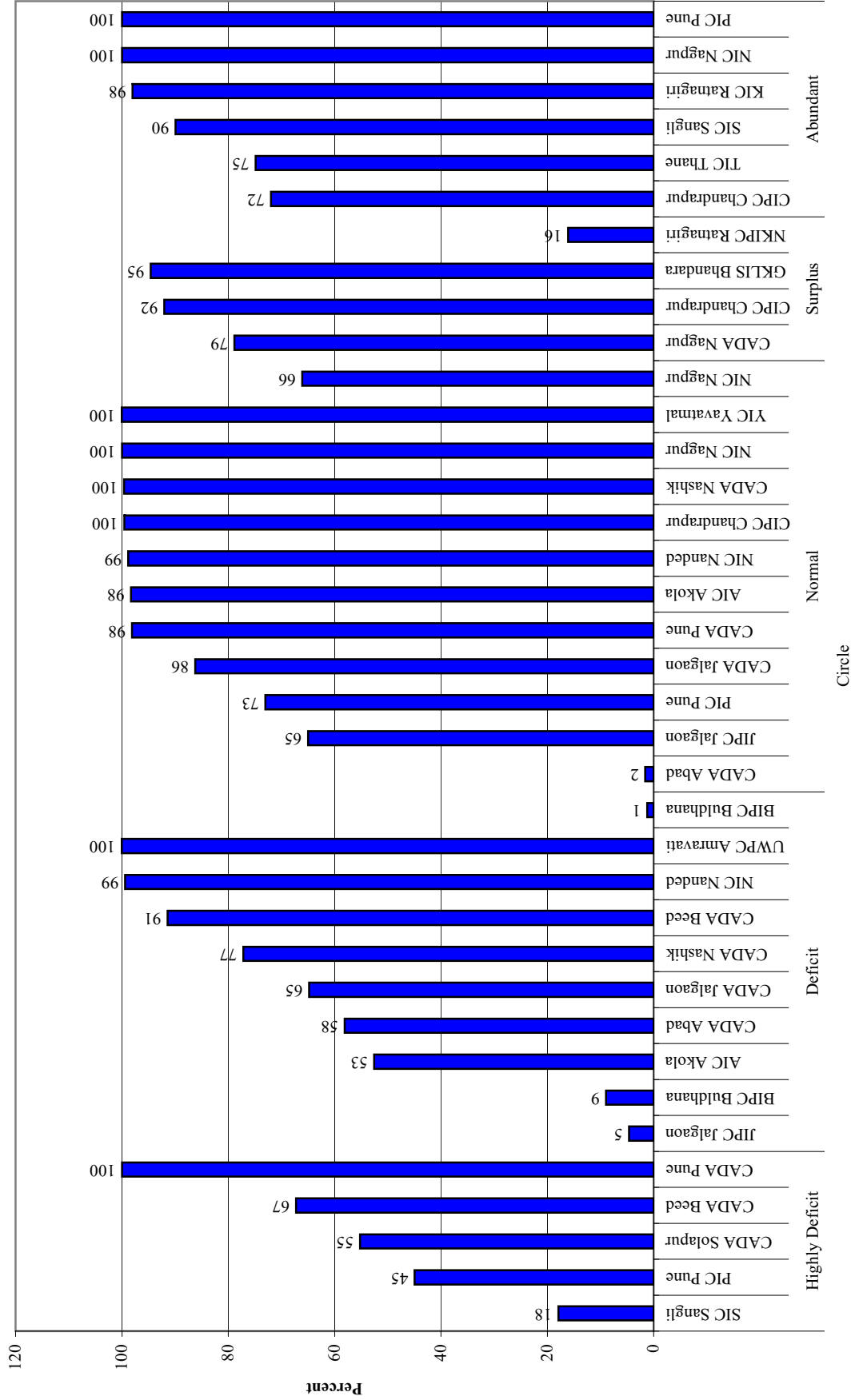
Subbasin/ Plangroup	Project/ Circle	Live Storage on 30June	CarryOver	Replenishment in June	NetBalance	Live Storage on 15th Oct	Percentage of Unutilised Water
Middle Wainganga	Lower Wunna	36.000	0.000	17.240	18.760	187.878	10
	<b>NIC Nagpur</b>	<b>36.000</b>	<b>0.000</b>	<b>17.240</b>	<b>18.760</b>	<b>187.878</b>	<b>10</b>
Penganga	Upper Penganga	49.000	0.000	0.700	48.300	401.706	12
	<b>NIC Nanded</b>	<b>49.000</b>	<b>0.000</b>	<b>0.700</b>	<b>48.300</b>	<b>401.706</b>	<b>12</b>
Remaining Bhima (Neer)	NRBC	57.000	42.480	422.373	0.000	253.680	0
Upper Bhima	Bhama Askhed	15.000	0.000	2.890	12.110	58.300	21
Upper Bhima	Khadakwasla	126.000	0.000	544.044	0.000	778.480	0
	NLBC	99.000	0.000	63.500	35.500	665.430	5
	Chaskaman	46.000	18.550	24.248	3.202	205.150	2
	Pawana	88.000	2.270	10.752	74.978	235.000	32
	<b>PIC Pune</b>	<b>431.000</b>	<b>63.300</b>	<b>1067.807</b>	<b>125.790</b>	<b>2196.040</b>	<b>6</b>
Wardha	Upper Wardha	256.000	0.000	0.000	256.000	582.860	44
	<b>UWPC Amravati</b>	<b>256.000</b>	<b>0.000</b>	<b>0.000</b>	<b>256.000</b>	<b>582.860</b>	<b>44</b>
<b>Normal</b>		<b>1285.000</b>	<b>316.625</b>	<b>1627.406</b>	<b>573.852</b>	<b>6818.823</b>	<b>8</b>
<b>Surplus</b>							
Middle Wainganga	Bagh	1.000	16.990	1.126	0.000	207.780	0
	Itiadoh	74.000	0.000	7.140	66.860	287.080	23
	Pench	418.000	0.000	43.000	375.000	1249.736	30
	<b>CADA Nagpur</b>	<b>493.000</b>	<b>16.990</b>	<b>51.266</b>	<b>441.860</b>	<b>1744.596</b>	<b>25</b>
<b>Surplus</b>		<b>493.000</b>	<b>16.990</b>	<b>51.266</b>	<b>441.860</b>	<b>1744.596</b>	<b>25</b>
<b>Abundant</b>							
Upper Krishna (W)	Dhom	132.000	0.000	49.022	82.978	331.050	25
	Kanher	96.000	0.000	45.930	50.070	271.680	18
	<b>CADA Pune</b>	<b>228.000</b>	<b>0.000</b>	<b>94.952</b>	<b>133.048</b>	<b>602.730</b>	<b>22</b>
Lower Wainganga	Asolamendha	14.000	0.000	1.320	12.680	42.630	30
	Dina	23.000	0.000	8.380	14.620	37.320	39
	<b>CIPC Chandrapur</b>	<b>37.000</b>	<b>0.000</b>	<b>9.700</b>	<b>27.300</b>	<b>79.950</b>	<b>34</b>
Upper Krishna (W)	Dudhaganga	177.000	0.000	0.000	177.000	672.665	26
	Krishna LIS	0.000	0.000	22.570	0.000	0.000	
	Radhanagari	69.000	0.000	55.435	13.565	226.254	6
	Tulshi	38.000	0.000	7.964	30.036	91.921	33
	Warana	270.000	533.281	132.985	0.000	773.401	0
	<b>SIC Sangli</b>	<b>554.000</b>	<b>533.281</b>	<b>218.954</b>	<b>220.601</b>	<b>1764.241</b>	<b>13</b>
North Konkan	Bhatsa	413.000	225.420	43.374	144.206	838.633	17
	Kal-Amba	0.000	0.000	7.630	0.000	332.070	0
Middle Konkan	Surya	19.000	14.840	9.059	0.000	158.690	0
	<b>TIC Thane</b>	<b>432.000</b>	<b>240.260</b>	<b>60.063</b>	<b>144.206</b>	<b>1329.393</b>	<b>11</b>
<b>Abundant</b>		<b>1251.000</b>	<b>773.541</b>	<b>383.669</b>	<b>525.155</b>	<b>3776.314</b>	<b>14</b>
<b>Major Projects</b>		<b>3972.000</b>	<b>1923.756</b>	<b>2435.291</b>	<b>1762.197</b>	<b>17944.774</b>	<b>10</b>



**Annexure II**  
**Indicators of Medium Projects**



**Indicator I: Water Availability in Reservoirs**



**Indicator I: Water Availability in Reservoirs  
Medium Projects**

Unit: Mcum

Subbasin/ Plangroup	Project/ Circle	Live Storage on 15th Oct	Designed Live Storage	Percentage Live Storage
<b>Highly Deficit</b>				
Sina-Bori-Benetura	Benitura	11.471	11.471	100
	Chandani	15.160	21.570	70
	Harni	6.470	11.170	58
	Jakapur	5.455	7.963	69
	Kada	2.800	8.555	33
	Kadi	0.000	5.470	0
	Khandala	4.438	5.240	85
	Khasapur	13.040	13.040	100
	Kurnoor	32.280	32.280	100
	Sina-Bori-Benetura	Mahasangvi	5.880	5.880
Mehkari		0.000	12.997	0
Ruti		0.000	6.570	0
Sakat		7.830	13.480	58
Talwar		0.000	3.230	0
Turori		6.200	6.200	100
<b>CADA Beed</b>		<b>111.024</b>	<b>165.116</b>	<b>67</b>
<b>CADA Pune</b>		<b>19.600</b>	<b>19.600</b>	<b>100</b>
Upper Krishna (E)	Yeralwadi	19.600	19.600	100
Remaining Bhima+Man	Ashti	20.600	23.010	90
	Budhihal	0.000	27.950	0
	Ekrukh	27.891	61.160	46
	Hingani (Pangaon)	32.000	32.000	100
	Sina-Bori-Benetura	Jawalgaon	19.110	29.180
Sina-Bori-Benetura	Mangi	14.108	32.700	43
<b>CADA Solapur</b>	<b>113.709</b>	<b>206.000</b>	<b>55</b>	
Sina-Bori-Benetura	Khairy	13.740	13.740	100
	Nher	11.790	11.790	100
Upper Krishna (E)	Sina	9.460	52.300	18
<b>PIC Pune</b>	<b>34.990</b>	<b>77.830</b>	<b>45</b>	
Upper Krishna (E)	Basappawadi	0.000	6.266	0
Remaining Bhima(Neera)	Dodda Nalla	0.000	6.950	0
Upper Krishna (E)	Siddhewadi	6.130	6.130	100
	Sankh	0.000	14.867	0
	<b>SIC Sangli</b>	<b>6.130</b>	<b>34.213</b>	<b>18</b>
<b>Highly Deficit</b>		<b>285.453</b>	<b>502.759</b>	<b>57</b>
<b>Deficit</b>				
Purna (Tapi)	Dnyanganga	4.690	33.930	14
	Mas	0.700	22.040	3
	Morna (Akola)	15.490	41.460	37
	Nirguna	21.330	28.850	74
	Paldhag	0.700	7.510	9
	Shahanoor	46.040	46.040	100
	Uma	11.680	11.680	100
	<b>AIC Akola</b>	<b>100.630</b>	<b>191.510</b>	<b>53</b>

Subbasin/ Plangroup	Project/ Circle	Live Storage on 15th Oct	Designed Live Storage	Percentage Live Storage	
Purna (Tapi)	Mun	3.850	36.830	10	
	Torna	0.500	7.900	6	
	Utawali	1.440	19.790	7	
	<b>BIPC Buldhana</b>	<b>5.790</b>	<b>64.520</b>	<b>9</b>	
Girna	Ajanta Andhari	1.203	6.130	20	
Girna	Gadadgad	3.478	4.642	75	
Lower Godavari	Masoli	27.140	27.140	100	
Purna+Dudhna	Dhamna	0.000	8.510	0	
Purna+Dudhna	Lahuki	1.959	5.310	37	
Purna+Dudhna	Jivrekha	4.780	6.130	78	
Purna+Dudhna	Sukhana	15.660	18.500	85	
	Girija	0.000	20.830	0	
	Upper Dudhana	0.000	21.230	0	
	Jui	0.750	4.642	16	
	Khelna	4.610	11.070	42	
	Kalyan	11.570	12.220	95	
	Karpara	24.758	24.900	99	
	Kalyan Girija	8.470	8.470	100	
	<b>CADA Abad</b>	<b>104.378</b>	<b>179.724</b>	<b>58</b>	
	Manjra	Bindusara	7.112	7.112	100
		Bodhegaon	3.721	3.721	100
		Borna	8.970	8.970	100
Devarjan		10.680	10.680	100	
Gharni		22.457	22.457	100	
Kundalika		37.690	37.690	100	
Masalga		4.760	13.590	35	
Raighwan		9.558	11.259	85	
Renapur		17.780	20.550	87	
Rui		7.037	8.605	82	
Sakol		10.949	10.949	100	
Sangameshwar		15.030	15.030	100	
Saraswati		6.210	6.210	100	
Sindphana		7.356	7.356	100	
Tawarja		12.262	20.345	60	
Terna		19.393	19.393	100	
Tiru		15.290	15.290	100	
Van		19.340	19.340	100	
Whati		8.270	8.270	100	
<b>CADA Beed</b>		<b>243.865</b>	<b>266.817</b>	<b>91</b>	
Girna	Manyad	20.020	40.270	50	
Girna	Agnavati	2.183	2.760	79	
Middle Tapi	Tondapur	0.000	4.636	0	
Middle Tapi	Kanoli	6.590	8.450	78	
Middle Tapi	Sonwad	13.880	14.360	97	
	Bhokarbari	2.779	6.540	42	
	Bori	11.357	25.150	45	
	Hivara	6.111	9.601	64	
	Rangawali	12.820	12.890	99	
	Burai	14.210	14.210	100	
	<b>CADA Jalgaon</b>	<b>89.950</b>	<b>138.867</b>	<b>65</b>	

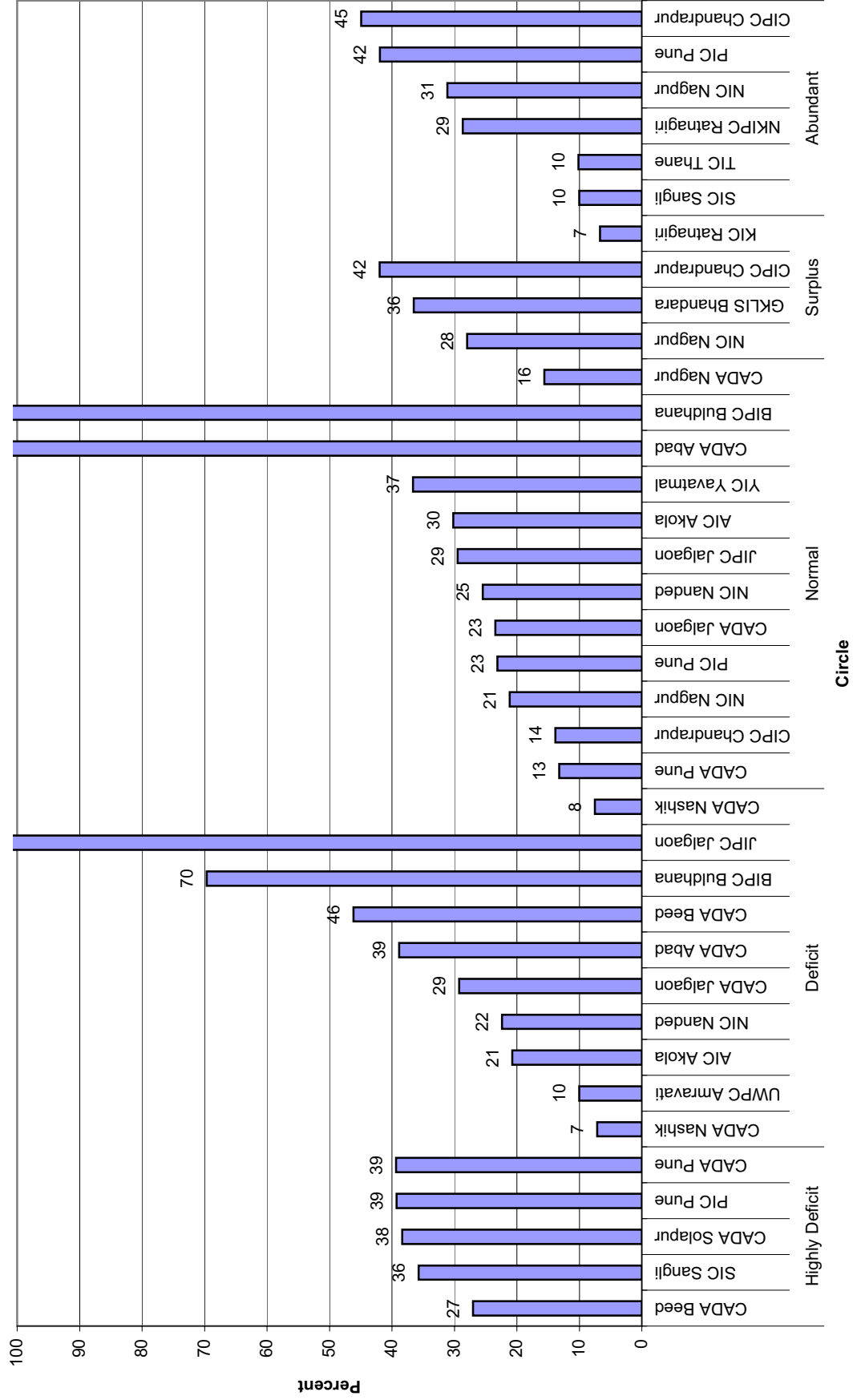
Subbasin/ Plangroup	Project/ Circle	Live Storage on 15th Oct	Designed Live Storage	Percentage Live Storage
Girna	Nagya Sakya	3.990	11.240	35
Manjra	Ghatshil Pargaon	0.000	8.500	0
	Haranbari	33.020	33.020	100
	Kelzar	16.220	16.220	100
	<b>CADA Nashik</b>	<b>53.230</b>	<b>68.980</b>	<b>77</b>
Middle Tapi	Bahula	0.756	16.330	5
	<b>JIPC Jalgaon</b>	<b>0.756</b>	<b>16.330</b>	<b>5</b>
Lower Godavari	Kudala	4.350	4.350	100
Manjra	Loni	8.100	8.380	97
Manjra	Kundrala	10.417	10.417	100
	Pethwadaj	9.030	9.040	100
	Mahalingi	4.785	4.787	100
	Karadkhed	11.010	11.010	100
	<b>NIC Nanded</b>	<b>47.692</b>	<b>47.984</b>	<b>99</b>
	Purna (Tapi)	Chandrabhaga	23.351	23.351
	<b>UWPC Amravati</b>	<b>23.351</b>	<b>23.351</b>	<b>100</b>
<b>Deficit</b>		<b>669.642</b>	<b>998.083</b>	<b>67</b>
<b>Normal</b>				
Penganga	Koradi	15.890	20.700	77
Penganga	Saikheda	27.180	27.184	100
Wardha	Borgaon	6.530	6.610	99
	Adan	67.250	67.250	100
	Ekburji	11.970	11.970	100
	Goki	42.710	42.710	100
	Lower Pus	59.630	59.630	100
	Sonal	16.920	16.920	100
	Waghadi	35.368	35.368	100
	<b>AIC Akola</b>	<b>283.448</b>	<b>288.342</b>	<b>98</b>
	Penganga	Pen Takli	0.731	59.976
	<b>BIPC Buldhana</b>	<b>0.731</b>	<b>59.976</b>	<b>1</b>
Upper Godavari	Ambadi	0.000	9.427	0
	Dheku	0.000	12.170	0
	Kolhi	0.390	3.240	12
	<b>CADA Abad</b>	<b>0.390</b>	<b>24.837</b>	<b>2</b>
Middle Tapi	Karwand	10.410	31.150	33
Panzra	Panzara	35.630	35.630	100
Middle Tapi	Abhora	3.958	6.020	66
	Suki	35.662	39.850	89
	Aner	59.209	59.209	100
	Jamkhedi	12.340	12.340	100
	Malangaon	11.328	11.328	100
	<b>CADA Jalgaon</b>	<b>168.537</b>	<b>195.527</b>	<b>86</b>
Upper Godavari	Adhala	27.610	27.610	100
	Alandi	27.460	27.460	100
	Bhojapur	9.930	10.220	97
	Mandohol	8.780	8.780	100
	<b>CADA Nashik</b>	<b>73.780</b>	<b>74.070</b>	<b>100</b>
Upper Bhima	Visapur	25.120	25.610	98
	<b>CADA Pune</b>	<b>25.120</b>	<b>25.610</b>	<b>98</b>

Subbasin/ Plangroup	Project/ Circle	Live Storage on 15th Oct	Designed Live Storage	Percentage Live Storage	
Wardha	Amalnalla	21.200	21.200	100	
	Dham	62.510	62.510	100	
	Dongargaon	4.440	4.440	100	
	Pothara	34.170	34.720	98	
	<b>CIPC Chandrapur</b>	<b>122.320</b>	<b>122.870</b>	<b>100</b>	
Middle Tapi	Bhokar (Mangrul)	5.505	6.407	86	
	Mor	3.834	7.960	48	
	<b>JIPC Jalgaon</b>	<b>9.339</b>	<b>14.367</b>	<b>65</b>	
Wardha	Jam	24.300	24.300	100	
Wardha	Kar	21.063	21.063	100	
	<b>NIC Nagpur</b>	<b>45.363</b>	<b>45.363</b>	<b>100</b>	
Penganga	Dongargaon	8.799	8.806	100	
Penganga	Nagzari	6.392	6.565	97	
	<b>NIC Nanded</b>	<b>15.191</b>	<b>15.371</b>	<b>99</b>	
Remaining Bhima (Neera)	Mhaswad	8.350	46.210	18	
Remaining Bhima (Neera)	Andhali	7.420	7.420	100	
Upper Bhima	Kasarsai	16.020	16.250	99	
Upper Bhima	Wadiwale	30.390	30.390	100	
	Ranand	4.980	6.420	78	
	Tisangi	24.090	24.460	98	
	Nazare	16.652	16.652	100	
	<b>PIC Pune</b>	<b>107.902</b>	<b>147.802</b>	<b>73</b>	
	Wardha	Nawargaon	12.474	12.470	100
		<b>YIC Yavatmal</b>	<b>12.474</b>	<b>12.470</b>	<b>100</b>
<b>Normal</b>		<b>864.595</b>	<b>1026.605</b>	<b>84</b>	
<b>Surplus</b>					
Middle Wainganga	Bagheda	2.626	4.535	58	
	Betekar Bothli	1.795	3.666	49	
	Bodalkasa	8.730	19.728	44	
	Chandpur	13.932	28.879	48	
	Chandrabhaga	8.260	8.262	100	
	Chorkhamara	13.110	22.044	59	
	Chulband	14.274	21.458	67	
	Kanholibara	19.712	20.485	96	
	Kesar Nalla	3.930	3.930	100	
	Khairbanda	11.912	16.480	72	
	Khekra Nalla	22.140	23.810	93	
	Kolar	31.320	31.320	100	
	Makardhokala-Saiki	51.380	53.822	95	
	Managadh	4.900	7.051	69	
	Mordham	4.953	4.953	100	
	Pandharbodi	12.010	13.135	91	
	Rengepar	1.966	3.565	55	
	Sangrampur	2.150	3.866	56	
	Sorana	3.706	5.732	65	
	Tekepar LIS	0.000	0.000		
	Umri	5.142	5.142	100	
		<b>CADA Nagpur</b>	<b>237.948</b>	<b>301.863</b>	<b>79</b>

Subbasin/ Plangroup	Project/ Circle	Live Storage on 15th Oct	Designed Live Storage	Percentage Live Storage
Middle Wainganga	Chandai	8.952	10.690	84
	Chargaon	17.736	19.866	89
	Labhansarad	7.241	7.351	99
	Pakadigundam	11.804	11.797	100
	<b>CIPC Chandrapur</b>	<b>45.733</b>	<b>49.704</b>	<b>92</b>
Middle Wainganga	Katangi	8.892	9.400	95
	<b>GKLIS Bhandara</b>	<b>8.892</b>	<b>9.400</b>	<b>95</b>
Middle Wainganga	Panchdhara	10.100	10.390	97
	Wunna	11.068	21.642	51
	<b>NIC Nagpur</b>	<b>21.168</b>	<b>32.032</b>	<b>66</b>
<b>Surplus</b>		<b>313.741</b>	<b>392.999</b>	<b>80</b>
<b>Abundant</b>				
Lower Wainganga	Ghorazari	28.923	38.000	76
	Naleshwar	5.790	10.230	57
	<b>CIPC Chandrapur</b>	<b>34.713</b>	<b>48.230</b>	<b>72</b>
Vashishthi	Natuwadi	26.692	27.230	98
	<b>KIC Ratnagiri</b>	<b>26.692</b>	<b>27.230</b>	<b>98</b>
Lower Wainganga	Dongargaon	11.654	12.441	94
	<b>NIC Nagpur</b>	<b>11.654</b>	<b>11.654</b>	<b>100</b>
North Konkan	Hetwane	23.308	144.980	16
	<b>NKIPC Ratnagiri</b>	<b>23.308</b>	<b>144.980</b>	<b>16</b>
Upper Krishna (W)	Uttar mand	2.790	2.790	100
	<b>PIC Pune</b>	<b>2.790</b>	<b>2.790</b>	<b>100</b>
Upper Krishna (W)	Chikotra	37.316	43.060	87
	Chitri	52.730	52.730	100
	Jangamatti	26.150	26.150	100
	Kadvi	69.770	70.670	99
	Kasari	77.956	77.960	100
	Krishna Canals	0.000	0.000	
	Kumbhi	60.177	76.496	79
	Morna (Sangli)	16.640	16.640	100
	Patgaon	79.860	104.772	76
	Yeoti Masoli	7.050	7.050	100
	<b>SIC Sangli</b>	<b>427.649</b>	<b>475.528</b>	<b>90</b>
	Middle Konkan	Wandri	33.940	35.940
North Konkan	Rajanalla Complex	217.470	300.000	72
	<b>TIC Thane</b>	<b>251.410</b>	<b>335.940</b>	<b>75</b>
<b>Abundant</b>		<b>778.216</b>	<b>1046.352</b>	<b>74</b>
<b>Medium Projects</b>		<b>2911.647</b>	<b>3966.798</b>	<b>73</b>



