

GOVERNMENT OF KARNATAKA



**WATER RESOURCES
DEPARTMENT
(MAJOR & MEDIUM IRRIGATION)**

ANNUAL REPORT

2006-07

SL. NO.	CONTENTS	PAGE NO.
1	<u>INTRODUCTION</u>	1
2	<u>ORGANISATIONAL STRUCTURE</u>	2
3	<u>ACHIEVEMENTS OF WATER RESOURCES DEPARTMENT DURING 2006-07</u>	3-4
4	<u>ACCELERATED IRRIGATION BENEFIT PROGRAMME</u>	5-10
5	<u>SPECIAL REHABILITATION PACKAGE</u>	11
6	<u>WATER RESOURCE DEVELOPMENT ORGANISATION</u>	12-18
7	<u>CENTRAL MECHANICAL ORGANISATION</u>	19-22
8	<u>KARNATAKA ENGINEERING RESEARCH STATION</u>	22-25
9	<u>WATER AND LAND MANAGEMENT INSTITUTE (WALMI)</u>	26-27
NIGAMS		
10	<u>KRISHNA BHAGYA JALA NIGAM LIMITED</u>	31
10.1	<u>UPPER KRISHNA PROJECT</u>	31-40
10.2	<u>BAGALKOT TOWN DEVELOPMENT AUTHORITY, BAGALKOT</u>	41-45
11	<u>KARNATAKA NEERAVARI NIGAM LIMITED</u>	49
11.1	<u>AN OVERVIEW OF PROJECTS UNDER THE CHIEF ENGINEER, IRRIGATION (NORTH), BELGAUM</u>	49
11.1.1	<u>MALAPRABHA PROJECT</u>	50
11.1.2	<u>GHATAPRABHA PROJECT</u>	51
11.1.3	<u>HIPPARAGI IRRIGATION PROJECT</u>	52
11.1.4	<u>HARINALA IRRIGATION PROJECT</u>	52
11.1.5	<u>MARKANDEYA RESERVOIR PROJECT</u>	53
11.1.6	<u>DUDHGANGA IRRIGATION PROJECT</u>	53
11.1.7	<u>KALASA NALA AND BANDHUR NALA PROJECT</u>	54
11.1.8	<u>LIFTING OF HIRANYAKESHI WATERS INTO G.R.</u>	55

SL. NO.	CONTENTS	PAGE NO.
11.1.9	<u>BELLARYNALA PROJECT</u>	56
11.1.10	<u>SRI RAMESHWARA L.I.SCHEME</u>	57
11.1.11	<u>JAVALUHALLA L.I.SCHEME</u>	58
11.1.12	<u>BENNIHALLA L.I.SCHEME (5 NOS.)</u>	58
11.1.13	<u>KOLACHI L.I.SCHEME</u>	59
11.1.14	<u>KONNUR L.I.SCHEME</u>	59
11.2	<u>AN OVERVIEW OF PROJECTS UNDER THE CHIEF ENGINEER, IRRIGATION CENTRAL ZONE, MUNIRABAD</u>	60
11.2.1	<u>SINGATALUR LIFT IRRIGATION SCHEME [SLIS]</u>	60-61
11.3	<u>AN OVERVIEW OF PROJECTS UNDER THE ENGINEER-IN-CHIEF, UPPER TUNGA PROJECT ZONE, SHIMOGA</u>	61
11.3.1	<u>UPPER TUNGA PROJECT</u>	61-62
11.3.2	<u>TUNGA LIFT IRRIGATION SCHEME</u>	62
11.3.3	<u>BASAPUR LIFT IRRIGATION SCHEME</u>	62-63
11.3.4	<u>ITAGI-SASALWAD LIS</u>	63
11.3.5	<u>GUDDADA MALLAPURA LIS</u>	63-64
11.3.6	<u>UPPER BHADRA PROJECT [STAGE 1 &2]</u>	64
11.3.7	<u>UBRANI-AMRUTHAPURA MULTIPURPOSE LIS</u>	64
11.3.8	<u>SANYASIKOPPA LIS</u>	64
11.4	<u>AN OVERVIEW OF PROJECTS UNDER THE CHIEF ENGINEER, VARAHI PROJECT ZONE, SIDDAPURA</u>	65
11.4.1	<u>VARAHI IRRIGATION PROJECT</u>	65-66
11.5.	<u>AN OVERVIEW OF PROJECTS UNDER THE CHIEF ENGINEER, IRRIGATION PROJECTS ZONE, GULBARGA</u>	67
11.5.1	<u>BENNITHORA PROJECT</u>	67
11.5.2	<u>BHIMA LIFT IRRIGATION SCHEME</u>	67

SL. NO.	CONTENTS	PAGE NO.
11.5.3	<u>GANDORINALA PROJECT</u>	68
11.5.4	<u>LOWER MULLAMARI PROJECT</u>	69
11.5.5	<u>AMARJA PROJECT</u>	69-70
12	<u>CAUVERY NEERAVARI NIGAMA LIMITED</u>	73
12.1	<u>AN OVERVIEW OF PROJECTS UNDER THE CHIEF ENGINEER, IRRIGATION(S) ZONE, MYSORE</u>	74
12.1.1	<u>D. DEVARAJA URS CANAL</u>	74
12.1.2	<u>KABINI RESERVOIR PROJECT</u>	74-75
12.1.3	<u>HARANGI PROJECT</u>	75
12.1.4	<u>TARAKA PROJECT</u>	76
12.1.5	<u>ARKAVATHY PROJECT</u>	76-77
12.1.6	<u>CHIKLIHOLE PROJECT</u>	77-78
12.1.7	<u>UDUTHOREHALLA PROJECT</u>	78
12.1.8	<u>IGGALUR BARRAGE PROJECT</u>	78-79
12.1.9	<u>MANCHANABELE PROJECT</u>	79-80
12.1.10	<u>MODERNISATION OF KRISHNARAJA SAGAR</u>	80-81
12.1.11	<u>NANJAPURA LIFT IRRIGATION SCHEME</u>	81-82
12.1.12	<u>BANAHALLIHUNDI LIS</u>	82
12.2	<u>AN OVERVIEW OF PROJECTS UNDER THE CHIEF ENGINEER, HEMAVATHY CANAL ZONE, TUMKUR</u>	82
12.3	<u>AN OVERVIEW OF PROJECTS UNDER THE CHIEF ENGINEER, HEMAVATHY RESERVOIR, GORUR</u>	85
12.3.1	<u>HEMAVATHY PROJECT</u>	85-86
12.3.2	<u>YAGACHI PROJECT</u>	86-87
12.3.3	<u>HUCHANAKOPPALU LIS</u>	87-88

SL. NO.	CONTENTS	PAGE NO.
12.3.4	KAMASAMUDRA LIS	88
12.3.5	KACHENAHALLI LIS	89
12.3.6	VOTEHOLE PROJECT	90
ZONES		
13	AN OVERVIEW OF PROJECTS UNDER THE CHIEF ENGINEER, IRRIGATION PROJECT ZONE, GULBARGA	93
13.1	KARANJA PROJECT	93
14	AN OVERVIEW OF PROJECTS UNDER THE CHIEF ENGINEER, IRRIGATION CENTRAL ZONE, MUNIRABAD	94
14.1	TUNGABHADRA PROJECT	94-96
14.2	HIREHALLA PROJECT	97-98
14.3	MASKINALA PROJECT	99-100
14.4	OTHER WORKS [NEW]	101-103
15	AN OVERVIEW OF PROJECTS UNDER THE ENGINEER-IN-CHIEF, UPPER TUNGA PROJECT ZONE, SHIMOGA	104
15.1	BHADRA PROJECT	104-105
15.2	MODERNISATION OF CANAL SYSTEM OF TUNGA ANICUT	106
15.3	HODIRAYANAHALLA DIVERSION SCHEME	106
15.4	MODERNISATION OF CANAL SYSTEM OF AMBALIGOLA RESERVOIR	106
15.5	MADAGA-MASUR TANK	107
15.6	ERM OF BHEEMASAMUDRA TANK	107
15.7	MODERNISATION OF CANAL SYSTEM OF GONDI ANICUT [BHADRA]	107
15.8	KADUVINABYLU LIFT IRRIGATION SCHEME	107
15.9	THIMMAPURA LIFT IRRIGATION SCHEME	107
15.10	ANJANAPURA RESERVOIR PROJECT	108

SL. NO.	CONTENTS	PAGE NO.
16	<u>COMMAND AREA DEVELOPMENT PROGRAMME</u>	108-112

1. INTRODUCTION

The Annual Report is a document giving details of the annual Programme, Progress and important events that have taken place during the year, in the Water Resources Department.

GEOGRAPHICAL AREA

The geographical area of Karnataka is 1,91,791 Sq. Km., accounting for 5.83% of the total area of the country.

The culturable command area of the State is 1, 40,598 sq. Km. The net sown area is 1,07,000 sq. Km and the ultimate Irrigation Potential from Major and Medium Irrigation Projects has been estimated as 35,000 sq. Km or 35.00 Lakh Ha

PROGRESS IN BRIEF

Presently, the Irrigation Department is known as the Water Resources Department.

There are 116 Major and Medium Irrigation Projects in the State, out of which 42 projects are completed, 55 are ongoing and 19 are new schemes.

The Water Resources Department has established three special purpose vehicles, namely, Krishna Bhagya Jala Nigama Limited (KBJNL), Karnataka Neeravari Nigama Limited (KNNL) and Cauvery Neeravari Nigam Limited (CNNL), under the companies Act of 1956, to mobilize financial resources for speedy completion of major and medium irrigation projects with-in the targeted period.

KRISHNA BHAGYA JALA NIGAM LIMITED (KBJNL):

“Krishna Bhagya Jala Nigam Limited” was formed vide G.O. No. ID/25/WBM/95, dated: 6-5-94, to expedite the works of Upper Krishna Project (UKP). This Nigam is functioning since 19th August 1994.

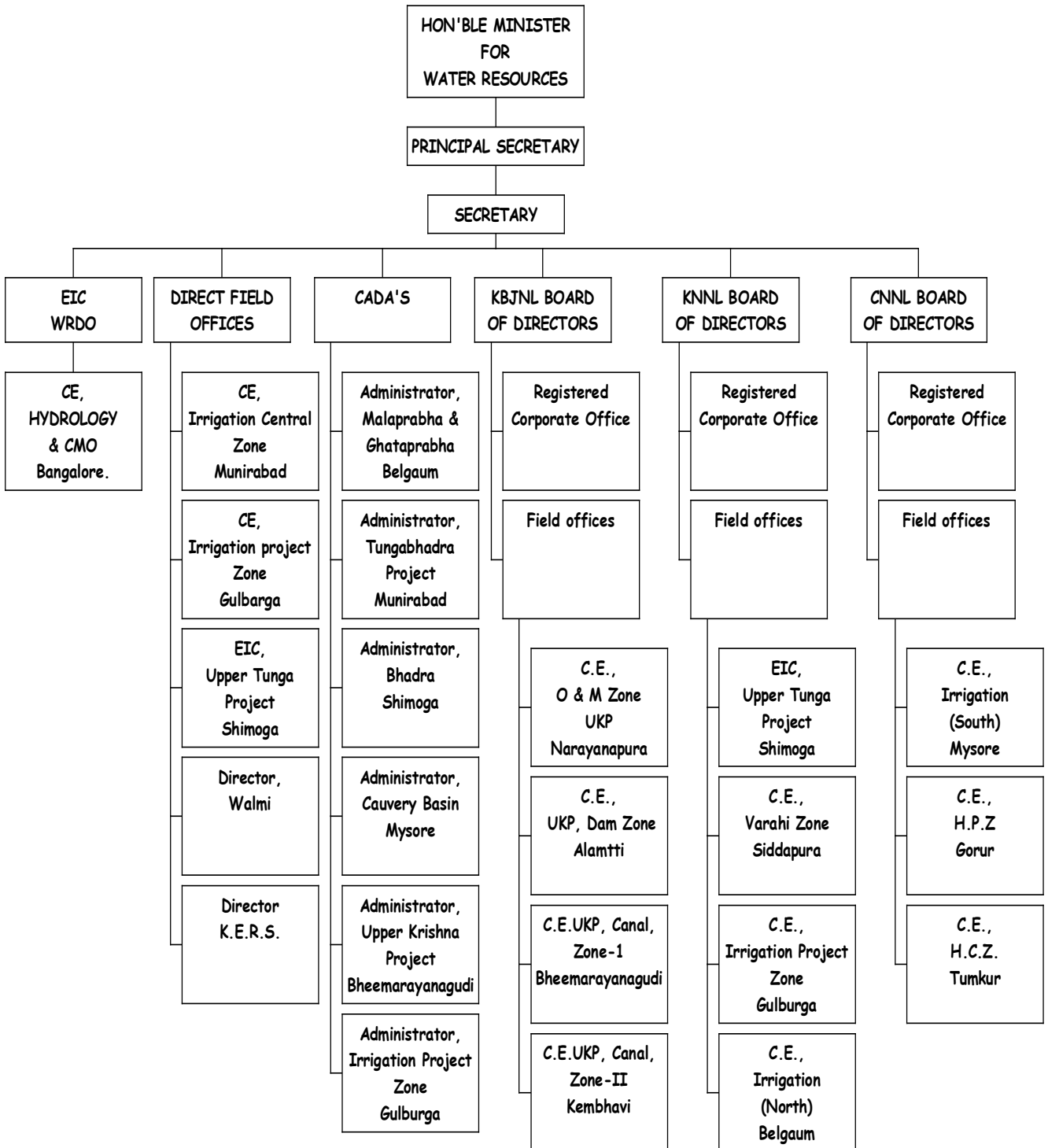
KARNATAKA NEERAVARI NIGAMLIMITED (KNNL):

“Karnataka Neeravari Nigam Limited” was formed vide G.O. No. ID: 201: KBN: 98, dated: 26-11-98, to expedite the works in Krishna Basin, except UKP. This Nigam is functioning since 9th December 1998.

CAUVERY NEERAVARI NIGAM LIMITED (CNL):

"Cauvery Neeravari Nigam Limited" was formed vide G.O. No. WRD: 32: KBN: 2003, Dated: 12.05.2003, to expedite the works in Cauvery Basin. This Nigam is functioning since 3rd June 2003.

2. ORGANISATIONAL STRUCTURE **WATER RESOURCES DEPARTMENT**



3. ACHIEVEMENTS OF WATER RESOURCES DEPARTMENT DURING 2006

- It is programmed to complete 39 Major & medium irrigation projects during 2006-07. Of these, 35 projects inclusive of Bennithora, Rampura, Huchhanakoppalu and Modernisation of canal works of Tungabhadra & Bhadra projects have already been completed.
- The ultimate irrigation potential is 35 lakh Ha from Major & medium irrigation projects. Upto end of March 2007, cumulative irrigation potential of 23.20 lakh Ha has been created.
- Out of the targetted irrigation potential of 6.22 Lakh Ha under Upper Krishna Project, an irrigation potential of 5.75 lakh Ha has been created so far. The balance works of Jewargi Branch Canal, Narayanapur Right Bank Canal, Mulwad Lift Irrigation Scheme, Almatti Right Bank Canal and Almatti Left Bank Canal of Upper Krishna Project are nearing completion.
- To utilize Krishna waters under Upper Krishna Project, Ramthal (Marol) Lift Irrigation Scheme, Teggi-Siddapura Lift Irrigation Scheme, Thimmapura Lift Irrigation Scheme, Sonna Lift Irrigation Scheme and Rolli-Mannikeri Lift Irrigation Scheme are taken up in the backwaters of Almatti Reservoir
- During 2006-07, Central Assistance under A.I.B.P. to the tune of Rs. 334.0022 Crores for 5 Major & medium irrigation projects has been availed and an expenditure of Rs. 457.15 Crores has been incurred.
- The Hon'ble President of India, Sri A.P.J.Kalam, dedicated "**SHRI LAL BAHADUR SHASTRI SAGAR**" (Almatti dam) to the nation on 21.8.2006.
- During 2006-07, under the Hon'ble Prime Minister's special rehabilitation package, an allocation of Rs. 1208.71 Crores has been made towards major and medium Irrigation sector under assured irrigation, so as to complete the 17 major and medium irrigation projects coming under the 6 identified drought prone districts of the State, by the end of 2008-09. Proposals of the same have been submitted to the Central government.
- To utilize its share of Godavari waters resourcefully, the State has taken up the construction of series of Barrages like Jigrihal, Manikeshwar, Halahalli and Chandapur barrages. These barrages are being implemented by Krishna Bhagya Jala Nigam Limited.
- Cauvery Neeravari Nigam Limited has activated the potential oriented works under Cauvery Basin. In order to minimise the advert consequences of the Cauvery water dispute tribunal's award, it has been programmed to develop 1252 minor irrigation tanks coming under the jurisdiction of CNNL.
- During 2006-07, Karnataka Neeravari Nigam Limited has incurred an expenditure of Rs. 791.16 Crores for implementing 37 major and medium irrigation projects against an annual programme of Rs.1020.00 Crores.
- During the current year, Karnataka Neeravari Nigam Limited has taken up Sanyasikoppa Lift Irrigation Scheme and Kalluvaddu halla project in Shikaripur taluk, Shimoga district and Keneya tank project in Belgaum district at an estimated cost of Rs.10.00 Crores, Rs.20.42 Crores and Rs.9.31 Crores, respectively.

- The Technical Committee has given its report in respect of Upper Bhadra project Stage-I, to fill up Irrigation tanks & to provide Drinking Water facilities to Drought prone districts by utilising 21.50 TMC of Bhadra water. Tenders are invited for 3 packages of Upper Bhadra Project amounting to Rs.825.00 Crores.
- For efficient Water management 12 package tenders amounting to Rs.702.00 Crores are invited for Modernisation of the Main canal and 5 Branch canals of Bhadra Canal Network.
- For efficient management of water under the Command Areas of Major & medium irrigation projects, Water Resources Department has established 2,392 Water Users Co-operative Societies.
- Karnataka Neeravari Nigam Limited in collaboration with FAO had organized a workshop, about RAP & MASOT developed by FAO's land and water sector, from 9-16 October 2006 in Malaysia. The training programme has given an insight into the practical solution to the irrigation system and its advanced maintenance and execution pattern. The training programme has enabled the Nigam to speed up the completion of the projects, modernization and efficiency in irrigation system.
- The works of Kalasanala diversion scheme in non-forest regions have been taken up during the current year.

The details of the targets and achievements in respect of the Major and Medium irrigation Projects for the year 2006-07 upto end of March 2007 are as hereunder.

Sl. No	Project	Financial (Rs. In Crores)		Physical (in Hectares)	
		Program	Progress	Program	Progress
1	Krishna Bhagya Jala Nigam	1,538.97	2,303.55	50,000	40,037
2	Karnataka Neeravari Nigama	1,462.34	1,226.79	79,500	43,795
3	Cauvery Neeravari Nigama	477.00	538.26	41,049	32,538
4	Water Resources Department	252.48	204.79	11,951	4,018
Total		3,730.79	4,273.39	1,82,500	1,20,388

4. ACCELERATED IRRIGATION BENEFIT PROGRAMME

For the early completion of some of the ongoing irrigation projects, which were lingering due to shortage of funds for many years, the Government of India launched the Accelerated Irrigation benefit programme, during 1996-97. Since then, eight projects in the State, namely, Upper Krishna project (UKP) Stage-I, Phase-III, Malaprabha, Hirehalla, Ghataprabha, Karanja, Upper Krishna project (UKP) Stage-II, Maskinala, and Gandhorinala have received Central Loan Assistance (CLA) under Accelerated Irrigation benefit programme (AIBP).

- ✳ During 1996-97, at the end of 8th Five Year Plan, the Government of India launched the Accelerated Irrigation Benefit Programme (A.I.B.P.) with the intention of completing those projects lingering due to shortage of funds. From 1996-97 to 2002-03, the sharing between the centre and the state was in the ratio of 50:50. Since 2002-03, the sharing is in the ratio of 2/3:1/3.
- ✳ In the irrigation sector 8 major & medium irrigation projects have been receiving Central Loan Assistance (C.L.A.) under A.I.B.P.
- ✳ UKP Stage I Phase III, UKP Stage II, Malaprabha, Ghataprabha, Hirehalla, Karanja, Maskinala and Gandhorinala are the eight projects that have received / are receiving C.L.A. under A.I.B.P.
- ✳ The cumulative C.L.A. (including grants) released upto end of March 2007 is Rs. 3,029.16 Crores.
- ✳ The cumulative expenditure incurred on these projects upto the end of March/2007 is Rs. 4,413.42 Crores.
- ✳ During 2004-05, loans along with grants were released to the projects in the ratio of 70: 30.
- ✳ As per the revised guidelines of 2005, and according to the 11th Finance Commission report, the Loan portion is to be raised entirely by the concerned State Governments. The Central government will release only the grant portion.
- ✳ For the year 2006-07, Proposals of six projects, namely, UKP Stage I Phase III, UKP Stage II, Malaprabha, Ghataprabha, Gandhorinala and Varahi, to the tune of Rs. 466.33 Crores was posed for C.L.A. under A.I.B.P. Later as per the Revised A.I.B.P. guidelines, effective from December 2006, UKP Stage I Phase III, UKP Stage II, Malaprabha, Ghataprabha and Gandhorinala projects have been considered as benefiting the drought prone districts of Belgaum, Bijapur, Bagalkot, Gulbarga & Raichur and revised proposals claiming 90% of the balance cost amounting to Rs.568.91 Crores, were prepared and submitted to the Central Water Commission. The Central Assistance sanctioned to these 6 projects is Rs. 494.97 Crores.
- ✳ The Central Assistance released, during 2006-07, to 5 projects namely UKP Stage I Phase III, UKP Stage II, Malaprabha, Ghataprabha and Gandhorinala is Rs. 334.00 Crores,
- ✳ The expenditure incurred on these 6 projects during 2006-07 upto end of March 2007 is Rs. 457.15 Crores.

STATEMENT SHOWING DETAILS OF C.L.A. UNDER A.I.B.P RELEASED TO MAJOR AND MEDIUM IRRIGATION PROJECTS (SINCE 1996-97)

(Rs. in Crores)

PERIOD	NO. OF PROJECTS	CLA PROPOSED	CLA RELEASED	EXPENDITURE
--------	-----------------	--------------	--------------	-------------

		/ SANCTIONED		
1996-97	5	122.50	61.25	172.21
1997-98	5	175.00	90.50	160.49
1998-99	5	167.00	94.50	171.05
1999-00	5	190.64	157.14	190.61
2000-01	4	171.00	171.00	268.26
2001-02	7	545.00	492.50	911.38
2002-03	8	611.97	620.85	693.00
2003-04	8	266.48	266.48	440.57
2004-05	5	463.05	449.71	475.46
2005-06	5	336.70	291.23	473.24
2006-07	6	568.91	334.00	457.15
TOTAL UPTO MARCH 2007		3618.25	3029.16	4413.42

Details of Central Assistance (CA) under AIBP during 2006-07

(Rs. in Crores)

SI.No.	PROJECTS	CA PROPOSED	CLA SANCTIONED	CLA RELEASED	EXPENDITURE incurred during 06-07
1	UKP Stage-I Phase-III	94.58	74.87	71.64	46.19
2	UKP Stage-II	212.25	168.77	172.53	234.58
3	Ghataprabha	127.72	123.21	30.80	77.29
4	Malaprabha	58.50	54.00	13.50	31.28
5	Gandhorinala	57.61	55.87	45.53	34.96
6	Varahi	18.25	18.25	-	32.85
	Total	568.91	494.97	334.00	457.15

CUMULATIVE STATEMENT

(Rs. in Crores)

CLA Released

Sl. No.	Project	1996-97	1997-98	1998-99	1999-2000	2000-2001	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	CUMULATIVE
1	UKP Stage-I Phase-III	57.00	50.00	50.00	100.00	100.00	200.00	181.00	-	115.85	-	71.638	925.49
2	UKP Stage-II	-	-	-	-	-	250.00	275.05	163.48	240.72	197.76	172.53	1,299.54
3	Malaprabha	1.50	12.00	10.00	13.50	-	10.00	25.56	-	12.00	20.00	13.5	118.06
4	Hirehalla	2.75	6.00	6.00	8.00	8.00	10.00	8.78	14.71	-	-	-	64.24
5	Ghataprabha	-	15.00	12.50	20.00	45.00	5.00	75.00	13.02	62.09	65.00	30.805	343.41
6	Karanja	-	7.50	16.00	15.64	18.00	10.00	34.37	75.27	-	-	-	176.78
7	Gandhorinala	-	-	-	-	-	7.50	17.87	-	19.05	8.47	45.53	98.42
8	Maskinala	-	-	-	-	-	-	3.22	-	-	-	-	3.22
	TOTAL	61.25	90.50	94.50	157.14	171.00	492.50	620.85	266.48	449.71	291.23	334.00	3,029.16

Expenditure

Sl. No.	Project	1996-97	1997-98	1998-99	1999-2000	2000-2001	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	CUMULATIVE
1	UKP Stage-I Phase-III	155.74	92.30	77.58	116.40	187.80	235.33	214.69	94.19	92.18	61.13	46.19	1,373.53
2	UKP Stage-II	-	-	-	-	-	534.10	352.29	236.48	268.17	272.29	234.58	1,897.91
3	Malaprabha	5.12	14.92	22.64	9.87	5.15	15.87	14.45	14.42	19.64	19.62	31.28	172.98
4	Hirehalla	11.35	17.12	12.06	15.82	22.68	11.41	11.69	9.94	18.45	-	-	130.52
5	Ghataprabha	-	20.47	28.82	20.04	26.96	72.77	57.57	55.45	64.68	92.47	77.29	516.52
6	Karanja	-	15.68	29.95	28.48	25.67	26.55	23.62	18.64	-	-	-	168.59
7	Gandhorinala	-	-	-	-	-	15.35	16.82	10.09	12.34	27.73	34.96	117.29
8	Maskinala	-	-	-	-	-	-	1.87	1.36	-	-	-	3.23
9	Varahi	-	-	-	-	-	-	-	-	-	-	32.85	32.85
	TOTAL	172.21	160.49	171.05	190.61	268.26	911.38	693.00	440.57	475.46	473.24	457.15	4,413.42

DETAILS OF PROJECTS ASSISTED UNDER AIBP PROGRAMME (YEARLY)

(As on 31-3-2007)

(Rs. in Crores)

Sl. No	Project	1996-97			1997-98			1998-99			1999-2000			2000-01			2001-02		
		CLA Sanctioned	CLA Released	Expenditure	CLA Sanctioned	CLA Released	Expenditure	CLA Sanctioned	CLA Released	Expenditure	CLA Sanctioned	CLA Released	Expenditure	CLA Sanctioned	CLA Released	Expenditure	CLA Sanctioned	CLA Released	Expenditure
1	UKP Stage-I Phase-III	114.00	57.00	155.74	100.00	50.00	92.30	100.00	50.00	77.58	100.00	100.00	100.00	100.00	187.80	200.00	200.00	235.33	
2	UKP Stage-II	-	-	-	-	-	-	-	-	-	-	-	-	-	-	250.00	250.00	534.10	
3	Malaprabha	3.00	1.50	5.12	24.00	12.00	14.92	20.00	10.00	22.64	27.00	13.50	9.87	-	5.15	20.00	20.00	15.87	
4	Hirehalla	5.50	2.75	11.35	6.00	6.00	17.12	6.00	6.00	12.06	8.00	8.00	15.82	8.00	22.68	10.00	10.00	11.41	
5	Ghataprabha	-	-	-	30.00	15.00	20.47	25.00	12.50	28.82	40.00	20.00	20.04	45.00	26.96	30.00	30.00	72.77	
6	Karanja	-	-	-	15.00	7.50	15.68	16.00	16.00	29.95	15.64	15.64	28.48	18.00	25.67	20.00	20.00	26.55	
7	Gandhorinala	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15.00	15.00	15.35	
8	Maskinala	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Total	122.50	61.25	172.21	175.00	90.50	160.49	167.00	94.50	171.05	190.64	157.14	190.61	171.00	268.26	545.00	545.00	911.38	

Sl. No	Project	2002-03			2003-04			2004-05			2005-06			2006-07			CUMULATIVE	
		CLA Sanctioned	CLA Released	Expenditure	CLA Sanctioned	CLA Released	Expenditure	CLA Sanctioned	CLA Released	Expenditure	CLA Sanctioned	CLA Released	Expenditure	CLA Sanctioned	CLA Released	Expenditure	CLA Released	Expenditure
1	UKP Stage-I Phase-III	181.00	181.00	214.69	-	-	94.19	115.85	115.85	92.18	39.01	-	61.13	74.87	71.64	46.19	925.49	1,373.53
2	UKP Stage-II	275.05	275.05	352.29	163.48	163.48	236.48	241.22	240.72	268.17	204.22	197.76	272.29	168.77	172.53	234.58	1299.54	1,897.91
3	Malaprabha	25.56	25.56	14.45	-	-	14.42	12.00	12.00	19.64	20.00	20.00	19.62	54.00	13.50	31.28	118.06	172.98
4	Hirehalla	9.90	8.78	11.69	14.71	14.71	9.94	12.84	-	18.45	-	-	-	-	-	-	64.24	130.52
5	Ghataprabha	75.00	75.00	57.57	13.02	13.02	55.45	62.09	62.09	64.68	65.00	65.00	92.47	123.21	30.81	77.29	343.42	516.52
6	Karanja	34.37	34.37	23.62	75.27	75.27	18.64	-	-	-	-	-	-	-	-	-	167.78	168.59
7	Gandhorinala	17.87	17.87	16.82	-	-	10.09	19.05	19.05	12.34	8.47	8.47	27.73	55.87	45.53	34.96	98.42	117.29
8	Maskinala	3.22	3.22	1.87	-	-	1.36	-	-	-	-	-	-	-	-	-	3.22	3.23
9	Varahi	-	-	-	-	-	-	-	-	-	-	-	-	18.25	-	32.85	0.00	32.85
	Total	611.97	620.85	693.00	266.48	266.48	440.57	463.05	449.71	475.46	336.70	291.23	473.24	494.97	334.00	457.15	3,029.16	4,413.42

5. SPECIAL REHABILITATION PACKAGE

During 2006-07, the Special Rehabilitation Package was launched by the Government of India to mitigate the distress of farmers in selected 31 districts of the Country from where large numbers of Suicide cases by the farmers were reported.

