

Evaluation of Determination, Enforcement, Regulation and Monitoring of Entitlement in Pilot Projects for the Rabi & Hot Weather Seasons 2009-10

1.0 In the year 2006-07, the concept of Entitlement was initiated with 5 pilot projects from the Krishna basin as per the provision in Section 11(a) of MWRRA Act, 2005. The Entitlement Programme extended over the years. The number of projects covered under the Programme is :-

Year	Addition during the year				Total
	2006-07	2007-08	2008-09	2009-10	
2006-07	5				5
2007-08	5	15			20
2008-09	5	15	57		77
2009-10	5	15	57	52	129

During the year 2009-10 the number of Water User Associations (WUAs) covered under the Programme is 212.

1.1 Category-wise and riverbasin-wise abstract of the 129 pilot projects considered under the Entitlement Programme for 2009-10 :

Sr. No.	Category of Project	River Basin					WUAs under Entitlement
		Godavari	Krishna	Tapi	Konkan	Total	
1	Major	5	2	1	0	8	31
2	Medium	9	1	2	0	12	56
3	Minor	54	34	19	2	109	125
	Total	68	37	22	2	129	212

1.2 Of the 129 pilot projects considered under the Entitlement Programme 24 projects are not included in the Maharashtra Water Sector Improvement Project (MWSIP). The other 105 projects are from the MWSIP. The yearwise break-up of pilot projects under MWSIP considered under the monitoring and implementation of Entitlement Programme is-

Project Category	Irrigation year 2006-07		Irrigation year 2007-08		Irrigation year 2008-09		Irrigation year 2009-10	
	Projects	Total WUAs	Projects	Total WUAs	Projects	Total WUAs	Projects	Total WUAs
Major	2	20	4	25	5	28	5	28
Medium	1	8	4	41	8	49	10	53
Minor	2	2	11	14	40	50	90	105
Total	5	30	19	80	53	127	105	186

1.3 Yearwise break-up of pilot projects outside MWSIP is -

Project Category	Irrigation 2006-07		Irrigation 2007-08		Irrigation 2008-09		Irrigation 2009-10	
	Projects	Total WUAs	Projects	Total WUAs	Projects	Total WUAs	Projects	Total WUAs
Major	0	0	1	1	3	3	3	3
Medium	0	0	0	0	2	3	2	3
Minor	0	0	0	0	19	20	19	20
Total	0	0	1	1	24	26	24	26

2.0 Compilation of Data for Evaluation of the Entitlement Programme

2.1 Annexure I gives list of all the 129 pilot projects giving break-up of total number of WUAs of the projects vis-a-vis number of WUAs included in the Entitlement Programme, corresponding WUAs area under Entitlement, total number of beneficiaries covered under the Entitlement Programme.

2.2 During the year 2009-10, most part of Marathwada and Vidarbha regions experienced very low rainfall. As such in most of the storages of this area considered for Entitlement Programme, the storage position of 15 October 2009 was either below MDDL or less than 30% of the designed live storage.

Therefore, out of 129 projects under consideration, water was available in 90 projects at the beginning of Rabi for making irrigation possible where applicable entitlements were checked and communicated to field officers. In the remaining 39 projects water could not be

released for irrigation due to inadequate storage. As such applicable entitlement calculations were not received from the field officers.

2.3 Annexure II(A) gives details of all the 90 projects where Entitlement Programme is implemented in Rabi season of the year 2009-10. The details such as number of WUAs actually covered under the Entitlement Programme, their corresponding area, corresponding applicable Entitlement in Thousand Cubic Metres (TCM) vis-a-vis actual quantity delivered in the Rabi season and corresponding no. of beneficiaries are tabulated in this Annexure.

3.0 Performance Evaluation of Pilot Projects (2009-10)

3.1 Entitlement Programme for Rabi

3.1.1 Percentage of Entitlement Delivered :

Applicable entitlement for 90 pilot projects is checked and communicated. The basis is the live storage as on 15 October 2009. The percentage of entitlement with respect to the applicable entitlement delivered in various ranges during the Rabi season is given below.