Indicator II: Percentage Evaporation to Live Storage



**Indicator II: Percentage of Evaporation to Live Storage**  
**Medium Projects**

Unit: Mcum

Subbasin/ Plangroup	Project/ Circle	Evaporation	Actual Live Storage	Percentage of Evaporation	
<b>Highly Deficit</b>					
Sina-Bori-Benetura	Benitura	4.774	11.471	42	
	Chandani	4.930	15.160	33	
	Harni	2.340	6.470	36	
	Jakapur	0.896	5.455	16	
	Kada	1.272	2.800	45	
	Kadi	0.000	0.000		
	Khandala	1.390	4.438	31	
	Khasapur	2.720	13.040	21	
	Kurnoor	7.320	32.280	23	
	Mahasangvi	1.750	5.880	30	
	Mehkari	0.000	0.000		
	Ruti	0.000	0.000		
	Sakat	1.890	7.830	24	
	Talwar	0.165	0.000		
	Turori	0.564	6.200	9	
		<b>CADA Beed</b>	<b>30.011</b>	<b>111.024</b>	<b>27</b>
	Upper Krishna (E)	Yeralwadi	7.713	19.600	39
<b>CADA Pune</b>		<b>7.713</b>	<b>19.600</b>	<b>39</b>	
Remaining Bhima + Man	Ashti	12.216	20.600	59	
Remaining Bhima + Man	Budhihal	0.165	0.000		
Sina-Bori-Benetura	Ekrukh	12.569	27.891	45	
	Hingani (Pargaon)	10.744	32.000	34	
	Jawalgaon	3.580	19.110	19	
	Mangi	4.337	14.108	31	
	<b>CADA Solapur</b>	<b>43.611</b>	<b>113.709</b>	<b>38</b>	
Sina-Bori-Benetura	Khairy	2.929	13.740	21	
Upper Krishna (E)	Nher	2.930	11.790	25	
Sina-Bori-Benetura	Sina	7.880	9.460	83	
	<b>PIC Pune</b>	<b>13.739</b>	<b>34.990</b>	<b>39</b>	
Upper Krishna (E)	Basappawadi	0.000	0.000		
Remaining Bhima + Man	Dodda Nalla	0.000	0.000		
	Sankh	0.000	0.000		
Upper Krishna (E)	Siddhewadi	2.190	6.130	36	
	<b>SIC Sangli</b>	<b>2.190</b>	<b>6.130</b>	<b>36</b>	
<b>Highly Deficit</b>		<b>97.264</b>	<b>285.453</b>	<b>34</b>	

Subbasin/ Plangroup	Project/ Circle	Evaporation	Actual Live Storage	Percentage of Evaporation	
<b>Deficit</b>					
Purna (Tapi)	Dnyanganga	1.670	4.690	36	
	Mas	2.280	0.700	326	
	Morna (Akola)	4.600	15.490	30	
	Nirguna	4.580	21.330	21	
	Paldhag	1.070	0.700	153	
	Shahanoor	3.900	46.040	8	
	Uma	2.789	11.680	24	
<b>AIC Akola</b>		<b>20.889</b>	<b>100.630</b>	<b>21</b>	
Purna (Tapi)	Mun	3.020	3.850	78	
	Torna	0.523	0.500	105	
Purna (Tapi)	Utawali	0.490	1.440	34	
<b>BIPC Buldhana</b>		<b>4.033</b>	<b>5.790</b>	<b>70</b>	
Girna	Ajanta Andhari	0.220	1.203	18	
Purna+Dudhna	Dhamna	0.000	0.000		
Girna	Gadadgad	1.892	3.478	54	
Purna+Dudhna	Girija	0.000	0.000		
	Jivrekha	0.830	4.780	17	
	Jui	0.673	0.750	90	
	Kalyan	4.101	11.570	35	
	Kalyan Girija	3.540	8.470	42	
	Karpara	13.342	24.758	54	
	Khelna	1.400	4.610	30	
	Lahuki	1.544	1.959	79	
	Lower Godavari	Masoli	9.184	27.140	34
	Purna+Dudhna	Sukhana	3.450	15.660	22
Upper Dudhana		0.360	0.000		
<b>CADA Abad</b>		<b>40.536</b>	<b>104.378</b>	<b>39</b>	
Manjra	Bindusara	1.670	7.112	23	
	Bodhegaon	1.035	3.721	28	
	Borna	2.840	8.970	32	
	Devarjan	3.935	10.680	37	
	Gharni	12.284	22.457	55	
	Kundalika	10.415	37.690	28	
	Masalga	4.829	4.760	101	
	Raighwan	3.378	9.558	35	
	Renapur	9.774	17.780	55	
	Rui	4.798	7.037	68	
	Sakol	4.423	10.949	40	
	Sangameshwar (Dokewadi)	5.420	15.030	36	

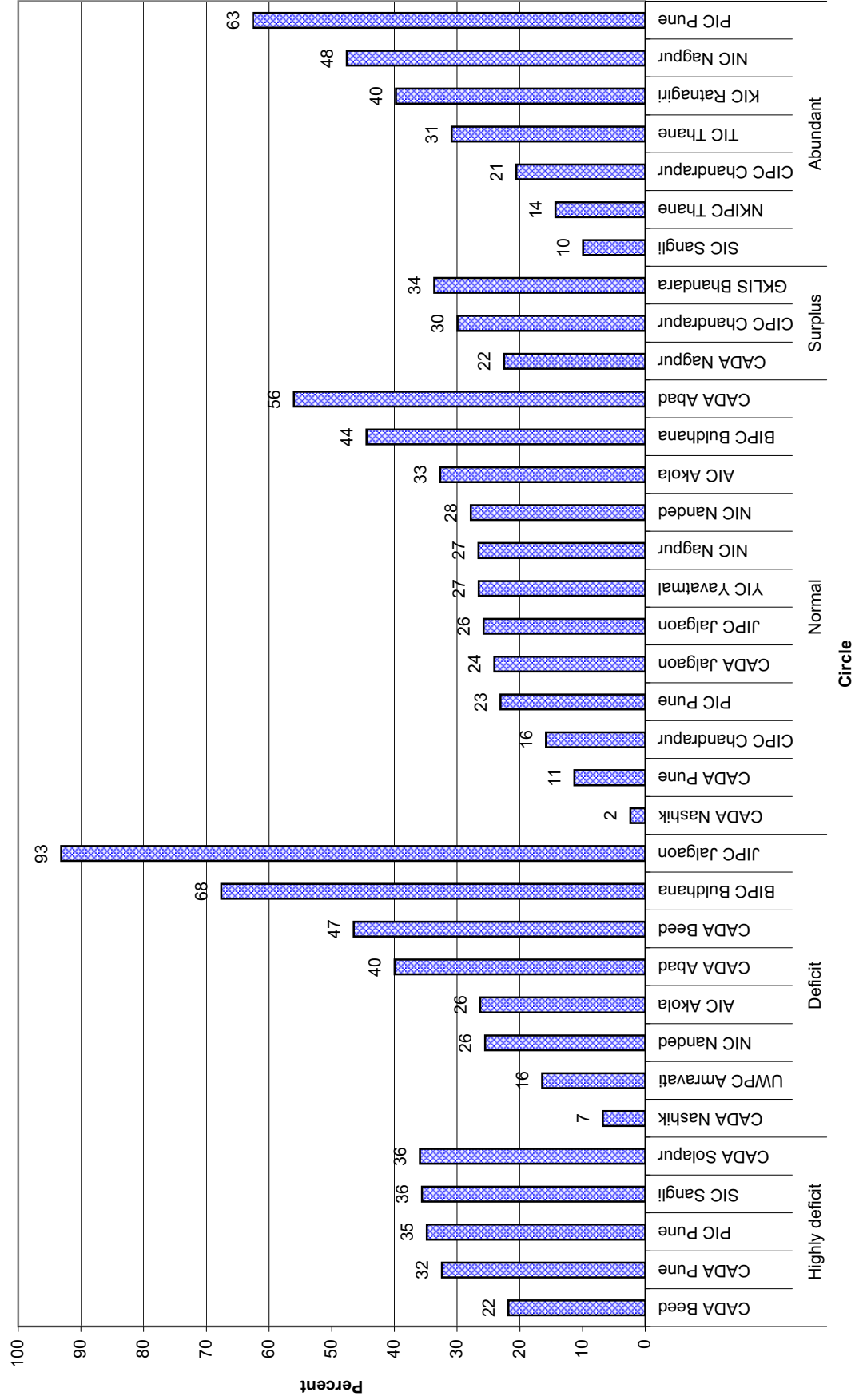
Subbasin/ Plangroup	Project/ Circle	Evaporation	Actual Live Storage	Percentage of Evaporation
	Saraswati	2.890	6.210	47
	Sindphana	3.516	7.356	48
	Tawarja	9.831	12.262	80
	Terna	12.041	19.395	62
	Tiru	8.255	15.290	54
	Van	8.164	19.340	42
	Whati	3.079	8.270	37
	<b>CADA Beed</b>	<b>112.577</b>	<b>243.867</b>	<b>46</b>
Girna	Agnavati	0.567	2.183	26
Middle Tapi (South)	Bhokarbari	0.807	2.779	29
	Bori	7.472	11.357	66
	Burai	2.240	14.210	16
Girna	Hivara	3.700	6.111	61
Middle Tapi (South)	Kanoli	1.266	6.590	19
Girna	Manyad	3.516	20.020	18
Middle Tapi (South)	Rangawali	2.310	12.820	18
	Sonwad	4.150	13.880	30
	Tondapur	0.268	0.000	
	<b>CADA Jalgaon</b>	<b>26.296</b>	<b>89.950</b>	<b>29</b>
Manjra	Ghatshil Pargaon	0.600	0.000	
Girna	Haranbari	1.080	33.020	3
	Kelzar	1.660	16.220	10
	Nagya Sakya	0.470	3.990	12
	<b>CADA Nashik</b>	<b>3.810</b>	<b>53.230</b>	<b>7</b>
Middle Tapi (South)	Bahula	3.563	0.756	471
	<b>JIPC Jalgaon</b>	<b>3.563</b>	<b>0.756</b>	<b>471</b>
Manjra	Karadkhed	3.480	11.010	32
Lower Godavari	Kudala	0.901	4.350	21
Manjra	Kundrala	2.710	10.417	26
	Loni	0.787	8.100	10
	Mahalingi	0.758	4.785	16
	Pethwadaj	2.029	9.030	22
	<b>NIC Nanded</b>	<b>10.665</b>	<b>47.692</b>	<b>22</b>
Purna (Tapi)	Chandrabhaga (Amravati)	2.342	23.351	10
	<b>UWPC Amravati</b>	<b>2.342</b>	<b>23.351</b>	<b>10</b>
<b>Deficit</b>		<b>224.711</b>	<b>669.644</b>	<b>34</b>
<b>Normal</b>				
Penganga	Adan	15.176	67.250	23
Wardha	Borgaon	1.830	6.530	28
Penganga	Ekburji	3.199	11.970	27
	Goki	13.030	42.710	31
	Koradi	3.030	15.890	19
	Lower Pus	21.750	59.630	36
	Saikheda	13.118	27.180	48
	Sonal	4.490	16.920	27
	Waghadi	9.878	35.368	28
	<b>AIC Akola</b>	<b>85.501</b>	<b>283.448</b>	<b>30</b>

Subbasin/ Plangroup	Project/ Circle	Evaporation	Actual Live Storage	Percentage of Evaporation
Penganga	Pen Takli	4.415	0.731	604
	<b>BIPC Buldhana</b>	<b>4.415</b>	<b>0.731</b>	<b>604</b>
Upper Godavari	Ambadi	1.170	0.000	
	Dheku	0.713	0.000	
	Kolhi	0.130	0.390	33
	<b>CADA Abad</b>	<b>2.013</b>	<b>0.390</b>	<b>516</b>
Middle Tapi (Satpuda)	Abhora	1.157	3.958	29
	Aner	14.380	59.209	24
	Jamkhedi	2.991	12.340	24
	Karwand	2.240	10.410	22
	Malangaon	2.454	11.328	22
	Panzara	9.908	35.630	28
Middle Tapi (Satpuda)	Suki	6.382	35.662	18
	<b>CADA Jalgaon</b>	<b>39.512</b>	<b>168.537</b>	<b>23</b>
Upper Godavari	Adhala	3.040	27.610	11
	Alandi	0.000	27.460	0
	Bhojapur	0.969	9.930	10
	Mandohol	1.530	8.780	17
	<b>CADA Nashik</b>	<b>5.539</b>	<b>73.780</b>	<b>8</b>
Upper Bhima	Visapur	3.320	25.120	13
	<b>CADA Pune</b>	<b>3.320</b>	<b>25.120</b>	<b>13</b>
Wardha	Amalnalla	3.854	21.200	18
	Dham	10.270	62.510	16
	Dongargaon (Chandrapur)	0.430	4.440	10
	Pothara	2.380	34.170	7
	<b>CIPC Chandrapur</b>	<b>16.934</b>	<b>122.320</b>	<b>14</b>
Middle Tapi (Satpuda)	Bhokar (Mangrul)	1.824	5.505	33
	Mor	0.928	3.834	24
	<b>JIPC Jalgaon</b>	<b>2.752</b>	<b>9.339</b>	<b>29</b>
Wardha	Jam	6.088	24.300	25
	Kar	3.502	21.063	17
	<b>NIC Nagpur</b>	<b>9.590</b>	<b>45.363</b>	<b>21</b>
Penganga	Dongargaon (Nanded)	2.724	8.799	31
	Nagzari	1.147	6.392	18
	<b>NIC Nanded</b>	<b>3.871</b>	<b>15.191</b>	<b>25</b>
Remaining Bhima (Neera)	Andhali	2.210	7.420	30
Upper Bhima	Kasarsai	3.810	16.020	24
Remaining Bhima (Neera)	Mhaswad	1.050	8.350	13
	Nazare	5.910	16.652	35
	Ranand	1.350	4.980	27
	Tisangi	5.930	24.090	25
	Upper Bhima	Wadiwale	4.708	30.390
	<b>PIC Pune</b>	<b>24.968</b>	<b>107.902</b>	<b>23</b>
Wardha	Nawargaon	4.570	12.474	37
	<b>YIC Yavatmal</b>	<b>4.570</b>	<b>12.474</b>	<b>37</b>
<b>Normal</b>		<b>202.985</b>	<b>864.595</b>	<b>23</b>

Subbasin/ Plangroup	Project/ Circle	Evaporation	Actual Live Storage	Percentage of Evaporation
<b>Surplus</b>				
Middle Wainganga	Bagheda	0.748	2.626	28
	Betekar Bothli	0.716	1.795	40
	Bodalkasa	1.837	8.730	21
	Chandpur	1.661	13.932	12
	Chandrabhaga (Nagpur)	1.474	8.260	18
	Chorkhamara	1.076	13.110	8
	Chulband	5.026	14.274	35
	Kanholibara	1.461	19.712	7
	Kesar Nalla	1.009	3.930	26
	Khairbanda	3.612	11.912	30
	Khekra Nalla	1.792	22.140	8
	Kolar	4.215	31.320	13
	Makardhokala-Saiki	4.197	51.380	8
	Managadh	0.055	4.900	1
	Mordham	0.893	4.953	18
	Pandharbodi	3.007	12.010	25
	Rengepar	0.740	1.966	38
	Sangrapur	0.180	2.150	8
	Sorana	1.802	3.706	49
	Tekepar LIS	0.000	0.000	
	Umri	1.641	5.142	32
	<b>CADA Nagpur</b>	<b>37.142</b>	<b>237.948</b>	<b>16</b>
Middle Wainganga	Chandai	2.949	8.952	33
	Chargaon	9.749	17.736	55
	Labhansarad	3.811	7.241	53
	Pakadigundam	2.685	11.804	23
	<b>CIPC Chandrapur</b>	<b>19.194</b>	<b>45.733</b>	<b>42</b>
Middle Wainganga	Katangi	3.245	8.892	36
	<b>GKLIS Bhandara</b>	<b>3.245</b>	<b>8.892</b>	<b>36</b>
Middle Wainganga	Panchdhara	2.390	10.100	24
	Wunna	3.534	11.068	32
	<b>NIC Nagpur</b>	<b>5.924</b>	<b>21.168</b>	<b>28</b>
<b>Surplus</b>		<b>65.505</b>	<b>313.741</b>	<b>21</b>
<b>Abundant</b>				
Lower Wainganga	Ghorazari	10.250	28.923	35
	Naleshwar	5.353	5.790	92
	<b>CIPC Chandrapur</b>	<b>15.603</b>	<b>34.713</b>	<b>45</b>
Vashishthi	Natuwadi	1.790	26.692	7
	<b>KIC Ratnagiri</b>	<b>1.790</b>	<b>26.692</b>	<b>7</b>
Lower Wainganga	Dongargaon	3.627	11.654	31
	<b>NIC Nagpur</b>	<b>3.627</b>	<b>11.654</b>	<b>31</b>
North Konkan	Hetwane	6.686	23.308	29
	<b>NKIPC Ratnagiri</b>	<b>6.686</b>	<b>23.308</b>	<b>29</b>
Upper Krishna (W)	Uttar mand	1.170	2.790	42
	<b>PIC Pune</b>	<b>1.170</b>	<b>2.790</b>	<b>42</b>

Subbasin/ Plangroup	Project/ Circle	Evaporation	Actual Live Storage	Percentage of Evaporation
Upper Krishna (W)	Chikotra	2.870	37.316	8
	Chitri	3.090	52.730	6
	Jangamatti	3.730	26.150	14
	Kadvi	4.985	69.770	7
	Kasari	5.560	77.956	7
	Krishna Canal & Khodshi l	0.000	0.000	
	Kumbhi	5.341	60.177	9
	Morna (Sangli)	6.235	16.640	37
	Patgaon	10.210	79.860	13
	Yeoti Masoli	0.810	7.050	11
		<b>SIC Sangli</b>	<b>42.831</b>	<b>427.649</b>
North Konkan	Rajanalla Complex	19.780	217.470	9
Middle Konkan	Wandri	5.760	33.940	17
	<b>TIC Thane</b>	<b>25.540</b>	<b>251.410</b>	<b>10</b>
<b>Abundant</b>		<b>97.247</b>	<b>778.216</b>	<b>12</b>
<b>Medium Projects</b>		<b>687.712</b>	<b>2911.649</b>	<b>24</b>

**Indicator III: Percent of Evaporation to Gross Utilisation**





**Indicator III: Percentage of Evaporation to Gross Utilisation  
Medium Projects**

Unit: Mcum

Subbasin/ Plangroup	Project/ Circle	Evaporation	Gross Utilisation	Percent of Evaporation
<b>Highly deficit</b>				
Sina-Bori-Benetura	Benitura	4.774	12.730	37
	Chandani	4.930	14.130	35
	Harni	2.340	8.095	29
	Jakapur	0.896	1.750	51
	Kada	1.272	2.940	43
	Kadi	0.000	0.000	
	Khandala	1.390	4.158	33
	Khasapur	2.720	11.390	24
	Kurnoor	7.320	62.490	12
	Mahasangvi	1.750	7.030	25
	Mehkari	0.000	0.000	
	Ruti	0.000	0.000	
	Sakat	1.890	7.980	24
	Talwar	0.165	0.500	33
	Turori	0.564	4.441	13
	<b>CADA Beed</b>	<b>30.011</b>	<b>137.634</b>	<b>22</b>
Upper Krishna (E)	Yeralwadi	7.120	21.950	32
	<b>CADA Pune</b>	<b>7.120</b>	<b>21.950</b>	<b>32</b>
Remaining Bhima + Mar	Ashti	5.620	22.580	25
	Budhihal	0.170	0.200	85
Sina-Bori-Benetura	Ekrukha	12.569	21.890	57
	Hingani (Pargaon)	10.744	25.060	43
	Jawalgaon	3.580	16.220	22
	Mangi	4.337	17.100	25
	<b>CADA Solapur</b>	<b>37.020</b>	<b>103.050</b>	<b>36</b>
Sina-Bori-Benetura	Khairy	2.930	10.800	27
Upper Krishna (E)	Nher	2.930	8.700	34
Sina-Bori-Benetura	Sina	7.880	19.940	40
	<b>PIC Pune</b>	<b>13.740</b>	<b>39.440</b>	<b>35</b>
Remaining Bhima + Mar	Basappawadi	0.000	0.000	
	Dodda Nalla	0.000	0.000	
Upper Krishna (E)	Sankh	0.000	0.000	
	Siddhewadi	2.190	6.150	36
	<b>SIC Sangli</b>	<b>2.190</b>	<b>6.150</b>	<b>36</b>
<b>Highly deficit</b>		<b>90.081</b>	<b>308.224</b>	<b>29</b>

Subbasin/ Plangroup	Project/ Circle	Evaporation	Gross Utilisation	Percent of Evaporation
<b>Deficit</b>				
Purna (Tapi)	Dnyanganga	1.670	5.890	28
	Mas	2.280	2.580	88
	Morna (Akola)	4.600	13.310	35
	Nirguna	4.580	21.457	21
	Paldhag	1.070	1.110	96
	Shahanoor	3.900	25.020	16
	Uma	2.789	9.987	28
	<b>AIC Akola</b>	<b>20.889</b>	<b>79.354</b>	<b>26</b>
Purna (Tapi)	Mun	3.020	4.370	69
	Torna	0.523	0.563	93
	Utawali	0.490	1.030	48
<b>BIPC Buldhana</b>	<b>4.033</b>	<b>5.963</b>	<b>68</b>	
Purna+Dudhna	Dhamna	0.000	0.000	
	Girija	0.000	1.640	0
	Kalyan	4.101	9.250	44
Girna	Gadadgad	1.892	4.730	40
Purna+Dudhna	Kalyan Girija	3.540	5.940	60
	Karpara	13.342	25.544	52
	Khelna	1.400	4.980	28
	Lahuki	1.544	2.450	63
	Sukhana	3.450	11.290	31
	Upper Dudhana	0.360	0.827	44
	Lower Godavari	Masoli	9.184	27.150
Purna+Dudhna	Jivrekha	0.830	5.590	15
	Jui	0.673	0.813	83
Girna	Ajanta Andhari	0.220	1.170	19
<b>CADA Abad</b>		<b>40.536</b>	<b>101.374</b>	<b>40</b>

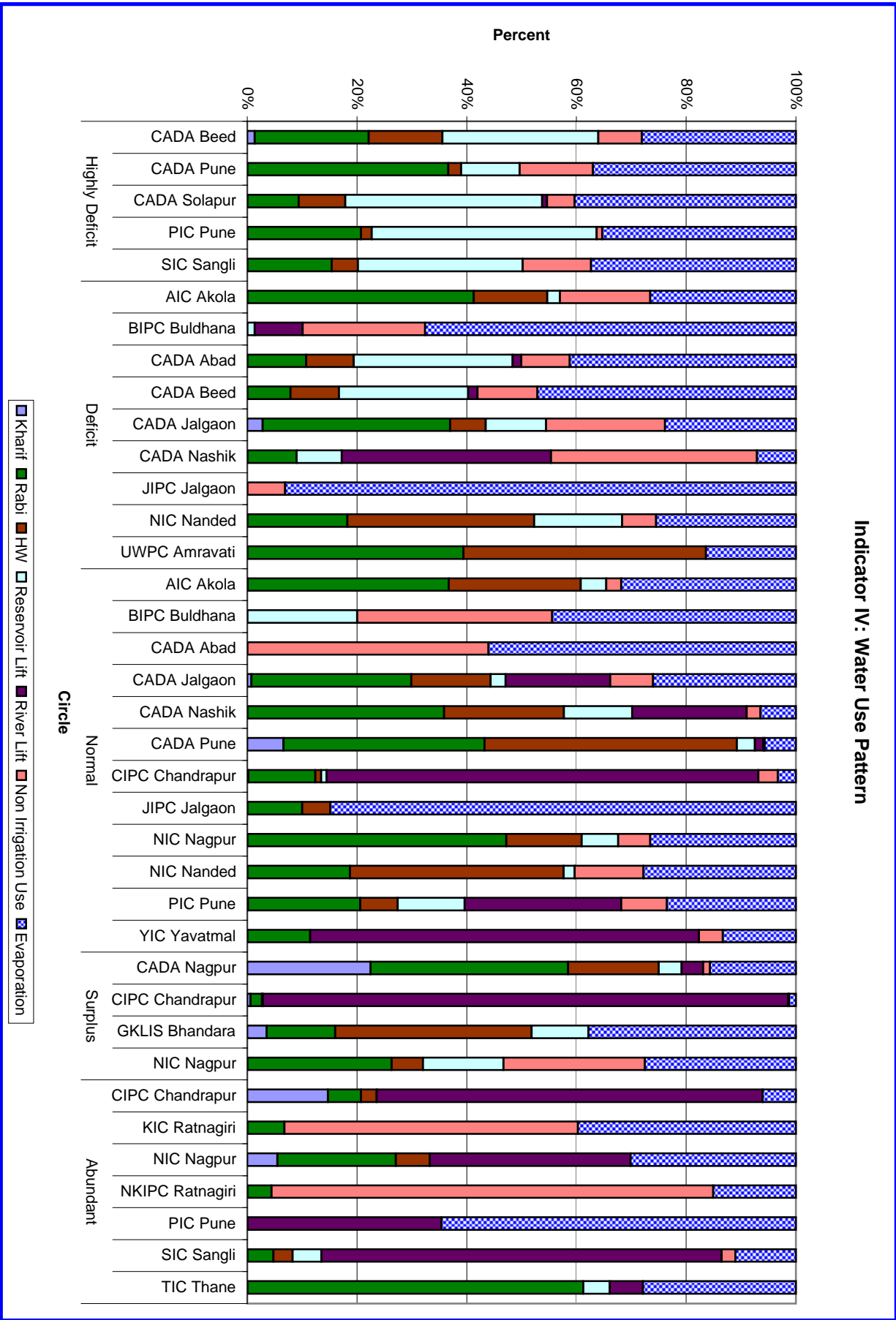
Subbasin/ Plangroup	Project/ Circle	Evaporation	Gross Utilisation	Percent of Evaporation
Manjra	Rui	4.798	7.711	62
	Sakol	4.423	11.603	38
	Sangameshwar (Dokewadi)	5.420	13.793	39
	Saraswati	2.890	6.610	44
	Sindphana	3.516	7.908	44
	Renapur	9.774	16.340	60
	Van	8.164	18.306	45
	Borna	2.840	9.270	31
	Tiru	8.255	17.559	47
	Terna	12.041	22.350	54
	Whati	3.079	8.790	35
	Raighwan	3.378	9.535	35
	Masalga	4.829	7.864	61
	Kundalika	10.415	21.305	49
	Devarjan	3.935	8.695	45
	Bodhegaon	1.035	2.875	36
	Tawarja	9.831	20.809	47
	Bindusara	1.670	7.336	23
	Gharni	12.284	23.424	52
		<b>CADA Beed</b>	<b>112.577</b>	<b>242.083</b>
Middle Tapi (South)	Bori	7.472	20.177	37
Girna	Agnavati	0.567	1.675	34
	Hivara	3.700	8.280	45
Middle Tapi (South)	Manyad	3.516	22.568	16
	Bhokarbari	0.807	3.061	26
	Burai	2.240	16.760	13
	Kanoli	1.266	7.416	17
	Rangawali	2.310	128.960	2
	Sonwad	4.150	16.840	25
	Tondapur	0.268	1.580	17
		<b>CADA Jalgaon</b>	<b>26.296</b>	<b>227.317</b>
Girna	Nagya Sakya	0.470	6.650	7
	Ghatshil Pargaon	0.600	1.900	32
Manjra	Haranbari	1.080	36.240	3
	Kelzar	1.660	11.450	14
	<b>CADA Nashik</b>	<b>3.810</b>	<b>56.240</b>	<b>7</b>
Middle Tapi (South)	Bahula	3.563	3.825	93
	<b>JIPC Jalgaon</b>	<b>3.563</b>	<b>3.825</b>	<b>93</b>