In Karnataka, the 6 districts viz Belgaum, Bijapur, Shimoga, Chikkamagalur, Chitradurga, Hassan and Kodagu were identified as drought prone districts and 17 projects benefiting these 6 districts were identified and proposals of the same have been submitted.

An allocation of Rs. 1208.71 Crores has been made towards major and medium Irrigation sector under assured irrigation. Out of this the grant portion of Rs.725.24 Crores will be borne by the center and the loan portion of Rs.483.47 Crores will be met-out of state funds. The funding proposed is as per revised AIBP norms.

The details of the 17 projects are as follows:

(Rs. In Crores)		
SL.NO.	NAME OF THE PROJECT	BALANCE COST OF THE PROJECT
MAJOR		
1	Malaprabha	120.98
2	Ghataprabha-III	159.68
3	Hipparagi	934.92
4	Markandeya	56.41
5	ERM of Bhadra Reservoir project	400.00
6	Harangi	12.57
7	Hemavathy	64.54
8	Yagachi	127.78
9	Dudhganga	37.79
MEDIUM		
10	Kamasamudra LIS	18.42
11	Huchanakoppalu LIS	14.00
12	Votehole	1.50
13	Kachenahalli LIS	79.88
14	Chiklihale	1.50
15	ERM of Bheemasamudra tank	4.00
16	Srirameshwara LIS	212.38
17	Bellarynala LIS	131.36
TOTAL		2530.05

6. WATER RESOURCES DEVELOPMENT ORGANISATION

This Organisation is headed by Engineer-in-Chief and supported by 2 Chief Engineer, 6 Superintending Engineers, 12 Executive Engineers and 51 Assistant Executive Engineers with supporting staff are working in this Organisation.

ACTIVITIES: -

This Organisation is incharge of Planning and Investigation of all Major and Medium Irrigation Projects in the State and provides all the information to the Government in respect of Inter State Water Disputes like Cauvery, Krishna, Godavari and Mahadayi. This Organisation acts as a data Bank for all Hydrological details of Rivers and streams in the State by collecting and processing the raingauge and River gauge data in a systematic manner. In addition, the establishment matter of Irrigation zones regarding postings, transfer of staff and Regularisation of Daily Wages and Monthly Rated Staff as per Supreme Court order is also attended to by this Organisation.

❖ PLANNING AND INVESTIGATION UNIT

✱✱ This Unit is attending to the work of Technical Scrutiny of New Major and Medium Irrigation Projects, Replies to C.W.C. comments and arranging for clearance of projects and correspondence between State and Central Governments regarding Irrigation Projects.

✱✱ During 2006-07, 19 Projects under Krishna Basin and 5 Projects under West flowing River basins, totally 24 Major and Medium Irrigation Projects are under different stages of investigation.

✱✱ In addition to the above investigation works, the following works are also dealt with in this unit.

1. e- Governance in Water Resources Department:

Planning and Investigation Unit, Water Resources Development Organisation is monitoring the e-Governance activities of entire Water Resources Department in Karnataka. Short-term courses to use Computers for the Technical and Non-Technical staff are being conducting regularly. This Unit manages the Website of Water Resources Department "<http://waterresources.kar.nic.in>".

2. Right to Information Act-2006:

Details of Water Resources Department including Nigams were hosted in the Website "<http://waterresources.kar.nic.in>".

3. Government Officials Committee:

The Government Officials Committee constituted under the Chairmanship of Engineer-in-Chief, W.R.D.O., vide G.O.No. WRD 205 WBP 03 Bangalore, dated 23.8.2004 to study West flowing Rivers has submitted its final report to the Government on 29-5-2006.

4. Experts Committee regarding "Soubhagya Sanjeevini" project:

The Government has constituted an Experts Committee vide G.O. WRD 205 WBP 03, Bangalore, dated: 17-11-2006 under the Chairmanship of Sri. K.C.Reddy, Advisor, Public Works & Energy Department, to Study in detail "Soubhagya Sanjeevini" project proposed by Sri. A.G.Koodgi, former MLC, and to submit feasibility report. The committee has planned to submit its interim report.

5. Experts Committee for diversion projects and regarding availability of water in various River basins:

To study the availability of water in various West Flowing River basins and also to conduct studies regarding the projects, an Expert Committee under the Chairmanship of Sri. K.C.Reddy, Consultant, Public Works & Energy Department has been reconstituted vide Government Order No. WRD 65 WBP 05 (P-1) Bangalore dated 16-12-06.

6. Upper Bhadra Committee:

A Committee of Technical & Environmental Experts has been constituted vide G.O. No. WRD 152 WBP 04 (P-1) Bangalore, dated 24-10-05 under the Chairmanship of Sri. K.C.Reddy, Advisor, PW & Energy to study the availability of water for Upper Bhadra Project and the environmental impact of the Project. The Committee has submitted its final report to the Government. Karnataka Neeravari Nigama Limited has taken up necessary steps for preparation of Detailed Project Report.

7. Irrigation Information System using GIS:

Water Resources Department, Government of Karnataka has earmarked grants of Rs.100 lakhs for the development of Irrigation Information System using GIS technology. The Department is looking forward for the integration of M.I.S. and G.I.S., which aims at preparation of Decision Support System (D.S.S.). In this regard Water Resources Development Organisation has identified three private consultants having vast experience in the field of technology and has entrusted projects namely Kanva Reservoir Project, Karanja Irrigation Project & Ghataprabha Irrigation Project for the development of Irrigation Information System. Water Resources Development Organisation has purchased necessary digital toposheet/maps.

8. Technical Experts Committee regarding sea erosion preventive works:

A committee of 16 members was constituted vide G.O. No. 80 J.J. 2001, dated: 18-7-2001 to analyse sea erosion preventive works of coastal region of the State and to provide design, guidance & suggestions in this regard.

9. Other activities:

This Unit corresponds with State & National level Organisations like Central Water Commission, Bureau of Indian Standards, Indian National Committee for Irrigation & Drainage, Water & Power Consultancy Services and Central Board of Irrigation and Power. This Unit attends to the Committee meetings conducted by these Organisations and provides information requested by them. This Unit provides information for attending the meetings of Subject Committee, Assurance Committee, Estimate Committee and Petition committee.

❖ KRISHNA-GODAVARI UNIT

The Krishna Godavari Unit, under the jurisdiction of the Water Resources Development Organisation, is working on the following Inter-State Water Disputes:

- A. Krishna Water Dispute
- B. Mahadayi Diversion Scheme
- C. Palar and Pennar Basin

D. Inter-linking of Rivers

A. Krishna Water Dispute:

- a) Karnataka filed an I.A.1/2001 in O.S.1/97 before the Supreme Court requesting to issue orders to stop the projects illegally taken up by Andhra Pradesh inspite of clear orders of Supreme Court. In view of submitting a request to the Central Government to constitute a Tribunal, this Interlocutory Application (I.A.) was withdrawn.
- b) Krishna Water Dispute Tribunal came into existence on 02.04.2004. On 19.05.2006, the Tribunal commenced the sitting and the same was not continued, as the Central Government did not provide the required Court Hall, Residences to the Tribunal Chairman and Members and other facilities in time.
- c) Tribunal sitting started on 09.01.2006, after the State filed a writ petition before the Supreme Court on 13.12.2005, to direct the Central Government to provide infra-structure for early commencement of the Tribunal work. By 09.01.2006, the State filed replies / rejoinders to the complaint / replies of other party-States along with other documents before the Tribunal.
- d) In the meantime, Karnataka filed one I.A., Maharashtra filed five I.A.s and Andhra Pradesh filed four I.A.s before the Tribunal. The Tribunal took up these I.A.s for arguments and orders have been issued on 09.06.2006. These orders are in favour of Karnataka State. Necessary documents required for arguing on behalf of the State have been filed in the Tribunal.

❖ CAUVERY UNIT

Introduction:

The Cauvery unit of Water Resources Development Organisation, Bangalore deals with the matters concerning sharing of waters of the River Cauvery with the other riparian States viz., Tamil Nadu, Kerala and Union Territory of Pondicherry.

1. Organisation:

The Cauvery Unit was formed during 1990 with staff of W.R.D.O. It was functioning under the then Chief Engineer, W.R.D.O., Bangalore.

2. Activities:

- ✂ The Cauvery Water Disputes Tribunal was set up by the Ministry of Water Resources, Government of India, vide its order No. 21.1.90 WD dated; 2.6.1990 with Head quarters at New Delhi for adjudication of the Cauvery Water Dispute.
- ✂ To safe guard the interests of Karnataka and to substantiate the stand of the Government before the Supreme Court / Cauvery Water Disputes Tribunal, a team of Advocates along with the Advocate General of Karnataka is appointed and their services are being utilised.

The current team of Advocates appointed by the Government to represent Cauvery Water Disputes is as under:

1. Advocate General of Karnataka	
2. Sri. F.S. Nariman	Senior Advocate

3. Sri. Anil B. Divan	Senior Advocate
4. Sri. S.S. Javali	Senior Advocate
5. Sri. Mohan V Katarki	Advocate
6. Sri. Shambhu Prasad Singh	Advocate
7. Sri. Sanjay R. Hegde	Advocate
8. Sri. S.C. Sharma	Advocate
9. Sri. Ranvir Singh	Advocate
10. Sri. Brijesh Kalappa	Advocate

- ✧ To get technical advise in Cauvery Water Disputes matter two Technical Advisors were appointed by the Government and their services are being continued.
- ✧ For effective participation and pleading the case of Karnataka before the Cauvery Water Dispute Tribunal, Cauvery Water Cell established in 1990 is now functioning in Karnataka Bhavan –III (Bheema), Hudco Place, Andrews Ganj, New Delhi. The Cauvery Water Disputes Tribunal held 8 Sittings during the year 2006-07 from April 2006 to February 2007.
- ✧ This unit renders technical assistance to the Advocates engaged by the state to appear before the Cauvery Water Dispute Tribunal and Supreme Court. This unit also prepares documents and other required materials for the Technical Committee, All Party Meetings and other related meetings.
- ✧ In addition, this unit also carries out the following works.
 - * Collection and analysing data regarding Reservoir levels, inflow, outflow, etc., of the Cauvery Basin Projects in the State.
 - * Preparation of brief and draft replies in connection with the reactions from the public and other State Governments, which appear in press.
 - * Collection and updating of materials that are relevant to the Cauvery water Disputes etc.,
- ✧ This unit also renders its views on the matters connected with the West Flowing River Development, National & State Water Policy, National Water Board and NWDA studies regarding Water Balance whenever such files are referred to.

3. Physical and Financial Targets and Achievements

The significant developments before the Cauvery Water Dispute Tribunal and Cauvery River Authority concerning the Cauvery Water Dispute during the year 2006-07 are as follows;

(a) Before the Cauvery Water Dispute Tribunal

The final arguments and counter arguments before the Tribunal regarding all issues have been completed by all the party States. The Cauvery Water Disputes Tribunal announced its final verdict along with report on 05.02.2007. As per the judgement the allocation of 740 tmc (available in Cauvery basin at 50% dependability) to the party States is as under:

1.	Kerala	30 tmc
2.	Karnataka	270 tmc
3.	Tamil Nadu	419 tmc
4.	Union Territory of Pondicherry	7 tmc
5.	Environmental protection	10 tmc
6.	Inevitable escapages into sea	4 tmc

Total	740 tmc
-------	---------

Further it is ordered in the judgement that Karnataka should ensure 192 tmc at Biligundlu (gauging station maintained by CWC) as under:

Month	TMC	Month	TMC
June	10	December	8
July	34	January	3
August	50	February	2.5
September	40	March	2.5
October	22	April	2.5
November	15	May	2.5
Total - 192 tmc			

Since Karnataka State could not get full justice from the Tribunal Karnataka Government is taking action to first file a original Suit under article 131 and Special Leave Petition under article 136 of the constitution before the Supreme Court of India and then file a Review Petition under section 5 (3) of Inter State Water Disputes Act before the CWDT bringing forth the anomalies to be set right.

(b) Technical Committee on Cauvery Water Dispute

This Committee has met twice during the year 2006. The Technical Committee of Cauvery Water Dispute has constituted several working Group, which would be meeting frequently to prepare reports on various subjects. The Technical Committee of Cauvery Water Dispute will ultimately discuss these reports.

❖ **HYDROLOGY UNIT:**

To assess water resources of the State in a scientific manner, the observations of flow data at various points in different River basins is most essential. As such, the Government of Karnataka has established a separate Hydrology Unit, under the Water Resources Development Organisation, with the responsibility of establishing gauging stations, for collection, analysis of Hydrometric and Hydrometeorological data.

The work of the gauging sub-division is to establish observation sites for Rivers and streams at selected points and to maintain them systematically. In addition to the, Hydrometric observations, they are also entrusted with the works of installation and maintenance of rain gauges (both ARG & SRG) and establishing of HM stations in the entire State.

During the year 2006-07, the data from the following stations were collected:

* Hydrological Stations:		
1.	Current Meter Gauging Stations	41
2.	Stage Discharge Stations	12
3.	River Gauging Stations	01
4.	Automatic/Digital Water Level Recording Stations	42
5.	Silt and Sediment observation Stations	35
* Hydrometeorological Stations		

1.	Full Climatic Stations	86
2.	Autographic raingauge Stations	165
3.	Standard raingauge Stations	767

The Hydrological & Hydrometeorological data is scrutinized, analysed, processed, computerized and stored in data centre. The rainfall data of the raingauge stations maintained by this organization is collected and data are being forwarded to the statistical department. Daily rainfall data is maintained in the raingauge registers of all the stations coming under this organization. Also the daily inflow and outflow data of the major & medium reservoirs, weirs and anicuts are collected from the respective irrigation zones and recorded.

The Hydrology Unit also reviews the water balance study reports prepared by National Water Development Agency for different Rivers in southern states and in particular Karnataka and suggestions are furnished to National Water Development Agency.

Hydrology Project Aid:

Government of India took up the Hydrology Project – I under the World Bank and which envisaged the setting up of reliable and well-designed network in the country for the collection of Hydrological and Hydrometeorological datas, both for Surface as well as Ground Water for quantity and quality.

The project started on 10.12.1996 and closed on 31.12.2003.

During the current financial year of 2006-07, a budget grants of Rs. 3.50 Crores has been allocated for maintenance of Stations, Laboratory, Vehicles, Computers etc., established under the World Bank assisted Hydrology Project – I and for payment of salaries of Staff created under this project. A total of Rs. 2.69 Crores expenditure is during 2006-07.

National Hydrology Project – II

The Government of India has included the State of Karnataka for participating in the Hydrology Project Phase – II and has made a provision of Rs. 29.19 Crores for the same. The components are:

Surface Water Component	Rs. 11.54 Crores
Ground Water Component	Rs. 17.65 Crores
TOTAL	Rs. 29.19 Crores

A review of the various activities, which are to be taken up under Hydrology Project – II indicates that a majority of the expenditure is concentrated for development of software packages for better utilization of Water Resources in the State. Hydrology Project – II is a follow up action project of World Bank Aided Hydrology Project – I where in infrastructure for collection of data was established. The data so collected is now proposed for utilization in the new Hydrology Project – II.

Under Hydrology Project – II out of the proposed cost of Rs.29.19 Crores, Rs.24.44 Crores is earmarked for reimbursement from World Bank and the balance of Rs.4.749 Crores will be borne by the State Government. The loan agreement of this project with the World Bank authorities was signed on 19.01.2006 at Delhi. This project has become effective with World Bank assistance from 5-4-2006. The project is now under progress.

GEOMATIC CENTRE:

The aim of Geomatics Centre, Water Resources Development Organisation, Bangalore is

- * Planning & Investigation of different Water Resources Projects using latest technologies like Remote Sensing, Global positioning System, Geographical System, ALTM, Digital Cartography etc.,
- * Carrying out a pilot study to formulate a model system for establishing Water Resources Data Centre for implementation of State Water Policy.
- * The work of Carrying out a detailed investigation for diversion of the waters of River Nethravathi to drought affected eastern parts of Karnataka State has been entrusted to NRSA, Hyderabad and the work is under progress.

7. CENTRAL MECHANICAL ORGANISATION

Central Mechanical organization (CMO) has one circle office, three divisions, 14 sub-divisions and 36 Sections/Work shops under its jurisdiction.

I. The main duties and functions of the organization are briefly as follows:

- a) Optimum utilization of Machinery/Equipment available in the department.
- b) Stream lining the purchase of spare parts of Machinery/Equipments.
- c) Centralization and Stream lining of purchase of new Machinery/Equipments.
- d) Reduction in the inventory of the spare parts held in stock of various divisions.
- e) Plugging the leakages of revenue.
- f) Disposal of surplus and unserviceable machinery.
- g) Inspection of sick machinery in the Public Works and Water Resources Department and scrutiny/sanction of repair estimates.
- h) Review of efficiency and performance of Machinery/Equipments.
- i) Calculation of hire charges of machinery/equipment and recommendation to the Government for the adoption of hire charges from time to time.
- j) Rehabilitation of surplus Vehicles/ Machinery/Equipments.

❖ PROGRESS ACHIEVED BY C.M.O DURING 2006-07

In order to ensure optimum utilization of Machinery/Equipments, available in Public works and Water Resources Department, the monthly returns of machinery of divisions are being obtained and reviewed regularly for its various performance aspects such as

- 1) Fuel usage
- 2) Oil usage
- 3) Km run with reference to standards fixed.
- 4) Idleness, surplus ness and rehabilitation.
- 5) Sick vehicles/equipments identification and its speedy repairs
- 6) Disposal of unserviceable machinery is reviewed and follow up action ensured until their disposal.

Purchase of spare parts required for repairs to machinery is being streamlined and only such spares, which are absolutely required and not available in the stock, are procured. The Chief Engineer, CMO is the Member-Secretary of the Purchase Committee. Any new purchase of machinery is being screened thoroughly and recommended to Government for approval.

CMO is making efforts in utilisation of the available spare parts in stock of several Divisions of PWD and WRD thereby causing reduction in the inventory.

Every effort is being made by the CMO to check and plug the loss of revenue to the Government by the utilisation and hiring of machinery to contractors, thus bringing revenue to Government.

Central Mechanical Organisation is also inspecting vehicles / equipment pertaining to Board, Corporations and Central Government after levying inspection fees and remitting to the same to the Government Treasury.

DISPOSAL OF SURPLUS AND UNSERVICEABLE MACHINERY

Sl. No.	No. of Vehicle / equipment declared unserviceable	No. of vehicle/ Equipment/ Machinery disposed off	Amount of revenue through disposal (Rs. In Lakhs)	Balance equipment/ machinery
(a) Water Resources Department				
1	245	173	6.61	72 (Disposal is under various stages)
(b) Public work Department				
1	964	808	57.39	156 (Disposal is under various stages)

**SURPLUS MACHINERY DECLARED AND THEIR REHABILITATION
(04/2006 TO 12/2006)**

Sl. No	Nigams/Zones	Numbers	Remarks
1	Krishna Bhagya Jala Nigam	20	Includes 16-Jeeps 11- Cars
2	Irrigational Central Zone	07	
3	Hemavathy Canal Zone	04	
4	Public Working Department	06	
5	Other Departments	10	
6	N.H.P.C.L	03	Rejected
7	R.S.D.	02	
Total		52	

DISPOSAL OF UNSERVICEABLE MACHINERY IN WATER RESOURCES & PUBLIC WORKS DEPARTMENT, WHICH HAVE BEEN RECOMMENDED, FOR SCRAP DURING ROUTINE COURSE OF INSPECTION

Sl.No	Description	Numbers	Remarks
1	Machinery / Equipments identified for disposal during 2006-07	113	Total revenue realised from the transaction of Machineries/Equipments is Rs.42,93,600.00
2	Machineries/Equipments Disposed during 2006-07	79	

ACHIEVEMENT OF CENTRAL MECHANICAL ORGANISATION DURING 2006-07

Sl. No	Subject	Achievements (Numbers)

1	Repair of Machinery/Equipments (Major and Minor)	
	a) Opening Balance (01.04.2006)	206
	b) Receipts	2240
	c) Total	2446
	d) Get repaired 95 (Major/Medium)	2192
	e) Remaining	254
2	Inspection	
	a) Total General Inspection	218
	b) Recommended for repair	105
	c) Recommended for discard	113
3	Inspection of Estimate	
	a) Initial Estimates	---
	b) Estimates Inspected and granted	105
	c) Amount of Inspected estimates	Rs.84.35 lakhs
	d) Number of reports given by inspecting the estimates	22
	e) Total amount of estimates after inspecting the reports	Rs.15.49 lakhs
	f) Amount of Granted Estimates	83
	g) Granted amount of estimates	Rs.68.86 lakhs
4	Spare parts utilization	
	a) Cost of Identified Spare parts	Rs.415.86 lakhs
	b) Cost of spare parts utilized on works	Rs.246.16 lakhs
	c) Balance	Rs.169.70 lakhs
	d) Spare parts used during the year 2006-07	Rs.9.32 lakhs

FINANCIAL TARGET AND ACHIEVEMENT FOR THE YEAR 2006-2007**(Rs. In lakhs)**

Sl. No.	Name of the Project	Grant for 2006-2007	Expenditure for 2006-2007 (to end of 12/2006)
1.	315 Bhadra	29.66	27.88
2.	317 TBP-LBC	98.55	107.61
3.	359-Benni thora	43.58	63.81
4.	401-Karanja	59.81	60.92
5	207-HamavathiDam	138.95	130.53
6.	208-Hemavathi Canal	29.21	27.99
7.	4701-80-800(Plan)	150.00	137.08
8.	4701-80-800(N.P)	200.00	171.49
9.	2702-Minor Irrigation (Plan)	46.69	41.93
10.	2702-Minor Irrigation (NP)	56.57	53.47
11	2059-P.W (NP)	50.00	118.47
12.	3054-NH (NP)	35.00	29.90
13.	2701-D & A (N P)	252.38	235.00
14.	2701-W.R.D.O. (NP) –80-800	25.00	31.21
TOTAL		1215.40	1237.29

8. KARNATAKA ENGINEERING RESEARCH STATION

Karnataka Engineering Research Station was started during 1944 as a small Research Unit. The Research Station, which forms a wing of the State Water Resources Department, had a phenomenal growth and today it is one of the oldest Research Organisations of its kind in the country. The main objectives of the Research Station are to find solutions to various problems encountered by the field Engineers in Civil engineering discipline. The Research Station has solved many intricate problems posed by Public Works Department, Water Resources Department, other Civil Engineering Departments, other agencies etc. The Research Station has well equipped laboratories supported with good Computer facilities and Library.

The Director of the rank of Chief Engineer heads the Research Station. He is assisted by the Joint Director, who is also the Principal of Engineering Staff College, which is a wing of K.E.R.S.

The activities of the Research Station are grouped under 4 divisions as under.

- * Hydraulics Division
- * Technical Services Division
- * Soil Mechanics & Foundation Engineering Division
- * Coastal Engineering Division

Chief Research Officer of the rank of Executive Engineer heads each Division. There are 4 Chief Research Officers (Executive Engineer), 19 Research Officers (Assistant Executive Engineer), 62 Assistant Research Officers (Assistant Engineer), and 19 Junior Research Officers (Junior Engineer). Of these sanctioned posts, 04 Chief Research Officers, 17 Research Officers, 45 Assistant Research Officers and 12 Junior Research Officers are working at present.

*** HYDRAULICS DIVISION**

Model studies of various components of Irrigation & Power Projects like spillway and energy dissipating arrangements, Assessment of carrying capacity of canal system by backwater computation, Gauging of canals, calibration of current meters, Capacity Evaluation of Reservoir by conventional Hydrographic survey as well as remote sensing techniques are the studies entrusted to this division.

*** TECHNICAL SERVICES DIVISION**

This division is entrusted with the work of conducting, non-destructive tests on cement, concrete, Mix design, steel, sand coarse aggregate etc. Tests on water samples, cement mortar and cement concrete samples for chemical analysis, collection of daily Rainfall and Hydrometeorological data, maintenance of buildings and quarters of KERS, maintenance of library are other works entrusted to this division.