Range of % of Entitlement delivered	No. of pilot projects	Cumulative number of projects
above 125	2	2
100 to 124	11	13
90 to 99	9	22
80 to 89	7	29
70 to 79	4	33
60 to 69	5	38
50 to 59	9	47
40 to 49	12	59
30 to 39	6	65
20 to 29	7	72
10 to 19	4	76
1 to 9	0	76
-0-	14	90

The '0' deliverance of entitlement at 14 projects is attributed to the reasons indicated in the following table -

Neoli (Dist. Latur) Pimpalgaon Nath (Dist. Buldhana)	2 projects	Entire storage reserved for drinking water supply
	7 projects	WUAs saved water during Rabi for utilisation in Hot Weather.
	3 projects	No demand either in Rabi or Hot Weather.

3.1.2 Percentage of area irrigated

Annexure II(A) gives the delineated area of WUAs under the entitlement, actual area irrigated and percentage of area irrigated to the delineated area. An abstract of % of area irrigated during Rabi of 2009-10 is given below.

Range of % of actual irrigated no. of area to the delineated area	No. of pilot projects	Cumulative projects
80 to 100	3	3
60 to 79	3	6
50 to 59	5	11
30 to 49	16	27
10 to 29	34	61
1 to 9	15	76

3.1.3 Evaluation of performance is made on the basis of % entitlement delivered, % of actual area irrigated and % number of beneficiaries covered.

Annexure II(A) presents projectwise break up of :

- i) % of Entitlement delivered as against the total applicable entitlement due
- ii) % of actual area irrigated as against the total delineated area of WUAs
- iii) % of beneficiaries (members) received entitlement as against the total number of WUAs.

On this basis performance of the following projects are noteworthy

Name of project	Ghod	Dongargaon	Khapri	Kannanwargram
No. of WUAs under the entitlement program	10	1	1	1
% of entitlement delivered to the total applicable volume	97	94	123	110
Total area of WUAs (delineated) considered under entitlement (ha)	6042.1	608.76	566	340.82
Actual area irrigated (ha)	5740	499	366	288
% of irrigated to total area of WUAs	95	82	65	85
No. of members of WUAs under the entitlement program	5002	306	272	198
No. of members who received water during the rotation	3833	302	225	125
% of members derived irrigation benefit	77	99	83	63

Note:- Figures of % of area covered and % of beneficiaries covered are very good. Storage was available after Rabi season. However, hot weather rotation was not planned owing to absence of demand from WUAs. Hot Weather was planned and implemented only on Ghod project.

3.2 Entitlement Programme for Hot Weather

3.2.1 After completion of irrigation in the Rabi season during the year 2009-10 on these 87 pilot projects, Hot Weather irrigation is planned on 33 pilot projects as water was available and also there was demand from WUAs for Hot Weather irrigation. In the Annexure II(B) entitlement scenario of such projects is presented. In addition to these 33 projects, hot weather rotations as a part of continuous Kokan-Hangam (i.e. Rabi plus hot weather) for paddy irrigation are given in 2 projects viz. Raitale and Decope (Thane district). They are already included in Rabi Entitlement Programme.

3.2.2 Performance Evaluation of Entitlement Programme on Pilot Projects in Hot Weather

Hot Weather Entitlement Programme was implemented on 33 pilot projects. Out of 14 projects where 0% entitlement is availed in Rabi, 7 projects are such that WUAs have deferred the Rabi Entitlement so as to have Entitlement in How Weather. These are Anjani, Dhakani, Dudhebhavi, Kuchi, Manpadale, Pilanwadi, Sidhnath. For two projects viz. Neoli & Pimpalgoan Nath, Hot Weather Programme could not be implemented. Due to shortage of water Hot Weather Programme could not be implemented on another 2 projects viz. Ashti & Kankraj. Even though sufficient storage was available in the 3 projects viz. Belgaon (Beed), Satewadi (Satara), Linganur (Sangli), Hot Weather Programme was not implemented.