Subbasin/ Plangroup	Project/ Circle	Evaporation	Gross Utilisation	Percent of Evaporation
Lower Godavari Manjra	Kudala	0.901	4.501	20
	Mahalingi	0.758	4.997	15
	Loni	0.787	3.970	20
	Kundrala	2.710	8.856	31
	Pethwadaj	2.029	10.539	19
	Karadkhed	3.480	8.929	39
	<b>NIC Nanded</b>	<b>10.665</b>	<b>41.792</b>	<b>26</b>
Purna (Tapi)	Chandrabhaga (Amravati)	2.342	14.250	16
	<b>UWPC Amravati</b>	<b>2.342</b>	<b>14.250</b>	<b>16</b>
<b>Deficit</b>		<b>224.711</b>	<b>772.198</b>	<b>29</b>
<b>Normal</b>				
Penganga	Koradi	3.03	15.12	20
	Lower Pus	21.750	61.907	35
Wardha	Borgaon	1.830	7.110	26
	Goki	13.030	46.990	28
Penganga	Ekburji	3.199	11.300	28
	Waghadi	9.878	29.500	33
	Sonal	4.490	15.108	30
	Saikheda	13.118	27.843	47
	<b>AIC Akola</b>	<b>70.325</b>	<b>214.878</b>	<b>33</b>
Penganga	Pen Takli	4.415	9.931	44
	<b>BIPC Buldhana</b>	<b>4.415</b>	<b>9.931</b>	<b>44</b>
Upper Godavari	Dheku	0.713	0.842	85
	Kolhi	0.130	0.369	35
	Ambadi	1.170	2.380	49
	<b>CADA Abad</b>	<b>2.013</b>	<b>3.591</b>	<b>56</b>
Middle Tapi (Satpuda)	Aner	14.380	58.280	25
	Panzara	9.908	38.655	26
Middle Tapi (Satpuda)	Suki	6.382	32.210	20
	Malangaon	2.454	9.054	27
	Jamkhedi	2.991	12.813	23
	Abhora	1.157	4.825	24
	Karwand	2.240	8.410	27
	<b>CADA Jalgaon</b>	<b>39.512</b>	<b>164.247</b>	<b>24</b>
	Upper Godavari	Mandohol	1.530	25.360
Bhojapur		0.969	10.765	9
Alandi		0.000	107.581	0
Adhala		3.040	89.180	3
<b>CADA Nashik</b>		<b>5.539</b>	<b>232.886</b>	<b>2</b>
Upper Bhima	Visapur	3.320	29.370	11
	<b>CADA Pune</b>	<b>3.320</b>	<b>29.370</b>	<b>11</b>

Subbasin/ Plangroup	Project/ Circle	Evaporation	Gross Utilisation	Percent of Evaporation
Wardha	Dham	10.270	43.670	24
	Amalnalla	3.854	18.757	21
	Pothara	2.380	40.510	6
	Dongargaon (Chandrapur)	0.430	3.960	11
	<b>CIPC Chandrapur</b>	<b>16.934</b>	<b>106.897</b>	<b>16</b>
Middle Tapi (Satpuda)	Bhokar (Mangrul)	1.824	6.281	29
	Mor	0.353	2.171	16
	<b>JIPC Jalgaon</b>	<b>2.177</b>	<b>8.452</b>	<b>26</b>
Wardha	Jam	6.088	18.962	32
	Kar	3.502	17.091	20
	<b>NIC Nagpur</b>	<b>9.590</b>	<b>36.053</b>	<b>27</b>
Penganga	Dongargaon (Nanded)	2.724	8.170	33
	Nagzari	1.147	5.757	20
	<b>NIC Nanded</b>	<b>3.871</b>	<b>13.927</b>	<b>28</b>
Remaining Bhima (Neera)	Mhaswad	1.050	9.340	11
	Ranand	1.350	3.730	36
	Nazare	5.910	19.190	31
	Tisangi	5.930	21.530	28
Upper Bhima	Wadiwale	4.708	33.410	14
Remaining Bhima (Neera)	Andhali	2.210	3.370	66
Upper Bhima	Kasarsai	3.810	17.580	22
	<b>PIC Pune</b>	<b>24.968</b>	<b>108.150</b>	<b>23</b>
Penganga	Adan	15.176	64.430	24
Wardha	Nawargaon	4.570	9.960	46
	<b>YIC Yavatmal</b>	<b>19.746</b>	<b>74.390</b>	<b>27</b>
<b>Normal</b>		<b>202.410</b>	<b>1002.772</b>	<b>20</b>

Subbasin/ Plangroup	Project/ Circle	Evaporation	Gross Utilisation	Percent of Evaporation	
<b>Surplus</b>					
Middle Wainganga	Kolar	4.215	18.21	23	
	Tekepar LIS	0.000	11.746	0	
	Sorana	1.802	4.988	36	
	Pandharbodi	3.007	12.592	24	
	Mordham	0.893	3.856	23	
	Makardhokala-Saiki	16.788	30.798	55	
	Wunna	3.534	12.698	28	
	Bagheda	0.748	2.770	27	
	Khekra Nalla	1.792	15.549	12	
	Umri	1.641	3.899	42	
	Betekar Bothli	0.716	3.850	19	
	Chandpur	1.661	10.094	16	
	Chandrabhaga (Nagpur)	1.474	6.476	23	
	Chulband	5.026	21.345	24	
	Kanholibara	1.461	16.178	9	
	Kesar Nalla	1.009	3.250	31	
	Chorkhamara	1.076	15.960	7	
	Middle Wainganga	Khairbanda	3.612	14.146	26
		Managadh	0.055	5.873	1
		Rengepar	0.740	3.479	21
Sangrampur		0.180	3.781	5	
Bodalkasa		1.837	15.286	12	
<b>CADA Nagpur</b>		<b>53.267</b>	<b>236.824</b>	<b>22</b>	
Middle Wainganga		Pakadigundam	2.685	11.150	24
	Panchdhara	2.390	9.010	27	
	Chargaon	9.749	27.685	35	
	Chandai	2.949	13.523	22	
	Labhansarad	3.811	10.709	36	
	<b>CIPC Chandrapur</b>	<b>21.584</b>	<b>72.077</b>	<b>30</b>	
	Katangi	3.245	9.640	34	
Middle Wainganga	<b>GKLIS Bhandara</b>	<b>3.245</b>	<b>9.640</b>	<b>34</b>	
<b>Surplus</b>		<b>78.096</b>	<b>318.541</b>	<b>25</b>	

Subbasin/ Plangroup	Project/ Circle	Evaporation	Gross Utilisation	Percent of Evaporation	
<b>Abundant</b>					
Lower Wainganga	Ghorazari	10.25	56.239	18	
	Naleshwar	5.353	19.706	27	
	<b>CIPC Chandrapur</b>	<b>15.603</b>	<b>75.945</b>	<b>21</b>	
Vashishthi	Natuwadi	1.790	4.500	40	
	<b>KIC Ratnagiri</b>	<b>1.790</b>	<b>4.500</b>	<b>40</b>	
Lower Wainganga	Dongargaon	3.627	7.623	48	
	<b>NIC Nagpur</b>	<b>3.627</b>	<b>7.623</b>	<b>48</b>	
North Konkan	Hetwane	6.670	46.620	14	
	<b>NKIPC Thane</b>	<b>6.670</b>	<b>46.620</b>	<b>14</b>	
Upper Krishna (W)	Uttar mand	1.170	1.870	63	
	<b>PIC Pune</b>	<b>1.170</b>	<b>1.870</b>	<b>63</b>	
Upper Krishna (W)	Yeoti Masoli	0.810	6.070	13	
	Patgaon	12.500	70.700	18	
	Morna (Sangli)	6.235	15.040	41	
	Kumbhi	5.341	34.006	16	
	Krishna Canal & Khodshi	0.000	143.710	0	
	Kasari	5.560	55.570	10	
	Kadvi	4.985	28.332	18	
	Jangamatti	3.730	28.521	13	
	Chikotra	2.870	24.677	12	
	Chitri	3.090	49.170	6	
		<b>SIC Sangli</b>	<b>45.121</b>	<b>455.796</b>	<b>10</b>
	North Konkan	Rajanalla Complex	19.780	46.970	42
	Middle Konkan	Wandri	3.350	27.950	12
<b>TIC Thane</b>		<b>23.130</b>	<b>74.920</b>	<b>31</b>	
<b>Abundant</b>		<b>97.111</b>	<b>667.274</b>	<b>15</b>	
<b>Medium Projects</b>		<b>692.409</b>	<b>3069.009</b>	<b>23</b>	





**Indicator IV : Water Use Pattern**  
**Medium Projects**

Unit: Mcum

Project/ Circle	On canals			Reservoir Lift	River Lift	Non Irrigation Use	Evaporation	Gross Utilisation
	Kharif	Rabi	HW					
<b>Highly Deficit</b>								
Benitura	0.000	0.830	0.667	1.977	0.000	0.818	4.774	9.066
Chandani	0.000	2.080	0.000	5.570	0.000	0.950	4.930	13.530
Harni	0.000	2.005	2.220	1.530	0.000	0.000	2.340	8.095
Jakapur	0.000	0.678	0.100	2.472	0.000	0.000	0.896	4.146
Kada	0.000	0.000	0.000	0.730	0.000	0.220	1.272	2.222
Kadi	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Khandala	0.000	0.650	0.570	1.548	0.000	0.000	1.390	4.158
Khasapur	0.000	3.010	0.000	3.810	0.000	1.350	2.720	10.890
Kurnoor	1.400	7.430	10.430	5.390	0.000	3.100	7.320	35.070
Mahasangvi	0.000	3.210	0.000	1.390	0.000	0.680	1.750	7.030
Mehkari	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Ruti	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sakat	0.000	2.330	0.170	3.440	0.000	0.000	1.890	7.830
Talwar	0.000	0.000	0.000	0.162	0.000	0.000	0.165	0.327
Turori	0.000	0.000	0.172	2.352	0.000	1.353	0.564	4.441
<b>CADA Beed</b>	<b>1.400</b>	<b>22.223</b>	<b>14.329</b>	<b>30.371</b>	<b>0.000</b>	<b>8.471</b>	<b>30.011</b>	<b>106.805</b>
Yeralwadi	0.000	7.631	0.490	2.215	0.000	2.790	7.713	20.839
<b>CADA Pune</b>	<b>0.000</b>	<b>7.631</b>	<b>0.490</b>	<b>2.215</b>	<b>0.000</b>	<b>2.790</b>	<b>7.713</b>	<b>20.839</b>
Ashti	0.000	0.000	0.000	16.327	0.000	0.590	12.216	29.133
Budhihal	0.000	0.000	0.000	0.030	0.000	0.000	0.165	0.195
Ekrukh	0.000	0.500	0.000	3.451	0.000	3.539	12.569	20.059
Hingani (Pargaon)	0.000	3.590	3.110	7.088	0.000	0.930	10.744	25.462
Jawalgaon	0.000	1.388	2.566	8.522	0.000	0.350	3.580	16.406
Mangi	0.000	4.634	3.467	3.328	0.993	0.000	4.337	16.759
<b>CADA Solapur</b>	<b>0.000</b>	<b>10.112</b>	<b>9.143</b>	<b>38.746</b>	<b>0.993</b>	<b>5.409</b>	<b>43.611</b>	<b>108.014</b>
Khairy	0.000	1.370	0.760	5.740	0.000	0.000	2.929	10.799
Nher	0.000	4.850	0.000	0.230	0.000	0.160	2.930	8.170
Sina	0.000	1.830	0.000	9.986	0.000	0.240	7.880	19.936
<b>PIC Pune</b>	<b>0.000</b>	<b>8.050</b>	<b>0.760</b>	<b>15.956</b>	<b>0.000</b>	<b>0.400</b>	<b>13.739</b>	<b>38.905</b>
Basappawadi	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Dodda Nalla	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sankh	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Siddhewadi	0.000	0.900	0.280	1.760	0.000	0.730	2.190	5.860
<b>SIC Sangli</b>	<b>0.000</b>	<b>0.900</b>	<b>0.280</b>	<b>1.760</b>	<b>0.000</b>	<b>0.730</b>	<b>2.190</b>	<b>5.860</b>
<b>Highly Deficit</b>	<b>1.400</b>	<b>48.916</b>	<b>25.002</b>	<b>89.048</b>	<b>0.993</b>	<b>17.800</b>	<b>97.264</b>	<b>280.423</b>

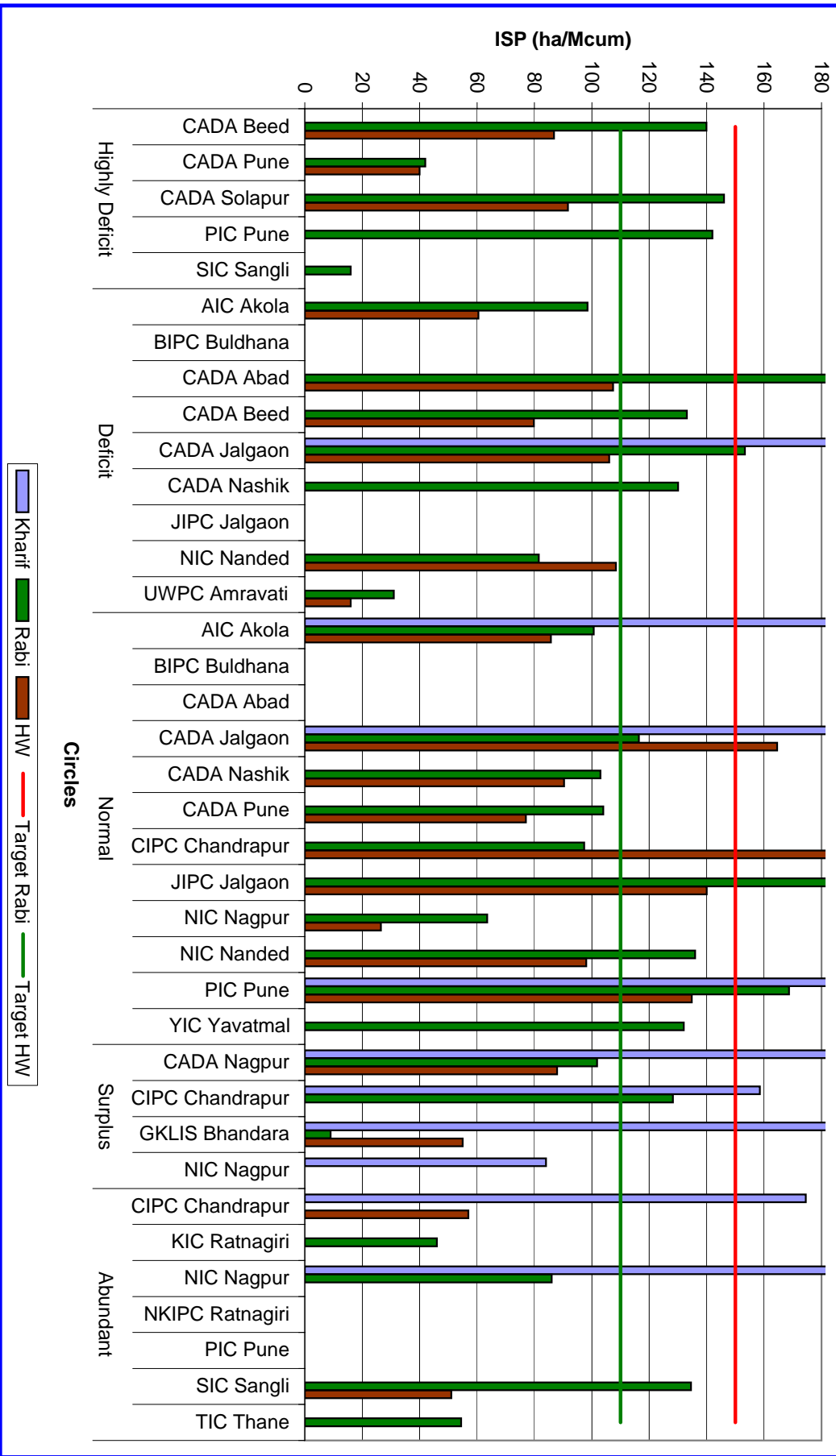
Project/ Circle	On canals			Reservoir Lift	River Lift	Non Irrigation Use	Evaporation	Gross Utilisation
	Kharif	Rabi	HW					
<b>Deficit</b>								
Dnyanganga	0.000	0.000	0.000	0.000	0.000	4.220	1.670	5.890
Mas	0.000	0.000	0.000	0.000	0.000	0.300	2.280	2.580
Morna (Akola)	0.000	6.530	1.820	0.000	0.000	0.360	4.600	13.310
Nirguna	0.000	15.623	1.254	0.000	0.000	0.000	4.580	21.457
Paldhag	0.000	0.000	0.000	0.000	0.000	0.040	1.070	1.110
Shahanoor	0.000	5.880	6.420	0.230	0.000	7.850	3.900	24.280
Uma	0.000	4.383	1.060	1.565	0.000	0.190	2.789	9.987
<b>AIC Akola</b>	<b>0.000</b>	<b>32.416</b>	<b>10.554</b>	<b>1.795</b>	<b>0.000</b>	<b>12.960</b>	<b>20.889</b>	<b>78.614</b>
Mun	0.000	0.000	0.000	0.020	0.000	1.330	3.020	4.370
Torna	0.000	0.000	0.000	0.000	0.040	0.000	0.523	0.563
Utawali	0.000	0.000	0.000	0.060	0.480	0.000	0.490	1.030
<b>BIPC Buldhana</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.080</b>	<b>0.520</b>	<b>1.330</b>	<b>4.033</b>	<b>5.963</b>
Ajanta Andhari	0.000	0.000	0.000	0.250	0.000	0.700	0.220	1.170
Dhamna	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Gadadgad	0.000	1.911	0.000	0.486	0.000	0.000	1.892	4.289
Girija	0.000	0.000	0.000	0.920	0.000	0.720	0.000	1.640
Jivrekha	0.000	1.689	0.000	1.010	0.000	1.541	0.830	5.070
Jui	0.000	0.000	0.000	0.000	0.000	0.140	0.673	0.813
Kalyan	0.000	0.314	0.570	1.949	0.000	2.140	4.101	9.074
Kalyan Girija	0.000	0.360	0.280	1.760	0.000	0.000	3.540	5.940
Karpara	0.000	0.787	2.785	8.630	0.000	0.000	13.342	25.544
Khelna	0.000	0.000	0.000	1.880	0.000	1.700	1.400	4.980
Lahuki	0.000	0.000	0.000	0.262	0.000	0.000	1.544	1.806
Masoli	0.000	1.906	4.404	8.686	1.550	1.420	9.184	27.150
Sukhana	0.000	3.550	0.480	2.340	0.000	0.280	3.450	10.100
Upper Dudhana	0.000	0.000	0.000	0.290	0.000	0.000	0.360	0.650
<b>CADA Abad</b>	<b>0.000</b>	<b>10.517</b>	<b>8.519</b>	<b>28.463</b>	<b>1.550</b>	<b>8.641</b>	<b>40.536</b>	<b>98.226</b>
Bindusara	0.000	2.144	0.000	0.000	0.000	2.922	1.670	6.736
Bodhegaon	0.000	0.000	0.840	0.390	0.000	0.000	1.035	2.265
Borna	0.000	0.000	0.340	3.460	0.000	2.630	2.840	9.270
Devarjan	0.000	0.000	1.130	3.630	0.000	0.000	3.935	8.695
Gharni	0.000	3.860	1.500	4.210	0.000	1.570	12.284	23.424
Kundalika	0.000	2.900	4.800	2.950	0.000	0.240	10.415	21.305
Masalga	0.000	0.000	0.000	0.517	0.000	2.518	4.829	7.864
Raighwan	0.000	0.000	2.050	2.950	0.000	1.157	3.378	9.535
Renapur	0.000	0.000	0.000	5.630	0.000	0.936	9.774	16.340
Rui	0.000	0.000	0.000	1.594	0.000	1.319	4.798	7.711
Sakol	0.000	0.000	0.000	6.810	0.000	0.370	4.423	11.603
Sangameshwar	0.000	0.000	0.000	4.300	4.073	0.000	5.420	13.793
Saraswati	0.000	1.100	1.150	1.470	0.000	0.000	2.890	6.610
Sindhphana	0.000	1.975	0.817	0.350	0.000	1.250	3.516	7.908
Tawarja	0.000	0.950	3.400	4.540	0.000	2.088	9.831	20.809
Terna	0.000	2.016	2.305	2.262	0.000	3.726	12.041	22.350
Tiru	0.000	2.050	0.000	4.860	0.000	2.394	8.255	17.559
Van	0.000	1.670	1.300	2.520	0.000	2.660	8.164	16.314
Whati	0.000	0.101	1.440	3.810	0.000	0.360	3.079	8.790
<b>CADA Beed</b>	<b>0.000</b>	<b>18.766</b>	<b>21.072</b>	<b>56.253</b>	<b>4.073</b>	<b>26.140</b>	<b>112.577</b>	<b>238.881</b>