*** SOIL MECHANICS & FOUNDATION DIVISION**

This division deals with problems related to foundations, suitability of soils to embankments, foundations of bridges and buildings and that related to MI tanks. This division also deals with problems related to rocks & its properties, roads etc.

*** COASTAL ENGINEERING DIVISION**

The main objective of this division is to investigate the causes of coastal erosion along coastal line of Karnataka, to collect field data, to suggest remedial measures to contain coastal erosion and to conduct model studies if necessary. Also pre-monsoon and Post-monsoon monitoring of Sea Walls, monthly monitoring of Sea Walls being constructed by port authorities are being done by this Division. In addition, this division is also conducting silt and sedimentation survey of Kabini reservoir.

Through the above Divisions, the Research Station has been playing a key role in solving many Engineering problems in the field of Hydraulics, Concrete, Testing of building materials- concrete, Soils, Rock, problems connected with roads, Sea Erosion etc.

DAM SAFETY CELL

A Dam Safety Cell is working in the Research Station under the direct control of the Director, K.E.R.S. The Cell is headed by Assistant Executive Engineer supported by technical staff and deals with the safety aspects of Dams as per the guidelines of Central Water Commission.

A proposal for creation of Dam Safety Organisation (DSO) headed by a Superintending Engineer has been submitted to Government, which is under consideration by the Government.

PROGRESS ACHIEVED BY KERS DURING 2006-07

During the year 2006-07, upto end of March 2007, 91 Nos. of studies covering Hydraulic, Rating of current meters (24 Nos), Gauging, Testing of Building Materials, Soils, Water quality testing, Monitoring of Sea Walls etc., referred by different agencies have been completed and reports have been sent to concerned authorities and 43 studies are under progress.

IMPORTANT EVENTS DURING THE YEAR

1) The MOU between KERS & Mysore Urban Development Authority (MUDA) on Quality tests on materials used for development works undertaken by MUDA.

The Karnataka Engineering Research station has taken up major work of conducting quality control tests on the materials used for development works of Mysore Urban Development Authority (MUDA) agencies. The MOU signed between the Research Station and MUDA in this regard for the year 2005-06 has been continued to 2006-07 also. Accordingly, during 2006-07, 54 Nos. of studies have been completed upto end of March 2007 and reports have been sent to concerned authorities and 15 studies are still under progress.

2) Activities of KERS on the Hydrology Project

Under the Hydrology project taken up by Government of Karnataka with World Bank Assistance, two Water Quality Laboratory have been established at K.R.Sagara and Munirabad.

Further, using the Hitech IBS integrated FRP Boat with other auxiliary Equipments procured under Hydrology Project, an action Plan for conducting Silt Survey of major Reservoirs of Karnataka was prepared and submitted to Government. As per this Action Plan, the Hydrographic survey of Tungabhadra Reservoir was conducted in association with Andhra Pradesh Engineering Research Laboratory (APERL) during November-December 2004 and completed. During the current year i.e., 2006-07, Hydrographic Survey of Bhadra Reservoir has been completed. Analysis of the survey results and preparation of report are under progress.

The objective of K.E.R.S. is to find solution to various incidental Civil Engineering problems referred by Government, Quasi-Government, other agencies etc., and accordingly, the same is being

attended to as and when referred by the said Departments/ agencies and will also be continued in future.

ENGINEERING STAFF COLLEGE: -

The Engineering Staff College was established in the year 1971, as a commemoration of the Silver Jubilee of the Karnataka Engineering Research Station. This Institution has been established with the aim of training the in-service Engineers as well as newly appointed Assistant Engineers and Junior Engineers of Public Works and Water Resources Department.

The Engineering Staff College is working as an independent unit under the administrative control of the Director, Karnataka Engineering Research Station, Krishnarajasagara, with effect from 01-04-88.

The Principal & Joint Director, of the rank of Superintending Engineer, heads the college. Two Professors (Executive Engineers), 06 Assistant Professors (Assistant Executive Engineers), 03 Lecturers (Assistant Engineers) and Two Junior Engineers assist him. At present, of these sanctioned posts, 02 Professors, 06 Assistant Professors, 03 Assistant Engineers and Two Junior Engineers are working in the College.

ACTIVITIES

The Engineering Staff College conducts mainly three types of training Courses.

- 1) Orientation course for newly appointed Assistant Executive Engineers/Assistant Engineers/Junior Engineers (Duration - 6 weeks for Assistant Executive Engineers and 4 weeks for Assistant Engineers and Junior Engineers)
- 2) Refresher courses for in - service Engineers and others in different subjects (Duration – 5 to 6 days)
- 3) Short term courses under Continuing Education Programme (C.E.P) (Duration - 5 days) since 1989.

These CEP Courses are conducted at several renowned Technical Institutions in the State with the object of imparting training to the technical personnel working in the Department. They are conducted at 8 centers in the state namely Mysore, Hassan, Surathkal, Dharwad, Davangere, Belgaum, Bagalkot and Shimoga.

Besides, the College is also conducting Basic Computer Course of 12 days duration for the benefit of Engineers & other staff working in the Department.

PROGRESS ACHIEVED BY ENGINEERING STAFF COLLEGE DURING 2006-07

During 2006-07, it was programmed to conduct 23 Nos. of Institutional Training courses and 32 Nos. of C.E.P. training programmes. The details of training Programmes conducted upto end of March 2007 are given below.

Sl. No.	Category of training programme	No. of courses proposed	No. of courses conducted upto end of March 2007	No. of persons trained.
1	Institutional Courses	23	17	401

2	C.E.P Courses	32	23	321
3	Special Courses	11	08	320
Total		66	48	1042

During 2006-07, upto end of March 2007, 48 different training Programmes have been conducted and 1042 officer/Staff has been trained.

Since inception of the Staff College and upto end of March 2007, the college has successfully conducted 1074 training programmes and have trained 21,637 Officers/Staff of the various Government Departments.

The Grant allotted for 2006-07 is Rs. 17.61 Lakhs and the expenditure incurred upto end of March 2007 is Rs. 26.60 Lakhs.

9. WATER AND LAND MANAGEMENT INSTITUTE (WALMI)

INTRODUCTION

To maximize returns from investments made in irrigation projects in the State, it is necessary to manage water and land in a systematic and scientific way. This requires capacity building of Government Staff as well Water Users. To meet these capacity building needs, Water and Land Management Institute (WALMI) started functioning at Dharwad on 12-5-1986 and was later registered as a Society under the Karnataka Societies Registration Act, 1960 on 16.06.1986. WALMI: imparts training; renders technical assistance, advises Government on legal, policy, organisational and procedural changes; organizes demonstrations in collaboration with other organizations; conducts special studies and brings out publications.

WALMI CAMPUS AND ITS ACTIVITIES

WALMI is functioning from its own 55 hectare campus located in Dharwad-Belur Industrial Area located 12 Km away from Dharwad on Belgaum Road. The Administrative Building, Faculty Block, and Residential Buildings have been constructed. The Institute is equipped with the facilities necessary for imparting training for Staff and Farmers. A Library and Demonstration Farm with Minor Irrigation Tank and borewells are also available.

PROGRESS DURING 2006-07

TRAINING

WALMI's training activities focused on the training required for implementation of the State Water Policy and the Irrigation Sector Reforms. Special emphasis was laid on training on Participatory Irrigation Management, Water Management and Land Development. Staff of the Water Resources Department, Krishna Bhagya Jala Nigam, Karnataka Neeravari Nigam, Cauvery Neeravari Nigam and the Six Command Area Development Authorities was trained by WALMI. The Office bearers of Water Users Cooperative Project Level Federations of Malaprabha and Ghataprabha, Office bearers of Water Users Cooperative Societies throughout the State as well as some farmers were also trained by WALMI. During the year due to non availability of Trainees Hostel as the same was demolished for construction of Circuit Bench of the High Court of Karnataka training programmes could not be organised between mid July to mid November 2006 and only 768 persons were trained as compared

to annual target of 1080 persons. The cumulative training progress since inception upto end of March 2007 is 29771 persons.

TECHNICAL ASSISTANCE

WALMI renders technical assistance to the Water Resources Department, Krishna Bhagya Jala Nigam, Karnataka Neeravari Nigam, Cauvery Neeravari Nigam and Six Command Area Development in the delineation of the area of operation of water users societies, entrusting rehabilitation prior to handing over of canal network to Water Users Societies, implementation of State Water Policy and Irrigation Sector Reforms. Malaprabha, Ghataprabha, Harangi and Kabini Water Users Cooperative Project Level Federations and the Water Users Cooperative Societies in: Malaprabha, Ghataprabha, Upper Krishna, Chandrampalli, Tungabhadra, Bhadra, Krishnarajasagara, Hemavathy, Harangi and Kabini were also given technical assistance for PIM implementation.

DEMONSTRATIONS IN COLLABORATION WITH THE UNIVERSITY OF AGRICULTURAL SCIENCES, DHARWAD

Demonstrations pertaining to irrigation methods for different crops- Cotton, Soyabean, Maize, Groundnut, Chilli, Sunflower, Wheat, Bengalgram, Guava, vegetables and Mango were laid. Water saving technologies like drip, sprinkler and Raingun were demonstrated in the WALMI Farm to support training activities.

FINANCIAL PROGRESS

During 2006-07, against a sum of Rs. 100.00 Lakhs allocated for Command area development, an expenditure of Rs. 77.04 lakhs has been incurred.

ADMINISTRATION

During the year Out of the 47 sanctioned posts, 21 posts were filled up. The remaining posts were kept vacant because grant in aid of Rs. 100.00 lakhs was provided in the budget as against the requirement of Rs. 200 lakhs and Rs. 66.68 lakhs were released. The training courses are being managed with the help of guest lecturers. For rendering technical assistance senior level consultants are being hired on short-term basis.

PROJECTS UNDER

**KRISHNA BHAGYA JALA NIGAM
LIMITED**

10. KRISHNA BHAGYA JALA NIGAM LIMITED

10.1 UPPER KRISHNA PROJECT

A). BRIEF DESCRIPTION

In order to speed up the implementation of the Upper Krishna Project (UKP) in the State of Karnataka, by mobilising resources from the capital markets, KBJNL was incorporated on 19th August 1994 under the Companies Act, 1956 as a Company, wholly owned by the Government of Karnataka for planning, investigation, estimation, execution, operation and maintenance of all irrigation projects coming under the UKP. The Company is funding the rehabilitation and resettlement of the people affected by the Project. The company is authorised to let-out water and recover revenues from individuals, groups of farmers including Water Users Co-operative Societies, towns, city municipalities and industries.

B). ADMINISTRATIVELY APPROVED COST AND THE YEAR OF APPROVAL ALONG WITH REVISED COST DETAILS

- a) Stage-1 work has been approved by Planning commission vide letter no:2 (10) /88-I&CAD/ dated 24.09.90 for Rs. 1214.97 Crores. The revised project cost approved by the Nigam's Board is Rs.6003.19 Crores as on 30th September-2005.
- b) Stage-II work has been approved by Planning commission vide letter no: 2 (10) /99-WR/ dated 13.12.2006 for Rs. 2358.86 Crores. The revised project cost approved by the Nigam's Board is Rs.3476.40 Crores as on 30th September-2005.

C). EXPENDITURE INCURRED ON THE PROJECT FOR THE YEAR 2006-07 UPTO END OF MARCH 2007

A sum of Rs. 9368.20 Crores has been spent on the project upto March 2007, and an amount of Rs. 4,553.57 Crores is spent towards payment of interest.

D). BARRAGES ACROSS RIVER BHIMA

Krishna Bhagya Jala Nigam Limited is implementing the following barrages across the River Bhima.

- | | |
|----------------------|--------------------------|
| 1. Kallur-B barrage. | - Completed. |
| 2. Sonnathi. | - Work is under progress |
| 3. Joladadagi-Gudur | - Completed. |
| 4. Yadgir | - Completed |
| 5. Ghattargi | - Completed |

These barrages are being implemented at an estimated cost of Rs.277.45 Crores.

Among these, the sonnathi barrage is under progress. Further in addition to the above the Nigam is entrusted with construction of 4 barrages across River Manjra-Godavari basin in Bidar district. The probable estimate cost of 4 barrages is Rs.200.00 Crores. The tender for civil components have been received.

About 4.25 Lakhs Ha (10.90 Lakh Acres) area of Bijapur, Gulbarga and Raichur District will be irrigated under Stage-I of Upper Krishna Project. About 1.92 Lakhs Ha will be irrigated under Stage-

II. The Stage-I works are divided into three phases. Works under Phase –I & II are completed and that under Phase –III are nearing completion.

✱ **UPPER KRISHNA PROJECT DAM ZONE, ALMATTI.**

This zone was established on 30.01.1977. One Circle Office, Six Division Offices with 20 Sub divisions, One Senior Health Officer (Class-I) with his 4 Anti-Malaria Units and Deputy Conservation of Forest with its 3 sub-divisions are working under this zone.

The works of Raising of Almatti Dam, D/S garden and Lift Irrigation Schemes such as ALBC, ARBC, MLIS, Marol LIS, Thimmapura LIS and Teggi-Siddapura LIS comes under this zone.

About 4.25 Lakh Ha (10.90 Lakh Acres) area of Bijapur, Gulbarga and Raichur District will be irrigated under Stage-I of Upper Krishna Project. About 1.92 Lakhs Ha area will be irrigated under Stage-II. The Stage-I works are divided in three phases and Phase-I works are completed. The progress of Phase-II, Phase-III and Stage-II works are as follows:

1) Almatti Dam

The work is already completed and Gates are also erected. The water is being stored upto RL 518.60 and being utilized for irrigation.

2) Landscape garden at down stream of Almatti Reservoir

Landscape Development of Almatti Dam environs has been taken upto create the avenues for economic development of project area by attracting the tourist. M/s Nefertiti, Bangalore, was appointed as Consultants for preparation of plans, designs and estimates of Landscaping. A Committee is formed under the Chairmanship of the Commissioner, R & R, Bagalkot, to supervise the work.

The project has been phased out in multiple stages and presently only 77 acres of land along the left bank downstream abutting Dam masonry wall is taken up under Phase-I. The Present phase concentrates mainly on future garden. The later phases concentrates mainly on water theme parks, water theme courts etc., in about 220 acres.

3) Almatti Left Bank Canal L.I.S.

Head works, Erection Pumps and establishment of sub-station are completed. An area of 17,891 Ha has been successfully irrigated during Rabi 2006-07.

The total length of canal is 92.11 Km. Out of which, 67 Km is nearing completion. The works for Km.67.00 to 85.00 are under progress. The Distributaries 1 to 2 are nearing completion. The works of Distributaries No. 28 to 40 are under progress.

4) Almatti Right Bank Canal L.I.S

The head works are completed and pumps are erected. The cabling works of taking power connection is also completed. The total length of the canal is 67.50 Km. and the area irrigated will be about 9,900 Ha. The works of main canal are nearing completion.

The Distributary from 1 to 15 is completed. The works of other distributaries are under progress. An area of 4921 Ha is notified for Rabi 2006-07.

About 6,200 Ha beyond River Malaprabha, under ARBC, is included in Marol Lift Irrigation Scheme.

5) Thimmapur Lift Irrigation Scheme

This scheme provides an irrigation facility to an area of 20100 Ha of Bagalkot taluk. The work for taking up of Jackwell, Pumps, raising main and delivery chamber is entrusted to agency on turnkey basis. Work is under progress. The detailed survey of the scheme is entrusted to agency. Work is under progress.

6) Ramthal (Marol) Lift Irrigation Scheme

About 26,200 Ha area of Hunagund Taluk of Bagalkot District will be irrigated under this project. The estimated cost of this project is Rs. 218.00 Crores. The Government has accorded administrative approval with certain conditions. The survey work is nearing completion. The work of 1st jackwell and its allied work is entrusted to M/s L & T and the work is under progress. TSC has cleared estimates of the main canal works. Tenders will be called shortly.

7) Mulwad Lift Irrigation Scheme

The water will be lifted in two stages under this scheme. The head works of 1st stage and construction of 2nd jackwell works are completed. An area of 5543 Ha is notified for Rabi 2006-07.

The lead off canal, which leads water from 1st Jackwell to 2nd jackwell i.e, from Km 0.00 to 5.00, is already completed. The length of East canal from the 2nd delivery chamber is 17.40 Km. and the length of West Canal is about 83 Km. About 30,850 Ha area will be irrigated under this scheme.

The lead off canal work is completed. The east canal from Km 0.00 to 17.40 and the West canal from Km 0 to 78.00 are nearing completion. Out of 6 distributaries of East Canal, works in respect of 5 distributaries are nearing completion and works of the 6th distributary is under progress. Out of 43 distributaries of West Canal, 24 are nearing completion and works of the remaining distributaries are under progress.

8) Teggi-Siddapur Lift Irrigation Scheme

Teggi-Siddapur Lift Irrigation Scheme is a lift irrigation scheme proposed on the foreshore of Almatti Reservoir, near Teggi, to provide irrigation benefits to about 3000 Ha in Bilgi Taluk. The survey work is nearing completion. The alignment of canal is approved and the tender process is completed. Work will be started shortly. The Jackwell work is under progress.

9) Sonna-Rolli-Mannikeri Lift Irrigation Scheme

Sonna-Rolli-Mannikeri LIS will provide irrigation benefits to about 3000 Ha area in Bilgi Taluk. The survey work is nearing completion. The tender process for the Sonna Jackwell is completed. Work will be commenced shortly. The tender process for the Rolli-Manikeri is nearing completion

NAME OF PROJECT: UPPER KRISHNA PROJECT

DETAILS OF IRRIGATION POTENTIAL, (in Ha)

Sl. No	Name of District	On full development	Created by] March 2006	Program for 2006-07	Progress during 2006-07
1	Almatti Left Bank Canal (from Km 0 to 103)	20,235	17,648	3,300	529

2	Almatti Right Bank Canal (from Km 0 to 67)	9,900	6,643	1,500	1,693
3	Mulwad West Canal (From Km 0 to 85)	30,850	9,638	13,400	5,708
TOTAL		60,985	33,929	18,200	7,930

DETAILS OF FINANCIAL ESTIMATE

(Rs.in lakhs.)

Sl. No.	Classification	Actuals 2005-06 (KBJNL)	Revised Estimate 2006-07	Budget Estimate 2006-07
1	Reservoir	1,475.16	1,191.39	901.65
2	Dam & Appurtenant works	4,746.50	1,611.33	7,203.83
3	Canal & Branches	4,409.00	3,657.74	1,313.85
4	Distributaries & Laterals	5,628.50	3,484.22	1,357.57
5	Water courses	-	-	-
6	Roads	337.00	811.60	162.20
7	Buildings	460.00	173.20	262.91
8	Other charges	-	-	120.00
9	Establishment & others	1,443.84	1,467.03	783.24

* UPPER KRISHNA PROJECT OPERATION & MAINTENANCE ZONE, NARAYANPUR.

Considering the vast area that is already notified and the phase of development of irrigation in the subsequent phases, the Government has accorded the sanction for creation of separate Zone to look after Operation and Maintenance activities of Upper Krishna Project vide Government Order No. ID 115 WBM 91 dated 14-10-1991. Owing to the Government Order, the Office of the Chief Engineer, O & M Zone, Narayanpur came into existence on 03-1-1992. This Zone is working under Krishna Bhagya Jala Nigam Limited with effect from 15-11-1995.

One Circle, Three Division and Nine Sub-Division are working under the control of this zone.

This Zone has the responsibility to monitor the water management for an irrigated area of 4.25 lakh Ha under Stage-I of Upper Krishna Project. As the project work is under progress, the irrigable area under this zone is increasing year by year During 2006-2007, the total area notified for irrigation under Narayanpur Left Bank Canal, Hunsagi Branch Canal & Shahpur Branch Canal was **58241** Ha for Khariff and **64421** Ha for Rabi, respectively. The canal wise details of notified area is as under.

Sl. No.	Canals	Kharif 2006-2007	Rabi 2006-2007
1.	Narayanpur Left Bank Canal	27,961	27,961
2.	Hunsagi Branch Canal	22,172	22,172
3.	Rampur Lift Irrigation Schemes	8,108	14,288
TOTAL		58241	64421

The maintenance of Narayanpur, Kodekal, Rajankollur, Hunsagi, Kakkera, Devapur, Devathakkal and Mudanur irrigation colonies under the project comes within the purview of this zone.

Maintenance of 108 Km length of major district road, 247.32 Km of other roads, 16 VHF wireless stations, Canal phones etc., are the other items, which are being looked into by this zone.

Apart from Operation & Maintenance of canal work under Narayanpur Left Bank Canal from Km. 0.00 to 78.00 this zone is also looking after Rampur Lift Irrigation Scheme works and implementation of Rajakollur Lift Irrigation Schemes.

✱ **UPPER KRISHNA PROJECT CANAL, ZONE NO.1 BHEEMARAYANAGUDI**

1. Contemplated Irrigation potential:

The Irrigable command areas contemplated under various canals of this zone are as under

Name of the canal	I.C.A. envisaged (In. Ha)
i) Shahapur Branch Canal	1,22,120
ii) Mudbal Branch Canal	51,000.
iii) Jewargi Branch Canal	57,100
iv) Narayanapur Right Bank Canal	84,000
TOTAL	3,14,220

The command areas lie in the Shorapur, Shahapur and Jewargi Taluks of Gulbarga district and Lingasugur & Deodurga Taluks of Raichur district.

2. Present Status of Works upto end of March 2007:

Shahapur Branch Canal and Mudbal Branch Canal works are completed and are in the Operation & Maintenance stage.

✂ **JEWARGI BRANCH CANAL WORKS**

The works of this Canal comes under UKP stage-I, Phase-III. The earthwork of Jewargi Branch Canal from 0.00 to 13.00 Km was first started during 1992-93, under famine works programme. But brisk activities on the works of this canal started during the year 1995-96 with the formation of KBJNL.

All the works of main canal (0.00 to 86.36 Km) and Distributary 1 to 17, including lining, is completed. Works only in Km 2 of BD-2 of Distributary 18 and one lateral of Distributary 16 are under progress and the same are almost completed.

The irrigation potential created under the canal since inception upto the end of March 2006 is 55,705 Ha, as against the contemplated potential of 57,100 Ha. It has been programmed to create an irrigation potential of 2,400 Ha by utilising a grant of Rs.16.23 Crores during 2006-2007. During 2006-07, upto end of March 2007, an irrigation potential of 1,928 Ha has been created, and an amount of Rs. 10.75 Crores has been spent. Out of the total created command area of 57,633 Ha upto the end of March 2007, 52,140 Ha area is already under operation and maintenance stage, and water is also let-out on trail basis in the balance area, wherever the basic infrastructure for irrigation potential has been created.

The cumulative financial progress achieved on the works, since inception upto the end of March 2007 is Rs.477.81 Crores.

All the balance works, including FICs will be completed at the earliest.

✂ **NARAYANAPUR RIGHT BANK CANAL WORKS**

The works of this Canal were taken up under UKP stage-II, with the Nigam funds, during the year 1995-96.

All the works of main canal Km 0.00 to 95.00 (except one cross regulator at km 72.015 which is nearing completion) and the main Distributary 1 to 18 are completed. Works of some lateral on Distributary 15, 16 and 18 are completed.

The irrigation potential created under the canal since inception upto end of March 2006 is 78,721 Ha as against the contemplated potential of 84,000 Ha.

During 2006-07, upto end of March 2007, an irrigation potential of 5,279 Ha has been created against the programme of 5,800 Ha. An amount of Rs.50.34 Crores has been spent against a grant of Rs.76.59 Crores.

Out of the total created command area of 84,000 Ha upto the end of March 2007, 55,841 Ha is already under operation and maintenance stage, and water is also let-out on trail basis in the balance area wherever the basic infrastructure for irrigation potential has been created.

The cumulative financial progress achieved on the works of this canal, since inception upto the end of March 2007 is Rs. 1,011.00 Crores including FIC expenditure.

All the balance works, including FICs will be completed during 2007-08.

3. BARRAGES

The works of construction of one Barrage cum Bridge across River Krishna, three Barrages across River Bheema, and four Barrages across River Manjra come under this Zone.

The works of construction of Two Barrage cum Bridge across River Bheema (one near village Joldadgi and another near Yadgir) are completed. The works of the third one near village Sonnati, Sonnati Barrage cum Bridge, is under progress.

The work of construction of Barrage cum Bridge near village Gugal on River Krishna is also under progress.

The works of four Barrages across River Manjra have been recently started and the same is under progress.

Total expenditure incurred during 2006-07 on all the Barrages coming under this zone, upto the end of March 2007 is Rs. 2,914.13 lakhs as against the annual target of Rs.1,750.17 Lakhs. The Barrage works are likely to be completed in all respects during 2007-08.

4. PROGRAMME AND PROGRESS DURING 2006-07:

The annual financial programme of this zone for the year 2006-07 is Rs.237.98 Crores and the programme of creation of irrigation potential was 8,400 Ha Against this, 8,017 Ha of irrigation potential has been created upto end of March 2007 with the financial achievement of Rs. 136.95 Crores.

*** UPPER KRISHNA PROJECT CANAL ZONE-2, KEMBHAVI**

The Upper Krishna Project Canal Zone No.2, Kembhavi, is functioning with effect from 1.10.1986 vide Government Order No. PWD 60 PCO 86, Dated: 29-9-1986, for the construction of Indi Branch Canal and Mudbal Branch Canal. Subsequently the Mudbal Branch Canal works were transferred to the charge of Chief Engineer, ID, UKP Canal Zone No.1, Bheemaranagudi and Ayacut Road works was transferred to this zone vide Government Order No. PWD 60 PCO 86 dated 15-6-1987.

At present this office is incharge of the works of Indi Branch Canal from Km 1 to 172 including distributories 1 to 46, Indi Lift Canal works from Km 1 to 147 and Ayacut Road within the Ayacut of Indi Branch Canal. The works of IBC from Km 1 to 64 and distributories 1 to 13 including laterals and FICs are already completed thereby creating an irrigation potential of 60,721 Ha and these works are now under operation and maintenance. The works of IBC from Km 65 to 172 and distributaries 14 to 46 are completed and irrigation potential of 70,574 ha is created. Laterals and FICs are completed.

The works of Head Regulator and intake canal of Indi Lift Scheme and Canal works from Km 0.225 to 40.00 are completed. The works of Indi Lift Canal from Km 10.00 to 97.30 is nearing completion. Work of survey, preparation of estimates including design and drawing from Km 97.30 to 147.00 is entrusted on tender basis and is under progress.

1. ORGANISATION

This zone is functioning with two circles namely IBC Circle No.2, Almel camp, Rampur and O&M Circle No.2, Rampur. The details of works taken up under this zone are as under.

✂ INDI BRANCH CANAL

The Indi Branch Canal takes off at Km 77.52 of Narayanpur Left Bank Canal, which is situated about 1 km away from Kembhavi village of Shorapur taluk in Gulbarga District and traverses with a head discharge of 2943 cusecs (83.49 cumecs) through the districts of Gulbarga and Bijapur irrigating an area of 30,831 Ha and 1,00,464 Ha respectively (Total 1,31,295 Ha)

The works of construction of Indi Branch Canal from Km 1 to 64 are completed under Stage-I, Phase-II of UKP, creating an irrigation potential of 60,721 Ha. The works of construction of Indi Branch Canal from Km 65 to 172 are tackled under Stage-I, Phase-III to create the balance irrigation potential of 70,574 Ha.