3.2.3 On the basis of storages as on 28.02.2010, field officers computed the Applicable Entitlement for Hot Weather. An abstract of entitlement delivered in various ranges is given below.

Range of % of Entitlement delivered	No. of pilot projects	Cumulative no. of projects
above 125	2	2
100 to 124	4	6
90 to 99	3	9
80 to 89	3	12
70 to 79	3	15
60 to 69	3	18
50 to 59	2	20
40 to 49	3	23
30 to 39	3	26
20 to 29	5	31
10 to 19	2	33
1 to 9	0	33

It is seen that more than 60% entitlement is availed on 18 projects out of 33.

3.2.4 An abstract of percentage area irrigated during hot weather is given below:

Range % of actual irrigated area to the delineated area	No. of pilot projects	Cumulative no. of projects
80 to 100	0	0
60 to 79	0	0
50 to 59	1	1
30 to 49	2	3
10 to 29	20	23
1 to 9	10	33

4.0 **Inspection by Regulators**

Annexure II(A) & II(B) give projectwise number of visits during the rotations by the appointed regulators. As per the Technical Manual brought out by the Authority in 2007, a regulator has to make at least 3 random checks in a rotation period of 15 days or so. It is seen that on most of the projects, regulators could pay only 1 visit per rotation.

Impact of Regulators :

Enforcement of entitlements is one of the functions of MWRRA devolved by the Act. In order to monitor the enforcement of entitlements, MWRRA appoints regulators on the recommendation of the Water Resources Department. They are specially trained for the task they are intended to perform.

The Entitlement Programme implemented on pilot irrigation projects in the State during the period 2007-08 to 2009-10 has positively testified the performance of regulators which is clear from the following :-

- (i) Pink slips have been issued by regulators in Walwad, Pathri, Chare, Padwalkarwadi and Chincholi projects (all 2008-09 projects from Solahpur district) so that deficiency in operations could be rectified. Pink slip is issued by the Regulator to the Department's staff when the quantum supplied in any rotation is short by 15-20% of the agreed quantum. It is required to make good the shortfall in subsequent rotation.

- (ii) Critical remarks in respect of deficient installation of measuring devices, improper field condition of canal system have been reported by regulators in respect of following projects (districts are mentioned in brackets) -

2007-08	Banganga (Satara), Hivare (Satara), Nandwal (Satara)
2008-09	Tambave (Satara), Decope (Thane), Kanktrewadi (Satara)
2009-10	Raitale (Thane)

This helped speed up undertaking corrective / remedial measures.

- (iii) Regulators have cross checked the quantities supplied by the field officers and have reported the same.
- (iv) Regulators have reported the requirements and requests of the WUAs and the action taken by the field officers to set the matters right.
- (v) Since the regulators are appointed by MWRRA and are to report directly to it, they have worked as representatives of MWRRA.
- (vi) Regulators have visited at least once during every rotation and acted as an inter face between the WUAs and the Department's officials.

5.0 Workshop on Operationalising Water Entitlement

The objective of organizing workshop on Operationalising Water Entitlement is to have an interaction among service provider, managerial staff of WUAs and regulators (functioning on behalf of Authority). Such workshops provide an opportunity to present success stories of WUAs which have benefitted by way of implementation of Entitlement Programme. Other WUAs get inspiration through this for performance enhancement so that over all water use efficiency is further increased.

Fourth Workshop on Operationalising Water Entitlement was held at WALMI, Aurangabad for a full day on 24 September 2009. The workshop was attended by 204 participants of which 155 were WRD officers and 59 were office bearers of WUAs.

6.0 Special One Day Workshop for Regulators

Regulators need some training on monitoring and enforcement of Entitlement before they can take up the task assigned to them. Accordingly, in the Workshop of 24.09.2009, all the office bearers of WUAs and field officers requested to hold one day special Workshop for the benefit of Regulators only. Accordingly, on 12th March 2010 special one day Workshop was organized at WALMI, Aurangabad.