Project/ Circle	On canals			Reservoir Lift	River Lift	Non Irrigation Use	Evaporation	Gross Utilisation
	Kharif	Rabi	HW					
Agnavati	0.000	0.000	0.000	0.120	0.000	0.920	0.567	1.607
Bhokarbari	0.000	0.000	0.000	1.320	0.000	0.934	0.807	3.061
Bori	0.000	0.000	0.000	1.350	0.000	11.355	7.472	20.177
Burai	0.000	12.680	0.000	0.000	0.000	1.840	2.240	16.760
Hivara	0.000	1.016	0.000	0.780	0.000	1.631	3.700	7.127
Kanoli	0.000	4.305	0.000	0.140	0.000	1.705	1.266	7.416
Manyad	0.000	8.279	0.544	7.837	0.000	2.392	3.516	22.568
Rangawali	2.260	1.980	6.570	0.000	0.000	0.000	2.310	13.120
Sonwad	0.790	9.370	0.000	0.590	0.000	1.940	4.150	16.840
Tondapur	0.000	0.000	0.000	0.000	0.000	1.114	0.268	1.382
<b>CADA Jalgaon</b>	<b>3.050</b>	<b>37.630</b>	<b>7.114</b>	<b>12.137</b>	<b>0.000</b>	<b>23.831</b>	<b>26.296</b>	<b>110.058</b>
Ghatshil Pargaon	0.000	0.000	0.000	1.228	0.000	0.072	0.600	1.900
Haranbari	0.000	0.450	0.000	0.900	16.600	17.210	1.080	36.240
Kelzar	0.000	0.000	0.000	0.450	3.840	2.860	1.660	8.810
Nagya Sakya	0.000	4.360	0.000	1.820	0.000	0.000	0.470	6.650
<b>CADA Nashik</b>	<b>0.000</b>	<b>4.810</b>	<b>0.000</b>	<b>4.398</b>	<b>20.440</b>	<b>20.142</b>	<b>3.810</b>	<b>53.600</b>
Bahula	0.000	0.000	0.000	0.000	0.000	0.262	3.563	3.825
<b>JIPC Jalgaon</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.262</b>	<b>3.563</b>	<b>3.825</b>
Karadhed	0.000	0.000	3.321	0.640	0.000	1.488	3.480	8.929
Kudala	0.000	1.500	0.671	1.429	0.000	0.000	0.901	4.501
Kundrala	0.000	1.780	2.172	1.398	0.000	0.796	2.710	8.856
Loni	0.000	2.000	1.183	0.000	0.000	0.000	0.787	3.970
Mahalingi	0.000	0.000	1.608	2.571	0.000	0.060	0.758	4.997
Pethwadaj	0.000	2.340	5.260	0.680	0.000	0.230	2.029	10.539
<b>NIC Nanded</b>	<b>0.000</b>	<b>7.620</b>	<b>14.215</b>	<b>6.718</b>	<b>0.000</b>	<b>2.574</b>	<b>10.665</b>	<b>41.792</b>
Chandrabhaga (Amr:	0.000	5.612	6.296	0.000	0.000	0.000	2.342	14.250
<b>UWPC Amravati</b>	<b>0.000</b>	<b>5.612</b>	<b>6.296</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>2.342</b>	<b>14.250</b>
<b>Deficit</b>	<b>3.050</b>	<b>117.371</b>	<b>67.770</b>	<b>109.844</b>	<b>26.583</b>	<b>95.880</b>	<b>224.711</b>	<b>645.209</b>
<b>Normal</b>								
Adan	0.000	19.890	18.604	0.860	0.000	3.070	15.176	57.600
Borgaon	0.030	4.190	1.050	0.010	0.000	0.000	1.830	7.110
Ekburji	0.000	4.760	0.586	0.940	0.000	1.880	3.199	11.365
Goki	0.000	15.220	14.520	1.530	0.000	1.928	13.030	46.228
Koradi	0.000	8.100	1.390	2.490	0.000	0.110	3.030	15.120
Lower Pus	0.000	18.294	18.304	3.500	0.000	0.059	21.750	61.907
Saikheda	0.000	8.165	2.350	1.350	0.000	0.150	13.118	25.133
Sonal	0.060	7.900	0.900	1.660	0.000	0.078	4.490	15.088
Waghadi	0.000	11.818	6.761	0.186	0.000	0.000	9.878	28.643
<b>AIC Akola</b>	<b>0.090</b>	<b>98.337</b>	<b>64.465</b>	<b>12.526</b>	<b>0.000</b>	<b>7.275</b>	<b>85.501</b>	<b>268.194</b>
Pen Takli	0.000	0.000	0.000	1.985	0.000	3.531	4.415	9.931
<b>BIPC Buldhana</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>1.985</b>	<b>0.000</b>	<b>3.531</b>	<b>4.415</b>	<b>9.931</b>
Ambadi	0.000	0.000	0.000	0.000	0.000	1.210	1.170	2.380
Dheku	0.000	0.000	0.000	0.000	0.000	0.130	0.713	0.843
Kolhi	0.000	0.000	0.000	0.000	0.000	0.239	0.130	0.369
<b>CADA Abad</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>1.579</b>	<b>2.013</b>	<b>3.592</b>

Project/ Circle	On canals			Reservoir Lift	River Lift	Non Irrigation Use	Evaporation	Gross Utilisation
	Kharif	Rabi	HW					
Abhora	0.000	2.954	0.000	0.062	0.000	0.000	1.157	4.173
Aner	0.940	16.540	16.380	0.000	0.000	0.000	14.380	48.240
Jamkhedi	0.000	0.000	0.000	0.000	6.258	3.564	2.991	12.813
Karwand	0.000	0.000	0.000	4.030	1.160	0.980	2.240	8.410
Malangaon	0.000	4.850	1.170	0.000	0.000	0.580	2.454	9.054
Panzara	0.000	11.793	2.771	0.000	8.247	5.936	9.908	38.655
Suki	0.140	8.016	1.650	0.000	13.233	0.801	6.382	30.222
<b>CADA Jalgaon</b>	<b>1.080</b>	<b>44.153</b>	<b>21.971</b>	<b>4.092</b>	<b>28.898</b>	<b>11.861</b>	<b>39.512</b>	<b>151.567</b>
Adhala	0.000	10.630	8.800	6.090	0.000	1.200	3.040	29.760
Alandi	0.000	7.855	8.823	1.769	1.263	0.000	0.000	19.710
Bhojapur	0.000	8.340	0.000	1.136	0.000	0.320	0.969	10.765
Mandohol	0.000	3.840	1.080	1.670	16.580	0.660	1.530	25.360
<b>CADA Nashik</b>	<b>0.000</b>	<b>30.665</b>	<b>18.703</b>	<b>10.665</b>	<b>17.843</b>	<b>2.180</b>	<b>5.539</b>	<b>85.595</b>
Visapur	3.820	21.230	26.660	1.900	0.880	0.150	3.320	57.960
<b>CADA Pune</b>	<b>3.820</b>	<b>21.230</b>	<b>26.660</b>	<b>1.900</b>	<b>0.880</b>	<b>0.150</b>	<b>3.320</b>	<b>57.960</b>
Amalnalla	0.858	13.462	0.583	0.000	400.125	2.452	3.854	421.334
Dham	0.000	18.590	3.770	3.500	0.000	7.540	10.270	43.670
Dongargaon (Chand)	0.000	2.540	0.950	0.030	0.000	0.000	0.430	3.950
Pothara	0.000	27.550	0.050	1.440	0.000	8.050	2.380	39.470
<b>CIPC Chandrapur</b>	<b>0.858</b>	<b>62.142</b>	<b>5.353</b>	<b>4.970</b>	<b>400.125</b>	<b>18.042</b>	<b>16.934</b>	<b>508.424</b>
Bhokar (Mangrul)	0.000	0.000	0.000	0.000	0.000	0.000	1.824	1.824
Mor	0.000	0.323	0.166	0.000	0.000	0.000	0.928	1.417
<b>JIPC Jalgaon</b>	<b>0.000</b>	<b>0.323</b>	<b>0.166</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>2.752</b>	<b>3.241</b>
Jam	0.000	9.135	1.063	0.808	0.000	1.868	6.088	18.962
Kar	0.000	7.870	3.890	1.600	0.000	0.229	3.502	17.091
<b>NIC Nagpur</b>	<b>0.000</b>	<b>17.005</b>	<b>4.953</b>	<b>2.408</b>	<b>0.000</b>	<b>2.097</b>	<b>9.590</b>	<b>36.053</b>
Dongargaon (Nanded)	0.000	0.000	5.426	0.020	0.000	0.000	2.724	8.170
Nagzari	0.000	2.600	0.000	0.260	0.000	1.750	1.147	5.757
<b>NIC Nanded</b>	<b>0.000</b>	<b>2.600</b>	<b>5.426</b>	<b>0.280</b>	<b>0.000</b>	<b>1.750</b>	<b>3.871</b>	<b>13.927</b>
Andhali	0.000	0.490	0.150	0.170	0.000	0.350	2.210	3.370
Kasarsai	0.000	0.688	1.300	3.130	3.720	0.028	3.810	12.676
Mhaswad	0.000	3.110	0.000	3.550	0.000	1.630	1.050	9.340
Nazare	0.096	7.735	1.430	3.471	3.110	3.340	5.910	25.092
Ranand	0.000	1.270	0.470	0.640	0.000	0.000	1.350	3.730
Tisangi	0.000	8.420	3.890	1.390	0.000	0.620	5.930	20.250
Wadiwale	0.000	0.000	0.000	0.580	23.450	2.862	4.708	31.600
<b>PIC Pune</b>	<b>0.096</b>	<b>21.713</b>	<b>7.240</b>	<b>12.931</b>	<b>30.280</b>	<b>8.830</b>	<b>24.968</b>	<b>106.058</b>
Nawargaon	0.000	3.910	0.000	0.000	24.250	1.480	4.570	34.210
<b>YIC Yavatmal</b>	<b>0.000</b>	<b>3.910</b>	<b>0.000</b>	<b>0.000</b>	<b>24.250</b>	<b>1.480</b>	<b>4.570</b>	<b>34.210</b>
<b>Normal</b>	<b>5.944</b>	<b>302.078</b>	<b>154.937</b>	<b>51.757</b>	<b>502.276</b>	<b>58.775</b>	<b>202.985</b>	<b>1278.752</b>
<b>Surplus</b>								
Bagheda	1.488	0.337	0.000	0.000	0.000	0.000	0.748	2.573
Betekar Bothli	1.823	1.353	0.187	0.000	0.000	0.000	0.716	4.079
Bodalkasa	7.723	2.094	3.353	0.000	0.000	0.000	0.000	13.170
Chandpur	6.973	0.421	1.039	0.000	0.000	0.000	1.661	10.094
Chandrabhaga	0.000	3.740	0.000	1.247	0.000	0.015	1.474	6.476
Chorkhamara	7.143	2.575	3.524	0.000	0.000	0.000	1.080	14.322
Chulband	8.168	3.535	4.906	0.000	0.000	0.000	5.026	21.635
Kanholibara	0.100	9.172	4.537	0.908	0.000	0.000	1.461	16.178
Kesar Nalla	0.000	1.038	0.507	0.546	0.000	0.152	1.009	3.252
Khairbanda	2.783	1.051	6.641	0.000	0.000	0.000	3.612	14.087
Khekra Nalla	0.000	8.430	5.167	0.160	0.000	0.000	1.792	15.549
Kolar	0.025	7.225	2.024	4.031	0.000	0.690	4.215	18.210

Project/ Circle	On canals			Reservoir Lift	River Lift	Non Irrigation Use	Evaporation	Gross Utilisation
	Kharif	Rabi	HW					
Makardhokala-Saiki	0.430	21.090	0.000	0.410	0.000	0.350	4.200	26.480
Managadh	1.925	1.346	2.547	0.000	0.000	0.000	0.055	5.873
Mordham	0.000	2.143	0.000	0.779	0.000	0.041	0.893	3.856
Pandharbodi	1.216	5.593	0.250	0.967	0.000	1.560	3.007	12.593
Rengepar	1.344	0.790	0.578	0.000	0.000	0.000	0.740	3.452
Sangrampur	1.480	0.682	1.187	0.000	0.000	0.000	0.180	3.529
Sorana	1.959	1.227	0.000	0.000	0.000	0.000	1.802	4.988
Tekepar LIS	5.876	5.870	0.000	0.000	0.000	0.000	0.000	11.746
Umri	0.000	1.227	0.683	0.348	8.800	0.000	1.641	12.699
<b>CADA Nagpur</b>	<b>50.456</b>	<b>80.939</b>	<b>37.130</b>	<b>9.396</b>	<b>8.800</b>	<b>2.808</b>	<b>35.312</b>	<b>224.841</b>
Chandai	2.100	8.470	0.000	0.000	185.000	0.000	2.949	198.519
Chargaon	6.390	9.820	0.330	0.990	883.000	0.406	9.749	910.685
Labhansarad	0.000	5.724	0.547	0.627	127.000	0.000	3.811	137.709
Pakadigundam	0.000	7.087	0.000	0.000	231.000	1.378	2.685	242.150
<b>CIPC Chandrapur</b>	<b>8.490</b>	<b>31.101</b>	<b>0.877</b>	<b>1.617</b>	<b>1426.000</b>	<b>1.784</b>	<b>19.194</b>	<b>1489.063</b>
Katangi	0.300	1.074	3.071	0.890	0.000	0.000	3.245	8.580
<b>GKLIS Bhandara</b>	<b>0.300</b>	<b>1.074</b>	<b>3.071</b>	<b>0.890</b>	<b>0.000</b>	<b>0.000</b>	<b>3.245</b>	<b>8.580</b>
Panchdhara	0.000	5.650	0.820	0.050	0.000	0.000	2.390	8.910
Wunna	0.000	0.000	0.410	3.096	0.000	<b>5.540</b>	3.534	12.580
<b>NIC Nagpur</b>	<b>0.000</b>	<b>5.650</b>	<b>1.230</b>	<b>3.146</b>	<b>0.000</b>	<b>5.540</b>	<b>5.924</b>	<b>21.490</b>
<b>Surplus</b>	<b>59.246</b>	<b>118.764</b>	<b>42.308</b>	<b>15.049</b>	<b>1434.800</b>	<b>10.132</b>	<b>63.675</b>	<b>1743.974</b>
<b>Abundant</b>								
Ghorazari	27.343	11.340	7.303	0.000	30.380	0.000	10.250	86.616
Naleshwar	10.244	4.109	0.000	0.000	150.000	0.000	5.353	169.706
<b>CIPC Chandrapur</b>	<b>37.587</b>	<b>15.449</b>	<b>7.303</b>	<b>0.000</b>	<b>180.380</b>	<b>0.000</b>	<b>15.603</b>	<b>256.322</b>
Natuwadi	0.000	0.304	0.000	0.000	0.000	2.408	1.790	4.502
<b>KIC Ratnagiri</b>	<b>0.000</b>	<b>0.304</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>2.408</b>	<b>1.790</b>	<b>4.502</b>
Dongargaon	0.654	2.598	0.744	0.000	4.400	0.000	3.627	12.023
<b>NIC Nagpur</b>	<b>0.654</b>	<b>2.598</b>	<b>0.744</b>	<b>0.000</b>	<b>4.400</b>	<b>0.000</b>	<b>3.627</b>	<b>12.023</b>
Hetwane	0.000	1.953	0.000	0.000	0.000	35.610	6.686	44.249
<b>NKIPC Ratnagiri</b>	<b>0.000</b>	<b>1.953</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>35.610</b>	<b>6.686</b>	<b>44.249</b>
Uttar mand	0.000	0.000	0.000	0.000	0.640	0.000	1.170	1.810
<b>PIC Pune</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.640</b>	<b>0.000</b>	<b>1.170</b>	<b>1.810</b>
Chikotra	0.000	0.000	0.000	0.000	21.478	0.329	2.870	24.677
Chitri	0.000	0.000	0.000	0.000	44.020	2.060	3.090	49.170
Jangamatti	0.000	0.000	0.000	0.000	23.970	0.821	3.730	28.521
Kadvi	0.000	0.000	0.000	0.000	23.125	0.222	4.985	28.332
Kasari	0.000	0.000	0.000	0.000	47.028	1.120	5.560	53.708
Krishna Canal	0.000	16.420	12.110	17.000	34.180	0.320	0.000	80.030
Kumbhi	0.000	0.000	0.000	0.000	27.705	0.960	5.341	34.006
Morna (Sangli)	0.000	0.000	0.000	3.340	4.829	0.640	6.235	15.044
Patgaon	0.000	0.000	0.000	0.000	55.139	3.067	10.210	68.416
Yeoti Masoli	0.000	1.996	1.371	0.000	1.630	0.260	0.810	6.067
<b>SIC Sangli</b>	<b>0.000</b>	<b>18.416</b>	<b>13.481</b>	<b>20.340</b>	<b>283.104</b>	<b>9.799</b>	<b>42.831</b>	<b>387.971</b>
Rajanalla Complex	0.000	27.190	0.000	4.060	5.140	0.000	19.780	56.170
Wandri	0.000	24.600	0.000	0.000	0.000	0.000	3.800	28.400
<b>TIC Thane</b>	<b>0.000</b>	<b>51.790</b>	<b>0.000</b>	<b>4.060</b>	<b>5.140</b>	<b>0.000</b>	<b>23.580</b>	<b>84.570</b>
<b>Abundant</b>	<b>38.241</b>	<b>90.510</b>	<b>21.528</b>	<b>24.400</b>	<b>473.664</b>	<b>47.817</b>	<b>95.287</b>	<b>791.447</b>
<b>Medium Projects</b>	<b>107.881</b>	<b>677.639</b>	<b>311.545</b>	<b>290.098</b>	<b>2438.316</b>	<b>230.404</b>	<b>683.922</b>	<b>4739.805</b>

Indicator V : Irrigation System Performance (Canals)



**Indicator V: Irrigation System Performance (Canals)**

**Medium Projects**

Unit: ha/ Mcum

Subbasin/ Plangroup	Project /Circle	Seasons		
		Kharif	Rabi	HW
<b>Highly Deficit</b>				
Sina-Bori-Benetura	Khandala	0	249	114
	Kadi	0	0	0
	Turori	0	0	157
	Talwar	0	0	0
	Sakat	0	19	0
	Ruti	0	0	0
	Mehkari	0	0	0
	Mahasangvi	0	75	0
	Kurnoor	0	97	43
	Kada	0	0	0
	Jakapur	0	106	100
	Harni	0	91	59
	Chandani	0	215	0
	Benitura	0	101	48
	Khasapur	0	306	0
		<b>CADA Beed</b>	<b>0</b>	<b>140</b>
Upper Krishna (E)	Yeralwadi	0	42	40
	<b>CADA Pune</b>	<b>0</b>	<b>42</b>	<b>40</b>
Remaining Bhima + Man	Ashti	0	0	0
Remaining Bhima + Man	Budhihal	0	0	0
Sina-Bori-Benetura	Ekrukh	0	137	0
	Hingani (Pargaon)	0	117	77
	Jawalgaon	0	153	98
	Mangi	0	177	100
	<b>CADA Solapur</b>	<b>0</b>	<b>146</b>	<b>92</b>
	Sina-Bori-Benetura	Sina	0	0
Upper Krishna (E)	Nher	0	142	0
Sina-Bori-Benetura	Khairy	0	0	0
	<b>PIC Pune</b>	<b>0</b>	<b>142</b>	<b>0</b>
Remaining Bhima + Man	Sankh	0	0	0
Remaining Bhima + Man	Dodda Nalla	0	0	0
Upper Krishna (E)	Basappawadi	0	0	0
	Siddhewadi	0	16	0
	<b>SIC Sangli</b>	<b>0</b>	<b>16</b>	<b>0</b>
<b>Highly Deficit</b>		<b>0</b>	<b>97</b>	<b>73</b>

Subbasin/ Plangroup	Project /Circle	Seasons			
		Kharif	Rabi	HW	
<b>Deficit</b>					
Purna (Tapi)	Morna (Akola)	0	63	0	
	Uma	0	140	81	
	Shahanoor	0	116	40	
	Nirguna	0	75	0	
	Mas	0	0	0	
	Dnyanganga	0	0	0	
	Paldhag	0	0	0	
	<b>AIC Akola</b>	<b>0</b>	<b>99</b>	<b>61</b>	
Purna (Tapi)	Mun	0	0	0	
	Torna	0	0	0	
Purna (Tapi)	Utawali	0	0	0	
	<b>BIPC Buldhana</b>	<b>0</b>	<b>0</b>	<b>0</b>	
Purna+Dudhna	Jui	0	0	0	
	Dhamna	0	0	0	
	Girija	0	0	0	
	Kalyan	0	379	65	
	Masoli	0	81	89	
	Kalyan Girija	0	358	104	
	Karpara	0	121	83	
	Khelna	0	0	0	
	Lahuki	0	0	0	
	Sukhana	0	174	196	
	Upper Dudhna	0	0	0	
	Jivrekha	0	185	0	
	Girna	Ajanta Andhari	0	0	0
		Gadadgad	0	125	0
<b>CADA Abad</b>		<b>0</b>	<b>203</b>	<b>107</b>	
Manjra	Terna	0	129	101	
	Sakol	0	0	0	
	Sangameshwar (Dokewadi)	0	0	0	
	Saraswati	0	137	70	
	Sindphana	0	193	111	
	Rui	0	0	0	
	Whati	0	139	84	
	Borna	0	0	71	
	Van	0	129	67	
	Tiru	0	204	0	
	Tawarja	0	102	94	
	Renapur	0	0	0	



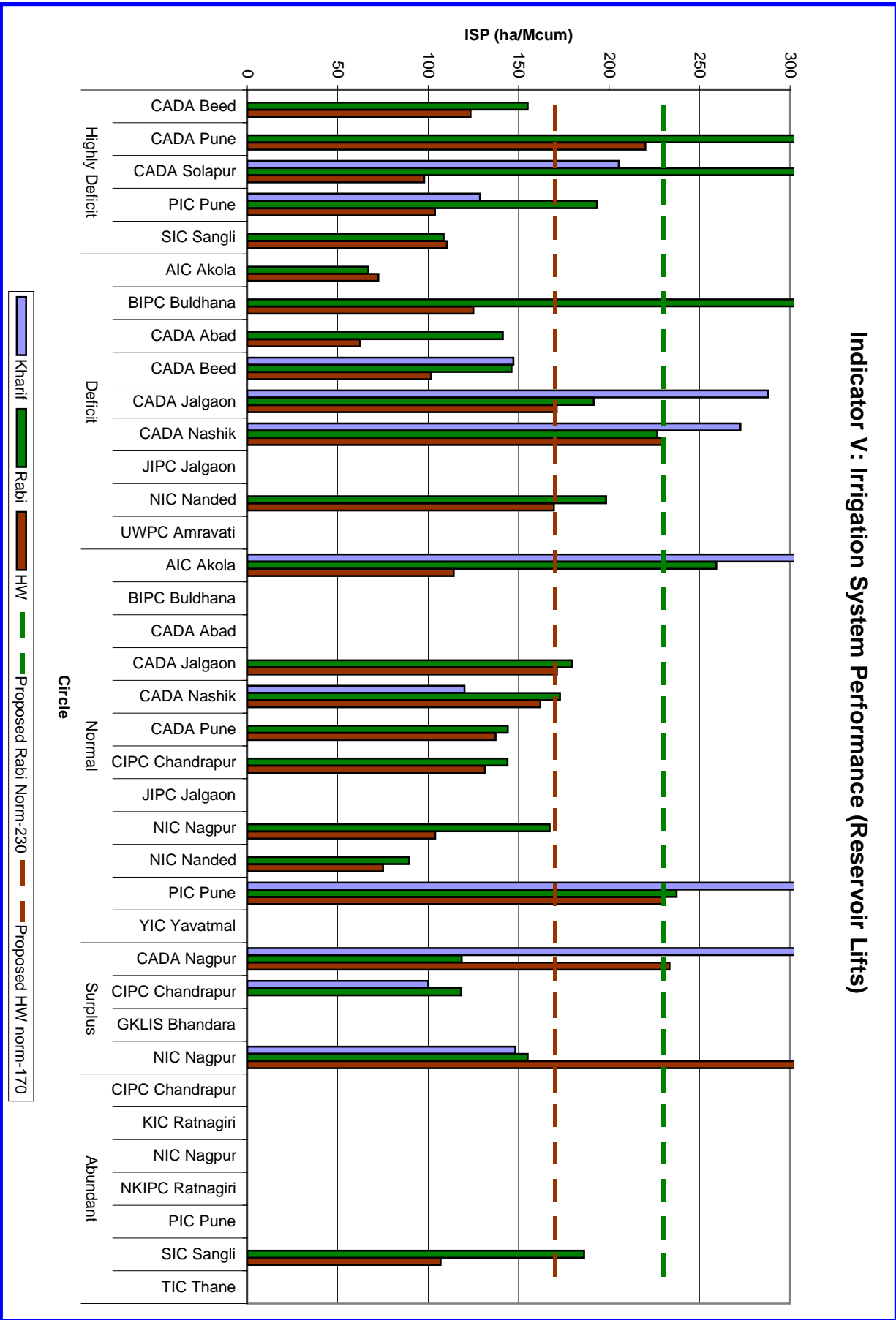
Subbasin/ Plangroup	Project /Circle	Seasons		
		Kharif	Rabi	HW
	Raighwan	0	0	49
	Masalga	0	0	0
	Kundalika	0	119	100
	Devarjan	0	0	71
	Bodhegaon	0	0	69
	Bindusara	0	84	0
	Gharni	0	95	71
	<b>CADA Beed</b>	<b>0</b>	<b>133</b>	<b>80</b>
Middle Tapi (South)	Bori	0	0	0
Girna	Agnavati	0	0	0
	Hivara	0	110	0
	Manyad	0	76	147
Middle Tapi (South)	Bhokarbari	0	0	0
	Burai	0	102	0
	Kanoli	0	132	0
	Rangawali	410	429	65
	Sonwad	333	71	0
	Tondapur	0	0	0
	<b>CADA Jalgaon</b>	<b>372</b>	<b>153</b>	<b>106</b>
Girna	Nagya Sakya	0	116	0
Manjra	Ghatshil Pargaon	0	0	0
Girna	Haranbari	0	144	0
	Kelzar	0	0	0
	<b>CADA Nashik</b>	<b>0</b>	<b>130</b>	<b>0</b>
Middle Tapi (South)	Bahula	0	0	0
	<b>JIPC Jalgaon</b>	<b>0</b>	<b>0</b>	<b>0</b>
Lower Godavari	Kudala	0	96	98
Manjra	Mahalingi	0	0	119
	Loni	0	85	96
	Kundrala	0	108	135
	Pethwadaj	0	37	105
	Karadkhed	0	0	97
	<b>NIC Nanded</b>	<b>0</b>	<b>82</b>	<b>108</b>
Purna (Tapi)	Chandrabhaga (Amravati)	0	31	16
	<b>UWPC Amravati</b>	<b>0</b>	<b>31</b>	<b>16</b>
<b>Deficit</b>		<b>372</b>	<b>831</b>	<b>478</b>
<b>Normal</b>				
Penganga	Waghadi	0	44	68
	Koradi	0	212	70
	Lower Pus	0	35	48
Wardha	Borgaon	1333	120	335
Penganga	Goki	0	60	49
	Ekburji	0	110	0
	Adan	0	54	23
	Sonal	0	177	64
	Saikheda	0	94	29
	<b>AIC Akola</b>	<b>1333</b>	<b>101</b>	<b>86</b>