The expenditure incurred to end of 3/2007 for these works is as follows

(Rs. In lakhs)

SL. NO.	WORK	PACKAGE	EXPENDITURE UPTO END OF 3/2007
1.	IBC Km 1 to 10 (Slice-I)	Package IB-01/01	1552.63
2.	IBC Km 11 to 20 (Slice-II)	Package IB-01/02	2147.65
3.	IBC Km 21 to 30 (Slice-III)	Package IB-01/03	2076.20
4.	IBC Km 31 to 64	Package IB-02/01	9341.35
5.	Structures on IBC Km 31 to 64	Package IB-02-02	1890.99
6.	IBC Distributories 11 and 13	Package IB-03-01	23140.87
7.	IBC Distributories 6, 6A, 6B & 7	Package IB-03-02	752.56
8.	IBC Distributories 8 and 9	Package IB-03-03	3131.91
9.	IBC Distributories 10,12,12A & 12B	Package IB-03-04	2808.07

TOTAL	46,842.23
--------------	------------------

The works of Indi Branch Canal from Km. 65 to Km 172 and Distributories 14 to 46 have been taken up on tender as well as entrustment basis. The works are completed. The works of Indi Lift Canal from Km 1 to 97.3, Distributories 1 to 40B and Laterals coming there under are taken up on tender basis. An amount of Rs. 1,009.92 Crores has been spent to end of 3/2007 for the above works including the works of Indi Lift Irrigation Scheme and FIC. The details of works are as under:

- I. The works of IBC from Km 65 to 80, 89, 101 to 113, 120, 122 to 125 and 151 to 172 are taken up on tender basis and the works are completed.
- II. The works of IBC from Km 81 to 88, 90 to 100, 114 to 119, 121, and 126 to 150 are taken up on direct entrustment basis and the works are completed.
- III. The works of distributories 14 to 24 and laterals coming under IBC from Km 65 to 120 are also taken up on direct entrustment basis and the works are completed.
- IV. The works of distributories 25, 26 to 34, 35 to 37, 38 to 45A & 46, which were divided into packages and taken up on tender basis, are completed.
- V. The works of providing C.C. lining to IBC from Km 65 to 172 have been divided into packages and these works were taken up on tender basis. The works are completed.
- VI. The works of Indi Lift Irrigation Scheme viz., Head Regulator and Intake Canal with structure on intake canal are taken up on tender basis and the works are completed. Works of Indi lift canal from Km 0.225 to 40.00 are also completed. Works of Indi lift canal from Km 40.00 to 97.30 are taken up on tender basis and the works are nearing completion. Works of Distributories 1 to 40B on I.L.C. are also taken up on tender basis, which are under various stages of progress. For laterals under distributories 1 to 40B, tenders have been called for.
- VII. The works of pump-set, transmission line, sub-station and E.O.T. crane of ILC, which were taken up on tender basis and entrusted to the agencies, are under progress.

⌘ **AYACUT ROADS**

STAGE-I, PHASE-I

The work of Construction of 611 Km long Ayacut Roads under UKP Stage I Phase-I is completed.

STAGE-I, PHASE-II

It was proposed to Construct 942 Km long Ayacut Roads under UKP Stage I Phase-II. Out of the total 942 Km, construction of 307 Km of Ayacut Roads were handed over to CADA as per the orders of Government of Karnataka vide Government Order No.ID 95 Dated: 15-11-1995. Hence, 635 Km of Ayacut Roads come under the jurisdiction of this zone. These works are completed except the works of AR-04 Package. The contractor of AR-04 package has stopped the works for non-finalisation of workable rates. The roads coming under this package are included in the rehabilitation of Ayacut Raods package.

The amount spent on Ayacut Road works upto the end of 3/2007 is Rs. 2128.67 lakhs including maintenance. (Excluding World Bank works which are completed)

All the remaning roads coming under the jurisdiction of this zone are included in one package and for these roads fresh tender have been called for.

✕ BUILDINGS

The buildings were constructed in various colonies of this zone for accommodation of staff and office. Rs. 128.10 lakhs expenditure is incurred towards these works to end of March 2007. Two building packages, one at Rampur with bid cost of Rs. 296.51 lakhs and another at Almel with bid cost of Rs. 140.48 lakhs, are completed. The expenditure incurred upto end of March 2007 on the above works is as under,

01.	Building at Rampur	Package B2-01	Rs. 370.07 lakhs.
02.	Building at Almel	Package B2-02	Rs. 182.76 lakhs

The Grant allotted since 1986-1987 upto the end of 3/2007 is Rs. 192329.33 lakhs and a cumulative Expenditure of Rs. 155775.69 lakhs has been incurred upto the end of 3/2007. The Grant allotted during 2006-2007 is Rs. 12268.51lakhs and an Expenditure of Rs. 9361.89 lakhs is incurred upto end of March 2007.

DETAILS OF IRRIGATION POTENTIAL IN HECTARES

Name of work in Bijapur and Gulbarga District	Total ICA	Potential created to end of 3/06	Programme during the year 2007	Anticipated progress upto March-2006
IBC	1,31,261	131,295	-	-
ILIS	41,900 (44,076 revised)	16,294	20,300	21,140

DETAILS OF FINANCIAL ACTIVITIES AND CLASSIFICATION

(RS.IN LAKHS)

SL.NO	ACTIVITY/CLASSIFICATION	ACTUAL FOR 2006-07	EXPENDITURE FOR 2006-07
A.	ACTIVITY		
1	Canals and Branches	3,437.79	2,816.46
2	Distributaries	5,869.46	5,144.93
3	Roads	37.14	0.41
4	Buildings	248.18	128.10
5	Barrages	961.50	912.14
	Total for – A	10,554.02	9,002.04
B.	CLASSIFICATION		
1	Pay	935.41	613.94
2	Travel Expenses	189.39	64.28
3	Office Expenses	62.26	23.33
4	Pensionary charges	2.30	-
5	Machinery and Equipments	82.85	75.21
6	Suspense Debit	-	148.07
	TOTAL FOR – B	1,272.21	924.83

C.	DEDUCTION		
1	Suspense Credit	-	265.32
2	Deduct receipt and recoveries on Capital account	-	308.82
TOTAL OF – C			574.14
GRAND TOTAL OF A+B+C		11,826.23	9,352.73

10.2 BAGALKOT TOWN DEVELOPMENT AUTHORITY, BAGALKOT

1. SALIENT FEATURES OF BAGALKOT TOWN

Bagalkot Town is historically famous for its glory & one of the largest towns in the northern parts of Karnataka, is situated on the right bank of River Ghataprabha at 16°-11' longitude & 71°-12' latitude.

Bagalkot Town is getting submerged under the backwaters of Almatti reservoir. When the Dam height reaches RL 524.256 mtrs, the resulting submersion is 3/4th of the town. This year when water was stored upto 519.16 mtrs, its backwater stood at Bagalkot upto 520.10 mtrs. The following are the submergence details at different elevations.

SL. No	Height or RL in Mtrs	No. of Structures	Present acquisition of Structures				Population
			Authorized	Un-authorized	Total	Difference	
1	2	3	4	5	6	7	8
1.	517.00	615	781	206	987	373	3,760
2.	521.00	2,337	2,524	1,208	3,732	1,317	18,860
Total		2,952	3,305	1,414	4,719	1,690	22,620
3.	521 to 525	4,225	2,525	498	6,772		28,376
4.	525 to 526	1,872	-	-	1,872		7,021
5.	526 to 527	1,482	-	-	1,482		4,238
Total		10,531	2,525	498	14,845		62,255
6.	Above 527				7,155		29,341
Total 1 to 6					22,000		91,596

Note: The figures in SL. No. 1 & 2 are as per 6(1) notification. The figures indicated at SL. No.3, 4, 5 are as per survey conducted in 1986.

Resettlement plan consists of acquiring 4500 acres of lands for locating the new Bagalkot town and making all arrangements to provide basic infrastructure in the new town. For this purpose the state Government has enacted a special legislation called "BAGALKOT TOWN DEVELOPMENT ACT 1983".

2. ORGANISATION STRUCTURE:

BTDA is formed with 1 Chief Engineer Office, 2 Divisions, 8 Sub-Divisional Offices, one Special Land Acquisition Office and one Rehabilitation Office. 1 Office of the General Manager is functioning for speedy execution of the work.

Since most of the major works are completed, except maintenance work, the Government in its order RD No.145/REH/Bangalore/2005 Dated 24/10/2005 has temporarily closed One Divisional and 4 Sub-Divisional offices along with staff, with effect from 31/10/2005.

3. AIBP PROGRAMME

ESTIMATED COST OF REHABILITATION AND RESETTLEMENT OF BAGALKOT TOWN

Sl. No.	Details of Component	Rs. in lakh
1.	Structural compensation in old Bagalkot town	39,539.06
2.	Land Acquisition for new township and others etc.,	2,952.50
3.	R&R Packages	3,000.00
4.	Construction of Roads and parks etc.,	6,231.50
5.	Providing Water Supply	4,445.00
6.	Providing U.G.D	2,200.00
7.	Providing Electrification	2,000.00
8.	Construction of Public Building	2,200.00
9.	Telecom facilities	400.00
10.	Construction of Railway	1,000.00
11.	Maintenance of BTDA Colony and Navanagar	800.00
12.	New Supply Machinery and Maintenance	250.00
13.	Consultancy and training charges	90.00
14.	Establishment	2,591.94
TOTAL		67,700.00

It has been estimated that Rs. 677.00 Crores at 95-96 price levels is required for Bagalkot Rehabilitation and Resettlement works. Rs. 36.32 Crores has been earmarked for this project under U.K.P Stage-1-Phase-II and Phase-III.

4. SPECIAL PACKAGE SCHEME

Considering the problems due to backwater effect, Government has announced a special package of Rs. 638.00 Crores (Rs. 500.00 Crores for Bagalkot town + Rs. 138.00 Crores for R&R) Vide G.O. No. RD1/124/REH/2002 Bangalore, Dated 16.11.2002, to improve the existing conditions of Bagalkot Town.

The details of special package are as under.

Sl. No	Details of components	Rs. in Crores
1	Structural components RL521.00 to 523.00, Office of the Chief Engineer and Development of 35 sectors of unit 2 of Navanagar with all infrastructures facilities like roads etc.,	414.00
2	Providing UGD for Non submergence of Bagalkot Town	29.12
3	Providing Water Supply for non-submergence of Bagalkot Town	11.70
4	Construction of link roads	20.00
5	Development of parks in old town	12.00
6	Construction of building under Ashraya Scheme for slum dwellers	5.00
7	Construction of 50 bedded building for siteless and below poverty line people	2.00
8	Construction of 50 bedded hospital in old town	2.00
9	Income and employment generating scheme	4.18
TOTAL		500.00

a) The structures between RL. 521.00 mtrs to 523.00 mtrs needs to be acquired.

- b) Fixing of boundary stones and demarcation of plots of various sizes in 35 sectors of unit 2 are completed.
- c) The estimate for infrastructure facilities like, main peripheral roads, UGD, Water supply etc. for Unit-II of Navanagar etc. are prepared.
1. The U.G.D. Network in old Town of Non-submersible portion of Bagalkot is nearing completion.
 2. The work of providing water supply system including revamping of existing pipeline for non-submersible portion of Bagalkot town is nearing completion.
 3. The works for 3 link roads, 5 main roads, 7 internal roads in slum area of Baglkot Town were taken up on tender basis. Out of these works, 3 link road works have already been completed and 3 main road works are also completed. Remaining works are nearing completion.
 4. Development of 3 parks in old Bagalkot town is taken up, out of which work of one garden is completed.
 5. Estimate and DTPs for construction of 50-bedded hospital in old Bagalkot Town is under scrutiny.

5) FINANCIAL PROGRESS ACHIEVED TO END OF MARCH 2007, SINCE

INCEPTION

The Cumulative Expenditure incurred since inception (1983-84) upto March 2007 is Rs. 419.694 Crores. The Expenditure incurred during 2006-07 upto end of March 2007 is Rs. 25.27 Crores.

6) FINANCIAL PROGRESS ACHIEVED UPTO 31-12-2006 SINCE 1996-97 FOR A.I.B.P WORKS.

The Cumulative Expenditure incurred on AIBP works, since 1996-97 upto March 2006 is Rs. 13,162.88 Lakhs. The Expenditure incurred during 2006-07 upto end of March 2007 is Rs. 821.00 Lakhs.

7) DETAILS OF BUDGETARY PROVISIONS FOR 2006-2007 (Rs. In Lakhs)

Sl. No	Details	Budgetary Provision for 06-07	Special Package 2006-07
1	Establishment	315.00	-
2.	New Supplies and maintenance of Vehicles etc.,	261.90	-
3.	Structural compensation R&R package and civil works	1,518.90	2,201.15
4.	BTDA colony & Navanagar maintenance	36.60	
TOTAL		2,132.00	2,201.15

8. THE DETAILS OF BUDGETARY PROVISIONS FOR 2006-2007 (Rs. In Lakhs)

Sl. No.	Details of Component	Under AIBP	Under Special package
1.	Land Acquisition	21.41	-
2.	Structural compensation	57.14	-
3.	R&R packages	25.00	-
4.	Construction of Roads etc.,	1,148.41	959.41
5.	Providing water supply and UGD	1,69.44	1,160.49
6.	Electrification	29.77	43.50
7.	Construction of Buildings	67.73	37.75
8.	BTDA colony & Navanagar maintenance	36.60	-
9.	Establishment & consultancy	315.00	-
10.	Vehicle maintenance & new supplies	261.90	
Total		2,132.40	2,201.15

9. DETAILS OF PROGRESS ACHIEVED DURING 2006-07, UPTO MARCH-2007

1. An amount of Rs.40.70 lakhs paid as compensation for affected structures upto RL.521 mtrs, and also enhanced compensation of Rs.267.42 lakhs is paid as per court awards.
2. Payment is made towards compensation for un-authorized structures. Rs.4.98 lakhs have been paid towards acquisition of lands etc. that includes enhanced compensation as per court awards.
3. Totally 56 sectors for PDF's and 8 sectors for Non PDF's are developed in unit-1 at Navanagar. During this year 25 plots are allotted to PDF's. For 86 PDFs and 19 Non PDFs permission have been given to construct their houses.
4. Rs. 2.20 lakhs have been paid as house grants in the form of exgratia for 22 PDFs coming below Poverty line.

10. Financial Progress.

Financial programme for the year 2006-07 is Rs.43.33 Crores out of which an expenditure of Rs.25.27 Crores has been incurred upto end of March-2007.

The Details are as under:

(Rs.in Crores)

Sl.No.		Programme	Progress
1.	For A.I.B.P. Works	15.18	8.21
2.	For Spl. Package.	22.01	10.37
3.	For KBJNL Works	6.13	6.69
Total		43.33	25.27

AN OVERVIEW:

NAME OF THE PROJECT	B.T.D.A
---------------------	---------

Location	Bagalkot.
Year of inception	1984
Year of completion (in case of completed projects)	On-going
Original and Latest estimated cost (Rs.In Crores), including administrative /Technical sanction approval number and date.	Rs.677.00 Crores + Rs.360.49 Crores = Rs.1,037.49 Crores
Length of ayacut roads/I.T. roads	48.00 k.m. Peripheral roads.
Programme during 2006-07	Rs.43.33 Crores
Progress achieved during 2006-07	Rs.25.27 Crores
Financial Programme for 2007-08	Rs.40.00 Crores



PROJECTS UNDER

**KARNATAKA NEERAVARI NIGAM
LIMITED**

10. KARNATAKA NEERAVARI NIGAMA LIMITED**11.1 AN OVERVIEW OF PROJECTS UNDER THE CHIEF ENGINEER,
IRRIGATION (NORTH), BELGAUM**

Irrigation (North) Zone was formed on 10.8.67 in pursuance of the Government order No.PWD.114.PCO.67, dated: 24.7.1967 with a view to increase the tempo of construction work in the Irrigation Projects as a result of increased provision of the plan allocation in the state.

Irrigation (North) Zone is incharge of the following projects.

	<u>On-going Schemes</u>		<u>New Schemes</u>
1	Malaprabha Project	8	Bellary Nala Project
2	Ghataprabha Project	9	Sri Rameshwara L.I.S
3	Hipparagi Irrigation Project	10	Javaluhalla L.I.S. *
4	Markandeya Reservoir Project	11	Bennihalla L.I.S. *
5	Harinala Irrigation Project	12	Konnur L.I.S. *
6	Dudhaganga Irrigation Project	13	Kolachi L.I.S. *
7	Kalasa Nala & Bandhur Nala Diversion Schemes.	14	Lifting of Hiranyakeshi waters into GRB Canal.

(*) To irrigate suffering atchkat of tail end distributaries of MRBC / NBC, under Malaprabha Project

So far, an irrigation potential of 5,13,454 Ha, has been created under the above projects. An expenditure of Rs.2642.64 Crores has been incurred under the above schemes to end of 3/2007.

Harinala Project and Markandeya Project are to be dedicated to the Nation during Suvarna Karnataka 2006-07.

The remaining schemes are under different stages of progress.

11.1.1 MALAPRABHA PROJECT

NAME OF THE PROJECT	MALAPRABHA PROJECT	
Location	Naviluteertha	
Year of Inception	1960	
Original and Latest estimated cost (Rs. in Crores), including administrative/ Technical sanction approval number & Date.	Original Estimated cost Rs.20.00 Crores Latest Estimated cost Rs.994.00 Crores Administrative approval: GO No.PWD. 59. GMP. 77, B'lore Dated: 4.2.1980 Rs.162.09 Crores Technical sanction No.: CE, I(N), BGM Reg.No.CIN.7.for June 1980 Rs.162.09 Crores	
Length of Canal	M.L.B.C.	M.R.B.C
a) Main Canal,	150 Km.	142 Km.
b) Branch Canal	26 Km.	42 Km.
c) Distributories	280 Km	677 Km.
Length of ayacut roads/I.T.roads	282.62 Km	
Districts benefited	Belgaum, Dharwad, Gadag, Bagalkot	
Number of villages and Taluks Benefitted	Bailhongal, Ramadurg, Saundatti, Badami, Navalgund, Hubli, Naragund, Ron, Gadag taluks.	
Number of W.U.C.S:		
a) Formed	231	
b) Registered	231	
c) Handed over	191	
	Physical	Financial
Programme during 2006-07	15000 Ha	Rs.105.17 Crores.
Progress achieved upto End of March 2007	9075 Ha	Rs.72.490 Crores.
Programme for 2007-08 (Physical & Financial).	8631 Ha	Rs.60.00 Crores.
Cumulative progress upto End of March 2007	205075 Ha	Rs.886.278 Crores.

11.1.2 GHATAPRABHA PROJECT

NAME OF THE PROJECT	GHATAPRABHA PROJECT	
Location	Hidkal	
Year of Inception	1972	
Original and Latest estimated cost (Rs. in Crores), including administrative/ Technical sanction approval number & Date.	Original Estimated cost-Rs. 90.54 Crores Latest Estimated cost-Rs.1244.00 Crores Administrative approval: GO No.PWD. 147.MGP. B'lore Dated: 16.12.76-Rs.90.54 Crores Technical sanction No.: CE, I (N), BGM Reg.No.CIN.196.for March 1977-Rs.90.54 Crores	
Length of Canal	G.R.B.C.	G.L.B.C
a) Main Canal,	199 Km.	109 Km.
b) Branch Canal	88 Km	197 Km
c) Distributories	994 Km	494 Km
Length of ayacut roads/ I.T.roads	600.35 km	
Districts benefited	Belgaum, Bagalkot	
Number of villages and Taluks Benefitted	Athani, Chikodi, Gokak, Hukkeri, Raibag, Ramadurg, Saundatti, Badami, Bagalkot, Bilagi, Hungund, Jamakhandi, Mudhol taluks.	
Number of W.U.C.S:		
a) Formed	302	
b) Registered	302	
c) Handed over	285	
	Physical	Financial
Programme during 2006-07	35000 Ha	Rs.162.24 Crores.
Progress achieved upto End of March 2007	31620 Ha	Rs.115.515 crores
Programme for 2007-08 (Physical & Financial).	5837 ha	Rs.90.00 Crores.
Cumulative progress upto End of March 2007	296642 Ha (including Stage-I, II & III)	Rs.1054.923 crores.

11.1.3 HIPPARAGI IRRIGATION PROJECT

NAME OF THE PROJECT	HIPPARAGI IRRIGATION PROJECT	
Location	Hippargi village	
Year of Inception	1973	
Original and Latest estimated cost (Rs. in Crores), including administrative/ Technical sanction approval number & Date.	Original Estimated cost- Rs.186.70 Crores Latest Estimated cost-Rs. 1113.00 Crores Administrative approval: Nee E 17 Hi Aa Yo 2000, B'lore dated: 16.6.01, (Rs.901.00 Crores) Technical sanction.: CE, I(N), BGM Reg.No.CIN.10.for June 2001 (Rs.901.00 Crores)	
Length of Canal		
a) Main Canal	306 Km	
Districts benefited	Belgaum, Bagalkot	
Number of villages and Taluks Benefitted	Athani, Chikodi, Jamakhandi taluks.	
	Physical	Financial
Programme during 2006-07	-	Rs.50.00 Crores.
Progress achieved upto End of March 2007	-	Rs.39.307 Crores.
Programme for 2007-08 (Physical & Financial).	-	Rs.100.00 Crores.
Cumulative progress upto End of March 2007	-	Rs.220.528 Crores.

11.1.4 HARINALA IRRIGATION PROJECT

NAME OF THE PROJECT	HARINALA IRRIGATION PROJECT	
Location	Tigadi Village	
Year of Inception	1998	
Original and Latest estimated cost (Rs. in Crores), including administrative/ Technical sanction approval number & Date.	Original Estimated cost - Rs. 0.83 Crores Latest Estimated cost-Rs.68.93 Crores Administrative Approval No: CE: 114:MPS: 92 Dated.11/14/9/98 (Rs.-26.95 Crores). Technical sanction: CEI (N): BGM: Reg.No.CIN -17 for May 1999 (Rs.26.95 Crores).	
Length of Canal	Left Bank	Right Bank
a) Main Canal	9.00 Km	10.72 Km
Districts benefited	Belgaum.	
Number of villages and Taluks Benefitted	Bailhongal taluk.	
	Physical	Financial
Programme during 2006-07	-	Rs. 1.00 Crore
Progress achieved upto End of March 2007	3480 Ha	Rs. 1.909 Crores
Programme for 2007-08 (Physical & Financial).	-	-
Cumulative progress upto End of March 2007	3480 Ha	Rs. 67.100 Crores

11.1.5 MARKANDEYA RESERVOIR PROJECT

NAME OF THE PROJECT	MARKANDEYA RESERVOIR PROJECT	
Location	Shirur village	
Year of Inception	1998	
Original and Latest estimated cost (Rs. in Crores), including administrative/ Technical sanction approval number & Date.	Original Estimated cost-Rs.120.00 Crores Latest estimated cost- Rs.341.720 Crores Administrative approval No. ID: MMM: 87: Bangalore Dated.18.12.96 (For Rs. 120.00 Crores). Technical sanction No.CEI (N): BGM: Reg: No. CIN. 46 for Oct.1997 (Rs. 120.00 Crores).	
Length of Canal	R.B.C.	L.B.C.
a) Main Canal	71 Km	15 Km
b) Distributories	183 Km	-
Districts benefited	Belgaum	
Number of villages and Taluks Benefitted	Belgam, Hukkeri, Gokak, Saundatti taluks.	
	Physical	Financial
Programme during 2006-07	720 Ha	Rs. 34.45 Crores.
Progress achieved upto End of March 2007	700 Ha	Rs. 10.285 Crores.
Programme for 2007-08 (Physical & Financial).	20 Ha	Rs. 10.00 Crores
Cumulative progress upto End of March 2007	14364.64 Ha	Rs. 298.472 Crores

11.1.6 DUDHGANGA IRRIGATION PROJECT

NAME OF THE PROJECT	DUDHGANGA IRRIGATION PROJECT		
Location	Asangaon village (Maharashtra State)		
Year of Inception	1992 (Canal in Karnataka State)		
Original and Latest estimated cost (Rs. in Crores), including administrative/ Technical sanction approval number & Date.	Original Estimated cost-Rs.124.00 Crores Latest Estimated cost –Rs. 124.00 Crores Administrative approval. Ja.SAM: E-1: (VI.DN: GAM: 2000(P-2) Dated.17/4-2002 (For Rs.-124.00 Crores) Technical sanction. : (Yet to be accorded for Karnataka works).		
Length of Canal	Nidhori Branch Canal	Bidri Branch canal	Dattawad Branch Canal
a) Branch Canal	21.57 Km	25.155 Km	30.00 Km
Districts benefited	Belgaum		
Number of villages and Taluks Benefitted	Chikkodi taluk.		
	Physical	Financial	
Programme during 2006-07	1280 Ha	Rs. 15.00 Crores	
Progress achieved upto End of March 2007	-	Rs. 12.987 Crores.	
Programme for 2007-08	500 Ha	Rs. 10.00 Crores.	
Cumulative progress upto End of March 2007	3800 Ha.	Rs. 63.36 Crores. (Karnataka's share)	

11.1.7 KALASA NALA AND BANDHUR NALA PROJECT

NAME OF THE PROJECT	KALASA NALA AND BANDHUR NALA PROJECT	
Location	Kanakumbi – Kalasa Nala Project Nerse village - Bhandur Nala Project	
Year of Inception	2006	
Year of completion (in case of Completed Projects)	Under progress (Kalasa only)	
Original and Latest estimated cost (Rs. in Crores), including administrative/ Technical sanction approval number & Date.	Original Estimated Cost Kalasa Nala - Rs. 44.78 Crores Bhandur Nala - Rs. 49.20 Crores Administrative approval No. a) Kalasa nala: ID.37.WBT. 2000: Dated.22.8.2000 b) Bhandur nala:-.ID-4.WBT:2000: Dated.22.8.2000. Technical sanction No: a) Kalasa nala - CIN.Reg.No.270, March 2002 b) Bhandur nala - CIN.Reg.No.269, March 2002.	
Districts Benefited	Belgaum	
Number of villages and Taluks Benefited	Hubli-Dharwad & other villages(Drinking water supply)	
	Physical	Financial
Programme during 2006-07	-	Rs. 0.50 Crores for Kalasa Nala Rs. 0.50 Crores for Bhandur Nala)
Progress achieved upto End of March 2007	-	Rs. 0.389 Crores for Kalasa Nala Rs. 0.031 Crores for Bhandur Nala
Programme for 2007-08 (Physical & Financial).	-	Rs. 25.00 Crores
Cumulative progress upto End of March 2007		Rs.1.513 Crores under Kalasa Nala & Rs.0.256 Crores under Bhandur Nala

11.1.8 LIFTING OF HIRANYAKESHI WATERS INTO G.R.B. CANAL

NAME OF THE PROJECT	LIFTING OF HIRANYAKESHI WATERS INTO G.R.B. CANAL.	
Location	Ghodageri village	
Year of Inception	2005	
Year of completion (in case of Completed Projects)	Under progress.	
Original and Latest estimated cost (Rs. in Crores), including administrative/ Technical sanction approval number & Date.	Estimated cost - Rs. 30.00 Crores. Administrative approval WRD:03:NIN: 1995: Bangalore dated 23.8.2003 Technical sanction CIN.109. For June 2005.	
Length of Canal		
a) Main Canal	Detailed survey is taken up.	
b) Branch Canal		
c) Distributories		
d) F.I.C.		
Districts benefited	Belgaum	
Number of villages and Taluks Benefitted	Hukkeri	
	Physical	Financial
Programme during 2006-07	-	Rs. 8.00 Crores
Progress achieved upto End of March 2007	-	Rs. 6.088 Crores
Programme for 2007-08 (Physical & Financial).	-	Rs. 10.00 Crores.
Cumulative progress upto End of March 2007	-	Rs. 6.981 Crores.