Subbasin/ Plangroup	Project /Circle	Seasons		
		Kharif	Rabi	HW
Penganga	Pen Takli	0	0	0
	<b>BIPC Buldhana</b>	<b>0</b>	<b>0</b>	<b>0</b>
Upper Godavari	Dheku	0	0	0
	Kolhi	0	0	0
	Ambadi	0	0	0
	<b>CADA Abad</b>	<b>0</b>	<b>0</b>	<b>0</b>
Middle Tapi (Satpuda)	Aner	612	59	91
Panzra	Panzara	0	170	268
Middle Tapi (Satpuda)	Suki	455	93	120
	Malangaon	0	165	179
	Jamkhedi	0	0	0
	Abhora	0	95	0
	Karwand	0	0	0
	<b>CADA Jalgaon</b>	<b>534</b>	<b>116</b>	<b>165</b>
	Upper Godavari	Mandohol	0	54
Bhojapur		0	104	0
Alandi		0	100	106
Adhala		0	154	114
<b>CADA Nashik</b>		<b>0</b>	<b>103</b>	<b>90</b>
Upper Bhima	Visapur	0	104	77
	<b>CADA Pune</b>	<b>0</b>	<b>104</b>	<b>77</b>
Wardha	Dham	0	70	347
	Amalnalla	0	162	0
	Dongargaon (Chandrapur)	0	60	47
	Pothara	0	0	0
	<b>CIPC Chandrapur</b>	<b>0</b>	<b>97</b>	<b>197</b>
Middle Tapi (Satpuda)	Bhokar (Mangrul)	0	0	0
	Mor	0	199	140
	<b>JIPC Jalgaon</b>	<b>0</b>	<b>199</b>	<b>140</b>
Wardha	Jam	0	71	22
	Kar	0	56	31
	<b>NIC Nagpur</b>	<b>0</b>	<b>64</b>	<b>27</b>
Penganga	Nagzari	0	136	0
	Dongargaon (Nanded)	0	0	98
	<b>NIC Nanded</b>	<b>0</b>	<b>136</b>	<b>98</b>
Remaining Bhima (Neera)	Andhali	0	152	148
	Tisangi	0	110	180
Upper Bhima	Wadiwale	0	0	0
Remaining Bhima (Neera)	Ranand	0	164	149
	Mhaswad	0	250	0
	Nazare	451	161	122
Upper Bhima	Kasarsai	0	175	75
	<b>PIC Pune</b>	<b>451</b>	<b>169</b>	<b>135</b>
Wardha	Nawargaon	0	132	0
	<b>YIC Yavatmal</b>	<b>0</b>	<b>132</b>	<b>0</b>
<b>Normal</b>		<b>773</b>	<b>111</b>	<b>113</b>

Subbasin/ Plangroup	Project /Circle	Seasons			
		Kharif	Rabi	HW	
<b>Surplus</b>					
Middle Wainganga	Kolar	240	107	46	
	Managadh	266	0	62	
	Pandharbodi	355	154	0	
	Rengepar	442	0	73	
	Sangrampur	506	0	57	
	Khekra Nalla	0	30	10	
	Tekepar LIS	323	39	0	
	Makardhokala-Saiki	75	114	0	
	Umri	0	150	165	
	Sorana	460	53	0	
	Betekar Bothli	409	16	11	
	Khairbanda	1798	217	76	
	Bagheda	844	83	0	
	Bodalkasa	473	0	88	
	Chandpur	810	0	0	
	Chandrabhaga (Nagpur)	0	96	0	
	Chorkhamara	519	0	259	
	Chulband	256	0	112	
	Kanholibara	300	109	96	
	Kesar Nalla	0	174	0	
	Mordham	0	84	0	
		<b>CADA Nagpur</b>	<b>505</b>	<b>102</b>	<b>88</b>
	Middle Wainganga	Chandai	213	59	0
Chargaon		104	114	0	
Labhansarad		0	171	0	
Pakadigundam		0	169	0	
		<b>CIPC Chandrapur</b>	<b>159</b>	<b>128</b>	<b>0</b>
Middle Wainganga	Katangi	567	9	55	
		<b>GKLIS Bhandara</b>	<b>567</b>	<b>9</b>	<b>55</b>
Middle Wainganga	Wunna	0	0	0	
	Panchdhara	84	0	0	
		<b>NIC Nagpur</b>	<b>84</b>	<b>0</b>	<b>0</b>
<b>Surplus</b>		<b>329</b>	<b>80</b>	<b>71</b>	

Subbasin/ Plangroup	Project /Circle	Seasons		
		Kharif	Rabi	HW
<b>Abundant</b>				
Lower Wainganga	Ghorazari	151	0	57
	Naleshwar	198	0	0
	<b>CIPC Chandrapur</b>	<b>175</b>	<b>0</b>	<b>57</b>
Vashishthi	Natuwadi	0	46	0
	<b>KIC Ratnagiri</b>	<b>0</b>	<b>46</b>	<b>0</b>
Lower Wainganga	Dongargaon	235	86	0
	<b>NIC Nagpur</b>	<b>235</b>	<b>86</b>	<b>0</b>
North Konkan	Hetwane	0	0	0
	<b>NKIPC Ratnagiri</b>	<b>0</b>	<b>0</b>	<b>0</b>
Upper Krishna (W)	Uttar mand	0	0	0
	<b>PIC Pune</b>	<b>0</b>	<b>0</b>	<b>0</b>
Upper Krishna (W)	Chitri	0	0	0
	Yeoti Masoli	0	194	0
	Patgaon	0	0	0
	Morna (Sangli)	0	0	0
	Kumbhi	0	0	0
	Krishna Canal & Khodshi Backwater	0	75	51
	Kasari	0	0	0
	Jangamatti	0	0	0
	Chikotra	0	0	0
	Kadvi	0	0	0
	<b>SIC Sangli</b>	<b>0</b>	<b>135</b>	<b>51</b>
	North Konkan	Rajanalla Complex	0	76
Middle Konkan	Wandri	0	33	0
	<b>TIC Thane</b>	<b>0</b>	<b>55</b>	<b>0</b>
<b>Abundant</b>		<b>205</b>	<b>80</b>	<b>54</b>
<b>Medium Projects</b>		<b>419</b>	<b>240</b>	<b>158</b>

Indicator V : Irrigation System Performance (Reservoir Lifts)



**Indicator V: Irrigation System Performance ( Reservoir Lift)**  
**Medium Projects**

Unit: ha/ Mcum

Subbasin/ Plangroup	Project /Circle	Seasons		
		Kharif	Rabi	HW
<b>Highly Deficit</b>				
Sina-Bori-Benetura	Benitura	0	107	73
	Chandani	0	153	159
	Harni	0	134	55
	Jakapur	0	144	121
	Kada	0	149	0
	Kadi	0	0	0
	Khandala	0	183	120
	Khasapur	0	253	172
	Kurnoor	0	94	90
	Mahasangvi	0	156	174
	Mehkari	0	0	0
	Ruti	0	0	0
	Sakat	0	193	104
	Talwar	0	148	0
	Turori	0	145	166
		<b>CADA Beed</b>	<b>0</b>	<b>155</b>
Upper Krishna (E)	Yeralwadi	0	307	220
	<b>CADA Pune</b>	<b>0</b>	<b>307</b>	<b>220</b>
Remaining Bhima	Ashti	203	163	112
Remaining Bhima	Budhihal	0	1100	0
Sina-Bori-Benetura	Ekrukha	208	194	110
	Hingani (Pargaon)	0	192	66
	Jawalgaon	0	119	58
	Mangi	0	222	144
	<b>CADA Solapur</b>	<b>205</b>	<b>332</b>	<b>98</b>
Sina-Bori-Benetura	Khairy	0	175	95
Upper Krishna (E)	Nher	0	235	192
Sina-Bori-Benetura	Sina	129	170	25
	<b>PIC Pune</b>	<b>129</b>	<b>193</b>	<b>104</b>
Upper Krishna (E)	Basappawadi	0	0	0
Remaining Bhima	Dodda Nalla	0	0	0
	Sankh	0	0	0
Upper Krishna (E)	Siddhewadi	0	109	110
	<b>SIC Sangli</b>	<b>0</b>	<b>109</b>	<b>110</b>
<b>Highly Deficit</b>		<b>167</b>	<b>219</b>	<b>131</b>

Subbasin/ Plangroup	Project /Circle	Seasons			
		Kharif	Rabi	HW	
<b>Deficit</b>					
Purna (Tapi)	Dnyanganga	0	0	0	
	Mas	0	0	0	
	Morna (Akola)	0	0	0	
	Nirguna	0	0	0	
	Paldhag	0	0	0	
	Shahanoor	0	87	0	
	Uma	0	47	72	
	<b>AIC Akola</b>	<b>0</b>	<b>67</b>	<b>72</b>	
Purna (Tapi)	Mun	0	1550	0	
	Torna	0	0	125	
Purna (Tapi)	Utawali	0	267	0	
	<b>BIPC Buldhana</b>	<b>0</b>	<b>908</b>	<b>125</b>	
Girna	Ajanta Andhari	0	76	0	
Purna+Dudhna	Dhamna	0	0	0	
Girna	Gadadgad	0	108	135	
Purna+Dudhna	Girija	0	84	0	
	Jivrekha	0	149	73	
	Jui	0	0	0	
	Kalyan	0	270	52	
	Kalyan Girija	0	226	18	
	Karpara	0	55	38	
	Khelna	0	180	0	
	Lahuki	0	198	40	
	Lower Godavari	Masoli	0	122	98
	Purna+Dudhna	Sukhana	0	79	44
Upper Dudhana		0	148	0	
	<b>CADA Abad</b>	<b>0</b>	<b>141</b>	<b>62</b>	
Manjra	Bindusara	0	0	0	
	Bodhegaon	0	117	70	
	Borna	0	211	65	
	Devarjan	0	85	90	
	Gharni	0	147	111	
	Kundalika	0	127	107	
	Masalga	0	187	124	
	Raighwan	0	258	107	
	Renapur	0	141	67	
	Rui	0	141	121	
	Sakol	0	154	121	
	Sangameshwar (Dokewadi)	0	119	89	

Subbasin/ Plangroup	Project /Circle	Seasons		
		Kharif	Rabi	HW
	Saraswati	0	108	11
	Sindphana	0	65	100
	Tawarja	0	177	115
	Terna	0	178	200
	Tiru	0	150	113
	Van	147	150	131
	Whati	0	118	85
	<b>CADA Beed</b>	<b>147</b>	<b>146</b>	<b>102</b>
Girna	Agnavati	0	280	257
Middle Tapi	Bhokarbari	0	76	240
	Bori	0	135	111
	Burai	0	0	0
Girna	Hivara	219	159	197
Middle Tapi	Kanoli	0	250	0
Girna	Manyad	388	201	54
Middle Tapi	Rangawali	0	0	0
	Sonwad	256	240	167
	Tondapur	0	0	0
	<b>CADA Jalgaon</b>	<b>288</b>	<b>191</b>	<b>171</b>
Manjra	Ghatshil Pargaon	0	218	252
Girna	Haranbari	0	163	0
	Kelzar	0	319	278
	Nagya Sakya	273	206	163
	<b>CADA Nashik</b>	<b>273</b>	<b>227</b>	<b>231</b>
Middle Tapi	Bahula	0	0	0
	<b>JIPC Jalgaon</b>	<b>0</b>	<b>0</b>	<b>0</b>
Manjra	Karadkhed	0	193	191
Lower Godavari	Kudala	0	254	157
Manjra	Kundrala	0	195	162
	Loni	0	0	0
	Mahalingi	0	233	173
	Pethwadaj	0	115	164
	<b>NIC Nanded</b>	<b>0</b>	<b>198</b>	<b>170</b>
Purna (Tapi)	Chandrabhaga (Amravati)	0	0	0
	<b>UWPC Amravati</b>	<b>0</b>	<b>0</b>	<b>0</b>
	<b>Deficit</b>	<b>236</b>	<b>626</b>	<b>311</b>
	<b>Normal</b>			
Penganga	Adan	0	221	200
Wardha	Borgaon	0	1000	0
Penganga	Ekbutji	0	198	100
	Goki	0	60	83
	Koradi	540	404	143
	Lower Pus	0	100	66
	Saikheda	0	98	47
	Sonal	0	209	198
	Waghadi	0	44	77
	<b>AIC Akola</b>	<b>540</b>	<b>259</b>	<b>114</b>

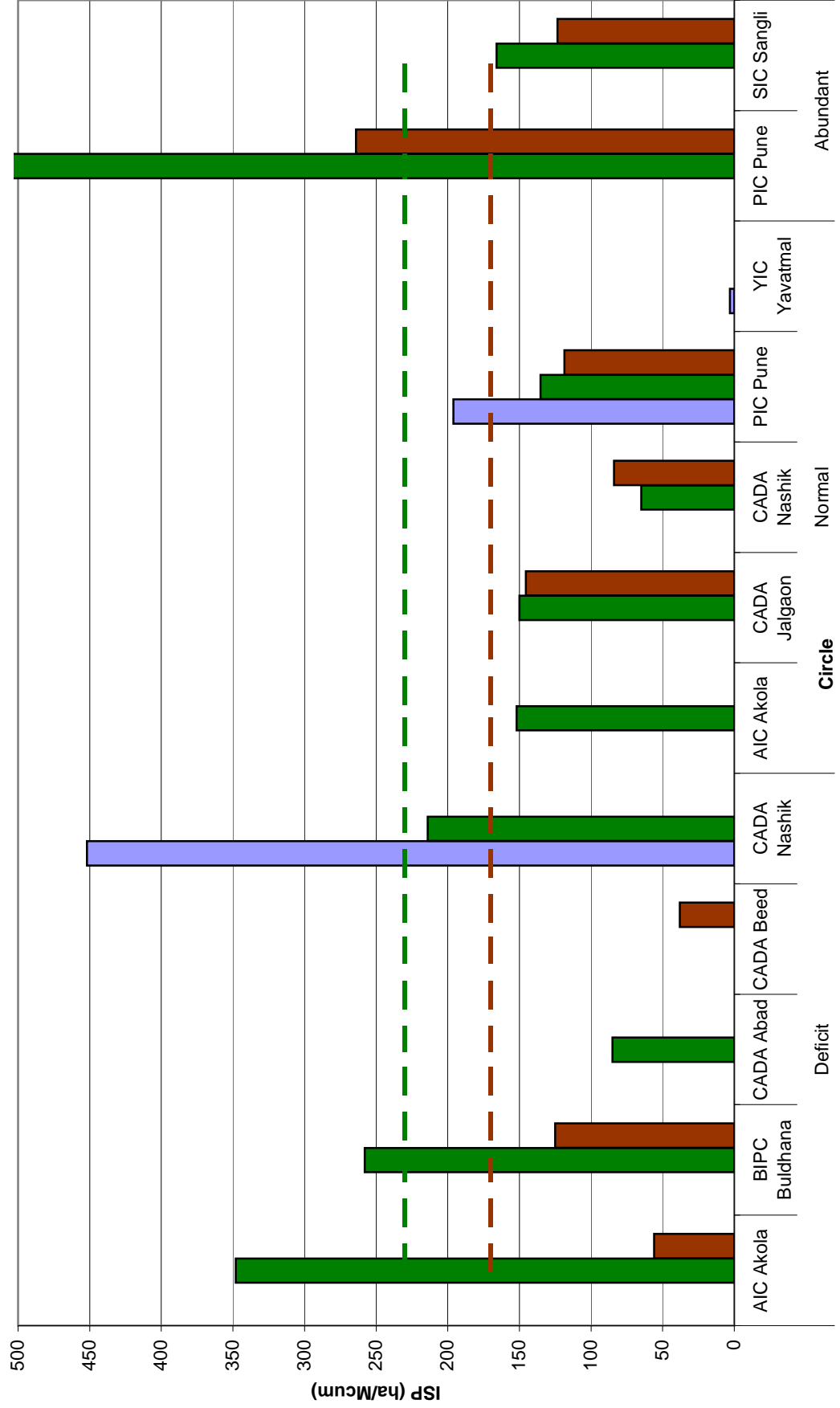


Subbasin/ Plangroup	Project /Circle	Seasons		
		Kharif	Rabi	HW
Penganga	Pen Takli	0	595	283
	<b>BIPC Buldhana</b>	<b>0</b>	<b>0</b>	<b>0</b>
Upper Godavari	Ambadi	0	0	0
	Dheku	0	0	0
	Kolhi	0	0	0
	<b>CADA Abad</b>	<b>0</b>	<b>0</b>	<b>0</b>
Middle Tapi	Abhora	0	194	231
	Aner	0	0	0
	Jamkhedi	0	0	0
	Karwand	0	164	112
	Malangaon	0	0	0
	Panzara	0	0	0
Middle Tapi	Suki	0	0	0
	<b>CADA Jalgaon</b>	<b>0</b>	<b>179</b>	<b>171</b>
Upper Godavari	Adhala	120	47	79
	Alandi	0	197	259
	Bhojapur	0	332	0
	Mandohol	0	115	148
	<b>CADA Nashik</b>	<b>120</b>	<b>173</b>	<b>162</b>
	Upper Bhima	Visapur	0	144
Wardha	<b>CADA Pune</b>	<b>0</b>	<b>144</b>	<b>137</b>
	Amalnalla	0	0	0
	Dham	0	148	131
	Dongargaon (Chandrapur)	0	133	0
	Pothara	0	150	0
	<b>CIPC Chandrapur</b>	<b>0</b>	<b>144</b>	<b>131</b>
Middle Tapi	Bhokar (Mangrul)	0	0	0
	Mor	0	0	0
	<b>JIPC Jalgaon</b>	<b>0</b>	<b>0</b>	<b>0</b>
Wardha	Jam	0	210	137
	Kar	0	124	71
	<b>NIC Nagpur</b>	<b>0</b>	<b>167</b>	<b>104</b>
Penganga	Dongargaon (Nanded)	0	0	50
	Nagzari	0	89	100
	<b>NIC Nanded</b>	<b>0</b>	<b>89</b>	<b>75</b>
Remaining Bhima	Andhali	0	157	375
Upper Bhima	Kasarsai	324	240	149
Remaining Bhima	Mhaswad	0	596	440
	Nazare	450	163	95
Remaining Bhima	Ranand	0	227	222
	Tisangi	0	116	202
Upper Bhima	Wadiwale	0	162	133
	<b>PIC Pune</b>	<b>387</b>	<b>237</b>	<b>231</b>
	Wardha	Nawargaon	0	0
Normal	<b>YIC Yavatmal</b>	<b>0</b>	<b>0</b>	<b>0</b>
		<b>349</b>	<b>174</b>	<b>141</b>

Subbasin/ Plangroup	Project /Circle	Seasons		
		Kharif	Rabi	HW
<b>Surplus</b>				
Middle Wainganga	Bagheda	0	0	0
	Betekar Bothli	0	0	0
	Bodalkasa	0	0	0
	Chandpur	0	0	0
	Chandrabhaga (Nagpur)	3333	150	89
	Chorkhamara	0	0	0
	Chulband	0	0	0
	Kanholibara	0	23	1000
	Kesar Nalla	710	108	24
	Khairbanda	0	0	0
	Khekra Nalla	0	150	0
	Kolar	150	112	55
	Makardhokala-Saiki	0	150	0
	Managadh	0	0	0
	Mordham	3500	150	66
	Pandharbodi	0	150	0
	Rengepar	0	0	0
	Sangrampur	0	0	0
	Sorana	0	0	0
	Tekepar LIS	323	39	0
	Umri	677	152	167
	<b>CADA Nagpur</b>	<b>1449</b>	<b>118</b>	<b>233</b>
Middle Wainganga	Chandai	0	0	0
	Chargaon	100	163	0
	Labhansarad	0	73	0
	Pakadigundam	0	0	0
	<b>CIPC Chandrapur</b>	<b>100</b>	<b>118</b>	<b>0</b>
Middle Wainganga	Katangi	0	0	0
	<b>GKLIS Bhandara</b>	<b>0</b>	<b>0</b>	<b>0</b>
Middle Wainganga	Panchdhara	0	160	0
	Wunna	148	150	1000
	<b>NIC Nagpur</b>	<b>148</b>	<b>155</b>	<b>1000</b>
<b>Surplus</b>		<b>566</b>	<b>131</b>	<b>617</b>

Subbasin/ Plangroup	Project /Circle	Seasons			
		Kharif	Rabi	HW	
<b>Abundant</b>					
Lower Wainganga	Ghorazari	0	0	0	
	Naleshwar	0	0	0	
	<b>CIPC Chandrapur</b>	<b>0</b>	<b>0</b>	<b>0</b>	
Vashishthi	Natuwadi	0	0	0	
	<b>KIC Ratnagiri</b>	<b>0</b>	<b>0</b>	<b>0</b>	
Lower Wainganga	Dongargaon	0	0	0	
	<b>NIC Nagpur</b>	<b>0</b>	<b>0</b>	<b>0</b>	
North Konkan	Hetwane	0	0	0	
	<b>NKIPC Ratnagiri</b>	<b>0</b>	<b>0</b>	<b>0</b>	
Upper Krishna (W)	Uttar mand	0	0	0	
	<b>PIC Pune</b>	<b>0</b>	<b>0</b>	<b>0</b>	
Upper Krishna (W)	Chikotra	0	0	0	
	Chitri	0	0	0	
	Jangamatti	0	0	0	
	Kadvi	0	0	0	
	Kasari	0	0	0	
	Krishna Canal & Khodshi Backwater	0	224	119	
	Kumbhi	0	0	0	
	Morna (Sangli)	0	148	95	
	Patgaon	0	0	0	
	Yeoti Masoli	0	0	0	
	<b>SIC Sangli</b>	<b>0</b>	<b>186</b>	<b>107</b>	
	North Konkan	Rajanalla Complex	0	0	0
	Middle Konkan	Wandri	0	0	0
<b>TIC Thane</b>		<b>0</b>	<b>0</b>	<b>0</b>	
<b>Abundant</b>		<b>0</b>	<b>186</b>	<b>107</b>	
<b>Medium Projects</b>		<b>329</b>	<b>267</b>	<b>261</b>	

Indicator V: Irrigation System Performance (River Lift)



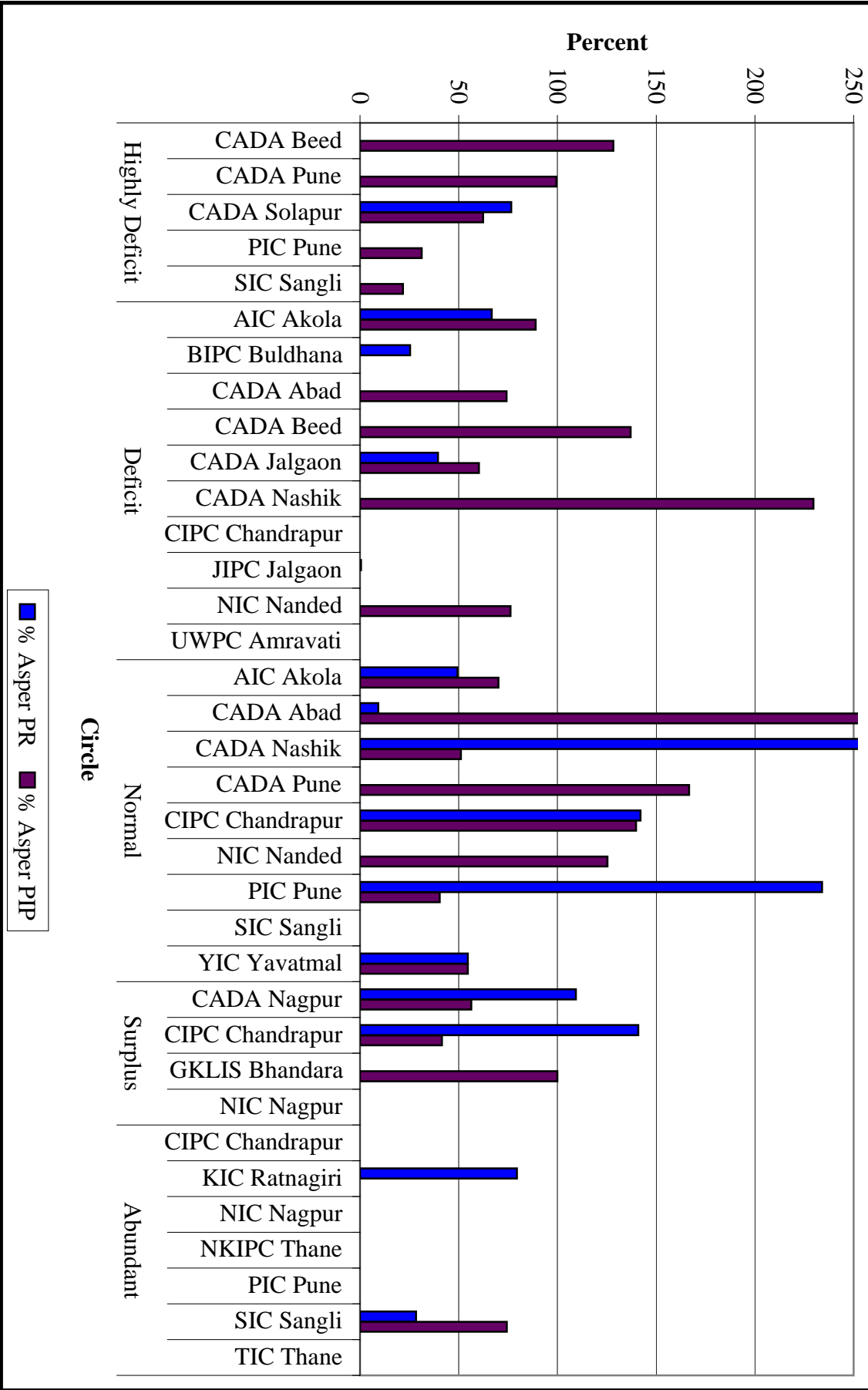
**Indicator V: Irrigation System Performance ( River Lifts)**  
**Medium Projects**

Unit: ha/Mcum

Subbasin/Circle	Project/Circle	Season		
		Kharif	Rabi	HW
<b>Highly deficit</b>		<b>0</b>	<b>0</b>	<b>0</b>
<b>Deficit</b>				
Purna (Tapi)	Morna (Akola)	0	348	56
	<b>AIC Akola</b>	<b>0</b>	<b>348</b>	<b>56</b>
	Torna	0	0	125
	Utawali	0	258	0
	<b>BIPC Buldhana</b>	<b>0</b>	<b>258</b>	<b>125</b>
Lower Godavari	Masoli	0	85	0
	<b>CADA Abad</b>	<b>0</b>	<b>85</b>	<b>0</b>
	Sangameshwar (Dokewadi)	0	0	38
Girna	<b>CADA Beed</b>	<b>0</b>	<b>0</b>	<b>38</b>
	Haranbari	400	136	0
	Kelzar	504	292	0
	<b>CADA Nashik</b>	<b>452</b>	<b>214</b>	<b>0</b>
<b>Deficit</b>		<b>452</b>	<b>226</b>	<b>110</b>
<b>Normal</b>				
Panzra	Adan	0	152	0
	<b>AIC Akola</b>	<b>0</b>	<b>152</b>	<b>0</b>
	Jamkhedi	0	145	121
	Panzara	0	0	233
	<b>CADA Jalgaon</b>	<b>0</b>	<b>150</b>	<b>146</b>
Middle Tapi (Satpuda)	Karwand	0	157	111
	Malangaon	0	0	0
	Suki	0	148	117
	<b>CADA Nashik</b>	<b>0</b>	<b>65</b>	<b>84</b>
	<b>CADA Nashik</b>	<b>0</b>	<b>65</b>	<b>84</b>
Upper Godavari	Adhala	0	0	0
	Alandi	0	110	84
	Bhojapur	0	0	0
	Mandohol	0	20	0
Upper Bhima	<b>CADA Nashik</b>	<b>0</b>	<b>65</b>	<b>84</b>
	Wadiwale	0	182	94
	Kasarsai	196	115	143
	Nazare	0	109	0
Wardha	<b>PIC Pune</b>	<b>196</b>	<b>135</b>	<b>119</b>
	Nawargaon	3	0	0
	<b>YIC Yavatmal</b>	<b>3</b>	<b>0</b>	<b>0</b>
<b>Normal</b>		<b>100</b>	<b>126</b>	<b>116</b>

Subbasin/Circle	Project/Circle	Season		
		Kharif	Rabi	HW
<b>Surplus</b>		<b>0</b>	<b>0</b>	<b>0</b>
<b>Abundant</b>				
Upper Krishna (W)	Uttar mand	0	707	264
	<b>PIC Pune</b>	<b>0</b>	<b>707</b>	<b>264</b>
Upper Krishna (W)	Chitri	0	167	168
	Yeoti Masoli	0	183	0
	Patgaon	0	89	82
	Morna (Sangli)	0	147	106
	Kumbhi	0	188	138
	Krishna Canal & Khodshi Ba	0	0	0
	Kasari	0	183	105
	Jangamatti	0	216	208
	Chikotra	0	179	101
	Kadvi	0	141	80
		<b>SIC Sangli</b>	<b>0</b>	<b>166</b>
<b>Abundant</b>		<b>0</b>	<b>436</b>	<b>194</b>
<b>Medium Projects</b>		<b>276</b>	<b>263</b>	<b>140</b>

### Indicator VI: Percentage of NI Use



**Indicator VI: Non Irrigation Use  
Medium Projects**

Unit: Mcum

Subbasin	Project	Non Irrigation Use	NI Use as per Project Report	NI Use as per PIP	Percentage of NI Use as per PR	Percentage of NI Use as per PIP	
<b>Highly Deficit</b>							
Sina-Bori-Benetura	Benitura	0.818		0.000			
	Chandani	0.950		0.950		100	
	Harni	0.000		0.000			
	Jakapur	0.000	0.000	0.000			
	Kada	0.220					
	Kadi	0.000					
	Kambli						
	Khandala	0.000		0.000			
	Khasapur	1.350		1.350		100	
	Kurnoor	2.350		3.100		76	
	Mahasangvi	0.680		0.620		110	
	Mehkari	0.000		0.000			
	Ruti	0.000					
	Sakat	0.000		0.000			
	Talwar	0.000					
	Turori	1.353		0.000			
		<b>CADA Beed</b>	<b>7.721</b>	<b>0.000</b>	<b>6.020</b>		<b>128</b>
	Upper Krishna (E)	Yeralwadi	2.768	0.000	2.785		99
<b>CADA Pune</b>		<b>2.768</b>	<b>0.000</b>	<b>2.785</b>		<b>99</b>	
Remaining Bhima - 18	Ashti	0.590	0.000	3.450		17	
	Buddihal	0.000					
Sina-Bori-Benetura	Ekrukh	3.539	0.000	1.680		211	
	Hingani (Pargaon)	0.084	1.450	1.680	6	5	
	Jawalgaon	0.154	4.250	0.200	4	77	
	Mangi	0.000	0.000	0.000			
	<b>CADA Solapur</b>	<b>4.367</b>	<b>5.700</b>	<b>7.010</b>	<b>77</b>	<b>62</b>	
Sina-Bori-Benetura	Khairy	0.000	0.000	0.230		0	
Upper Krishna (E)	Mhaswad	1.630	0.000	1.250		130	
	Nher	0.156	0.000	0.000			
Sina-Bori-Benetura	Sina	0.237	0.000	1.980		12	
Remaining Bhima - 18	Tisangi	0.620	0.000	5.010		12	
	<b>PIC Pune</b>	<b>2.643</b>	<b>0.000</b>	<b>8.470</b>		<b>31</b>	
Upper Krishna (E)	Basappawadi	0.000	0.000	0.000			
	Siddhewadi	0.730	0.000	3.350		22	
	<b>SIC Sangli</b>	<b>0.730</b>	<b>0.000</b>	<b>3.350</b>		<b>22</b>	
<b>Highly Deficit</b>		<b>17.800</b>	<b>5.700</b>	<b>27.635</b>	<b>312</b>	<b>64</b>	



Subbasin	Project	Non Irrigation Use	NI Use as per Project Report	NI Use as per PIP	Percentage of NI Use as per PR	Percentage of NI Use as per PIP	
<b>Deficit</b>							
Purna(Tapi)	Dnyanganga	4.220	6.990	1.450	60	291	
	Mas	0.300	7.720	0.400	4	75	
	Morna (Akola)	0.360	6.340	6.340	6	6	
	Nirguna	0.000	0.000	0.370		0	
	Paldhag	0.040	0.370	0.500	11	8	
	Shahanoor	9.180	0.000	7.000		131	
	Uma	0.190					
	<b>AIC Akola</b>	<b>14.290</b>	<b>21.420</b>	<b>16.060</b>	<b>67</b>	<b>89</b>	
Purna(Tapi)	Mun	1.330	5.126	0.000	26		
	Torna	0.000	0.118	0.000	0		
		<b>BIPC Buldhana</b>	<b>1.330</b>	<b>5.244</b>	<b>0.000</b>	<b>25</b>	
Girna	Ajanta Andhari	0.700	0.000	2.390		29	
Lower Godavari	Brahmagavan LIS						
Purna+Dudhana	Dhamna	0.000					
Girna	Gadadgad	0.000		0.000			
Lower Godavari	Galhati						
Purna+Dudhana	Girija	0.720		1.410		51	
	Jivrekha	1.541	0.000	0.210		734	
	Jui	0.140	0.000	0.000			
	Kalyan	2.140	0.000	1.640		130	
	Kalyan Girija	0.000	0.000	0.000			
	Karpara	0.000	0.000	0.000			
	Khelna	1.700		1.780		96	
	Lahuki	0.000		0.000			
	Lower Godavari	Masoli	1.420		3.936		36
		Sukhana	0.280		0.280		100
Upper Dudhana		0.000		0.000			
	<b>CADA Abad</b>	<b>8.641</b>	<b>0.000</b>	<b>11.646</b>		<b>74</b>	
Manjara	Aurad KTB						
	Belpara						
	Bindusara	2.922		5.000		58	
	Bodhegaon	0.000		0.000			
	Borna	2.630		2.630		100	
	Devarjan	0.000		0.000			
	Gharni	1.570		2.110		74	
	Girakchal KTB						
	Kundalika	0.240		0.000			
	Masalga	2.518		1.018		247	
	Raighwan	1.157		0.280		413	
Renapur	0.936						

Subbasin	Project	Non Irrigation Use	NI Use as per Project Report	NI Use as per PIP	Percentage of NI Use as per PR	Percentage of NI Use as per PIP
	Rui	1.319		1.319		100
	Sakol	0.370		0.000		
	Sangameshwar (Dokewadi)	0.000		0.000		
	Saraswati	0.000		0.000		
	Sindphana	1.250		1.250		100
	Tawarja	2.088		2.060		101
	Terna	3.726		1.000		373
	Tiru	2.394		2.400		100
	Vaghe Babhulgaon					
	Van	2.652				
	Wagholi					
	Whati	0.360		0.000		
	<b>CADA Beed</b>	<b>26.132</b>	<b>0.000</b>	<b>19.067</b>		<b>137</b>
Middle Tapi	Abhora	0.000	0.000	0.000		
	Agnavati	0.920	90.530	0.000	1	
Middle Tapi	Aner	0.000	0.000	17.000		0
	Bhokarbari	0.934		0.510		183
	Bori	11.355		20.130		56
	Burai	1.840	0.000	1.840		100
Girna	Hivara	1.631	0.000	0.000		
Middle Tapi	Jamkhedi	3.564	0.000	4.460		80
	Kanoli	1.705	0.000	1.630		105
	Karwand	0.980	0.000	0.980		100
	Malangaon	0.580	0.000	0.000		
Girna	Manyad	2.392		3.115		77
Panzra	Panzara	5.936	0.000	4.600		129
Middle Tapi	Rangawali	0.000		0.000		
	Sonwad	1.940	0.000	1.570		124
	Suki	0.801		1.250		64
	Tondapur	1.114		2.200		51
	<b>CADA Jalgaon</b>	<b>35.692</b>	<b>90.530</b>	<b>59.285</b>	<b>39</b>	<b>60</b>
Manjra	Ghatshil Pargaon	0.072		0.000		
Girna	Haranbari	17.210		6.650		259
	Kelzar	2.860		2.120		135
	Nagya Sakya	0.000		0.000		
	<b>CADA Nashik</b>	<b>20.142</b>	<b>0.000</b>	<b>8.770</b>		<b>230</b>
PurnaTapi	Utawali	0.000	0.750	2.190	0	0
	<b>CIPC Chandrapur</b>	<b>0.000</b>	<b>0.750</b>	<b>2.190</b>	<b>0</b>	<b>0</b>

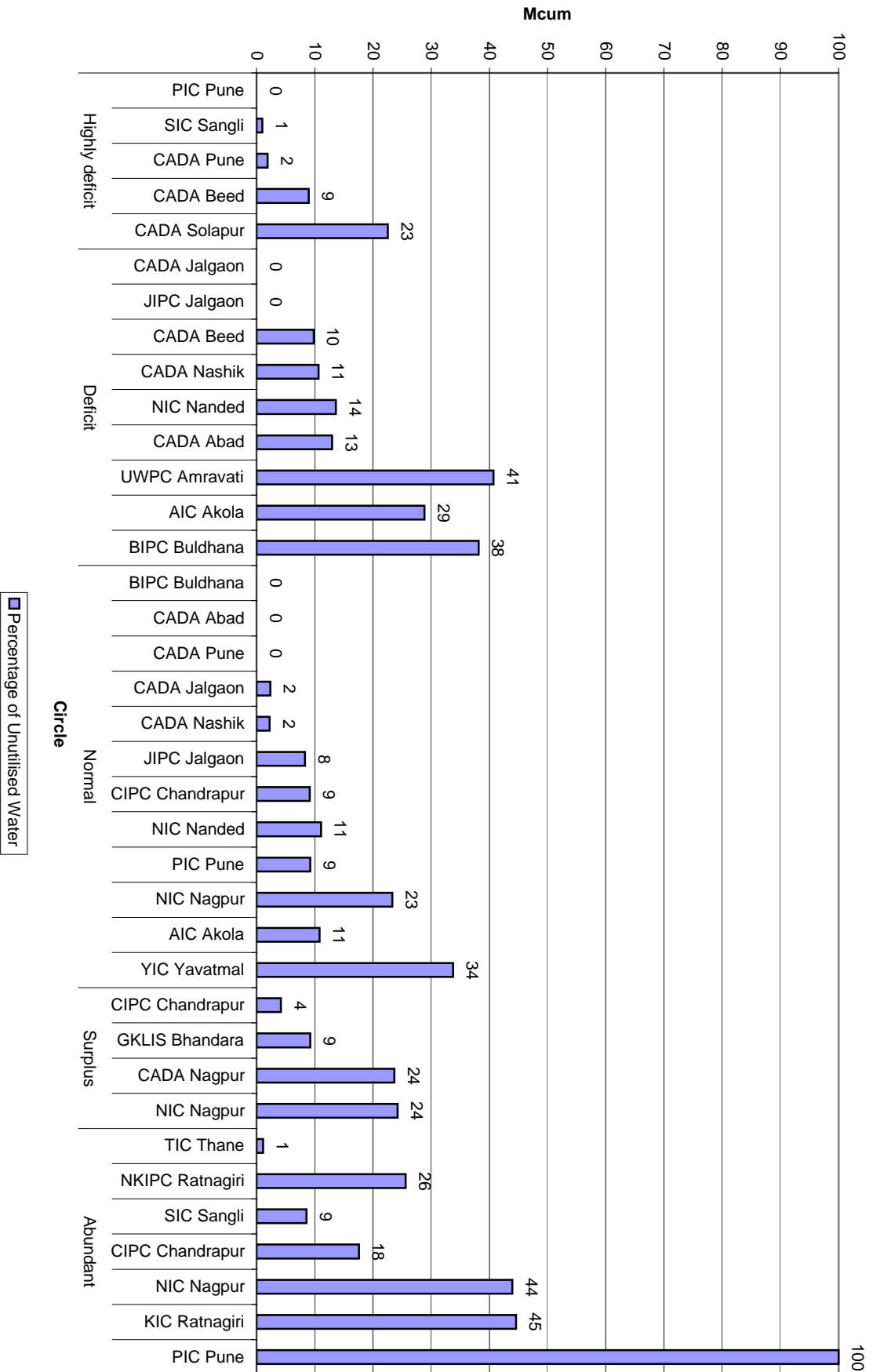
Subbasin	Project	Non Irrigation Use	NI Use as per Project Report	NI Use as per PIP	Percentage of NI Use as per PR	Percentage of NI Use as per PIP
Middle Tapi	Bahula	0.262	59.130	0.000	0	
	Bhokar (Mangrul)	0.000		0.000		
	Mor	0.000		0.000		
	<b>JIPC Jalgaon</b>	<b>0.262</b>	<b>59.130</b>	<b>0.000</b>	<b>0</b>	
Manjra Lower Godavari Manjra	Karadkhed	1.488	0.000	2.000		74
	Kudala	0.000		0.200		0
	Kundrala	0.796		0.900		88
	Loni	0.000		0.000		
	Mahalingi	0.060		0.000		
	Pethwadaj	0.230		0.280		82
	<b>NIC Nanded</b>	<b>2.574</b>	<b>0.000</b>	<b>3.380</b>		<b>76</b>
	<b>UWPC Amravati</b>	<b>0.000</b>	<b>9.619</b>	<b>0.000</b>	<b>0</b>	
PurnaTapi	Chandrabhaga (Amravati)	0.000	9.619	0.000	0	
	<b>UWPC Amravati</b>	<b>0.000</b>	<b>9.619</b>	<b>0.000</b>	<b>0</b>	
<b>Deficit</b>		<b>95.880</b>	<b>186.693</b>	<b>120.398</b>	<b>51</b>	<b>80</b>
<b>Normal</b>						
Painganga Wardha Painganga	Adan	3.070	11.763	6.590	26	47
	Borgaon	0.000	0.000	0.000		
	Ekburji	3.760	0.760	2.000	495	188
	Goki	1.928	0.000	2.830		68
	Koradi	2.649	10.680	3.290	25	81
	Lower Pus	0.059	0.000	0.920		6
	Saikheda	0.220	0.650	0.650	34	34
	Sonal	0.078	0.000	0.060		130
	Waghadi	0.000	0.000	0.430		0
	<b>AIC Akola</b>	<b>11.764</b>	<b>23.853</b>	<b>16.770</b>	<b>49</b>	<b>70</b>
	Painganga	Pen Takli	3.531	15.580	0.000	23
BIPC Buldhana						
Upper Godavari	Ambadi	1.210	39.535	1.200	3	101
	Dheku	0.130		0.129		100
	Kolhi	0.239				
	<b>CADA Abad</b>	<b>5.109</b>	<b>55.115</b>	<b>1.329</b>	<b>9</b>	<b>384</b>
Upper Godavari	Adhala	1.200	0.000	1.350		89
	Alandi	0.000	0.600	0.000	0	
	Bhojapur	0.320		1.700		19
	Mandohol	0.660		1.220		54
	<b>CADA Nashik</b>	<b>2.180</b>	<b>0.600</b>	<b>4.270</b>	<b>363</b>	<b>51</b>
Upper Bhima	Visapur	0.150	0.000	0.090		167
	<b>CADA Pune</b>	<b>0.150</b>	<b>0.000</b>	<b>0.090</b>		<b>167</b>

Subbasin	Project	Non Irrigation Use	NI Use as per Project Report	NI Use as per PIP	Percentage of NI Use as per PR	Percentage of NI Use as per PIP
Wardha	Amalnalla	2.452	3.930	3.930	62	62
	Dham	7.540	8.770	8.700	86	87
	Dongargaon (Chandrapur)	0.000	0.000	0.000		
	Pothara	8.050	0.000	0.270		2981
	<b>CIPC Chandrapur</b>	<b>18.042</b>	<b>12.700</b>	<b>12.900</b>	<b>142</b>	<b>140</b>
Wardha	Jam	1.868	0.000	1.850		101
	Kar	0.229	0.000	0.220		104
Painganga	Dongargaon (Nanded)	0.000		0.000		
	Nagzari	1.750		1.000		175
	<b>NIC Nanded</b>	<b>3.847</b>	<b>0.000</b>	<b>3.070</b>		<b>125</b>
Remaining Bhima (	Andhali	0.350	0.000	0.000		
Upper Bhima	Kasarsai	0.028	0.000	0.000		
Remaining Bhima (	Nazare	2.726	2.550	4.090	107	67
	Ranand	0.000	0.000	0.000		
Upper Bhima	Wadiwale	2.862	0.000	4.550		63
	<b>PIC Pune</b>	<b>5.966</b>	<b>2.550</b>	<b>14.780</b>	<b>234</b>	<b>40</b>
Remaining Bhima (	Dodda Nalla	0.000	0.000	0.000		
	Sankh	0.000	0.000	0.000		
	<b>SIC Sangli</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>		
Wardha	Nawargaon	1.480	2.713	2.710	55	55
	<b>YIC Yavatmal</b>	<b>1.480</b>	<b>2.713</b>	<b>2.710</b>	<b>55</b>	<b>55</b>
<b>Normal</b>		<b>58.775</b>	<b>100.244</b>	<b>58.629</b>	<b>59</b>	<b>100</b>

Subbasin	Project	Non Irrigation Use	NI Use as per Project Report	NI Use as per PIP	Percentage of NI Use as per PR	Percentage of NI Use as per PIP
<b>Surplus</b>						
Middle Wainganag	Bagheda	0.000	0.000	0.000		
	Betekar Bothli	0.000	0.000	0.000		
	Bodalkasa	0.000	0.000	0.002		0
	Chandpur	0.000	0.000	0.000		
	Chandrabhaga (Nagpur)	0.015	0.000	0.168		9
	Chorkhamara	0.000	0.000	0.000		
	Chulband	0.000	0.000	0.000		
	Kanholibara	0.000	0.000	0.000		
	Kesar Nalla	0.152	0.000	0.000		
	Khairbanda		0.000	0.000		
	Khekra Nalla	0.000	0.000	0.000		
	Kolar	0.435	0.000	1.378		32
	Makardhokala-Saiki	0.155	0.000	0.000		
	Managadh	0.000	0.000	0.000		
	Mordham	0.041	0.000	0.000		
	Pandharbodi	1.559	2.157	1.700	72	92
Rengepar	0.000	0.000	0.936		0	
Sangrampur	0.000	0.000	0.000			
Middle Wainganag	Sorana	0.000	0.000	0.000		
	Tekepar LIS	0.000	0.000	0.000		
	Umri	0.000	0.000	0.000		
	<b>CADA Nagpur</b>	<b>2.357</b>	<b>2.157</b>	<b>4.184</b>	<b>109</b>	<b>56</b>
	Chandai	0.000	0.000	0.000		
	Chargaon	0.406	1.266	1.266	32	32
	Labhansarad	0.000	0.000	0.000		
	Pakadigundam	1.378	0.000	3.030		45
	<b>CIPC Chandrapur</b>	<b>1.784</b>	<b>1.266</b>	<b>4.296</b>	<b>141</b>	<b>42</b>
	Katangi	0.890	0.000	0.890		100
Middle Wainganag	Umarazari					
	<b>GKLIS Bhandara</b>	<b>0.890</b>	<b>0.000</b>	<b>0.890</b>		<b>100</b>
	Panchdhara	0.000	0.000	0.000		
	Wunna		11.550	0.000	0	
<b>NIC Nagpur</b>	<b>0.000</b>	<b>11.550</b>	<b>0.000</b>	<b>0</b>		
<b>Surplus</b>		<b>10.132</b>	<b>14.973</b>	<b>9.370</b>	<b>68</b>	<b>108</b>
<b>Abundant</b>						
Lower Waingnga	Ghorazari	0.000	0.000	0.000		
	Naleshwar	0.000	0.000	0.000		
	<b>CIPC Chandrapur</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>		
Vashishithi	Natuwadi	2.408	3.030	0.000	79	
	<b>KIC Ratnagiri</b>	<b>2.408</b>	<b>3.030</b>	<b>0.000</b>	<b>79</b>	

Subbasin	Project	Non Irrigation Use	NI Use as per Project Report	NI Use as per PIP	Percentag e of NI Use as per PR	Percentag e of NI Use as per PIP
Lower Waingnga	Dongargaon	0.000	0.000	0.000		
	<b>NIC Nagpur</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>		
North Konkan	Hetwane	33.661	0.000	0.000		
	<b>NKIPC Thane</b>	<b>33.661</b>	<b>0.000</b>	<b>0.000</b>		
Upper Krishna (W)	Uttar mand	0.000	0.000	0.000		
	<b>PIC Pune</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>		
Upper Krishna (W)	Chikotra	0.329	7.700	1.460	4	23
	Chitri	2.060	0.000	3.270		63
	Jangamatti	0.821	0.000	0.690		119
	Kadvi	0.222	0.000	0.570		39
	Kasari	1.162	0.000	4.910		24
	Krishna Canal & Khodshi	0.320	0.000	0.570		56
	Kumbhi	0.960	0.000	1.170		82
	Morna (Sangli)	0.608	0.000	0.000		
	Patgaon	3.067	26.180	0.000	12	
	Yeoti Masoli	0.051	0.000	0.264		19
	<b>SIC Sangli</b>	<b>9.600</b>	<b>33.880</b>	<b>12.904</b>	<b>28</b>	<b>74</b>
	Middle Konkan	Amba				
North Konkan	Rajanalla Complex	0.000	426.800	0.000	0	
Middle Konkan	Wandri	0.000	0.000	0.000		
	<b>TIC Thane</b>	<b>0.000</b>	<b>426.800</b>	<b>0.000</b>	<b>0</b>	
<b>Abundant</b>		<b>47.847</b>	<b>463.710</b>	<b>12.904</b>	<b>10</b>	<b>371</b>
<b>Total</b>		<b>230.434</b>	<b>771.320</b>	<b>228.936</b>	<b>30</b>	<b>101</b>

## Indicator VII: Percentage of Unutilised Water



**Indicator VII: Percentage of Unutilised Water to Live Storage  
Medium Projects**

Unit: Mcum

Subbasin/ Plangroup	Project/ Circle	Live Storage on 30June	Carry Over	Replenish- ment in June	Net Balance	Live Storage on 15th Oct	Percenta ge of Unutilis ed Water
<b>Highly deficit</b>							
Sina-Bori-Benetura	Benitura	4.188	0.000	2.570	1.618	11.471	14
	Chandani	1.620	0.000	1.460	0.160	15.160	1
	Harni	0.400	0.000	0.000	0.400	6.470	6
	Jakapur	2.802	0.000	0.530	2.272	5.455	42
	Kada	0.000	0.000	0.100	0.000	2.800	0
	Kadi	0.000	0.000	0.000	0.000	0.000	
	Khandala	0.996	0.000	0.230	0.766	4.438	17
	Khasapur	2.100	0.000	1.610	0.490	13.040	4
	Kurnoor	4.500	0.000	1.460	3.040	32.280	9
	Mahasangvi	1.560	0.000	1.620	0.000	5.880	0
	Mehkari	0.000	0.000	0.000	0.000	0.000	
	Ruti	0.000	0.000	0.000	0.000	0.000	
	Sakat	0.000	0.000	0.000	0.000	7.830	0
	Talwar	0.612	0.000	1.152	0.000	0.000	
	Turori	2.176	0.000	0.250	1.926	6.200	31
	<b>CADA Beed</b>	<b>20.954</b>	<b>0.000</b>	<b>10.982</b>	<b>9.972</b>	<b>111.024</b>	<b>9</b>
Upper Krishna (E)	Yeralwadi	0.370	0.000	0.000	0.370	19.600	2
	<b>CADA Pune</b>	<b>0.370</b>	<b>0.000</b>	<b>0.000</b>	<b>0.370</b>	<b>19.600</b>	<b>2</b>
Sina-Bori-Benetura	Ekrukh	7.106	0.000	0.004	7.102	27.891	25
	Hingani (Pargaon)	21.440	0.000	13.530	7.910	32.000	25
	Mangi	3.909	0.000	3.130	0.779	14.108	6
Remaining Bhima + Mar	Ashti	9.240	0.000	4.130	5.110	20.600	25
	Budhihal	0.000	0.000	0.000	0.000	0.000	
Sina-Bori-Benetura	Jawalgaon	4.760	0.000	0.000	4.760	19.110	25
	<b>CADA Solapur</b>	<b>46.455</b>	<b>0.000</b>	<b>20.794</b>	<b>25.661</b>	<b>113.709</b>	<b>23</b>
Upper Krishna (E)	Nher	10.900	2.770	9.383	0.000	11.790	0
Sina-Bori-Benetura	Sina	0.000	0.000	9.110	0.000	9.460	0
	Khairy	4.867	0.000	2.320	2.547	13.740	19
	<b>PIC Pune</b>	<b>15.767</b>	<b>2.770</b>	<b>20.813</b>	<b>0.000</b>	<b>34.990</b>	<b>0</b>
Upper Krishna (E)	Siddhewadi	0.060	0.000	0.000	0.060	6.130	1
	Basappawadi	0.000	0.000	0.000	0.000	0.000	
Remaining Bhima + Mar	Dodda Nalla	0.000	0.000	0.000	0.000	0.000	
	Sankh	0.000	0.000	0.000	0.000	0.000	
	<b>SIC Sangli</b>	<b>0.060</b>	<b>0.000</b>	<b>0.000</b>	<b>0.060</b>	<b>6.130</b>	<b>1</b>
<b>Highly deficit</b>		<b>83.606</b>	<b>2.770</b>	<b>52.589</b>	<b>28.247</b>	<b>285.453</b>	<b>10</b>