11.1.9 BELLARYNALA PROJECT

NAME OF THE PROJECT	BELLARYNALA PROJECT	
Location	Kardikolla village	
Year of Inception	2005	
Year of completion (in case of Completed Projects)	Under progress	
Original and Latest estimated cost (Rs. in Crores), including administrative/ Technical sanction approval number & Date.	Estimated cost: Rs. 138.28 Crores Administrative approval: Ja: Sam-E: 171: ViByaE: 2003 dated 23.8.2003 Technical sanction: CE I (N): Reg.No.164 for August 2005	
Length of Canal		
a. Main Canal	Detailed survey is taken up	
b. Branch Canal		
c. Distributories		
d. F.I.C.		
Districts benefited	Belgaum	
Number of villages and Taluks Benefitted	Gokak, Saundatti.	
	Physical	Financial
Programme during 2006-07	-	Rs. 20.00 Crores
Progress achieved upto End of March 2007	-	Rs. 63.818 Crores
Programme for 2007-08 (Physical & Financial).	-	Rs. 25.00 Crores
Cumulative progress upto End of March 2007	-	Rs. 70.734 Crores

11.1.10 SRI RAMESHWAR L.I. SCHEME

NAME OF THE PROJECT	SRI RAMESHWAR L.I. SCHEME	
Location	Dhavaleshwar village	
Year of Inception	2005	
Year of completion (in case of Completed Projects)	Under progress	
Original and Latest estimated cost (Rs. in Crores), including administrative/ Technical sanction approval number & Date.	Original cost: Rs. 218.42 Crores Administrative approval No: JaSamE: 14: NIN: 2001:Bangalore: Dated.23.8.2003. Technical sanction: CEI (N) Reg.No.110 for June 2005	
Length of Canal		
a) Main Canal	Detailed Survey is taken up.	
b) Branch Canal		
c) Distributories		
d) F.I.C.		
Districts benefited	Belgaum	
Number of villages and Taluks Benefitted	Gokak	
	Physical	Financial
Programme during 2006-07	-	Rs. 10.00 Crores
Progress achieved upto End of March 2007	-	Rs. 24.514 Crores
Programme for 2007-08 (Physical & Financial).	-	Rs. 25.00 Crores
Cumulative progress upto End of March 2007		Rs. 30.553 Crores

11.1.11 JAVALUHALLA L.I. SCHEME

NAME OF THE PROJECT	JAVALUHALLA L.I. SCHEME	
Location:	Kittur village	
Year of Inception:	2005	
Year of completion (in case of Completed Projects)	Under progress	
Original and Latest estimated cost (Rs. in Crores), including administrative/ Technical sanction approval number & Date.	Original Estimated: cost. Rs. 3.33 Crores Administrative approval: WRD: 03:NIN:95 dated: 23.08.03 Technical sanction: CE, I (N), BGM Reg.No.CIN.10.for April – 2003	
Length of Canal:		
a) Main Canal	Detailed survey is taken up.	
b) Branch Canal		
c) Distributories		
d) F.I.C.		
Districts benefited	Belgaum	
Number of villages and Taluks Benefitted	Ramdurg	
	Physical	Financial
Programme during 2006-07	-	Rs. 3.00 Crores
Progress achieved upto End of March 2007	-	Rs. 1.645 Crores
Programme for 2007-08 (Physical & Financial).	-	Rs. 1.00 Crores.
Cumulative progress upto End of March 2007		Rs. 3.019 Crores.

11.1.12 BENNIHALLA L.I. SCHEME (5 NOS.)

NAME OF THE PROJECT	BENNIHALLA L.I. SCHEME (5 NOS.)
Location	Banahatti, Kurlageri, Surkod, Khanapur, Reddar Naganur
Year of Inception	2005
Original and Latest estimated cost (Rs. in Crores), including administrative/ Technical sanction approval number & Date.	Original Estimated cost: Rs. 17.33 Crores Administrative approval: WRD/ 58/MPS/1999 (P), B'lore dated: 23.08.03 Technical Sanction: CE I (N) Reg.No.163 for August 2005.
Length of Canal	
a) Main Canal	Detailed survey is taken up.
b) Branch Canal	
c) Distributories	
d) F.I.C.	
Districts benefited	Gadag
Number of villages and Taluks Benefitted	Nargund

11.1.13 KOLACHI L.I. SCHEME

Name of the Project	KOLACHI L.I. SCHEME
Location:	Asooti village
Year of Inception:	2005
Year of completion (in case of Completed Projects)	Under progress
Original and Latest estimated cost (Rs. in Crores), including administrative/ Technical sanction approval number & Date.	Original Estimated cost: Rs. 2.25 Crores Administrative approval: WRD. 58.MPS.1999 (P) (K), Bangalore dated: 23.08.03. Technical Sanction: CEI (N). Reg.No.162 for August 2005.
Length of Canal	
a) Main Canal	
b) Branch Canal	
c) Distributories	
d) F.I.C.	Detailed survey is taken up.
Districts benefited	Gadag
Number of villages and Taluks Benefitted	Ron

11.1.14 KONNUR L.I. SCHEME

NAME OF THE PROJECT:	KONNUR L.I. SCHEME
Location:	Konnur village
Year of Inception:	2005
Year of completion (in case of Completed Projects)	Under progress.
Original and Latest estimated cost (Rs. in Crores), including administrative/ Technical sanction approval number & Date.	Original Estimated cost: Rs. 6.15 Crores Administrative approval: WRD. 58.MPS.1999 (P), B'lore dated: 23.08.03 Technical sanction No: CE I (N) Reg.No.161 for August 2005.
Length of Canal:	
a) Main Canal	Detailed survey is taken up
b) Branch Canal	
c) Distributories	
d) F.I.C.	
Districts benefited	Gadag
Number of villages and Taluks Benefitted	Nargund

FOR BENNIHALLA, KONNUR L.I.S & KOLCHI LIS		
	Physical	Financial
Programme during 2006-07	-	Rs. 10.00 Crores
Progress achieved upto End of March 2007	-	Rs. 6.389 Crores
Programme for 2007-08 (Physical & Financial).	-	Rs. 10.00 Crores
Cumulative progress upto End of March 2007		Rs. 6.389 Crores

11.2. AN OVERVIEW OF PROJECTS UNDER THE CHIEF ENGINEER, MUNIRABAD

11.2.1 SINGATALUR LIFT IRRIGATION SCHEME (SLIS)

The project comprises of construction of barrage across River Tungabhadra near Hammige village of Mundargi taluk in Gadag District to provide irrigation facility to an extent of 1,20,236Acres (1,40,677Acres of cropped area), with an irrigation intensity of 117% using 12.03TMC of water.

Stage-I comprises of utilising 7.64TMC to irrigate 76181acres and stage-II of utilising 4.39TMC to irrigate 44055acres. Government has accorded administrative approval to implement this scheme with the utilization of 12.03TMC of water vide G.O. No. WRD 115 WBP 2003 Dt.29-6-2006.

BARRAGE: Out of 26 blocks concreting in all the blocks has reached up to crest level except in block no.6 and 7.Fabrication of 26 nos of gates is completed. Erection work are to be taken up.

The Barrage and allied works are under progress. Out of 25Nos of piers 14 Nos of piers have been concreted up to the bearing level of Spillway Bridge. Casting of RCC pre cast beams and piers are under progress.

CANAL WORKS ON LEFT SIDE:

- Intake canal: Earth work excavation of intake canal from 0 to 6.71Km is under progress.
- The tenders are invited to take up the works of Mundwada & Hammige Lift and of the Left side 1st Lift, on turn key basis. The preparation of estimates and DTP are under progress for obtaining technical sanction.
- Land acquisition works on left side are under progress.

The cumulative expenditure incurred on the project since inception upto end of March 2007 is Rs. 131.07 Crores. During 2006-07 an expenditure of Rs. 49.16 crores has been incurred against a Budget allocation of Rs. 40.00 Crores.

11.2.1 AN OVER VIEW OF THE SINGATALUR LIFT IRRIGATION SCHEME:

1	NAME OF PROJECT	SINGATALUR LIFT IRRIGATION SCHEME
2	Location	Across River Tungabhadra near Hammige village Mundaragi Taluk, Gadag District. Longitude: 70 ⁰ 50' E Latitude: 15 ⁰ 02' N
3	Year of inception	March 1998
5	Original and latest estimated cost in Crores Including administrative approval no. and date	Original estimate-Rs. 595 Crores vide G.O. No. ID/ 90/ MTP /98 and 29-12-2000. Technically sanctioned by Chief Engineer Vide CER No. 28/2001-02
	Latest cost	Rs. 657.00 Crores.
6	Length of canal	
	a) Main canal LBC	207.34 km
	b) Branch canal	31.70 Km
8	District benefited	Bellary, Gadag and Koppal
9	Number of village and Tq benefited	70 villages of Mundargi and Gadag Tq. 09 villages of Koppal Taluk. 20 villages of Huvina Hadagali Taluk
11	Programme during 2006-07	Rs. 4000 Lakhs
12	Progress achieved upto March 2007.	Rs. 4916.00 Lakhs

11.3. AN OVERVIEW OF PROJECTS UNDER THE ENGINEER-IN-CHIEF, UPPER TUNGA PROJECT ZONE, SHIMOGA

The following are the projects under the jurisdiction and control of Upper Tunga Project circle, Shimoga.

- 1) The Upper Tunga Project
- 2) The Tunga Lift Irrigation Scheme
- 3) Basapur Lift Irrigation Scheme
- 4) Itagi-Sasalwad Lift Irrigation Scheme
- 5) Guddada Mallapura Lift Irrigation Scheme
- 6) Upper Bhadra Project
- 7) Ubrani-Amrutapura Lift Irrigation Scheme
- 8) Sanyasikoppa Lift Irrigation Scheme

11.3.1 UPPER TUNGA PROJECT

It is envisaged to create an Irrigation potential of 80,494 hectares in Shimoga, Davanagere and Haveri Districts by utilising 12.24 TMC of water from River Tunga. To serve the purpose a New Dam has been constructed 100 m Down stream of existing Tunga Anicut.

The Government of Karnataka has accorded administrative approval for this project vide No.ID: 25:MMM: 91:Bangalore dated: 3-10-1991 for Rs. 271.41 Crores and vide No.WRD: 38:WBP: 2005 (P):Bangalore dated: 21.11.2006 for Rs. 1,052.33 Crores and the Revised Cost of the project is Rs. 1,644.11 Crores.

The Upper Tunga Project comes under the control of Karnataka Neeravari Nigama Ltd., with effect from 14-6-1999, Vide G.O.No.ID/90/SPG/99 dated: 29.5.1999.

This project consists of construction of Main Canal for length of 329.50 Km including 5.50 Km length of Tunnel with construction of Distributary Network for water distribution system.

DAM AND ALLIED WORKS: - The Government in its G.O. No. ID:55:MMM: 97:Bangalore dated: 27-2-99 has accorded administrative approval of Rs. 92.00 Crores towards construction of New Dam, which was entrusted to M/s Mysore Construction Company, Bangalore on 13-10-99 and the work is now completed. The Erection of crest gates was entrusted to M/s Kerala Electricals Ltd., on tender basis on 26-12-2002 and Erection work is now completed.

CANAL AND DISTRIBUTARY NETWORK: - Upper Tunga Project includes construction of 329.50 Km lengths of Main Canal including CD works, lining and Distributary Network. At present Main Canal alignment is approved upto 244 Km. Canal work from km 192 including Tunnel work from km 165.50 to 174.00 is under different stages of progress. Estimates of Km 192 to Km 244 are under preparation. Works of Distributary 1 and 2 of UTP Main Canals (including its minors) are under different stages of progress.

During the year 2006-07 the grant allotted is Rs. 144.00 Crores and the expenditure incurred is Rs. 129.29 Crores. Since inception of project, cumulative expenditure to the tune of Rs. 728.39 Crores has been incurred. For taking up FIC work during the current year an allocation of Rs. 3.00 Crores is being made separately. The expenditure incurred is nil, since estimates for FIC works are under preparation.

11.3.2 TUNGA LIFT IRRIGATION SCHEME

This project envisages lifting of water from the backwater of UTP Reservoir to feed the suffering atchkat of 5162 Acres of Aihole, Barehalla and Gowdanakere Tanks of Shimoga Taluk. It is proposed to utilise 1.428 TMC of water from Tunga Reservoir. For this project Government has accorded administration approval vide No. ID 68:MMM: 95: Bangalore dated 27-2-99 for Rs. 24.12 Crores and Technical sanction was accorded for the same amount on 30-3-99.

The Main Canal of the project runs in Sakrebylu wild life forest. Necessary proposal for Diversion of forest Land has been made with forest authorities and this project will be implemented soon after obtaining necessary clearance from the Government.

During the year 2006-07 the grant allotted is Rs. 50.00 Lakhs. The project not yet started. To avoid acquisition of forestland, survey of suitable land is undertaken.

11.3.3 BASAPURA LIFT IRRIGATION SCHEME

This project envisages lifting of water from River Varada near Basapura village in 2 stages to irrigate 5600 Acres of Land, pertaining to 13 villages of Hangal Taluk, Haveri District. An allocation of 0.60 TMC of water for utilisation in provided for this project by the Krishna Water Tribunal. Administrative approval has been accorded for this project vides G.O. No. ID 20/MMM/96-97 dated.9-4-96 for Rs. 936.00 Lakhs. CE, UTP Zone, Shimoga has accorded technical sanction for Rs. 936.00 Lakhs on 31-6-1996.

The project is transferred to KNNL during August-03. Presently, Stage I work of Electro-Mechanical Components & other head works have been entrusted on turnkey basis and are under different stages of progress. Main Canal work of Stage I, in the reach Km 0.00 to 0.198 & Aqueduct in Ch.0.56 to 1.87 Km is completed. Balance canal works are under different stages of progress. Distributary works are also entrusted on tender basis, which are under different stages of progress. The estimates of Stage II are prepared and Tenders are being invited to take up the work on Turnkey basis.

During the year 2006-07 the grant allotted is Rs. 1247.00 Lakhs and the expenditure incurred is Rs. 180.40 Lakhs. Since inception upto end of March 2007, cumulative expenditure of Rs. 658.96 Lakhs has been incurred on the project.

Seperate allocation of Rs. 200.00 Lakhs has been made during 2006-07 to take up FIC works. Since survey works are under progress, the expenditure incurred is nil.

11.3.4 ITAGI-SASALWAD LIS

This project envisage lifting of water from River Tungabhadra near Itagi village, Shirahatti Taluk, Gadag District, in one stage to cater the irrigation requirements of Khariff & semi dry crops to an extent of 490 Acres belonging to Shirahatti, Mundargi and Haveri Taluk. The Government accorded Administration approval for Rs. 427.00 Lakhs on 21-09-1992 and subsequently Revised administrative approval was accorded for Rs. 800 lakhs on 24-4-96. Chief Engineer, UTP Zone, Shimoga accorded technical sanction for Rs. 800 Lakhs to the Project, on 5-6-96. An allocation of 0.55 TMC of water for utilization is provided for this project by the Krishna water Tribunal.

The project was transferred to KNNL during August 2003. Presently the Headwork like Jack well, In-take arrangements, Raising Main, Pump house, pumping Machineries etc., has been entrusted on Turnkey basis and the works are under progress. The works of Right Bank Canal to length of 25.52 Km & Left Bank Canal to a length of 10.90 Km and its distributary Network has been entrusted to different agencies and are under progress.

During the year 2006-07 the grant allotted is 1032.00 Lakh and the expenditure incurred is Rs. 653.10 Lakhs. Since inception of the project an amount of Rs. 1207.62 Lakhs has been spent. Separate grant of Rs. 200.00 Lakhs has been allocated for taking up FIC works during the current year and survey works are under progress.

11.3.5 GUDDADA MALLAPURA LIS

This Project envisages creation of Irrigation potential of 5261 Ha of Byadagi Taluk with an ultimate utilization of 1.00 TMC of water from River Varada. The Estimated cost of this project is Rs. 60.00 Crores.

Technical sanction is accorded for Rs. 56.16 Crores and work is taken up on turnkey basis. The works are under different stages of progress.

During the year 2006-07 the grant allotted is Rs. 1000.00 Lakhs and the expenditure incurred is Rs. 744.72. Since inception, cumulative expenditure of Rs. 1687.69 Lakhs has been incurred for this project.

11.3.6 UPPER BHADRA PROJECT (STAGE 1 & 2)

This project envisages to create an Irrigation potential of 2,62,325 Ha of Chitradurga, Chikkamagalur and Tumkur districts with a utilization of 42 TMC of water from River Bhadra. Government has accorded administrative approval for stage-1 for an amount of Rs. 2813 Crores & the project was recently handed over to KNNL for execution.

A sub-committee to study the Environment aspects and utilization of water has submitted a report to the Government. On the basis of the report, tender has been called and one division office at Chitradurga is proposed to executive the works of Upper Badra Project.

During the year 2006-07 the grant allotted is Rs. 50.00 Lakhs and the expenditure incurred is Rs. 0.20 Lakhs.

11.3.7 UBRANI-AMRUTHAPURA MULTIPURPOSE LIS

This scheme was a part of Upper Bhadra Project Stage-1, which was separated as per Government order. The Main aim of this project is (a) drinking water purpose and (b) Filling of Tanks of Ubrani and Kasaba hobli of Tarikere Taluk.

This project consists of 3 stages costing Rs. 92.40 Crores. Stage-I is technically sanctioned for Rs. 36.00 Crores and work is taken up on turnkey basis. The work is under different stages of progress.

During the year 2006-07 the grant allotted is 1500.00 Lakh and the expenditure incurred is Rs.1497.74 lakhs. Since inception upto end of March 2007, cumulative expenditure of Rs. 1518.37 Lakhs has been incurred for this project.

Estimates of Stage-II and III are cleared from TSC and are to be placed before the KNNL Board for clearance.

11.3.8 SANYASIKOPPA LIS

This scheme envisages creating Irrigation potential for Shikaripura Taluk, Shimoga District with construction of dam across the River Kumudvathi. The Government has accorded administrative approval Vide G.O.No.ID/ 161/MMI/2003 dated: 25-3-2006 for Rs.10. 00 Crores for this Project. Technical sanction is accorded for Rs. 9.97 Crores.

During the year 2006-07 the grant allotted is Rs. 100 lakh and the expenditure incurred is Rs.0.40 Lakhs.

11.4. AN OVERVIEW OF PROJECTS UNDER THE CHIEF ENGINEER, VARAHI PROJECT ZONE, SIDDAPURA.

11.4.1 VARAHI IRRIGATION PROJECT

BREIF DESCRIPTION

The Varahi Irrigation Project envisages Construction of Diversion Weir across Varahi River at Horriabbe near Siddapura Village, Udupi District to create irrigation potential to an extent of 15,702 Ha. (38,800 acres) in Kundapura and Udupi taluks of Udupi District, by utilizing the daily release of 1100 Cusecs of tail race water from Varahi underground hydro electric project situated in the upstream of the river.

The Varahi Irrigation Project is administratively approved by the Government of Karnataka vide G.O.No. PWD 71 GIP 76, Bangalore dated 27-3-1979 for Rs.943 lakhs. Later administrative approval was accorded to the re-revised estimate cost of Rs. 569.00 crores.

For speedy implementation, the Project was transferred to Karnataka Neeravari Nigam Ltd. Vide G.O.No. WRD 1 MMM 2003, Bangalore dated 6-11-2003.

Varahi Diversion weir:

A concrete diversion weir 145 meters long and 17.50 meters high above the deepest foundation level is proposed to be constructed at Horriabbe site near Siddapura Village, Udupi District. Administrative approval for the Construction of Diversion Weir has been accorded by the Government of Karnataka vide G.O.No. WRD 30 MMM 2001 dated 3-2-2003 for Rs. 2900.00 lakhs and technical sanction has been accorded on 27-2-2003.

Due to Construction of Diversion Weir, 121.58 Ha. of land will submerge and two villages will be submerged partially.

Canals:

Varahi Right Bank Canal takes off from the Dam and runs for a length of 42.8 Km. A branch canal takes off from Right Bank Canal at Km 19 and crosses the River Varahi through an aqueduct. The Left Bank Canal takes off from this aqueduct and runs for a length of 44.35 Km. The Lift Canal takes off from the Left Bank Canal at Km 7 and runs for a length of 33 Km.

The proposed atchkat to be covered in Udupi District is as detailed below:

MAIN FEATURES OF THE PROJECT IS AS FOLLOWS :

SI.No	Canal details	Length, Km	Irrigable area, Ha
1	Varahi Right Bank Canal	42.80	1992
2.	Varahi left bank canal (From off-take at 20 th Km of Right Bank Canal)	44.350	10987
3	Lift canal (From off-take at 7 th Km of Left Bank Canal)	33.00	2723
Total			15702
Villages benefited:			
1	Kundapura Taluk	33 villages	8324
2	Udupi Taluk	35 villages	7378
Total		68 villages	15702

For the Lift Irrigation Scheme administrative approval is accorded for Rs.14.55 Crores vide G.O.No. ID 102 NHP Dated 22-10-1992 which provides irrigation facilities to an extent of 2723 Ha of Land. The work is under progress.

PROGRESS DURING 2006-07

The total estimated cost of the project is Rs. 569.53 Crores. Cumulative expenditure incurred on the project is Rs. 82.73 Crores.

During 2006-07, against the programme of Rs. 7500.00 lakhs, expenditure of Rs. 3358.76 lakhs has been incurred.

The work of Varahi Left Bank Canal from Km. 0 to 21 and Head works of Lift Irrigation are under progress.

Survey works of Varahi Right Bank Canal and Varahi Left Bank Canal from Km. 21 to tail end is completed. Works of Right Bank Canal from Km. 0 to 19 are to be taken up. Survey work of Lift Canal from Km. 0 to 33 is under progress. Construction of Aqueducts in Varahi Left Bank Canal, Varahi Aqueduct and works of Diversion Weir are under progress.

The Project is proposed to be completed by the end of 2009.

11.5. AN OVERVIEW OF PROJECTS UNDER THE CHIEF ENGINEER, IRRIGATION PROJECTS ZONE, GULBARGA

11.5.1 BENNITHORA PROJECT

Bennithora project is a major irrigation project, which comprises of construction of dam across River Bennithora near Heroor village, Chittapur Tq., Gulbarga District. There are two canals covering an Irrigable area of 20,234 Ha in Gulbarga District. The utilisation for the project is 5.75 TMC.

The works of dam embankment and spillway are completed and the balance works of Canal are nearing completion. The project was inaugurated on 17.6.2007.

The revised estimate cost of this project is 346.93 Crores. Cumulative expenditure upto end of March 2007 is Rs. 296.40 Crores. A dry potential of 18807 Ha has been created and 15537 hectares achakat is provided with FIC to end of 3/2007.

The details of target and achievement of the project for 2005-06 and 2006-07 are as follows:

Sl. No.	Year	Financial (Rs. in Crores)		Physical (In hectares)	
		Target	Achievement	Target	Achievement
1	2005-06	27.50	22.63	10,000	18,234 9,863 (FIC provided)
2	2006-07	48.29	23.06	2,000	573 5,158 (FIC provided)

11.5.2 BHIMA LIFT IRRIGATION SCHEME

Bhima Lift Irrigation Scheme envisages construction of a barrage near Sonna village, Afzalpur taluk of Gulbarga district to provide irrigation to an area of 24,292 Ha. The utilisation under this project is 6 TMC.

Preliminary works of the project is completed. The earthen embankment on L/S and R/S are completed. Central spillway, lift point works are under progress. The canal work is started and FRL/MWL survey works is completed. All balance works are programmed to be completed during 2008-09.

The revised estimate cost of project is Rs. 275.53 Crores and expenditure upto the end of 3/2007 is Rs. 65.80 Crores.

The budget allocation for 2006-07 is Rs.50.00 Crores, out of which an expenditure of Rs. 36.63 Crores has been incurred upto end of March 2007.

The details of target and achievement of the project for 2005-06 and 2006-07 are as follows: -

Sl. No.	Year	Financial (Rs. in Crores)		Physical (In hectares)	
		Target	Achievement	Target	Achievement
1.	2005-06	34.00	37.50	-	-
2.	2006-07	50.00	36.63	-	-

11.5.3. GANDORINALA PROJECT.

Gandorinala project is medium irrigation project in Gulbarga District. This project is constructed across River Gandorinala, a tributary to River Bennithora, which in turn joins River Bhima of Krishna Basin. The utilisation under this project is 1.97 TMC. The area covered for irrigation under this project is 8094 Ha.

DAM: Earthen dam, embankment and spillway works are completed, and water is stored in the Reservoir.

CANAL:

Main Canal

RBC - Total length of Canal is 7 km., which is completed.

LBC - Total length of canal is 90 km. out of which works in km.0.00 to 24.00 are completed, in Km.24.00 to 60.00 are under completion stage and in Km.60.00 to 90.00 works are under progress.

Distributary

RBC – Works of all 3 Distributary are completed.

LBC - Of the 40 Distributaries, works of 18 are completed, 15 are under progress and 7 are under starting stage.

FIC:

RBC: - Works in Km.0.00 to 7.00 are completed.

LBC: - Works in Km.0.00 to 20.00 are under progress and nearing completion.

Km. 20.00 to 60.00- tender called.

Km.60.00 to 90.00 -Survey works under process.

The revised estimate of the project amounts to Rs. 212.33 Crores and expenditure upto March 2006 is Rs. 142.10 Crores. The dry irrigation potential of 4676 Ha and wet irrigation potential 977 Ha has been created upto March 2007.

Dry potential created during 2006-07 to end of March 2007 is 1587 Ha

Cumulative Dry potential created to end of March 2007 is 6263 Ha

The details of target and achievement of the project for 2005-06 and 2006-07 are as follows

Sl. No.	Year	Financial ((Rs.in Crores)		Physical (in hectares)	
		Target	Achievement	Target	Achievement
1)	2005-06	30.00	28.81	3000	2312 (Dry)
					977 (wet)
2)	2006-07	52.00	35.04	2000 (dry)	1587 (Dry)
				2000 (wet)	2233 (wet) (FIC provided)

11.5.4. LOWER MULLAMARI PROJECT.

Lower Mullamari Project is a medium Irrigation project across River Mullamari a tributary to River Kagina in Krishna basin. The project is located near Nagara village in Chincholi Taluk of

Gulbarga District. The utilisation under this project is 1.741 TMC and the area covered for irrigation is 8100 Ha.

DAM: Earthen dam including spillway is completed and water is being stored since August 2001.

CANAL:

RBC: Total length of Canal is 80 mtrs, and is completed.

The latest estimated cost of the project is Rs. 178.52 Crores and expenditure to end of March 2007 is Rs.159.55 Crores. The irrigation potential of 7666 Ha has been created upto 3/07 and potential created during 2006-07 to end of March 2007 is 170 Ha, totalling to 7836 Ha.

The details of target and achievement during 2005-06 and target during 2006-07 is as under:

Sl. No.	Year	Financial (Rs.in Crores)		Physical (in hectares)	
		Target	Achievement	Target	Achievement
1)	2005-06	7.00	8.48	434	Nil
2)	2006-07	16.00	7.96	434	170 1420 (FIC)

11.5.5. AMARJA PROJECT.

Amarja, a medium irrigation project across River Amarja, a tributary to River Bhima in Krishna Basin, is being constructed near Sangolgi village in Aland Taluk of Gulbarga District in Karnataka State. The utilisation under this project is 1046 TMC.

DAM: Dam, embankment and spillway works are completed in all respects.

CANALS:

Main canal: The total length of RBC is 45 Km and that of LBC is 55 Km.

Distributary: RBC- 42-48 km

LBC- 55 Km

Due to variation in the CBL of the canal, the rectification of the existing canals and the Distributary system was proposed. The survey work for both the canal system including distributaries and FIC (including structures) is nearing completion and the tender for the work of rectification of existing canal system, Distributary system including FIC and structures for RBC from Km. 0 to 20 is allotted to KLAC and the work is under progress and in the reach of RBC from km.21 to 42.48 and of LBC from km. 0 to 30.00, the tender process is under progress.

The present cost of the project is Rs. 213.66 Crores and the expenditure incurred upto March 2007 is Rs.128.81 Crores.

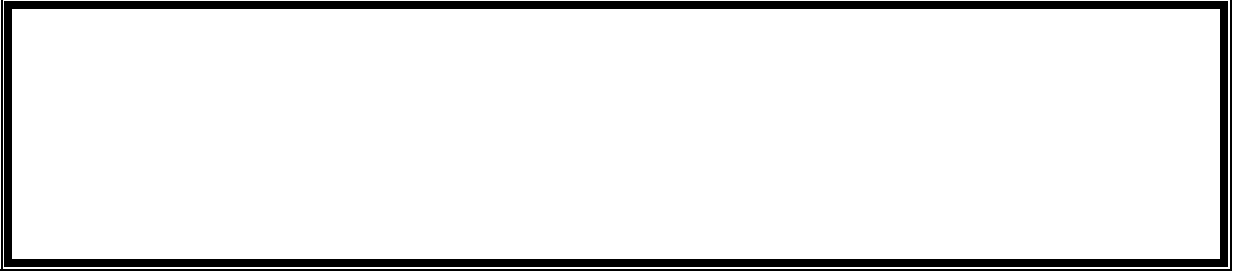
Due to rectification of canal systems the potential is yet to be created.

The details of the target and achievement of the project for 2005-06 and 2006-07 is as follows:

Sl. No.	Year	Financial (Rs.in Crores)	
		Target	Achievement
1)	2005-06	Rs.11.57 Crores	Rs. 1.31 Crores (KNNL)
			Rs. 6.98 Crores (KNNL)
2)	2006-07	Rs.25.00 Crores (KNNL)	Rs.15.69 Crores (KNNL)
		Rs.0.93 Crores (State)	Rs.0.90 Crores (KNNL)

PROJECTS UNDER

CAUVERY NEERAVARI NIGAM LIMITED



12. CAUVERY NEERAVARI NIGAMA LIMITED

There are 14 major ongoing projects under CNNL. Which includes 19 sub projects in different stages. Out of which 11 projects are proposed for completion during 2006-07 for which grant of Rs.168.00 Crores is allocated. Totally all the projects are programmed to complete before 2011. Zone wise details are as follows.

Sl.No.	Zone / Name of the Project
(I)	Irrigation (S) Zone, Mysore.
1	D.D. Urs Canal
2	Kabini Project
3	Harangi Project
4	Taraka Project
5	Arkavathy
6	Chiklihole Project
7	Uduthorehalla Project
8	Iggalur Project
9	Manchanabele Project
10	K.R.S. Modernisation
11	Nanjapura LIS
12	Bannahallyhundi LIS
(II)	Hemvathy Canal Zone, Tumkur.
13	Hemavathy Canal Project

(III)	Hemavathy Project Zone, Gorur
14	Hemavathy Project
15	Yagachi Project
16	Huchanakoppalu LIS
17	Kamasamudra LIS
18	Kachenahally LIS
19	Votehole Project

12.1. AN OVERVIEW OF PROJECTS UNDER THE CHIEF ENGINEER, IRRIGATION (S) ZONE, MYSORE

12.1.1. D. DEVARAJA URS CANAL

D. Devaraja Urs Canal project envisages construction of 126 km long right bank canal from Krishnarajasagar reservoir. 10.5 TMC of water is utilised to irrigate 32,375 ha of land in Nanjangud, T. Narasipur & H.D. Kote taluks of Mysore district and Srirangapatna taluk of Mandya district.

This project was started in the year 1979 at an estimated cost of Rs. 18.50 Crores. Administrative approval was accorded to the revised estimate cost of Rs. 51.80 Crores during 1988. The latest estimated cost is Rs. 410.00 Crores.

The main canal work has been completed upto 126 km and the work of distributories are nearing completion. Lining of Canals in distributories are under progress. The water has been allowed upto tail end on trial basis.

During 2006-07, potential of 869 Ha has been created against targeted potential of 1599 Ha. The cumulative potential created upto end of March 2007 is 31645 Ha.

During 2006-07, a grant of Rs. 20.00 Crores has been allocated. Upto end of 3/2007, an expenditure of Rs. 45.18 Crores is incurred. The cumulative expenditure incurred since inception upto end of 3/2007 is Rs. 406.03 Crores.

It was programmed to complete the project during 2006-07 and a balance work to create potential of 90 ha is to be taken up (Aqueduct) it is programmed to be complete the back log potential by September 2007 with this the project is going to be completed in all respects.

12.1.2. KABINI RESERVOIR PROJECT

The Kabini reservoir is constructed across River Kabini near Beechanahally village in H.D. Kote taluk, Mysore district. This project was started in the year 1959 at an estimated cost of Rs. 3.20 Crores. The Government has given approval for the Revised estimate amounting to Rs. 390.00 Crores during 1985-86. The re-revised estimate cost is Rs. 1233.00 Crores.

Dam and allied Works of the 26 km long left bank canal is completed. Works of 202 km long Right Bank Canal (excluding lining & Tellanur Branch Canal) is also completed. Tellanur Branch Canal work is under progress. Survey works of Kabini lift irrigation scheme has been completed.

This project includes both flow and lift irrigation schemes. Under flow irrigation it is proposed to create atchkat of 44516 ha.

During 2006-07, potential of 1414 Ha has been created against a targeted potential of 3292 Ha. The cumulative potential created upto end of March 2007 is 42638 Ha.

During 2006-07, a grant of Rs. 75.00 Crores has been allocated. Upto end of 3/2007, an expenditure of Rs. 48.56 Crores is incurred. The cumulative expenditure incurred since inception upto end of 3/2007 is Rs. 518.89 Crores.

The flow scheme was programmed to be completed during 2006-07. The balance works of Tallanur Branch Canal which are bottle necks for creation potential will be completed during June 2007.

The survey and investigation works of LIS are completed, Design and estimates are under preparation.

12.1.3. HARANGI PROJECT

Harangi Reservoir is constructed across River Harangi, a tributary of Cauvery, at Hulugunda village, Somwarpet taluk, Kodagu district. Under this project, works of 153km long left bank canal, 138 long Right Bank Canal and 87 km long distributories are completed.

The Project was started during the year 1964 at an estimated cost of Rs. 11.00 Crores. Administrative approval was accorded to the revised estimate for Rs. 230.00 Crores. The latest estimated cost of the project is Rs. 429.00 Crores.

The total irrigable are under 2 canals (LBC & RBC) is 40790 Ha.

It is proposed to create irrigation potential of 12141 ha under Periyapatna LIS, 607 ha under Somwarpet lift irrigation scheme and 1,053 ha under Minor Irrigation. After completion of these schemes, a total of 54,591 ha of Agricultural land will be irrigated.

The dam & allied works have been completed. Works of 153 km long LBC and . Of 138 km long RBC, have been completed.

Somwarpet LIS: The head-work including 10 km long canal work have been completed.

Periyapatna LIS: The intake canal, pump house, sumpwell, raising main works been completed. Out of 50th Km long total length of canal 24 km including distributaries works have completed.

During 2006-07, potential of 3926 Ha has been created against a targeted potential of 4000 Ha. The cumulative potential created upto end of March 2007 is 48165 Ha.

During 2006-07, a grant of Rs. 20.00 Crores has been allocated. Upto end of 3/2007, an expenditure of Rs. 44.75 Crores is incurred. The cumulative expenditure incurred since inception upto end of 3/2007 is Rs. 443.72 Crores.

The balance potential to be created is under PLI 5846 ha. It is programme to complete this project during 2007-08 as expected.

12.1.4. TARAKA PROJECT

Taraka project is built across River Taraka, a tributary of River Kabini, near Penjahally, Heggadadevanakote taluk, Mysore district. Ultimate irrigation potential under this project is 7040ha.

The Project was started during the year 1970 at an estimated cost of Rs. 1.70 Crores. Administrative approval was accorded to the revised estimate for Rs. 51.00 Crores. The latest estimated cost of the project is Rs. 55.00 Crores.

It is proposed to provide irrigation to 3610Ha of suffering atchkat under Taraka Project by lifting 230 cusecs of water from Kabini reservoir and increasing the storage of Taraka reservoir.

Dam and allied works are completed flow canal works of the 50 km long left bank canal and 38.50 km long Right Bank Canal are completed

Under lift irrigation scheme, approach canal, Road Bridge, delivery chamber and sumpwell cum pumphouse work have been completed. Raising main work is nearing completion. Pumping machinery and electric sub-center work is also nearing completion.

Cumulative potential created upto end of March 2007 is 7040 Ha. Fully created as per ultimate potential contemplated under the project.

During 2006-07, a grant of Rs. 8.00 Crores has been allocated. Upto end of 3/2007, an expenditure of Rs. 7.87 Crores is incurred. The cumulative expenditure incurred since inception upto end of 3/2007 is Rs. 52.25 Crores.

It is programmed to complete the Taraka LIS project during 2007-08.

12.1.5. ARKAVATHY PROJECT

BRIEF DESCRIPTION

The Arkavathy reservoir is constructed across the River Arkavathy, a tributary to River Cauvery. The dam is located near Arobele village in Kanakapura taluk of Bangalore District. It is proposed to provide irrigation through left bank canal, right bank canal and two Lift Schemes on the fore shore covering 6232 Hectares in Kanakapura Taluk. The utilisation proposed is 88.83 M. Cum (3.14 TMC).

ESTIMATED COST

Administrative Approval has been accorded to the Project Estimate for Rs.22.25 Crores vide Government Order No. PWD /126 / MMK / 83, Dated: 27-06-1984. The present cost of the Project is Rs. 110 Crores, which is already cleared by Technical Advisory Committee and M.I.P.C. Board and Administrative approval is awaited from the Government.

DAM & CANAL

DAM: The length of the composite dam is 716.28 Mtr. and height is 26.68 Mtr. The storage capacity of the dam is 44.90 M.Cum. (1.587 TMC). The Dam submerges an extent of 665 Hectares affecting 950 persons of 4 villages.

CANALS: LBC runs to a length of 23.00 km and RBC runs to a length of 22.00 km. and provides irrigation to 1821 Ha and 1214 Ha, respectively. In addition two lift schemes with a canal length of 21 Km from left bank and 34 Km from Right Bank will provide water for Irrigation to 1457 Ha and 1740 Ha, respectively.

STAGE OF WORK

The Dam & appurtanant works under Stage-I of this Project have been completed. The Stage-II of this Project, which comprises Spillway, Bridge over the Spillway and Earthen Embankment in gorge portion from Ch. 470 m to 670 m, are completed, except finishing works of spillway gates.

Left Bank Canal works is completed upto 15 Km and Right Bank Canal works is completed upto 15 Km. C plan for both the canals is approved. Canal works from 15 Km of both canals are under progress.

Lift Irrigation Scheme:

(a) Left Bank Lift Irrigation Scheme: Head Works (Sump-well and Pump-House) are completed. Approach channel is to be started. Canal works in Km 1 and Km 3 to 17 are under progress.

(b) Right Bank Lift Irrigation Scheme: Head works (Sump well and Pump House) are completed. Canal works in Km 1 and Km 2 are completed. C.D works are under progress. Estimate for supply, erection and commisioning of deepwell, vertical turbine, pumpsets with allied mechanical works, electrical accessories etc, including raising main is approved for Rs.312 lakhs and tenders are to be invited.

During 2006-07, potential of 2302 Ha has been created against a targeted potential of 2306 Ha. The cumulative potential created upto end of March 2007 is 3035 Ha.

During 2006-07, a grant of Rs. 28.00 Crores has been allocated. Upto end of 3/2007, an expenditure of Rs. 18.80 Crores is incurred. The cumulative expenditure incurred since inception upto end of 3/2007 is Rs. 116.21 Crores.

PROGRAMME FOR COMPLETION

The Arkavathy Flow Irrigation was programmed to be completed during 2006-07 and accordingly the project is completed. The lift Irrigation Scheme is programmed to complete during 2007-08.

12.1.6. CHIKLIHOLE PROJECT

Chiklihole Reservoir is constructed across River Chiklihole, a tributary of River Cauvery, near Rangasamudra village of Somawarpet taluk. This project was started during 1978 with an initial cost of Rs.3.40 Crores. The Government accorded approval to the G.O. No. 25/71, dt: 26-8-77.

Dam & allied work is completed. Works of 29.00 km long left bank canal is completed.

The cumulative potential created upto end of March 2007 is 865 Ha.

During 2006-07, a grant of Rs. 1.00 Crores has been allocated. Upto end of 3/2007, an expenditure of Rs. 1.00 Crores is incurred. The cumulative expenditure incurred since inception upto end of 3/2007 is Rs. 19.20 Crores.

The project was programmed to complete during 2006-07.

12.1.7. UDUTHOREHALLA PROJECT

The Uduthorehalla reservoir is constructed across River Uduthorehalla near Ajjipura village, Kollegal taluk of Chamarajanagara district. It is proposed to create an ultimate irrigation potential of 6602 ha in Kollegal taluk by utilising 1.23 TMC water.

The project was originally sanctioned for Rs. 7.55 Crores as per 1978 SR. Government accorded administration approved vide G.O. No. PWD/60/GIP/71, Dtd: 30.11.1978. During 1989, the Government has accorded administrative approval to the revised estimate amounting to Rs. 32.30 Crores. The latest estimated cost is Rs. 235.00 Crores at 2006-07 rates.

The dam works are completed. The spillway gate are been fixed.

Of the 10.2 km long left bank canal, work upto 6 km has been completed.

Of the 30.30 km long Right Bank Canal, work upto 9.10 km is completed. Aqueduct works at km 8 & 9 are under progress. At ch. Km. 9.10 of Right Bank Canal, its branches in to 2 canals namely left bank canal 11.20 and right bank canal 10.00 km. works are completed. Right branch canal works are to be under progress.

During 2006-07, potential of 3091 Ha has been created against a targeted potential of 3852 Ha. The cumulative potential created upto end of March 2007 is 5841 Ha.

During 2006-07, a grant of Rs. 30.00 Crores has been allocated. Upto end of 3/2007, an expenditure of Rs. 19.65 Crores is incurred. The cumulative expenditure incurred since inception upto end of 3/2007 is Rs. 191.77 Crores.

It was programmed to complete the project during 2006-07. The balance work to completed by the end of July 2007.

12.1.8. IGGALUR BARRAGE PROJECT

BRIEF DESCRIPTION

The Iggalur Barrage is constructed across the River Shimsha, a tributary to River Cauvery. The Barrage is located near Iggalur village in Channapattana Taluk of Bangalore Rural District. Four Lift Irrigation Schemes and flow canal under the project provides irrigation to an extent of 4047 Hectares in Channapattana, Maddur and Malavally Taluks. The utilisation proposed is 5.10 M.Cum. The original cost of the project is Rs. 3.42 Crores. Administratively approved vide Go.No. PWD/GIP/71/ Dtd: 06.12.77 and the revised cost of the project is Rs. 10.75 Crores & Administrative Approval has been accorded during 1986 vide Government order No. PWD/33/MMH/86, Dated: 23rd December 1986. The Project costing is Rs.69.65 Crores at 96-97 rate includes additional two Lift Irrigation Schemes apart from "B" lift point viz., Lift Irrigation Scheme to feed Nittur Tank and Garkhally Lift Irrigation Scheme. TAC and MIPC Board have cleared the proposal and approval to the revised estimate is awaited from the Government.

DAM & CANAL

DAM: The 1234 Mtr. long and 11.27 Mtr. high Barrage has submerged an extent of 171 Hectares.

CANALS: The 35.00 K.M. long Left Bank Canal will provide irrigation to an extent of 2242 Hectares inclusive of 765 Hectares under "D" Lift point taking off from Canal. In addition, there are 3 lift points on the fore shore of the Left Bank ("A", "C" and "C-II") to provide an irrigation potential of 346 Hectares, 508 Hectares and 405 Hectares, respectively. Further, in the revised estimate three additional Lift Irrigation Schemes such as B-point with an atchkat of 546 Ha, Nittur LIS with an atchkat of 81 Ha, and Garkally L.I.S with an atchkat of 753 Ha are proposed.

STAGE OF WORK

The work of the Barrage is completed. The Lift Irrigation Scheme at "A" point, "C-1" and "C-2" are completed. Lift Irrigation Scheme at "D" point is commissioned and is on trial run. The work of Nittur, Garkhally and Hulikere Lift Irrigation Schemes are under progress.

During 2006-07, no potential has been created against a targeted potential of 1029 Ha. The cumulative potential created upto end of March 2007 is 3018 Ha.

During 2006-07, a grant of Rs.12.00 Crores has been allocated. Upto end of 3/2007, an expenditure of Rs. 11.01 Crores is incurred. The cumulative expenditure incurred since inception upto end of 3/2007 is Rs. 68.91 Crores.

It was programmed to complete the project during 2006-07. The balance works to create potential of 1029 has been completed by May 2007 which completes the project.

12.1.9. MANCHANABELE PROJECT

BRIEF DESCRIPTION

The Manchanabele Reservoir is constructed across the River Arkavathy, a tributary to River Cauvery near Manchanabele village in Magadi Taluk of Bangalore Rural District. The Right and Left bank canals irrigates land in Magadi and Ramanagara Taluks. The Administrative Approval was accorded to the Project vide G.O. No. PWD/ 14/ MMG/ 76, dated: 11-11-1977. The cost of the Project at 1986-87 rates was Rs.18.50 Crores. The revised estimate is prepared for Rs. 80.00 Crores.

DAM & CANALS

DAM: The length of composite Dam is 362.20 m and height is 28.74 m with a storage capacity of 34.58 M.Cum., involving submersion to an extent of 365 Hectares of 4 villages and affecting 1350 persons.

CANALS: As per approved project estimate, the canal length of Left and Right banks were 52 Km and 63 Km to irrigate 1767 and 2078 Hectares, respectively. Since the inflow to the reservoir during the period of six years between 1991 to 1996 was not encouraging, it has been proposed to reduce the lengths of Right Bank Canal to 36 Km. and Left Bank Canal to

35 Km. Due to reduction in lengths, the contemplated atchkat has been reduced to 2433 Hectares.

STAGE OF WORK

The Dam and Appurtenant works are completed. The canal works of Left Bank Canal is completed upto Km 35. Distributary works from Km 1 to Km 20 are completed. The Canal works on Right Bank Canal is also completed upto Km 34 and works of its Distributaries are under progress.

During 2006-07, potential of 188 Ha has been created against a targeted potential of 189 Ha. The cumulative potential created upto end of March 2007 is 2432 Ha.

During 2006-07, a grant of Rs. 5.00 Crores has been allocated. Upto end of 3/2007, an expenditure of Rs. 3.22 Crores is incurred. The cumulative expenditure incurred since inception upto end of 3/2007 is Rs. 78.19 Crores.

It was programmed to complete the project during 2006-07 and according the project is completed.

12.1.10. MODERNISATION OF KRISHNARAJA SAGAR

BRIEF DESCRIPTION

The Krishnarajasagar Reservoir is constructed across the River Cauvery near Kannambaadi village in Srirangapattana Taluk of Mandya District, with Canals on both the flanks for providing irrigation to an extent of 79312 Hectares in Mandya and Mysore District. The Left Bank High Level Canal, which is named as Vishweshvaraya Canal was originally proposed for providing Irrigation to an extent of 48,564 Hectares (120000 Acres). However, due to various factors like construction of pickup channels, lowering of local mounds in the command area, subsequent extension of certain branch canals etc., there has been considerable increase in the command area of Vishweshvaraya Canal, which has to provide irrigation to an extent of 77220 Hectares (190769 Acres). This has resulted in increased withdrawal in various branches, causing a strain on the canal system. Due to this the supply of water to the atchkat in the tail end reaches was inadequate. The condition of the existing canal does not lend itself to higher discharges being drawn. Also two major Aqueducts along the canal were not able to carry discharges beyond 67 Cumecs (2366 Cusecs). In order to limit the excess utilisation of water in the atchkat it was programmed to modernise the Vishweshvaraya Canal and also to create fresh atchkat of 2125 Hectares (5250 Acres). The original estimate cost of the modernisation works is Rs.55.00 Crores and the same was administratively approved by the government vide G.O No.: PWD/ 13/ MMG/ 86 Dated 6/3/87. The revised estimate of the project is prepared for Rs. 350 Crores and it is under finalisation.

DAM & CANALS

The Krishnarajasagar Dam and its Canal system were completed in the year 1931 and the full potential was created by 1940.

STAGE OF WORK:

Most of the Modernisation works including Link Canal and Tunnel works are completed. The Lift Irrigation Scheme works under modernisation are under progress.

Cumulative potential of 2125 Hectares has been created upto end of March 2007

During 2006-07, a grant of Rs. 20.00 Crores has been allocated. Upto end of 3/2007, an expenditure of Rs. 34.12 Crores is incurred. The cumulative expenditure incurred since inception upto end of 3/2007 is Rs. 387.46 Crores.

12.1.11. NANJAPURA LIFT IRRIGATION SCHEME

BRIEF DESCRIPTION:

Nanjapura Lift Irrigation Scheme is taken up for lifting 119 Cusecs of water from River Cauvery near Bannur Town in T.Narasipur Taluk of Mysore District and for feeding Turuganur Branch Canal near Nanjapura Village in order to augment supplies to 10000 Acres of atchkat under tail end distributory of Turuganur Branch Extension Canal, Halwara Branch, Ukkalagere Branch and B.G.Pura Channel (suffering atchkat 2000 Acres + Fresh atchkat 8000 Acres).

Administrative Approval has been accorded for Rs.28.00 Crores by the Government vide Government order No.: ID / 197 / MMK /96 Bangalore, dated: 27-05-1997 and Technical Sanction has been accorded for Rs.31.60 Crores under CER No. 119 / 1998-99.

SALIENT FEATURES OF THE PROJECT:

Source	River Cauvery
Discharge	119 Cusecs
Length of Raising Main	8500 Mtr. (two rows)
Dia / type of pipe	Two rows of 1500 dia PSC Pipes
Maximum Lift including losses	81 Mtrs.
No. of Pumps	1300 H.P (4 + 2)
Type of Pump	Deep well Turbine type with vertical solid shaft squirrel cage induction Motor
Total cropped area	2000 + 8000 = 10000 Acres (Suffering + Fresh)
Crop period	June to November
Area benefited	Malavally Taluk- 4300 acre, T.Narasipura Taluk- 5700 acres
Total cost of the Project	: Rs. 3160 Lakhs

STAGE OF WORK

Pump House-cum-Sump well, Delivery cistern and other components of L.I.S like Regulator-cum-Road Bridge, Transition and Improvements to Turuganur Branch Canal have been completed. Raising main work is under progress and 14580m are completed out of 15940m. Intake channel, control room, substation works are under progress.

During 2006-07, no potential has been created against a targeted potential of 4049 Ha.

During 2006-07, a grant of Rs. 7.00 Crores has been allocated. Upto end of 3/2007, an expenditure of Rs. 11.90 Crores is incurred. The cumulative expenditure incurred since inception upto end of 3/2007 is Rs. 43.55 Crores.

It was programmed to complete the project in all respect during the year 2006-07. The balance works to create 4049 ha. of irrigation potential will be completed by the end of October 2007.

12.1.12. BANNAHALLIHUNDI LIS

Bannahallihundi lift irrigation scheme is located near Bannahallihundi, T. Narasipura taluk, Mysore district. It is proposed to lift water from Kabini reservoir. Under this project, it is proposed to create 1773 ha (4830 acres) of irrigation potential for 6 villages to raise semi-dry crops. For this, it is proposed to lift 48 cusecs of water.

The administrative approval to the project has been accorded from Government vide No. ID/272/MMK/97/Bangalore dated: 02-02-2001 for Rs.1625.00 lakhs. Under this project, ridge cistern and secondary cistern is completed. The feeder canal excavation work from ridge cistern to secondary cistern is completed. Lining work is under progress. Land acquisition process is under progress.

The cumulative potential created upto end of March 2007 is nil

During 2006-07, a grant of Rs. 10.00 Crores has been allocated. Upto end of 3/2007, an expenditure of Rs. 4.45 Crores is incurred. The cumulative expenditure incurred since inception upto end of 3/2007 is Rs. 4.45 Crores.

The project is programmed to be completed during 2007-08 by existing an outlet potential 1774 ha (ultimate).

12.2. AN OVERVIEW OF PROJECTS UNDER THE CHIEF ENGINEER, HEMAVATHY CANAL ZONE, TUMKUR

Hemavathy Canal Zone, Tumkur, was formed as per Government order No. PWD 11 PCO 87 Bangalore, dated 14-1-1987, for execution of canal works in Tumkur and Mandya Districts and is functioning since 23-04-1987. This is a part of Hemavathy project for the execution of works of Tumkur Branch canal and Nagamangala Branch Canal under Hemavathy left Bank Canal. As per Government order No. WRD 32 KBN 2003 (P), Bangalore, dated 08-08-2003 this zone is functioning under Cauvery Neeravari Nigama Niyamita.

This zone has a jurisdiction with an area proposed for irrigation as under.

Sl.No.		Total length in Km.	Atchkat in Ha
a)	'Y' -Alignment.	5.50 Km	-
b)	Tumkur Branch Canal.	240.00 Km	95,909
c)	Nagamangala Branch Canal.	78.325 Km	59,488

d)	Lift Irrigation Scheme at the exit of Bagur – Navile Tunnel	-	2,358
Total			1,57,755

District wise and taluk wise atchkat details is as follows.