Subbasin/ Plangroup	Project/ Circle	Live Storage on 30June	Carry Over	Replenish- ment in June	Net Balance	Live Storage on 15th Oct	Percenta ge of Unutilis ed Water
<b>Deficit</b>						0	
Purna (Tapi)	Nirguna	2.230	0.000	0.074	2.156	21.330	10
	Dnyanganga	5.140	5.660	4.730	0.000	4.690	0
	Morna (Akola)	4.992	0.000	0.000	4.992	15.490	32
	Paldhag	2.000	0.000	2.040	0.000	0.700	0
	Shahanoor	23.570	0.000	0.000	23.570	46.040	51
	Uma	2.566	0.000	0.036	2.530	11.680	22
	Mas	1.090	0.000	0.000	1.090	0.700	156
	<b>AIC Akola</b>	<b>41.588</b>	<b>5.660</b>	<b>6.880</b>	<b>29.048</b>	<b>100.630</b>	<b>29</b>
Purna (Tapi)	Mun	4.360	0.000	2.150	2.210	3.850	57
	Torna	1.840	0.000	5.100	0.000	0.500	0
Purna (Tapi)	Utawali	0.000	0.000	0.000	0.000	1.440	0
		<b>BIPC Buldhana</b>	<b>6.200</b>	<b>0.000</b>	<b>7.250</b>	<b>2.210</b>	<b>5.790</b>
Purna+Dudhna	Girija	0.000	0.000	0.130	0.000	0.000	
	Khelna	0.000	0.000	0.150	0.000	4.610	0
Girna	Gadadgad	0.000	0.750	0.000	0.000	3.478	0
Purna+Dudhna	Upper Dudhna	0.000	0.000	0.000	0.000	0.000	
	Lahuki	0.000	0.000	0.000	0.000	1.959	0
Lower Godavari	Masoli	5.024	0.000	0.000	5.024	27.140	19
	Purna+Dudhna	Karpara	4.202	0.370	0.090	3.742	24.758
Kalyan Girija		7.530	0.000	5.310	2.220	8.470	26
Kalyan		4.530	0.000	0.140	4.390	11.570	38
Jui		0.040	0.000	0.040	0.000	0.750	0
Jivrekha		0.000	0.000	0.320	0.000	4.780	0
Dhamna		0.000	0.000	0.000	0.000	0.000	
Sukhana		0.140	0.000	0.610	0.000	15.660	0
Girna		Ajanta Andhari	1.827	0.000	1.820	0.007	1.203
		<b>CADA Abad</b>	<b>23.293</b>	<b>1.120</b>	<b>8.610</b>	<b>13.563</b>	<b>104.378</b>

Subbasin/ Plangroup	Project/ Circle	Live Storage on 30June	Carry Over	Replenish- ment in June	Net Balance	Live Storage on 15th Oct	Percenta ge of Unutilis ed Water
Manjra	Van	3.560	0.000	0.000	3.560	19.340	18
	Sindphana	1.137	0.000	0.932	0.205	7.356	3
	Rui	1.362	0.000	1.160	0.202	7.037	3
	Tawarja	0.000	0.000	2.592	0.000	12.262	0
	Terna	5.102	0.000	2.630	2.472	19.395	13
	Renapur	3.580	0.000	0.650	2.930	17.780	16
	Bindusara	1.160	0.000	0.000	1.160	7.112	16
	Saraswati	0.110	0.000	0.000	0.110	6.210	2
	Sakol	1.282	0.000	0.183	1.099	10.949	10
	Sangameshwar	0.989	0.000	0.000	0.989	15.030	7
	Raighwan	1.291	0.000	0.690	0.601	9.560	6
	Masalga	0.420	0.000	0.470	0.000	4.760	0
	Kundalika	11.020	0.000	0.000	11.020	37.690	29
	Gharni	0.777	0.000	0.713	0.064	22.457	0
	Devarjan	0.383	0.000	0.010	0.373	10.680	3
	Borna	0.000	0.000	0.000	0.000	8.970	0
	Whati	0.066	0.000	0.000	0.066	8.270	1
	Tiru	0.790	0.000	0.342	0.448	15.290	3
	Bodhegaon	1.311	0.000	0.000	1.311	3.721	35
		<b>CADA Beed</b>	<b>34.340</b>	<b>0.000</b>	<b>10.372</b>	<b>23.968</b>	<b>243.869</b>
Girna	Manyad	3.680	0.000	7.966	0.000	20.020	0
Middle Tapi (South)	Bori	0.000	0.000	0.000	0.000	11.357	0
	Burai	0.000	0.000	0.550	0.000	14.210	0
	Kanoli	0.050	0.000	0.000	0.050	6.590	1
	Rangawali	3.240	0.000	1.580	1.660	12.820	13
	Sonwad	0.000	0.000	0.350	0.000	13.880	0
	Tondapur	0.391	0.000	2.100	0.000	0.000	
	Hivara	0.000	0.000	0.365	0.000	6.111	0
Girna	Bhokarbari	0.137	0.000	0.006	0.131	2.779	5
Girna	Agnavati	0.000	0.000	0.000	0.000	2.183	0
	<b>CADA Jalgaon</b>	<b>7.498</b>	<b>0.000</b>	<b>12.917</b>	<b>0.000</b>	<b>89.950</b>	<b>0</b>
Manjra	Ghatshil Pargaon	0.000	0.000	0.000	0.000	0.000	
Girna	Haranbari	2.120	0.000	0.420	1.700	33.020	5
	Nagya Sakya	0.000	0.000	0.000	0.000	3.990	0
	Kelzar	5.210	0.000	1.250	3.960	16.220	24
		<b>CADA Nashik</b>	<b>7.330</b>	<b>0.000</b>	<b>1.670</b>	<b>5.660</b>	<b>53.230</b>
Middle Tapi (South)	Bahula	0.000	0.000	0.517	0.000	0.756	0
		<b>JIPC Jalgaon</b>	<b>0.000</b>	<b>0.000</b>	<b>0.517</b>	<b>0.000</b>	<b>0.756</b>

Subbasin/ Plangroup	Project/ Circle	Live Storage on 30June	Carry Over	Replenish- ment in June	Net Balance	Live Storage on 15th Oct	Percenta ge of Unutilis ed Water	
Lower Godavari Manjra	Kudala	0.789	0.000	0.881	0.000	4.350	0	
	Kundrala	2.072	0.000	0.000	2.072	10.417	20	
	Karadkhed	2.380	0.000	0.000	2.380	11.010	22	
	Pethwadaj	0.740	0.000	1.710	0.000	9.030	0	
	Mahalingi	0.000	0.000	0.036	0.000	4.785	0	
	Loni	4.480	0.000	1.340	3.140	8.100	39	
	<b>NIC Nanded</b>	<b>10.461</b>	<b>0.000</b>	<b>3.967</b>	<b>6.494</b>	<b>47.692</b>	<b>14</b>	
Purna (Tapi)	Chandrabhaga (Amrav	9.504	0.000	0.000	9.504	23.351	41	
	<b>UWPC Amravati</b>	<b>9.504</b>	<b>0.000</b>	<b>0.000</b>	<b>9.504</b>	<b>23.351</b>	<b>41</b>	
<b>Deficit</b>		<b>140.214</b>	<b>6.780</b>	<b>52.183</b>	<b>90.447</b>	<b>669.646</b>	<b>14</b>	
<b>Normal</b>						0		
Penganga	Ekburji	3.130	0.000	0.780	2.350	11.970	20	
	Waghadi	12.970	0.000	3.645	9.325	35.368	26	
Wardha Penganga	Borgaon	0.270	0.000	0.270	0.000	6.530	0	
	Sonal	4.350	0.000	0.628	3.722	16.920	22	
Penganga	Saikheda	20.733	0.000	16.273	4.460	27.180	16	
	Lower Pus	12.900	8.500	7.205	0.000	59.630	0	
	Koradi	0.540	0.000	0.750	0.000	15.890	0	
	Goki	9.120	0.000	7.324	1.796	42.710	4	
	Adan	16.970	0.000	4.988	11.982	67.250	18	
		<b>AIC Akola</b>	<b>80.983</b>	<b>8.500</b>	<b>41.863</b>	<b>30.620</b>	<b>283.448</b>	<b>11</b>
	Penganga	Pen Takli	0.419	19.861	5.620	0.000	0.731	0
	<b>BIPC Buldhana</b>	<b>0.419</b>	<b>19.861</b>	<b>5.620</b>	<b>0.000</b>	<b>0.731</b>	<b>0</b>	
Upper Godavari	Kolhi	0.000	0.000	0.000	0.000	0.390	0	
	Ambadi	0.000	0.000	0.820	0.000	0.000		
	Dheku	0.410	0.000	1.450	0.000	0.000		
	<b>CADA Abad</b>	<b>0.410</b>	<b>0.000</b>	<b>2.270</b>	<b>0.000</b>	<b>0.390</b>	<b>0</b>	
Middle Tapi (Satpuda	Aner	0.000	0.000	2.880	0.000	59.209	0	
	Abhora	0.000	0.000	0.010	0.000	3.958	0	
	Jamkhedi	0.370	0.000	0.370	0.000	12.340	0	
Panzra	Panzara	2.270	0.000	0.873	1.397	35.630	4	
Middle Tapi (Satpuda	Karwand	1.420	0.000	0.000	1.420	10.410	14	
	Malangaon	1.118	0.000	0.000	1.118	11.328	10	
	Suki	3.246	0.000	0.300	2.946	35.662	8	
		<b>CADA Jalgaon</b>	<b>8.424</b>	<b>0.000</b>	<b>4.433</b>	<b>3.991</b>	<b>168.537</b>	<b>2</b>

Subbasin/ Plangroup	Project/ Circle	Live Storage on 30June	Carry Over	Replenish- ment in June	Net Balance	Live Storage on 15th Oct	Percenta ge of Unutilis ed Water
Upper Godavari	Adhala	3.550	0.000	2.540	1.010	27.610	4
	Alandi	3.030	0.000	1.640	1.390	27.460	5
	Bhojapur	0.283	0.000	1.043	0.000	9.930	0
	Mandohol	0.000	0.000	0.000	0.000	8.780	0
	<b>CADA Nashik</b>	<b>6.863</b>	<b>0.000</b>	<b>5.223</b>	<b>1.640</b>	<b>73.780</b>	<b>2</b>
Upper Bhima	Visapur	5.250	0.000	6.090	0.000	25.120	0
	<b>CADA Pune</b>	<b>5.250</b>	<b>0.000</b>	<b>6.090</b>	<b>0.000</b>	<b>25.120</b>	<b>0</b>
Wardha	Amalnalla	3.640	0.000	1.430	2.210	21.200	10
	Dham	8.500	0.000	0.000	8.500	62.510	14
	Pothara	4.630	0.000	4.700	0.000	34.170	0
	Dongargaon (Chandra	0.550	0.000	0.000	0.550	4.440	12
	<b>CIPC Chandrapur</b>	<b>17.320</b>	<b>0.000</b>	<b>6.130</b>	<b>11.190</b>	<b>122.320</b>	<b>9</b>
Middle Tapi (Satpuda	Bhokar (Mangrul)	0.000	0.000	0.306	0.000	5.505	0
	Mor	1.245	0.000	0.162	1.083	3.834	28
	<b>JIPC Jalgaon</b>	<b>1.245</b>	<b>0.000</b>	<b>0.468</b>	<b>0.777</b>	<b>9.339</b>	<b>8</b>
Wardha	Kar	4.337	0.000	0.000	4.337	21.063	21
	Jam	6.792	0.000	0.540	6.252	24.300	26
	<b>NIC Nagpur</b>	<b>11.129</b>	<b>0.000</b>	<b>0.540</b>	<b>10.589</b>	<b>45.363</b>	<b>23</b>
Penganga	Dongargaon (Nanded)	2.269	0.000	1.640	0.629	8.799	7
	Nagzari	1.862	0.000	0.810	1.052	6.392	16
	<b>NIC Nanded</b>	<b>4.131</b>	<b>0.000</b>	<b>2.450</b>	<b>1.681</b>	<b>15.191</b>	<b>11</b>
Remaining Bhima (Neera	Andhali	4.210	0.000	0.000	4.210	7.420	57
	Upper Bhima	Wadiwale	1.830	0.095	1.380	0.355	30.390
Remaining Bhima (N	Kasarsai	3.650	0.000	1.625	2.025	16.020	13
	Tisangi	3.140	1.700	0.030	1.410	24.090	6
	Ranand	2.930	0.000	0.000	2.930	4.980	59
	Mhaswad	0.120	0.000	0.000	0.120	8.350	1
	Nazare	7.191	0.000	8.299	0.000	16.652	0
	<b>PIC Pune</b>	<b>23.071</b>	<b>1.795</b>	<b>11.334</b>	<b>9.942</b>	<b>107.902</b>	<b>9</b>
	Wardha	Nawargaon	4.210	0.000	0.000	4.210	12.474
	<b>YIC Yavatmal</b>	<b>4.210</b>	<b>0.000</b>	<b>0.000</b>	<b>4.210</b>	<b>12.474</b>	<b>34</b>
<b>Normal</b>		<b>163.455</b>	<b>30.156</b>	<b>86.421</b>	<b>46.878</b>	<b>864.595</b>	<b>5</b>

Subbasin/ Plangroup	Project/ Circle	Live Storage on 30June	Carry Over	Replenish- ment in June	Net Balance	Live Storage on 15th Oct	Percenta ge of Unutilis ed Water	
<b>Surplus</b>		0						
Middle Wainganga	Bagheda	1.285	0.000	0.000	1.285	2.626	49	
	Betekar Bothli	0.851	0.000	0.136	0.715	1.795	40	
	Bodalkasa	2.492	0.000	0.000	2.492	8.730	29	
	Chandpur	9.995	0.000	1.039	8.956	13.932	64	
	Chandrabhaga (Nagpu	1.808	0.000	0.000	1.808	8.260	22	
	Chorkhamara	3.656	0.000	0.000	3.656	13.110	28	
	Chulband	2.725	0.000	1.312	1.413	14.274	10	
	Kanholibara	4.217	0.000	0.000	4.217	19.712	21	
	Kesar Nalla	0.750	0.000	0.000	0.750	3.930	19	
	Khairbanda	1.180	0.000	0.014	1.166	11.912	10	
	Khekra Nalla	8.261	0.000	0.000	8.261	22.140	37	
	Kolar	13.559	0.000	0.140	13.419	31.320	43	
	Makardhokala-Saiki	5.250	0.000	4.030	1.220	51.380	2	
	Managadh	0.351	0.000	0.221	0.130	4.900	3	
	Mordham	1.452	0.000	0.200	1.252	4.953	25	
	Pandharbodi	3.281	0.000	0.738	2.543	12.010	21	
	Rengepar	0.151	0.000	0.086	0.065	1.966	3	
	Sangrampur	0.163	0.000	0.022	0.141	2.150	7	
	Sorana	1.812	0.000	0.000	1.812	3.706	49	
	Tekepar LIS	0.000	0.000	0.000	0.000	0.000		
	Umri	1.061	0.000	0.000	1.061	5.142	21	
		<b>CADA Nagpur</b>	<b>64.300</b>	<b>0.000</b>	<b>7.938</b>	<b>56.362</b>	<b>237.948</b>	<b>23.7</b>
	Middle Wainganga	Chandai	0.000	0.000	0.000	0.000	8.952	0
Pakadigundam		1.097	0.000	0.793	0.304	11.804	3	
Chargaon		3.629	0.000	1.844	1.785	17.736	10	
Labhansarad		0.661	0.000	0.836	0.000	7.241	0	
		<b>CIPC Chandrapur</b>	<b>5.387</b>	<b>0.000</b>	<b>3.473</b>	<b>1.914</b>	<b>45.733</b>	<b>4</b>
Middle Wainganga	Katangi	0.820	0.000	0.000	0.820	8.892	9	
		<b>GKLIS Bhandara</b>	<b>0.820</b>	<b>0.000</b>	<b>0.000</b>	<b>0.820</b>	<b>8.892</b>	<b>9</b>
Middle Wainganga	Panchdhara	3.120	0.000	0.000	3.120	10.100	31	
	Wunna	2.007	0.000	0.000	2.007	11.068	18	
		<b>NIC Nagpur</b>	<b>5.127</b>	<b>0.000</b>	<b>0.000</b>	<b>5.127</b>	<b>21.168</b>	<b>24</b>
<b>Surplus</b>		<b>75.634</b>	<b>0.000</b>	<b>11.411</b>	<b>64.223</b>	<b>313.741</b>	<b>20</b>	
<b>Abundant</b>		0						
Lower Wainganga	Ghorazari	4.620	0.000	1.462	3.158	28.923	11	
	Naleshwar	4.369	0.000	1.422	2.947	5.790	51	
		<b>CIPC Chandrapur</b>	<b>8.989</b>	<b>0.000</b>	<b>2.884</b>	<b>6.105</b>	<b>34.713</b>	<b>18</b>

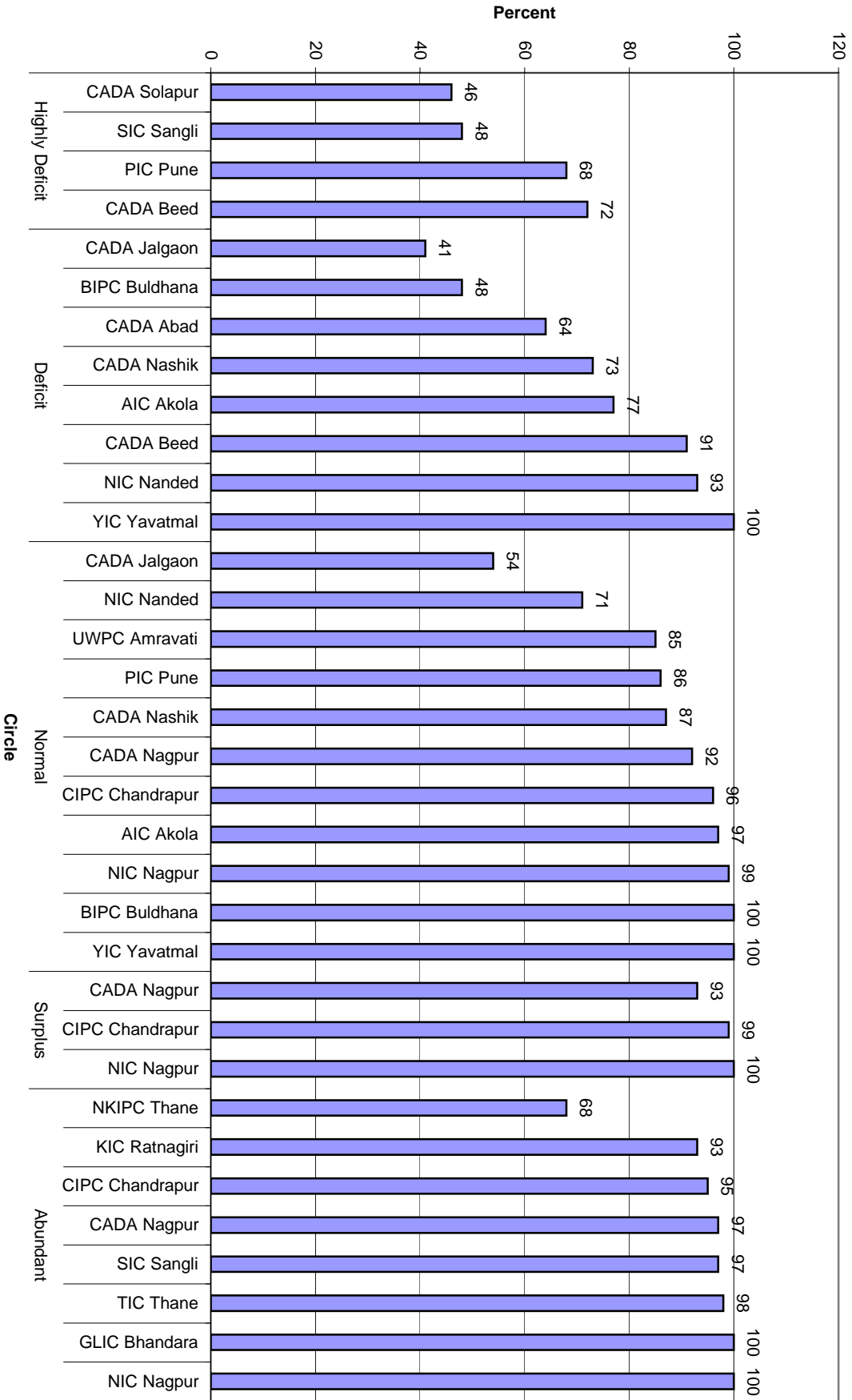
Subbasin/ Plangroup	Project/ Circle	Live Storage on 30June	Carry Over	Replenish- ment in June	Net Balance	Live Storage on 15th Oct	Percenta ge of Unutilis ed Water	
Vashishthi	Natuwadi	18.841	0.000	6.945	11.896	26.692	45	
	<b>KIC Ratnagiri</b>	<b>18.841</b>	<b>0.000</b>	<b>6.945</b>	<b>11.896</b>	<b>26.692</b>	<b>45</b>	
Lower Wainganga	Dongargaon	5.624	0.000	0.503	5.121	11.654	44	
	<b>NIC Nagpur</b>	<b>5.624</b>	<b>0.000</b>	<b>0.503</b>	<b>5.121</b>	<b>11.654</b>	<b>44</b>	
North Konkan	Hetwane	42.800	25.350	11.481	5.969	23.308	26	
	<b>NKIPC Ratnagiri</b>	<b>42.800</b>	<b>25.350</b>	<b>11.481</b>	<b>5.969</b>	<b>23.308</b>	<b>26</b>	
Upper Krishna (W)	Uttar mand	2.790	0.000	0.000	2.790	2.790	100	
	<b>PIC Pune</b>	<b>2.790</b>	<b>0.000</b>	<b>0.000</b>	<b>2.790</b>	<b>2.790</b>	<b>100</b>	
Upper Krishna (W)	Chitri	8.310	0.000	6.040	2.270	52.730	4	
	Yeoti Masoli	1.770	0.250	1.058	0.462	7.050	7	
	Patgaon	36.270	0.000	24.826	11.444	79.860	14	
	Morna (Sangli)	12.468	0.000	11.032	1.436	16.748	9	
	Kumbhi	15.442	0.000	0.618	14.824	60.177	25	
	Krishna Canals	0.000	0.000	34.444	0.000	0.000		
	Kasari	41.440	0.000	19.090	22.350	77.956	29	
	Jangamatti	9.120	0.000	3.420	5.700	26.150	22	
	Chikotra	14.710	0.000	2.071	12.639	37.316	34	
	Kadvi	0.000	0.000	0.000	0.000	69.770	0	
	<b>SIC Sangli</b>	<b>139.530</b>	<b>0.250</b>	<b>102.599</b>	<b>36.681</b>	<b>427.757</b>	<b>9</b>	
	North Konkan	Rajanalla Complex	30.790	0.000	19.290	11.500	217.470	5
	Middle Konkan	Wandri	0.000	1.270	7.380	0.000	33.940	0
<b>TIC Thane</b>		<b>30.790</b>	<b>1.270</b>	<b>26.670</b>	<b>2.850</b>	<b>251.410</b>	<b>1</b>	
<b>Abundant</b>		<b>249.364</b>	<b>26.870</b>	<b>151.082</b>	<b>71.412</b>	<b>778.324</b>	<b>9</b>	
<b>Medium Projects</b>		<b>858.687</b>	<b>66.576</b>	<b>353.686</b>	<b>438.425</b>	<b>2911.759</b>	<b>15</b>	