Name of District and taluk	Tumkur Branch Canal	Nagamangala Branch Canal	Lift Irrigation Scheme	Total atchkat in Ha
Hassan District				
Channarayanaapatna Taluk	-	47	2,265	2,312
Tumkur District				
Turuvekere Taluk	20,234	27,302	-	47,536
Tiptur Taluk	5,665	4,095	93	9,853
Gubbi Taluk	40,064	914	-	40,978
Tumkur Taluk	6,879	-	-	6,879
Kunigal Taluk	23,067	1,659	-	24,726
Mandya District				
Nagamangala Taluk	-	25,471	-	25,471
Total in Ha	95,909	59,488	2,358	157,755

The total atchkat that will be irrigated after completion of the project, under Hemavathy Canal Zone Tumkur, is 1,57,755 Ha (3,89,826 Acres).

'Y' Alignment

Total length of 'Y' alignment is 5.50 Km. Earth work and C.D. works completed. Lining works is under progress.

TUMKUR BRANCH CANAL (0-240 Km)

Total length of Tumkur branch canal is 240 Km, having an atchkat of 95,909 Ha. Earthwork upto 187 Km is almost completed. Survey work from KM 188 to 194 is under progress. Estimates have been sanctioned and tender process is under progress. And it is programmed to complete the work during 07-08.

There are 44 Distributaries. Out of which, works of Distributary 1 to 27A are taken up. The works of Distributary 1 to 22 is almost completed. The Distributary works from 23 to 27A is under difference stages of progress.

Since 1996, water has been allowed in the canal during Khariff season every year for land development activities and drinking water supply to Tumkur and Tiptur town, from km 124 and km 24, respectively, to store water in Bugudanahalli and Yeachnoor tank. Further during the year water is allowed in the canal upto km 183. Action is also being taken as per the decision taken by the Irrigation Consultative committee.

54207.45 Ha. of irrigation potential has been created under Tumkur branch canal and a balance of 41701.55 Ha. is yet to be created.

NAGAMANGALA BRANCH CANAL (0 TO 78.325 Km)

The length of Nagamangala branch canal is 78.325 Km having an atchkat of 59,488 Ha. The canal alignment of the entire length is approved. The Main canal works from Km 0 to 78.325 is nearing completion.

The canal works from Km 62 to 67 is almost completed, except aqueduct at ch. Km 64.616 to 65.660, which is under progress. The main canal works from Km 68 to Km 78.325 are under progress. About 20 Km. C.C. Lining works are under progress and nearing completion. The balance 40 Km lining works is to be taken up during the current year. Water is allowed upto 59 Km.

There are 20 distributories, out of which works of 10 distributaries are completed. The works of Distributary No.11 to 19 are under progress.

The canal works from Km 0 to 59 is completed and water has been allowed for land development activities since 1996. Further the tunnel works in km 42-43 is nearing completion. Also the earthwork, embankment, and C.D.works are completed upto 59 Km and water is allowed during the year.

47574.15 Ha. of irrigation potential has been created under Nagamangala branch canal and a balance of 11913.85 Ha. is yet to be created.

LIFT IRRIGATION SCHEME AT THE EXIT OF BAGUR – NAVILE TUNNEL

This lift irrigation scheme is envisaged to provide irrigation to an extent of 2358 Ha. The work of raising main, distribution chamber and jack well cum pump house is completed. The electrification work is under progress. RBC and LBC works are under various stages of progress. It was commissioned during February –2004.

NEW PROJECT

a) HEBBUR – GOOLUR LIFT IRRIGATION

It is proposed to lift 0.7 TMC of water from ch.142.225Km of TBC to supply drinking water to 52 Villages. The Technical sanction to the estimate is accorded for Rs.38.50 Crores. Tenders have been called to entrust the work on turnkey basis. Further, tender have been submitted to Government through CNL for approval. At present, the tender process is held up.

b) HONNAVALLI LIFT IRRIGATION

It is proposed to lift 0.60 TMC of water at ch.9.90 Km of TBC under this project, to supply drinking water to 244 Villages and to feed water to 6 tanks under Tiptur, Arasikere, Kadur and Hosadurga taluk. The Technical sanction to estimate is accorded for Rs.20.38 Crores. Tender has been called to entrust the work on turnkey basis. Further, tender have been submitted to Government through CNL for approval. At present, due to unavoidable circumstances the tender process is held up.

The programme and progress under Hemavathy canal project for the year 2006-07 upto end of March 2007 is as follows

Year	Financial (Rs.in Lakhs)		Physical (in Ha)	
	Target	Achievement	Target	Achievement
2006-07	16,100.00	13,960.80	12,135	11,963.86

The grant allocated to Zone during 2007-08 is Rs. 19400.00 Lakhs.

PHYSICAL PROGRESS

During the year 2006-07 potential of 1963 ha. has been created against a targeted potential of 12135 ha. Total contemplated atchkat is 1,57,755 Ha. Out of which upto end of March-2007 irrigation potential of 103930.14 Ha has been declared and balance of 53824.86 Ha is to be tackled.

FINANCIAL PROGRESS

During the year 2006-07 an expenditure of 114.97 crores has been incurred against grants of 119.00 crores up to the end of March 2007. The cumulative expenditure incurred on the project up to the end of March 2007 is Rs. 1045.61 crores.

The project is programmed to complete by 2009-10 in all respects. The LIS at the exit of BNT will be completed during the year 2007-08.

12.3. AN OVERVIEW OF PROJECTS UNDER THE CHIEF ENGINEER, HEMAVATHY RESERVOIR PROJECT, GORUR

12.3.1. HEMAVATHY PROJECT

Hemavathy Project contemplates utilization of 37.10 TMC of Hemavathy River water to provide irrigation facilities to the arid regions of Hassan, Tumkur and Mysore District to provide irrigation to 2,65,075 Ha (6,55,000 acres) by flow irrigation. In addition 14 Lift Irrigation Scheme provide irrigation to 18,517 Ha of land.

Hemavathy project consists of a composite dam across River Hemavathy, near Gorur village in Hassan district. The length of dam is 4692.00 m and height is 44.50 m.

The Government has accorded administrative approval for Rs. 588.00 Crores 1985-86-price level.

There are two zones under Hemavathy Project Viz., Hemavathy Project Zone, Gorur and Hemavathy Canal Zone, Tumkur. As per Government Order No: WRD/32/dated/ 12-5-2003, this project was transferred to Cauvery Neeravari Nigama Limited, and since 1-7-2003, it is under the jurisdiction of the Nigam. The jurisdiction of Hemavathy Project zone which include Hemavathy Dam is as below:

Sl. No.	Name of the Canal	Length	Atchkat in Hectares
1	Hemavathy Left Bank Canal	0 to 212 Km.	78,916
2	Hemavathy Right Bank Canal	0 to 91 Km (Full length)	8,093
3	Hemavathy Right Bank High Level Canal	0 to 97 Km (Full length)	22,662

Total			1,09,671
4	14 LIS	-	16,166

The revised estimate cost of this project is Rs. 3877.00 Crores (2006-07 SR).

PRESENT STAGE

Earthwork excavation & C.D. works of the 212 km long Left Bank Canal is completed. Works of all distributories are completed. The lining work is under progress.

Earthwork excavation & C.D. works of the 91 km long Right Bank Canal is completed. The lining work is under progress.

Works of C.D. and distributories of the 96 km long Right Bank High level Canal is completed. Lining work of 60 km bed and 50 km side is completed. The balance lining work of 36 km bed and 46 km side is pending.

Out of the 14 LIS, 4 schemes are nearing completion stage and the remaining 10 schemes are under different stages of implementation.

During 2006-07, potential of 5344 Ha has been created against a targeted potential of 4741 Ha. The cumulative potential created upto end of March 2007 is 120883 Ha.

During 2006-07, a grant of Rs. 60.00 Crores has been allocated. Upto end of 3/2007, an expenditure of Rs. 130.10 Crores is incurred. The cumulative expenditure incurred since inception upto end of 3/2007 is Rs.1266.45 Crores.

It is programmed to complete all the balance works including LIS schemes by the end of 2009-10 by creating balance potential of 58779 ha.

12.3.2. YAGACHI PROJECT

The Yagchi project comprises of a Reservoir across the River Yagchi, Tributary of River Hemavathy near Chikkabyadagere village in Belur Taluk of Hassan District. The Dam of composite type with central spillway is 1280 M long and 29.15 M maximum height.

The storage capacity of the reservoir is 89.54 M cum. (3.164 TMCft). The left bank canal is 100 Km long. It is proposed to provide irrigation facilities to an extent of 14973 Hectares (37000 Acres) in Belur, Alur, Hassan and Holenarasipura Taluks in Hassan District.

The cost of the project was estimated at Rs. 35.38 Crores based on S.R of 1983-84 and has been administratively approved by Government in their order No. PWD 91 NAP 83 dated 27-6-1984. The revised cost of project at 2006-07 price level is assessed to be Rs. 440.00 Crores.

CANAL DETAILS

SI No.	Name of the Canal	Length in Km	Atchkat in Hectares.
1	Left Bank Canal	100	14973
2	Mosale Branch Canal	10	
3	Kamasmudra Branch	35	

DAM AND APPURTENANT WORKS

The Dam work is completed.

CANAL WORKS

The earth work excavation and embankment of canal (YLBC) has been completed upto 83rd Km. CD works upto in 76th km are completed to a large extent. and CD structures from Km 76 to Km 83 are under progress. Aqueduct work from Km 60.54 to Km 63.16 is under progress. The estimate for tunnel work at km 75.4 has been sanctioned and the tender for this tunnel work has been invited. Work of Mosale Branch Canal and Kamasamudra Branch Canal at the exit of the tunnel is yet to started.

During 2006-07, potential of 241 Ha has been created against a targeted potential of 2500 Ha. The cumulative potential created upto end of March 2007 is 2541 Ha.

During 2006-07, a grant of Rs. 25.00 Crores has been allocated. Upto end of 3/2007, an expenditure of Rs. 19.49 Crores is incurred. The cumulative expenditure incurred since inception upto end of 3/2007 is Rs. 214.44 Crores.

The project is programmed to complete during the year 2009-10.

12.3.3. HUCHANAKOPPALU LIS

Huchanakoppalu LIS was started in the year 1985-86 for Rs. 6.90 Crores. The revised cost is Rs. 50.00 Crores. It is proposed to create irrigation potential of 3360 ha under this project. This project is taken up in 2 stages and irrigation potential of 1532 ha and 1828 ha will be created under stage I and stage II, respectively. It is proposed to complete the work of stage I during 2006-07.

It is proposed to lift 0.97 TMC of water from Hemavathy reservoir in two stages so as to raise semi-dry crops and to irrigate 3360 ha in pre-monsoon and 2228 ha in post-monsoon season. 28 villages will be benefitted from this project.

Under stage I, 86 cusecs of water is raised to a height of 76 m through two raising mains of length 2142m and diameter 1000mm by using 4 pumps of 1200 HP so as to irrigate 1532 Ha of land. The Ist stage work have been completed.

Under stage II, 70.63 cusecs of water is raised to a height of 30 m through raising main of length 330 m by using 4 pumps of 300 HP so as to irrigate 1532 Ha of land. The work is nearing completion.

During 2006-07, potential of 478 Ha has been created against a targeted potential of 1500 Ha. The cumulative potential created upto end of March 2007 is 1533 Ha.

During 2006-07, a grant of Rs. 9.00 Crores has been allocated. Upto end of 3/2007, an expenditure of Rs. 8.60 Crores is incurred. The cumulative expenditure incurred since inception upto end of 3/2007 is Rs. 29.44 Crores.

12.3.4. KAMASAMUDRA LIS

Kamasamudra LIS was started in the year 1984 at an estimated cost of Rs.0.99 Crores with the approval from Government. After the Basic purpose of the project was widened, the revised estimate amounting to Rs.6.30 Crores was approved by Government during 1986. Later, the re-revised estimate for Rs.18.00 Crores was approved by Government during 1994. The project is to be taken up in 3 stages. the latest cost of the project is Rs.70.00 Crores.

Under this project, it is proposed to create irrigation potential of 5127 ha in Hassan and Holenarasipur taluks by lifting 1.44 TMC of water from River Hemavathy near Kamasamudra village, Holenarasipur taluk. Under stage I, 990 ha of land and under stage II, 2922 ha of land will be brought under Irrigation. Works of Stage I (except Left Bank Canal) which is nearing. IIInd stage head works have been completed.Works of Malali and Nagenahally sub canal under Stage II, is under progress. Survey works of Stage III is under progress. Irrigation potential of 1670.58 ha has been created till date under Stage I and Stage II.

Stage II is proposed to be completed during 2006-07.

TECHNICAL DETAILS

Sl. No.	Detail	Stage I	Stage II	Stage III
1	Source of water	River Hemavathy	Left bank canal of stageI @ ch: 3400 m	Malali branch canal @ km 34
2	Pumps	700 HP (4+2 Nos)	335 HP (4+2 Nos)	335 HP (4+2 Nos)
3	Raising main	1000 mm dia, 966 m length 2 line (MS pipe)	1200 mm dia, 330 m length single line (MS pipe)	800mm dia, 1000 m length single line (PSC pipe)
4	Atchkat	990 Ha	2922 Ha	1214 Ha

During 2006-07, potential of 1666 Ha has been created against a targeted potential of 2000 Ha. The cumulative potential created upto end of March 2007 is 3,094 Ha.

During 2006-07, a grant of Rs. 9.00 Crores has been allocated. Upto end of 3/2007, an expenditure of Rs. 11.84 Crores is incurred. The cumulative expenditure incurred since inception upto end of 3/2007 is Rs. 41.43 Crores.

It was programmed to complete the project during 2006-07 accordingly it is completed during 2006-07.

12.3.5. KACHENAHALLI LIS

Kachenahalli LIS is situated near Kachenahalli village, Channarayapatna taluk in Hassan district. Under this project, 0.73 TMC of re-generated water in Hemavathy atchkat is utilized and 135 cusec of this water is lifted to provide irrigation to 5100 ha of Khariff crop in Holenarasipura, Hassan, Arasikere and Channarayapatna taluks in 3 stages.

The Government approved the scheme during December 1991 for Rs.8.90 Crores. After the Basic purpose of the project was widened, the Government accorded administrative approval to the revised estimate amounting to Rs. 68.30 Crores during December 2002.

The earthwork excavation of Samudravally main canal, Dandiganahally branch canal and Bijamaranahally branch canal, is partially completed. As on date expenditure of Rs.5.15 Crores is incurred.

Grants of Rs. 620.00 lakhs has been allotted for works of intake canal, sump and jackwell cum pump house related to head works of Stage I and the works have been entrusted to M/s IVRCL infrastructure & Projects Ltd., Hyderabad, on tender basis amounting to Rs. 704.33 lakhs during March 2003. Earth work excavation of 1st stage head works are nearing completion. Estimate for Electro-mechanical work has been approved

Survey works of stage I, II, and IIIrd has been entrusted to M/s SECON Survey Pvt. Ltd., agency. Survey work has been completed & estimate is under preparation. The ultimate potential under this progress is 3480 ha. No potential is created up to the end of March 2007.

During 2006-07, a grant of Rs. 10.00 Crores has been allocated. Upto end of 3/2007, an expenditure of Rs. 0.79 Crores is incurred. The cumulative expenditure incurred since inception upto end of 3/2007 is Rs. 5.65 Crores.

The project is programmed to complete during 2009-10.

12.3.6. VOTEHOLE PROJECT

Votehole project consists of reservoir across the River Votehole near Lakkenahally village, Belur taluk in Hassan district. This project was started in the year 1971 with initial cost of Rs. 2.05 Crores.

The reservoir has central spillway of stone masonry with earthen flanks on both sides. The dam is 900 m (2953 feet) long and has a maximum height of 28 m (92 feet). The full storage capacity of the reservoir is 67.64 Mcum (2.39 TMC). The maximum storage capacity is 42.73 Mcum (1.51 TMC). Canals are constructed on both sides of the dam to provide irrigation to an extent of 7487 ha (18500 acres) of Alur and Belur taluk of Hassan District.

The revised cost of the project is Rs. 59.75 Crores and upto end of 3/2007 the expenditure incurred is Rs.52.14 Crores. Dam & allied work is completed. 65 families of Lakkenahally village who were affected due to submergence have been shifted to Hariharapura and Devarajpura rehabilitation centers. The works of rehabilitation centers have been completed. 4 villages & 5 families affected due to backwaters of the reservoir are to be shifted to Somanahally, Chattanahally and Doddahally rehabilitation centers.

The cumulative potential created upto end of March 2007 is 7487 Ha.

During 2006-07, a grant of Rs. 1.00 Crores has been allocated. Upto end of 3/2007, an expenditure of Rs. 1.91 Crores is incurred. The cumulative expenditure incurred since inception upto end of 3/2007 is Rs. 58.45 Crores.

It was programmed to complete the project during 2006-07 except for the 2 bridges all other works are completed. The same will be completed during 2007-08.

PROJECTS UNDER

ZONES OF WATER RESOURCES

DEPARTMENT

13. AN OVERVIEW OF PROJECTS UNDER THE CHIEF ENGINEER, IRRIGATION PROJECT
ZONE, GULBARGA

13.1. KARANJA PROJECT

Karanja Irrigation project is a Major Irrigation project in Bidar District. This project is constructed across Karanja Tributary of River Manjra in Godavari Basin, near Byalhalli village, Bhalki Taluk of Bidar District. The utilisation under this project is 9.27 TMC. The area covered for irrigation under this project is 35614 Ha.

This project has availed central loan assistance under AIBP.

(1) (a) Earthen Dam embankment and spillway works are completed.

(b) Works of foreshore lift irrigation Scheme, ie, raising main, intake channels, pump-house, collecting cisterns and pumping arrangements are completed.

(c) LBC for a length of 31 Km is completed; RBC for a length 128 km is completed. The works in 3 Km. of Canals is under progress.

(2) The revised estimate of the project amounts to Rs. 482.47 Crores. The cumulative expenditure incurred and potential created upto end of March 2006 is Rs. 458.33 Crores and 22793 Ha, respectively.

(3) The details of target and achievement of the project for 2005-06 and the target 2006-07 are as follows:

Sl.No	Year	Financial (Rs.in Crores)		Physical (in hectares)	
		Target	Achievement	Target	Achievement
1)	2005-06	48.31	22.95	11000	3938 1693 (FIC provided).
2)	2006-07	44.40	20.86	7100	666 2364 (FIC provided).

The project has been completed during 2006-07.

14. AN OVERVIEW OF PROJECTS UNDER THE CHIEF ENGINEER, IRRIGATION CENTRAL ZONE, MUNIRABAD

Tungabhadra Project, Hirehalla Project, Maskinala Project, Singatalur Lift Irrigation Scheme, Kanakanala Project, Narihalla Project, Hagaribommanahalli Project, Rajolibanda Diversion Scheme, Vijayanagar Canals and other LIS comes under the Irrigation Central Zone, Munirabad. Hirehalla Project, Maskinala Project, Singatalur Lift Irrigation Scheme projects are on-going projects. The original works of Tungabhadra Project have been completed. But improvement/Modernisation works of Left bank canal are to be completed.

14.1. TUNGABHADRA PROJECT

The Tungabhadra Project comprises of reservoir across the River Tungabhadra, a tributary to River Krishna, near Mallapuram in Hospet taluk, Bellary District, with canals on both banks to provide irrigation to an extent of 3,62,715 Ha in Bellary, Koppal and Raichur Districts. The utilisation is 3736 M.cum (133.00 TMC). This is an inter-state multipurpose project started in 1945 as a joint venture of the then Governments of Madras and Hyderabad. After reorganisation of States, the project became a joint venture of Mysore (Now Karnataka) and Andhra Pradesh. The irrigation and utilisation indicated above pertain to Karnataka only.

The Dam and Canal works are completed. Originally most of the reaches of Tungabhadra Left Bank Canal have been constructed out of available soil in the adjoining borrow areas. For the embankment sections, since Zonal section is not provided breaches and bongas were occurring. In order to avoid frequent breaches and bongas in the canal. Government constituted an expert committee to advice regarding strengthening of the canal. As per the Expert Committee Report I.S. works have been taken up in stages from 1982 to 2006 with an expenditure of Rs.185.34 Crores.

In order to avoid further breaches and bongas at the vulnerable reaches in TBLBC, the Government constituted a special committee to suggest remedial measures for strengthening the canal vide G.O. No. WRD 244 MTP 2005 date: 31-12-2004. The committee submitted the report during January 2006. The cost of the improvement work will be Rs. 210.00 Crores, which is to be completed in 5 years from 2006-07. During 2006-07 the Government allocated grants of Rs. 20.00 Crores. Accordingly work has been taken up and completed.

MODERNISATION OF DISTRIBUTARIES OF TBLBC, TBRLLC AND TBRHLC

- ☞ Since the distributaries of TBP are very old, they are in dilapidated condition and have lost their original canal section. As such it is not possible to thrust the water to tail end reaches. In order to restore the section and also to repair the structure, a comprehensive proposal for improving the distributaries of TBP, amounting to Rs. 841.00 Crores, has been prepared. During 2006-07, works amounting to Rs. 20.80 Crores have been taken up and completed.
- ☞ Balancing reservoir at Mile 109 of TBLBC has been constructed and water is being stored in order to supplement the tailend ayacut and to supply drinking water to Raichur city.
- ☞ All the distributaries of TBRHLC have been completed including Sub-Distributary 16 A and Hagari Bridge and related works.
- ☞ From the TBLBC, Ultimate Irrigation potential of 2,44,199 Ha has been created. From TBRHLC, Ultimate Irrigation potential of 72,443 Ha has been created.

- ☞ From the Tungabhadra project, Irrigation Potential of 3,54,615 Ha has been created upto 3/2007.
- ☞ During 2006-07, the expenditure incurred on TBLBC is Rs. 345.02 Lakhs; and on TBRBHLC is Rs. 54.96 Lakhs. The cumulative expenditure incurred on this project upto end of 3/2007 is Rs. 27977.83 Lakhs. Out of this, expenditure on TBLBC is Rs. 20422.87 Lakhs; on TBRBHLC is Rs. 7554.96 Lakhs. From TBLBC and LB HLC Irrigation Potential has been created to an extent of 2,44,668 Ha and from RB HLC and RB LLC Irrigation Potential has been created to an extent of 1,09,947 Ha. In total, from Tungabhadra Project 3,54,615 Ha has been irrigated.

AN OVER VIEW OF THE TUNGABHADRA PROJECT

TUNGABHADRA LEFT BANK CANAL

1.	Name of Project	TUNGABHADRA LEFT BANK CANAL
2.	Location	Left Bank of T.B.Dam
3.	Year of inception	1945
4.	Year of completion	Completed in stages upto 1968 (Original works)
5.	Original and latest estimated cost in Crores Including administrative approval no. and date/Technical Sanction.	Original cost: Rs. 17.44 Crores (Sanctioned by Nizam Government in 1951) Revised Cost: Rs. 194.40 Crores (ID 122 MTP 92 Dated: 05-06-1996) Latest cost: Rs. 302.00 Crores
6.	Length of canal	
	a) Main canal	226.00 km
	b) Distributaries	707.00 km
7.	Length of ayacut roads	1150 Km
8.	District benefited	Raichur and Koppal
9.	Number of village and Tq benefited	Gangavathi Tq, Sidhnoor Tq, Manvi Tq, Devadurga & Raichur Taluk
10.	No of WUCS	
	a) Formed	585
	b) Registered	244
	c) Handed over	46
11.	Programme during 2006-07	Rs. 1000.23 lakhs
12.	Progress achieved during 2006-07	Rs. 345.22 Lakhs

TUNGABHADRA RIGHT BANK HIGH LEVEL CANAL

1.	Name of Project	TUNGABHADRA RIGHT BANK HIGH LEVEL CANAL
2.	Location	Right Bank of T.B.Dam
3.	Year of inception	1959

4.	Year of completion	1999-2000
5.	Original and latest estimated cost in Crores Including administrative approval no. and date/Technical Sanction.	<p>Original cost</p> <p>1) Rs. 2.20 Crores (Administrative approval PWD 83 TBP 57 Dated: 14-8-59)</p> <p>2) PWD 22 NTP 65 Dated: 18-9-65 For Rs.3.00 Crores (Stage-I and II)</p> <p>3) Stage-I Technical approved No. CER 72 Dated: 16-11-1996 for Rs. 1.80 Crores</p> <p>4) Stage-II Technical approved No. CER/10/72 Dated: 8-8-1972; Rs.1.20 Crores</p> <p>Revised Cost: Rs. 26.00 Crores (PWD 149 Dated: 2-3-89)</p> <p>Latest Cost: Rs. 153.60 Crores. (Submitted to Government for approval)</p>
6.	Length of canal	
	a) Main canal	196.34 km
	b) Distributaries	171.66 km
7.	Length of ayacut roads	294.55 km
8.	District benefited	Bellary
9.	Number of village and Tq benefited	Siruguppa and Bellary Tq.
10.	No of WUCS	
	a) Formed	126
	b) Registered	81
	c) Handed over	39
11.	Programme during 2006-07	Rs. 62.10 lakhs
12.	Progress achieved during 2006-07	Rs. 54.96 Lakhs

14.2. HIREHALLA PROJECT

The Hirehalla Project comprises of a reservoir across the Hirehalla, a tributary to the River Tungabhadra near Kinnal village in Koppal Taluk of Koppal District, with canals on both banks, to provide irrigation to an extent of 8330 Ha in Koppal Taluk. The proposed utilisation is 64.24 M.Cum (2.27TMC). Administrative approval to the project amounting to Rs. 6.35 Crores has been accorded vide G.O.No.PWD 164 MTP 73, dated: 24-5-1979 and the latest estimated cost of the project for Rs. 227.00 Crores is under preparation.

DAM AND CANALS

DAM: The length of the dam is 3.6 Km, with a height of 15mtr having a storage capacity of 47.23 M.Cum. The submergence area is 1247 Ha, affecting Arakera village with a population of 1500.

CANALS: 24.60 Km. long Left Bank Canal and a 25.00 Km. long Right Bank Canal will provide irrigation to 5000 Ha and 3330 Ha, respectively.

COST: The project had been originally estimated at a cost of Rs.635.00 lakhs at 1977-78 levels of rates. The latest cost of project is Rs.227.00 Crores.

STAGE OF WORK

DAM: Earthen embankment is completed. Spillway work including installation of 6 radial gates is completed. Water is stored to the full capacity. The project was dedicated to the nation on 26-12-2001 by the then Hon'ble Chief Minister of Karnataka.

CANALS AND DISTRIBUTARIES:

- 1) RBC: Out of a total length of 25Km, works in respect of 22.30 Km are completed. Out of 37 distributaries, 26 Nos are completed and balance of 11 Nos is under progress.
- 2) LBC: Works of the entire canal length of 24.60 Km are completed. Out of 28 Distributaries, 27 Nos are completed and balance 1 is under progress.

EXPENDITURE: Expenditure incurred during 2006-07 is Rs. 1727.77 Lakhs. Cumulative Expenditure upto 3/2007 is Rs. 21731.58 Lakhs.

N.H. AND RAILWAY CROSSING WORKS:

National Highway crossings are completed. Railway crossings works on LBC and RBC taken up by Railway authorities on tender basis is completed.