**Annexure III**  
**Indicators of Minor Projects**





## Indicator I Water Availability in M.I. Tanks

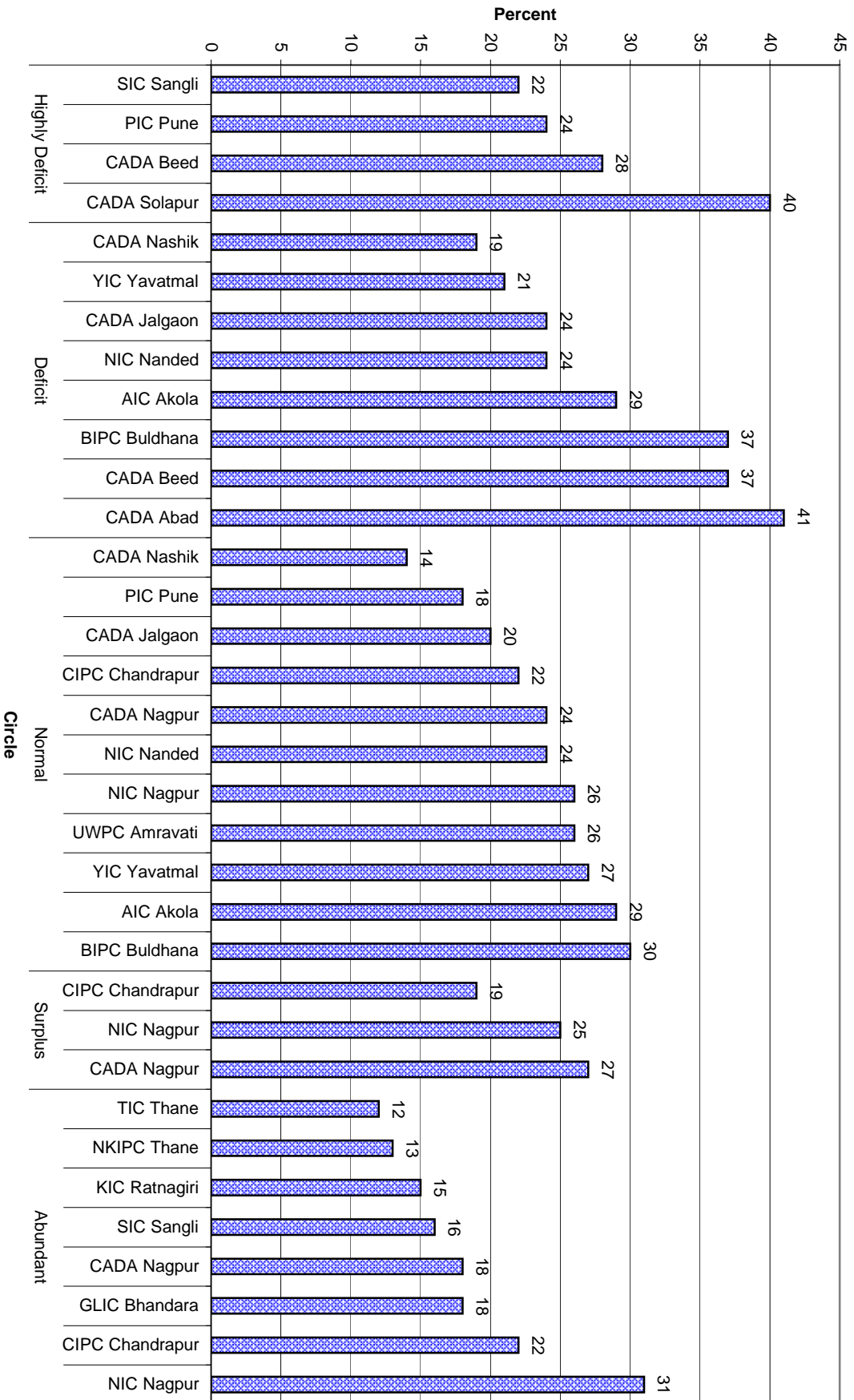


**Indicator I : Water Availability in MI Tanks**

Unit : Mcum

Circle	Max. Live Storage Observed	Designed Live Storage	Percentage
CADA Beed	154.430	215.042	72
CADA Solapur	50.087	109.075	46
PIC Pune	100.720	147.404	68
SIC Sangli	67.019	140.995	48
<b>Highly Deficit</b>	<b>372.255</b>	<b>612.516</b>	<b>61</b>
AIC Akola	291.644	379.100	77
BIPC Buldhana	40.310	83.350	48
CADA Abad	113.246	177.459	64
CADA Beed	317.588	347.865	91
CADA Jalgaon	79.177	191.310	41
CADA Nashik	43.460	59.870	73
NIC Nanded	161.851	173.629	93
YIC Yavatmal	51.490	51.490	100
<b>Deficit</b>	<b>1098.765</b>	<b>1464.073</b>	<b>75</b>
AIC Akola	101.154	104.077	97
BIPC Buldhana	5.830	5.830	100
CADA Jalgaon	35.067	65.028	54
CADA Nagpur	33.875	36.726	92
CADA Nashik	92.627	105.996	87
CIPC Chandrapur	28.650	29.730	96
NIC Nagpur	29.770	30.151	99
NIC Nanded	6.964	9.793	71
PIC Pune	42.120	48.770	86
UWPC Amravati	8.363	9.879	85
YIC Yavatmal	22.670	22.670	100
<b>Normal</b>	<b>407.090</b>	<b>468.650</b>	<b>87</b>
CADA Nagpur	74.491	80.170	93
CIPC Chandrapur	24.477	24.793	99
NIC Nagpur	12.096	12.096	100
<b>Surplus</b>	<b>111.064</b>	<b>117.059</b>	<b>95</b>
CADA Nagpur	116.661	120.807	97
CIPC Chandrapur	74.825	79.045	95
GLIC Bhandara	5.522	5.522	100
KIC Ratnagiri	96.967	104.705	93
NIC Nagpur	9.138	9.138	100
NKIPC Thane	61.883	90.876	68
SIC Sangli	126.719	130.000	97
TIC Thane	166.208	168.939	98
<b>Abundant</b>	<b>657.923</b>	<b>709.032</b>	<b>93</b>
<b>Grand Total</b>	<b>2647.098</b>	<b>3371.329</b>	<b>79</b>

**Indicator II: Percentage of Evaporation to Max. Live Storage**

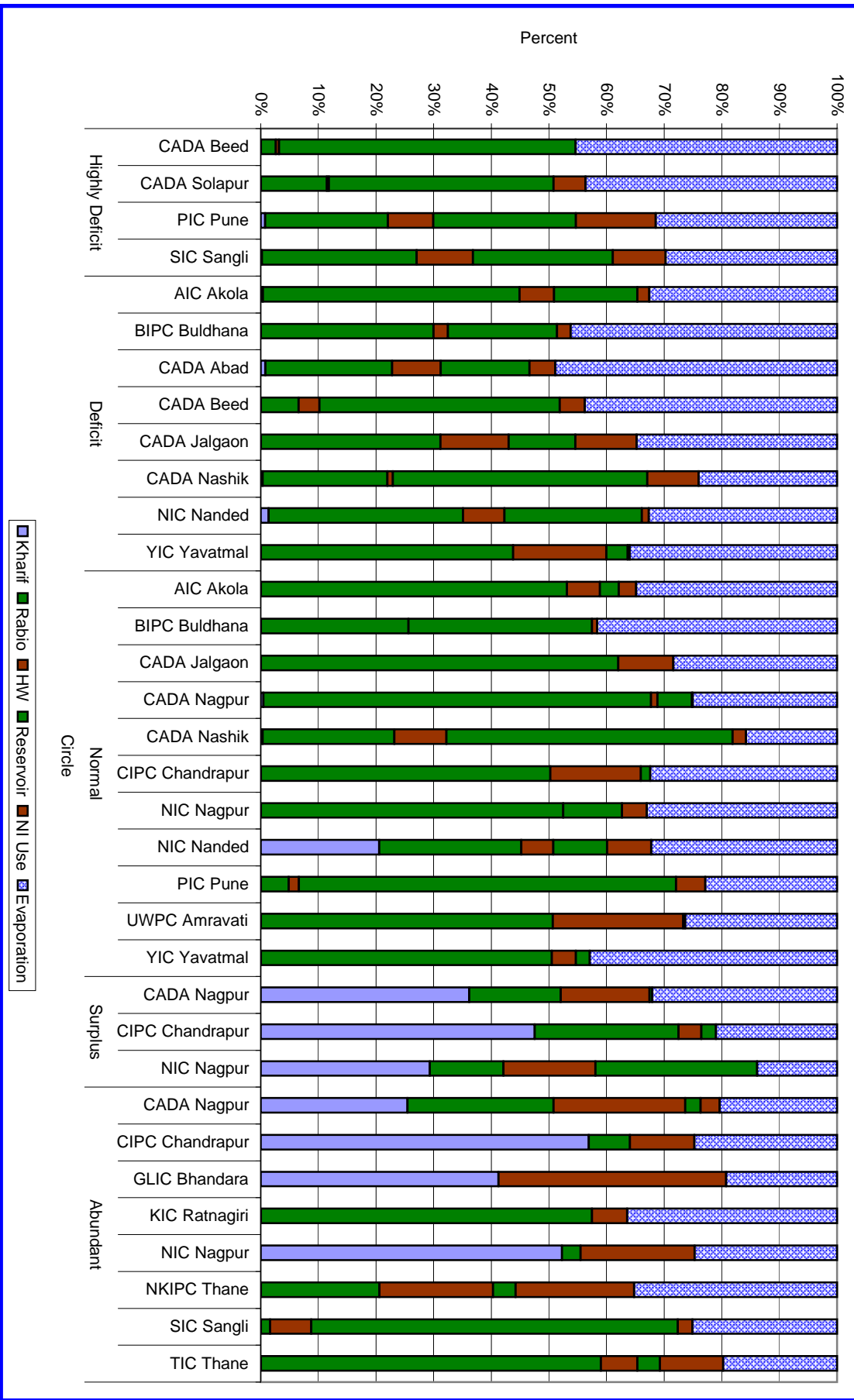


**Indicator II : Percentage of Evaporation Losses to Max Live Storage  
Minor Irrigation Tanks**

Unit : Mcum

Circle	Evaporation Losses	Max. Live Storage Observed	Percentage
CADA Beed	42.769	154.430	28
CADA Solapur	19.796	50.087	40
PIC Pune	24.451	100.720	24
SIC Sangli	14.737	67.019	22
<b>Highly Deficit</b>	<b>101.753</b>	<b>372.255</b>	<b>27</b>
AIC Akola	83.928	291.644	29
BIPC Buldhana	15.040	40.310	37
CADA Abad	46.179	113.246	41
CADA Beed	116.134	317.588	37
CADA Jalgaon	18.778	79.177	24
CADA Nashik	8.370	43.460	19
NIC Nanded	39.037	161.851	24
YIC Yavatmal	10.810	51.490	21
<b>Deficit</b>	<b>338.274</b>	<b>1098.765</b>	<b>31</b>
AIC Akola	29.008	101.154	29
BIPC Buldhana	1.740	5.830	30
CADA Jalgaon	7.027	35.067	20
CADA Nagpur	8.072	33.875	24
CADA Nashik	12.924	92.627	14
CIPC Chandrapur	6.190	28.650	22
NIC Nagpur	7.622	29.770	26
NIC Nanded	1.691	6.964	24
PIC Pune	7.740	42.120	18
UWPC Amravati	2.147	8.363	26
YIC Yavatmal	6.177	22.670	27
<b>Normal</b>	<b>90.338</b>	<b>407.090</b>	<b>22</b>
CADA Nagpur	20.268	74.491	27
CIPC Chandrapur	4.568	24.477	19
NIC Nagpur	3.080	12.096	25
<b>Surplus</b>	<b>27.916</b>	<b>111.064</b>	<b>25</b>
CADA Nagpur	21.577	116.661	18
CIPC Chandrapur	16.281	74.825	22
GLIC Bhandara	0.985	5.522	18
KIC Ratnagiri	14.175	96.967	15
NIC Nagpur	2.871	9.138	31
NKIPC Thane	7.811	61.883	13
SIC Sangli	20.135	126.719	16
TIC Thane	19.467	166.208	12
<b>Abundant</b>	<b>103.302</b>	<b>657.923</b>	<b>16</b>
<b>Grand Total</b>	<b>661.583</b>	<b>2647.098</b>	<b>25</b>

### Indicator III: Water Use Pattern

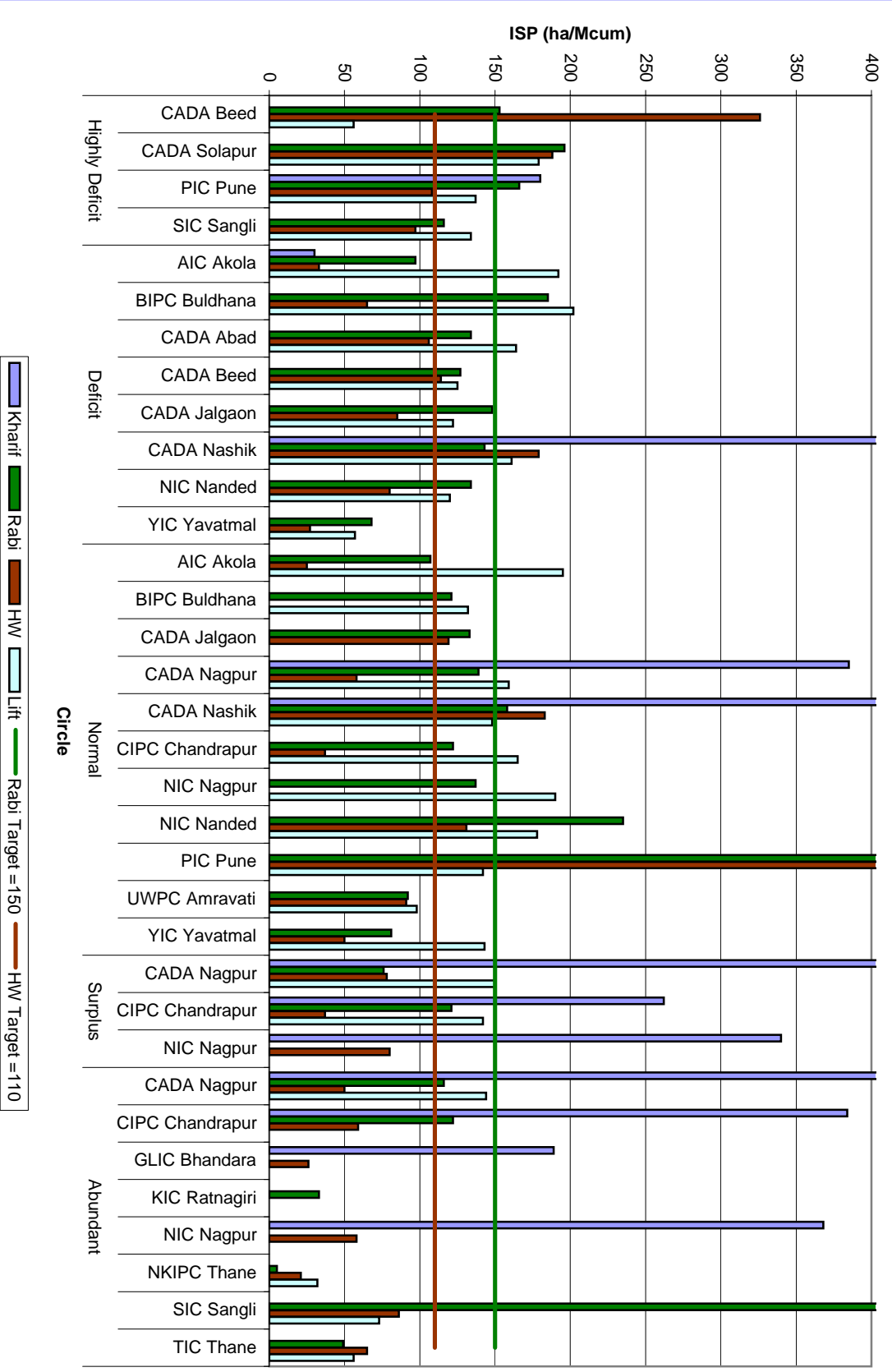


**Indicator III : Water Use Pattern  
Minor Irrigation Tanks**

Unit : Mcum

Circle	Water Use						
	Kharif	Rabio	HW	Reservoir	NI Use	Evaporation	Total
CADA Beed	0.000	2.418	0.530	48.503	0.000	42.769	94.220
CADA Solapur	0.000	5.194	0.155	17.678	2.515	19.796	45.338
PIC Pune	0.562	16.542	6.115	19.224	10.749	24.451	77.643
SIC Sangli	0.090	13.280	4.832	11.991	4.533	14.737	49.463
<b>Highly Deficit</b>	<b>0.652</b>	<b>37.434</b>	<b>11.632</b>	<b>97.397</b>	<b>17.797</b>	<b>101.753</b>	<b>266.664</b>
AIC Akola	0.860	114.521	15.390	37.199	5.310	83.928	257.208
BIPC Buldhana	0.000	9.740	0.800	6.160	0.766	15.040	32.506
CADA Abad	0.743	20.731	7.975	14.556	4.235	46.179	94.418
CADA Beed	0.000	17.339	9.583	110.492	11.495	116.134	265.043
CADA Jalgaon	0.000	16.817	6.370	6.262	5.741	18.778	53.968
CADA Nashik	0.110	7.520	0.330	15.360	3.100	8.370	34.790
NIC Nanded	1.612	40.279	8.574	28.452	1.483	39.037	119.437
YIC Yavatmal	0.000	13.130	4.860	1.115	0.100	10.810	30.015
<b>Deficit</b>	<b>3.325</b>	<b>240.077</b>	<b>53.882</b>	<b>219.596</b>	<b>32.230</b>	<b>338.274</b>	<b>887.384</b>
AIC Akola	0.000	44.133	4.736	2.730	2.496	29.008	83.103
BIPC Buldhana	0.000	1.070	0.000	1.330	0.039	1.740	4.179
CADA Jalgaon	0.000	15.310	2.359	0.000	0.000	7.027	24.696
CADA Nagpur	0.135	21.658	0.363	1.914	0.052	8.072	32.194
CADA Nashik	0.240	18.682	7.359	40.580	1.903	12.924	81.688
CIPC Chandrapur	0.000	9.580	2.990	0.310	0.000	6.190	19.070
NIC Nagpur	0.000	12.097	0.000	2.349	0.996	7.622	23.064
NIC Nanded	1.076	1.290	0.291	0.490	0.400	1.691	5.238
PIC Pune	0.000	1.630	0.600	22.130	1.709	7.740	33.809
UWPC Amravati	0.000	4.120	1.841	0.029	0.000	2.147	8.137
YIC Yavatmal	0.000	7.264	0.600	0.350	0.000	6.177	14.391
<b>Normal</b>	<b>1.451</b>	<b>136.835</b>	<b>21.139</b>	<b>72.212</b>	<b>7.595</b>	<b>90.338</b>	<b>329.570</b>
CADA Nagpur	22.836	10.045	9.718	0.313	0.000	20.268	63.180
CIPC Chandrapur	10.307	5.409	0.861	0.550	0.000	4.568	21.695
NIC Nagpur	6.504	2.832	3.547	6.228	0.000	3.080	22.191
<b>Surplus</b>	<b>39.647</b>	<b>18.286</b>	<b>14.126</b>	<b>7.091</b>	<b>0.000</b>	<b>27.916</b>	<b>107.066</b>
CADA Nagpur	26.896	26.800	24.159	2.801	3.516	21.577	105.749
CIPC Chandrapur	37.382	4.706	7.346	0.000	0.000	16.281	65.715
GLIC Bhandara	2.106	0.000	2.016	0.000	0.000	0.985	5.107
KIC Ratnagiri	0.000	22.332	0.000	0.000	2.379	14.175	38.886
NIC Nagpur	6.057	0.375	2.291	0.000	0.000	2.871	11.594
NKIPC Thane	0.000	4.562	4.368	0.870	4.556	7.811	22.167
SIC Sangli	0.000	1.281	5.713	50.993	2.068	20.135	80.190
TIC Thane	0.000	57.974	6.219	3.864	10.779	19.467	98.303
<b>Abundant</b>	<b>72.441</b>	<b>118.030</b>	<b>52.112</b>	<b>58.528</b>	<b>23.298</b>	<b>103.302</b>	<b>427.711</b>
<b>Grand Total</b>	<b>117.516</b>	<b>550.662</b>	<b>152.891</b>	<b>454.823</b>	<b>80.920</b>	<b>661.583</b>	<b>2018.395</b>

### Indicator IV: Irrigation System Performance



**Indicator IV : Irrigation System Performance**  
**Minor Irrigation Tanks**

Unit : ha/Mcum

Circle	Canal			Tank Lift
	Kharif	Rabi	HW	
CADA Beed	0	153	326	56
CADA Solapur	0	196	188	179
PIC Pune	180	166	108	137
SIC Sangli	0	116	97	134
<b>Highly Deficit</b>	<b>216</b>	<b>152</b>	<b>115</b>	<b>104</b>
AIC Akola	30	97	33	192
BIPC Buldhana	0	185	65	202
CADA Abad	0	134	106	164
CADA Beed	0	127	114	125
CADA Jalgaon	0	148	85	122
CADA Nashik	418	143	179	161
NIC Nanded	0	134	80	120
YIC Yavatmal	0	68	27	57
<b>Deficit</b>	<b>35</b>	<b>115</b>	<b>73</b>	<b>142</b>
AIC Akola	0	107	25	195
BIPC Buldhana	0	121	0	132
CADA Jalgaon	0	133	119	0
CADA Nagpur	385	139	58	159
CADA Nashik	806	158	183	148
CIPC Chandrapur	0	122	37	165
NIC Nagpur	0	137	0	190
NIC Nanded	0	235	131	178
PIC Pune	0	1180	978	142
UWPC Amravati	0	92	91	98
YIC Yavatmal	0	81	50	143
<b>Normal</b>	<b>395</b>	<b>138</b>	<b>127</b>	<b>149</b>
CADA Nagpur	444	76	78	150
CIPC Chandrapur	262	121	37	142
NIC Nagpur	340	0	80	0
<b>Surplus</b>	<b>380</b>	<b>78</b>	<b>76</b>	<b>18</b>
CADA Nagpur	474	116	50	144
CIPC Chandrapur	384	122	59	0
GLIC Bhandara	189	0	26	0
KIC Ratnagiri	0	33	0	0
NIC Nagpur	368	0	58	0
NKIPC Thane	0	5	21	32
SIC Sangli	0	584	86	73
TIC Thane	0	49	65	56
<b>Abundant</b>	<b>414</b>	<b>68</b>	<b>54</b>	<b>75</b>
<b>Grand Total</b>	<b>391</b>	<b>112</b>	<b>77</b>	<b>125</b>



**ANNEXURE - IV**  
**SEDIMENTATION STUDIES OF MAJOR AND MEDIUM RESERVOIRS, DONE AT M.E.R.I., NASHIK BY REMOTE SENSING TECHNIQUE.**

Sl. No.	Name of reservoir	District	Basin/ Sub basin	C'ment area Sq.km.	Gross Storage Mm3	Live Storage Mm3	Dead Storage Mm3	Year of first impounding	Year of Siltation Survey	Siltation period years	Live storage lost due to sediment Mm3	%loss in Live storage	%Annual loss in Live storage	Designed rate of siltation ha-m/100 sq.km./ year	Observed rate of siltation ha-m/100 sq.km./ year	%of live storages covered
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Karanjwan	Nashik	Godavari	248.00	176.00	166.00	10.00	1974	2001-03	28	14	8.38	0.3	3.57	20.34	90
2	Gangapur	Nashik	Godavari	357.40	212.51	200.51	12.00	1965	2002-03	37	19	9.52	0.4	3.57	11.48	80
3	Darna	Nashik	Godavari	404.00	202.00	200.61	1.39	1916	2001-03	86	14	6.82	0.13	3.57	3.22	82
4	Majalgaon	Beed	Godavari	3840.00	454.00	312.00	142.00	1987	2003-04	15	28	8.82	0.52	n.a.	4.31	92
5	Ozarkhed	Nashik	Godavari	182.00	69.91	61.00	8.91	1984	2002-03	18	1.93	3.06	0.19	3.57	5.89	87
6	Bhandardara	A'nagar	Godavari	121.73	313.00	304.00	9.00	1926	2002-03	77	0	0	0	n.a.	0	95
7	Waghad	Nashik	Godavari	119.00	76.00	72.00	4.00	1979	2002-03	23	2	3.07	0.133	3.57	7.31	98
8	Lower Terna	O'bad	Godavari	1787.00	160.00	114.00	46.00	1989	2002-03	13	23	20.16	1.55	7.5	16.25	100
9	Mukane	Nashik	Godavari	129.60	214.16	203.97	10.19	1994	2002-03	9	12	5.85	0.73	5.144	51.44	80
10	Manjara	Beed	Godavari	2373.00	251.00	173.00	78.00	1982	2000-02	20	23	13.16	0.65	3.57	4.84	100
11	Ujjani	Solapur	Krishna	14856.00	3320.00	1517.00	1803.00	1977	99-2001	24	159	10.55	0.44	3.57	11.35	100
12	Dhom	Satara	Krishna	217.50	382.00	331.00	51.00	1977	99-2000	23	6	1.93	0.08	3.57	13.36	70
13	Kanher	Satara	Krishna	204.56	286.00	272.00	14.00	1984	99-2000	16	3	1.2	0.075	3.57	12.25	57
14	Veer	Pune	Krishna	1756.00	279.00	266.00	13.00	1965	99-2000	35	22	8.28	0.23	3.57	3.31	91
15	Panshet	Pune	Krishna	120.30	303.00	294.00	9.00	1970	99-2000	30	15	5.07	0.17	3.57	33.25	89
16	Bhatghar	Pune	Krishna	331.50	673.00	673.00	0.00	1925	99-2000	75	101	15.5	0.2	n.a.	38.336	71
17	Varasgaon	Pune	Krishna	130.00	374.00	362.00	12.00	1992	99-2000	8	0	0	0	3.57	0	70
18	Upper Wardha	Amravati	Wardha	4302.00	786.00	615.00	171.00	1990	2002-03	12	26	4.25	0.35	3.57	4.26	86
19	Bor	Wardha	Wardha	380.75	139.00	127.00	12.00	1965	2002-03	37	5	3.96	0.1	3.57	3.15	88
20	Lower Wunna	Nagpur	Wardha	1076.00	153.00	136.00	17.00	1997	2002-03	6	1	0.46	0.07	7.5	1.54	78
21	Totala Doh	Nagpur	Wainganga	4283.00	1241.00	1091.00	150.00	1980	2002-03	22	46	4.23	0.19	3.57	4.46	88
22	Vaitarna	Nashik	Konkan	160.80	353.96	331.31	22.65	1976	2001-03	28	0.215	0.064	0.002	n.a.	0.478	73

Reference: MERI's Letter No. TS-4/60/2007, date 4-1-2007

Organisation Chart of Irrigation Management  
Secretary (CAD)