REHABILITATION WORKS:

For rehabilitation of Arakera Village, Rs. 867.00 lakhs has been spent. A balance of Rs.50.00 lakhs is required.

For rehabilitation of Mudlapur veerapur, Sirur Muttal, an amount of Rs. 11.85 Crores has been deposited with the Revenue Department. Balance amount required is Rs. 23.91 Crores. So far 7,534 Ha has been irrigated.

AN OVER VIEW OF THE HIREHALLA PROJECT

1	Name of Project	Hirehalla Project
2	Location	Across Hirehall and Veerpurhalla 4 Km U/s of Kinnal village.
3	Year of inception	1979
4.	Original and latest estimated cost in Crores. Including administrative approval no. and date	Original cost: Rs. 6.35 Crores. PWD 164 MTC 73 Dated 24-5-1979 Revised cost: Rs. 225 Crores. (Administrative approval to be obtained from Government)
5.	Length of canal	
	a) Main canal	LB- 24.60 Km; RB- 25 Km
	b) Distributaries	63 Km
	c) Branch canal	15 Km
	d) FIC	Under progress
6.	Length of ayacut roads	65 Km
7.	District benefitted	Koppal
8.	Number of village and Tq benefitted	Kinnal
9.	No of WUCS	
	a) Formed	7
	b) Registered	3
10.	Programme during 2006-07	Rs. 1922.53 lakhs
11.	Progress achieved upto December 3/2007.	Rs. 1727.77 Lakhs

Details of Irrigation Potential in Ha

Sl. No	Name of District	On full development	Programme during 2006-07	Created during 2006-07	Total potential created upto 3/2007
1.	Koppal	8330	4150	3354	7534

14.3. MASKINALA PROJECT

BRIEF DESCRIPTION:

The Maskinala Project comprises of a reservoir across the Maskinala, a tributary to River Tungabhadra, near Maraladinni Village in Lingasugur taluk of Raichur District, with canals on both banks, to provide irrigation to an extent of 3001 Ha in Lingasugur taluk. Administrative approval has been accorded to the Project for Rs.311.00 lakhs. Revised administrative approval has accorded for Rs.2357 lakhs. The latest revised cost of the project is Rs. 4835 lakhs.

DAM & CANALS

DAM: Dam is 814 m long (spillway length being 57 m) and 23.74 m high above the nala bed level with a gross storage capacity of 13.11 M.cum with submergence to an extent of 173 Ha without affecting any village.

CANALS: All the works of main canals on either side are completed. Irrigation potential capacity is 1940 Ha under LBC and 1061 Ha under RBC, total from the project being 3001 Ha

COST: The project had been originally estimated to Rs. 311 lakhs at 1975-76 level of rate. The revised cost of the project is has been administratively approved for Rs. 2357.00 lakhs and the latest revised cost of the project is Rs. 4835.00 lakhs.

STAGE OF WORK:

DAM & SPILLWAY: All works have been completed.

CANALS: All works of 11.50 Km long RBC and 10 Km long LBC are completed.

DISTRIBUTARIES: All works have been completed.

Water has been stored in the Reservoir is also allowed in the canals for irrigation. So far 3001 Ha of land has been irrigated.

EXPENDITURE: Expenditure incurred during 2006-07 is Rs. 239.33 Lakhs. Cumulative Expenditure upto 3/2007 is Rs. 4749.32 Lakhs.

The project is completed.

AN OVER VIEW OF MASKINALA THE PROJECT

1	Name of Project	MASKINALA PROJECT
2	Location	Near Maraladinni village of Lingasugur Tq.
3	Year of inception	1976

4	Original and latest estimated cost in Crores. Including administrative approval no. and date	Original cost: Rs. 3.11 Crores. G.O. No.PWD 52 GIP 78 Dated: 22-01-1979 Revised cost: Rs. 48.35 Crores. (Administrative approval to be obtained from Government)	
5	Length of canal	LBC	RBC
	a) Main canal	10 Km	11.50 Km
	b) Distributaries	27 Km	
	c) FIC	Under progress	
6	Length of ayacut roads	1 Km	
7	District benefited	Raichur	
8	Number of village and Tq benefited	1 No. Lingasugur	
9	No of WUCS		
	a) Formed	5	
	b) Registered	5	
10	Programme during 2006-07	Rs. 199.96 lakhs	
11	Progress achieved upto 3/2007.	Rs. 239.34 Lakhs	

Details of Irrigation Potential in Ha

Sl. No.	Name of District	On full development	Programme during 2006-07	Created during 2006-07	Total potential created upto 3/2007
1.	Raichur	3001	501	501	3001 Ha

The project has been completed

14.4 OTHER WORKS (NEW)

(Rs. in Lakhs.)

Sl. No.	Name of the Project	Latest Cost	Grant for 2006-07	Expenditure during 2006-07	Cumulative Expenditure upto March 2007	Likely date of completion	Irrigation Potential in Ha	Present Stage of Project
1	2	3	4	5	6	7	8	9
On going Schemes Lift Irrigation Schemes								
1	Kolur (D-13) LIS	74.00	-	37.12	68.37	Physically all works completed.	Stabilization of 324 Ha of Kolur branch of D-13 of RBHLC	It was proposed to complete the project during 2006-07.
2	T.S. Kadlur LIS	135.00	50.00	58.58	113.40	Jun-07	Stabilization of 410 Ha of TE of T.S. distributory of RBHLC	Jack well completed. Raising main for 630 mt. To be done, Pipes procured. It was proposed to complete the project during 2006-07.
3	Raravi LIS	67.00	25.00	9.00	50.07	Physically all works completed	Stabilization of 210 Ha of 7 TE-1 of Kote hall distri. of RBHLC	It was proposed to complete the project during 2006-07.
4	Kolur (D-7) LIS	394.00	200.00	136.76	165.73	Jun-07	Stabilization of 1518 Ha of tail end of distry No. 7 of RBHLC	Intake well and Jack well completed, 350 m raising main completed. Electrical works under progress.
5	Hagari D/S (D-16) LIS	90.00	50.00	50.31	50.31	Jun-07	Stabilization of 1214 Ha of tail end of Hagari Aqueduct D/S of D- 16 A	Jackwell is under progress. It was proposed to complete the project during 2006-07.
6	Katharaki LIS	58.00	75.00	2.09	2.16	Jun-07	Stabilization of 182 Ha Sub distributory 89/8/1&2 of TLBC	Jack well is under progress. The work is being executed by KLAC.
7	Boylmerched LIS	73.00	50.00	27.92	28.15	Jun-07	Stabilization of 479 Ha Sub distri. 89/7 of TLBC	Jackwell, Intake well, Raising main & Pump house are under progress. The work is being executed by KLAC.

Sl. No.	Name of the Project	Latest Cost	Grant for 2006-07	Expenditure during 2006-07	Cumulative Expenditure upto March 2007	Likely date of completion	Irrigation Potential in Ha	Present Stage of Project
8	Y Kaggal LIS	2200.00	500.00	138.13	229.55	2007-08	2,568 Ha	Jackwell, transition completed. Pump house flooring completed. All the works entrusted to M/s R.S.Sheety & Co., had comes withdrawn as per TAC directions and estimate for balance works under preparation.
9	Modernisation of							
i)	TLBC	21000.00	2000.00	2400.79	2400.79	2011		Works completed during 2006 closure period.
ii)	Distributories of Tungabhadra Project. (Left Bank + Right Bank)	84100.00	2080.00	2272.74	2272.74	2011		Works completed during 2006 closure period.
iii)	Vijayanagar Canals	10000.00	1090.00	1165.60	1165.60	2011		Works completed during 2006 closure period.
New Schemes								
1	Kenchanagudda LIS	495.00	300.00	-	-	-	stabilization of 1376 Ha tail end.	Administrative approval-under consideration of Government.
2	Wala Bellary LIS	594.00	300.00	-	-	-	2541 Ha	Administrative approval-under consideration of Government.
3	Chaganur LIS	242.50	50.00	-	-	-	Stabilization of 645 Ha tail end ayacut of Chaganur branch canal of RBHLC	Administrative approval-under consideration of Government.

Sl. No.	Name of the Project	Latest Cost	Grant for 2006-07	Expenditure during 2006-07	Cumulative Expenditure upto March 2007	Likely date of completion	Irrigation Potential in Ha	Present Stage of Project
4	Jalibenchi LI Scheme	245.00	100.00	-	-	-	Stabilisation of 123 Ha of tail end of DP-36 of RBHLC	Administrative approval is obtained from Government. Technical sanction is to be given.
5	Veerapur LIS	414.00	50.00	-	-	-	247 Ha	Administrative approval-under consideration of Government.
6	Muttal LIS	317.00	50.00	-	-	-	335 Ha	Administrative approval-under consideration of Government.
7	Shirur LIS	487.00	50.00	-	-	-	592 Ha	Administrative approval-under consideration of Government.
8	Kinnal LIS	275.00	100.00	-	-	-	307 Ha	Administrative approval-under consideration of Government.

15. AN OVERVIEW OF PROJECTS UNDER THE CHIEF ENGINEER, UPPER TUNGA PROJECT ZONE, SHIMOGA

15.1. BHADRA PROJECT CIRCLE

Bhadra Project Circle is functioning at B.R.Project in Bhadravathi taluk, since 07.11.1969. This Circle is under the control of the Engineer-in-Chief, KNNL, Upper Tunga Project Zone, Shimoga

Three Divisions, namely Executive Engineer, No.3, Canal Division Malebennur; No.4 BRLBC Division, Bhadravathi & No.5 Canal Division, Davanagere and fifteen Sub-Divisions comes under the Jurisdiction of this Circle.

The following Projects come under the Jurisdiction of this Circle.

I. Major Irrigation Project

- 1) Bhadra Reservoir Project
- 2) Vanivilas Sagar Project

II. Medium Irrigation Project

- 1) Gondi Anicut Project {Bhadra Anicut}
- 2) Jambadahalla Reservoir Project
- 3) Feeder Canal to Ranikere Tank Project
- 4) Gayathri Reservoir Project
- 5) Ambligola Reservoir Project
- 6) Thimmapura Lift Irrigation Scheme
- 7) Anjanapura Project
- 8) Dharma Project
- 9) Tunga Anicut Project
- 10) Kaduvinabylu Project
- 11) D.B.Kere Pickup

III. TANKS

- 1) Sulekere tank (Shanti Sagar).
- 2) Bheemasamudra tank
- 3) Asundi tank
- 4) Madaga Masur tank

BHADRA RESERVOIR PROJECT

Bhadra Dam is constructed across River Bhadra near Lakkavalli village, Tarikere Taluk, Chikamagalur District. This project is a Multi-purpose Project providing Irrigation facility to an extent of 1,05,570 Ha and a power generation capacity of 39.20 M.W. The details of canals coming under this project is as follows.

Sl.No.	Canal	Length in Km	Atchkat in Ha
1.	Bhadra Right Bank Canal	103 .00	17109
2.	Bhadra Left Bank Canal	77.00	8270
3.	Anveri Branch Canal	67.00	6514
4.	Malebennur Branch Canal	48.00	23774
5.	Davanagere Branch Canal	90.00	30286
6.	Harihara Branch Canal	20.40	15337
7.	Devarabelakere Pickup Canal	59.20	4280
Total:		464.60	1,05,570

Bhadra Project is allocated 61.70 TMC of water as per KWDT. Under the Project, Irrigation potential of 1,05,570 Ha has been achieved in 1989. The revised cost of the project was 33.53 Crores and Re-revised cost of estimate is Rs. 170.00 Crores.

The Expenditure incurred upto 3/2006 is Rs. 19,330.12 Lakhs.

The Major works under the Bhadra Reservoir project are completed. The water is allowed through both the canals, since 1965 and Irrigation facility to the total extent of 1,05,570 Ha has already been achieved.

The Government has allotted a grant of Rs. 803.52 Lakhs during the year 2006-07. Out of this Rs. 440.01 Lakhs is allocated for works and Rs. 363.57 Lakhs for Establishment. The Expenditure incurred for establishment is Rs. 301.66 Lakhs and for works is Rs. 1,394.52 Lakhs. The total expenditure incurred upto 3/2007 is Rs. 1767.38 Lakhs.

Modernisation of Bhadra Reservoir Project Canals: -

For the modernization of Bhadra Canal System, an estimate amounting to Rs.365.50 Crores was prepared. Government has allotted a grant of Rs.10.00 Crores to take up the modernization works for the year 2005-06 and the works for Rs.15.48 Crores have been approved. Against the grants of Rs.10.00 Crores, an expenditure of Rs. 338.51 lakhs has been incurred upto the end of March-2006.

For Modernisation of Canals of Bhadra Reservoir Project a Grant of Rs.4515.00 Lakhs has been provided during 2006-07 under 4701 Modernisation. During May-June 2006 closure period Rs. 2737.00 Lakhs of works are taken up and completed on tender basis. The expenditure incurred during December 2006 closure period is Rs. 1506.42 Lakhs. Works to a tune of Rs. 5554.00 Lakhs has been taken up and are under progress. The expenditure incurred upto end of March 2007 is Rs.6527.91 Lakhs.

15.2. MODERNISATION OF CANAL SYSTEM OF TUNGA ANICUT

Grant allotted for Modernisation of Canal system of Tunga and Gondi Anicut Project during the year 2006-07 is Rs. 600.00 Lakhs. Out of this, a grant of Rs. 390.00 Lakhs was re- allotted for Tunga Project. These works have been taken up during the June 2006 Closure period and March 2007 Closure period. The Expenditure incurred upto end of March 2007 is Rs. 357.40 Lakhs.

The Grant allotted under 2701 during 2006-07 is Rs. 57.08 Lakhs (Rs. 17.09 Lakhs for Establishment and Rs. 39.99 Lakhs for works). The expenditure incurred upto the end of 3/2007 is Rs. 290.72 Lakhs (Rs. 18.57 Lakhs for establishment and Rs. 272.15 Lakhs for works).

15.3. HODIRAYANAHALLA DIVERSION SCHEME

Jambadahalla Reservoir is located near Duglapura village, Tarikere Taluk, Chikkamagalore district. This project was contemplated to provide irrigation to 2428 Ha.

But due to less flow only 1133 Ha of land under right bank is being irrigated. Remaining 1295 Ha of land is to be irrigated by diverting supplement water from Hodirayanahalla, an adjacent valley to Jambadahalla. Addition to this, 243 Ha Land will also be benefited by this scheme. The above said Hodirayanahalla diversion Scheme has got administrative approval by the Government dated: 10.08.1987 for Rs.248.00 lakhs. About 16.07 Ha of land comes under the jurisdiction of forestland. Clearance has not been obtained by Central Forest & Environment Ministry. Hence project has not yet commenced.

So an alternative alignment survey has been conducted and modified such that it comes under jurisdiction of state forest department and requisition is submitted for approval by the Forest Department for required 12.98 Ha of forestland. Hence the project will be commenced after getting clearance from forest department.

During 2006-07, a grant of Rs. 1500.00 Lakhs is allocated. The expenditure incurred upto the end of 3/2007 is Rs. 113.73 Lakhs.

15.4. MODERNISATION OF CANAL SYSTEM OF AMBLIGOLA RESERVOIR

During 2005-06 Governemt has allotted Rs.100.00 Lakhs grants for this project for improvements of canal system. Works are completed.

An additional grant of Rs.200.00 Lakhs has been released during 2005-06. And these works are taken up during 2006-07. A grant of Rs.500.00 Lakhs has been allotted during 2006-07 under 4701. The expenditure incurred upto the end of 3/2007 is Rs. 547.97 Lakhs. Government has granted an additional grant of Rs.10.00 Crores. Tender process for these works is under progress.

A grant of Rs.135.00 Lakhs has been allotted during 2006-07 under 4701 for improvements of 7 tanks coming under this project. The programme is got approved and works are taken up on tender basis. The expenditure incurred upto end of March 2007 is Rs. 85.79 Lakhs.

15.5. MADAGA –MASUR TANK

Madaga Masur Tank is a very old tank located in Haveri District in Hirekerur Taluk, across River Kumudvathi. 2855 Ha of Land is irrigated under this tank. LBC of this tank is 14.00 Km long and RBC is 37.00 Km of Long. Improvements and repairs to embankment, canal works, and removal of silt have to be taken up. Rs.106.00 Lakhs is allotted in the budget during 2006-07 under 4701 for improvements of this tank. The expenditure incurred upto the end of 3/2007 is Rs. 104.77 Lakhs.

15.6. ERM OF BHEEMASAMUDRA TANK

Bheemasamudra tank has been constructed 500 years ago in Bheemasamudra village, Chitradurga Taluk, Chitradurga district. The storage capacity of the tank is 0.905 TMC. The Irrigation potential created under this tank is 1235 Ha (3050 Acres). The tank has left Bank canal and right Bank canal and distributary system. The total length of canal is 68 Km.

At present the Bheemasamudra tank is filled up with silt since the tank is 500 year old. Due to this, the storage capacity of tank is reduced to 0.18 TMC. The catchment area of tank has scanty rainfall.

In order to augment the inflow in to the tank it is proposed to construct feeder canal from Bettadanagenahalli and Jogerahalla dams by constructing pickup. The grant allotted for the year 2005-06 for this project was Rs.150.00 Lakhs. The expenditure incurred to end of 3/2006 is Rs.79.54 Lakhs.

15.7. MODERNISATION OF CANAL SYSTEM OF GONDI ANICUT (BHADRA)

Grant allotted for Modernization of canal system of Tunga and Gondi Anicut Project during 2006-07 is Rs, 600.00 Lakhs. The grant reallocated for Gondi anicut is Rs.210.00. Works have been taken during June 2006 Closure period and December 2006 closure period. The expenditure incurred upto the end of 3/2007 is Rs. 280.87 Lakhs.

15.8. KADUVINABYLU LIFT IRRIGATION SCHEME

Kaduvinabylu Lift irrigation Scheme is located in N.R.Pura taluk, Chikkamagalore District. The Project has been administratively approved by the State Government vide G.O.No.WRD 223 MMB 2004 Bangalore dated 10.5.2005 for Rs. 690.00 Lakhs. The Master plan committee has allocated 0.21 TMC of water to this project under Krishna scheme- A. The Chief Engineer, KNNL, Upper Tunga Project Zone Shimoga, technically sanctioned the estimate amounting to Rs.690.00 Lakhs, Vide CER No.83/2005-06 dated. 29.9.2005.

Rs. 350.00 Lakhs has been allotted during 2006-07 under 4701. The expenditure incurred upto the end of 3/2007 is Rs. 19.01 Lakhs.

15.9. THIMMAPURA LIFT IRRIGATION SCHEME

The scheme envisages providing irrigation facility to an extent of 4176 Acres (1691 Ha) of land coming under the villages of Kanavelli, Bharadi, Kurugunda and Basapura of Haveri taluk (this includes 159.00 Acres of suffering atchkat under Kannavalli tank). The revised estimated cost is Rs.2313.00 Lakhs. Grant of Rs.400.00 Lakhs was allotted in the year 2005-06 and the expenditure incurred upto March 2006 is Rs.4.82 Lakhs. Rs. 200.00 Lakhs is allotted in the budget during 2006-07. NABARD assistance to this project has been rejected.

15.10. ANJANAPURA RESERVOIR PROJECT

Anjanapura Reservoir project is situated in Shikarepura taluk, Shimoga District. The area irrigated is 6736 Ha. The original estimated cost of the project was Rs. 272.00 Lakhs. The right bank canal runs for a

length of 45.00 Km. and has an irrigation potential of 5919 Ha The Left bank canal runs for a length of 15.00 Km. and has an irrigation potential of 817 Ha

Improvements to canal system:

Grant of Rs. 905.00 Lakhs is allotted during 2006-07. Works are taken up on tender basis. The expenditure incurred upto end of 3/07 is Rs.829.06 Lakhs. Additional grant allotted is Rs.10.00 crores. Tender process is under progress.

Grant of Rs. 284.00 Lakhs is allotted during 2006-07 for improvement of 13 tanks coming under this Project. Works are taken up on Tender basis. The expenditure incurred upto the end of 3/2007 is Rs. 211.26 Lakhs.

16. COMMAND AREA DEVELOPMENT PROGRAMME

Agriculture is the backbone of Indian Economy and it is the pillar of the Economic development. At the commencement of the Fifth Five Year Plan (1974-80), in pursuance of the policy of the Government of India, the Command Area Development Programme was launched in the State for integrated and comprehensive development of the Command Areas of Major and Medium Irrigation Projects. As per the objectives laid down by the National Commission on Irrigation, 1971 and the National Commission on Agriculture, 1976, the CADP ensures rapid and optimum utilization of Irrigation Potential created under Major and Medium Irrigation Projects thereby increasing the agriculture production as also reducing the gap between the potential area created and the actual area utilised.

THE OBJECTIVES

Irrigation Management is a multi-disciplinary activity involving major department like Irrigation, Agriculture, Cooperation and other organization engaged in training and research activities. Against this perspective, CADA was constituted in the year 1970 to work as a catalyst between the various organizations to reduce the gap between irrigation potential created and utilized, to increase production per unit of water and land, to reduce the loss of irrigation water in the conveyance system, to improve its efficiency at the farm level and to ensure equitable distribution of water. The objectives of the CADA, as envisaged under section 10 of the Karnataka Command Areas Development (K.C.A.D.) Act 1980, are listed below:

- To formulate and implement schemes for the Comprehensive Development of the Command Area;
- To prevent land erosion and water logging;
- To improve soil fertility and regulation of cropping pattern;
- To ensure the efficient maintenance of Field channels and Field Drains by the Farmers within the Command Area;
- Localisation and de-localisation of lands for various crops;
- Ensuring supply of all inputs and services;
- Promotion and setting up of rural growth centres for integrated development of the Command Area;
- Development of marketing, processing and storage facilities and adequate communication system;
- Arranging for credit facilities to the farmers and artisans;

- ☛ Organizing agricultural Co-operatives and Associations;
- ☛ Construction of Field channels and connected drains;
- ☛ To borrow and lend money necessary for the due discharge of its functions;
- ☛ Conjunctive use of surface and ground water;
- ☛ To determine the payment of compensation as provided in sub section [4] of section 12 of KCAD Act 1980;
- ☛ To setup agricultural demonstrations farms and promote extension activities; and
- ☛ To execute such other acts, consistent with the provisions of this Act.

The Six CADA'S that are established in Karnataka are:

- ☛ Malaprabha and Ghataprabha Projects, Belgaum
- ☛ Tungabhadra project, Munirabad
- ☛ Upper Krishna projects, Bheemarayanagudi
- ☛ Cauvery basin projects, Mysore
- ☛ Bhadra project, Shimoga
- ☛ Irrigation Project Zone, Gulbarga

BRIEF DETAILS OF CADA

Sl. No.	Name of CADA with headquarters	Year of Starting	Irrigation Projects	Districts covered
1	Malaprabha and Ghataprabha Projects, Belgaum	1974	Malaprabha & Ghataprabha	Belgaum, Dharwad, Bagalkot, Gadag
2	Tungabhadra Project, Munirabad	1974 12.11.1979	Tungabhadra, Hirehalla, Maskinala	Bellary, Raichur & Koppal.
3	Upper Krishna Projects, Bheemarayanagudi	1977 11-12-1979	Upper Krishna	Gulbarga, Bijapur, Raichur & Bagalkot.

4	Cauvery Basin Projects, Mysore	1974 1.3.1974	Kabini, Harangi, Hemavathy, KRS. , Nugu, Taraka, Gundal, Votehole, Marconahally, Manchanabele, Kanva and Byramangala.	Mysore, Kodagu, Chamarajnagar, Hassan, Mandya, Tumkur, Bangalore(Rural)
5	Bhadra Reservoir Project, Shimoga	1979	Tunga, Bhadra & Gondi	Shimoga, Chikkamagalore, Davangere.
6	Irrigation Project Zone, Gulbarga	2000	Chandrampalli, Hattiguni, Soudagar, Upper Mullamari, Amarja, Bennethora, Bhima, Gondorinala, Kagna, Karanja	Gulbarga, Bidar

MALAPRABHA AND GHATAPRABHA PROJECTS, BELGAUM

Command Area Development Authority, Malaprabha and Ghataprabha projects, Belgaum, came into existence during 1974-75.

During 2006-07, the budget allocation is Rs. 970.80 lakhs out of which an expenditure of Rs.1106.11 lakhs has been incurred.

TUNGABHADRA PROJECT, MUNIRABAD

Command Area Development Authority, Tungabhadra project, Munirabad, came into existence during 1974.

During 2006-07, the budget allocation is Rs.950.00 lakhs out of which an expenditure of Rs.817.51 lakhs has been incurred.

UPPER KRISHNA PROJECTS, BHEEMARAYANAGUDI

Command Area Development Authority, Upper Krishna projects, Bheemarayanagudi, has come into force since 11-12-1979.

During 2006-07, the budget allocation is Rs. 717.70 lakhs out of which an expenditure of Rs.541.26 lakhs has been incurred.

The budget allocation during 2006-07 is Rs. lakhs of which an expenditure of Rs. 5018.51 lakhs has been incurred upto the end of 3/2007

CAUVERY BASIN PROJECTS, MYSORE

Command Area Development Authority, Cauvery basin projects, Mysore, came into existence during 1974-75.

During 2006-07, the budget allocation is Rs. 582.90 lakhs out of which an expenditure of Rs.509.85 lakhs has been incurred.

BHADRA PROJECT, SHIMOGA

Command Area Development Authority, Bhadra project, Shimoga, came into existence during 1979.

During 2006-07, the budget allocation is Rs. 900.70 lakhs out of which an expenditure of Rs.887.78 lakhs has been incurred.

IRRIGATION PROJECT ZONE, GULBARGA.

Command Area Development Authority, Irrigation Project Zone, Gulbarga, came into existence during 2000-01.

During 2006-07, the budget allocation is Rs. 730.20 lakhs out of which an expenditure of Rs.662.75 lakhs has been incurred.

**The details of the Physical programme & Progress and Financial Programme & progress
for the year 2006-07 upto the end of 3/2007**

(Physical in hectares)

(Financial in Rs. Lakhs)

Sl. No.	Name of the cadas		Field		Field Drains		Warabandi	
			Irrigation channels		Program	Progress	Program	Progress
1	Tungabhadra Project, Munirabad	P	1,628	1,633	3,250	3,250	-	1,628
		F	162.80	163.66	130.00	129.80	-	162.80
2	Malaprabha and Ghataprabha Projects, Belgaum	P	43,629	23,123	7,574	7,388	-	43,629
		F	4,400.00	2,224.46	302.95	203.96	-	4,400.00
3	Upper Krishna Projects, Bheemaranagudi	P	54,070	50,594	2,125	961	8,667	54,070
		F	6,759.00	5,889.59	85.00	38.43	26.00	6,759.00
4	Cauvery Basin Projects, Mysore	P	-	-	1,250	1,250	750	-
		F	-	-	10.00	10.00	3.00	-
5	Bhadra Reservoir Project, Shimoga	P	12,580	4,310	3,500	3,750	333	12,580
		F	1,258.00	431.05	140.00	150.29	1.00	1,258.00
6	Irrigation Project Zone, Gulbarga	P	24,120	23,639	-	-	-	24,120
		F	2,355.00	1,277.00	-	-	-	2,355.00

* * * * *