7.0 Evaluation of Entitlement Programme (2009-10) in Nutshell

For total number of 129 pilot projects, 1038 WUAs have been formed. Of these 1038 WUAs, 212 WUAs have been covered under the Entitlement Programme for the 2009-10.

Total delineated area of 212 WUAs is 104217.62 ha. Out of this area, implementation of entitlement in Rabi pertaining to 90 projects is on 75155.79 ha. Actual area which received entitlement in Rabi 2009-10 is 18784.87 ha. Total number of beneficiaries who belong to this area is 77522. Out of these, 20813 beneficiaries have received entitlement in Rabi 2009-10.

The Entitlement programme is also implemented during Hot Weather of 2009-10 on 33 projects of which some also belong to those covered under the Programme during Rabi season. The area covered is 47365.83 ha. Actual area which received entitlement is 8315.27 ha. Total no. of beneficiaries belonging to this area is 54059 out of which 13947 beneficiaries have received entitlement during the season. The combined scenario of both the seasons is: 27100.14 ha area have received irrigation under the Programme with benefit to 34760 beneficiaries.

The smaller percentage of area receiving Rabi irrigation is attributed to :

- 1) During Rabi of 2009-10 there were rains in some parts of the State. As a result, a good amount of soil moisture was present in soils. Farmers, therefore, have gone for use of lesser entitlement in the Rabi irrigation.

Secondly planning of most of the M.I. projects do not provide for Hot Weather irrigation. Due to rains in Rabi 2009-10, ground water table got raised and farmers practiced well irrigation entailing saving in water for Hot Weather utilization later.

Because of freedom in cropping pattern for WUA, the tendency of farmers is to go in for cash crop cultivation e.g. sugarcane, banana which are water-intensive. Most of the farmers used their share of entitlement to grow cash crops resulting in reduction in Rabi area.

- 2) The works of rehabilitation of irrigation system of projects under Maharashtra Water Sector Improvement Project have gained momentum. However, it is likely that 2 more years will elapse to get the system rehabilitated as envisaged. The scenario of area irrigated is going to improve considerably after that.

ANNEXURE - I

Pilot Projects for Entitlement for the Year 2009 - 2010

S.No.	Name of Project	Basin	No.of WUAs in the project	No.of WUAs under Entitlement	No. of farmers under WUA	Area Under WUA in ha.	Whether included in MWSIP
1	2	3	4	5	6	7	8
I	Pilot Projects 2006-07						
	Major						
1	Kukadi	Krishna	117	10	6080	8029	Yes
2	Ghod	Krishna	55	10	5002	6042.10	Yes
	Medium						
3	Mangi	Krishna	8	8	3495	3898	Yes
	Minor						
4	Diwale	Krishna	1	1	1145	323	Yes
5	Benikre	Krishna	1	1	311	358	Yes
#	Wafgaon	Krishna					
II	Pilot Projects 2007-08						
	Major						
6	Lower Manar	Godavari	39	3	1132	1929	Yes
7	Lower Wunna	Godavari	12	1	186	622.67	NO
8	Hatnur	Tapi	56	2	759	801.7	Yes
	Medium						
9	Waghad	Godavari	24	24	15916	9642	Yes
10	Katepurna	Tapi	32	7	1308	2145.56	Yes
11	Panzara	Tapi	19	2	569	573.39	Yes
	Minor						
12	Hiware	Krishna	1	1	833	516.81	Yes
13	Banganga	Krishna	3	3	1936	1629.84	Yes
14	Nandwal	Krishna	1	1	964	341.96	Yes
15	Chincholi	Krishna	2	2	679	926	Yes
16	Anjani	Krishna	1	1	704	499	Yes
17	Ambegaon	Godavari	1	1	325	649	Yes
18	Bhutekarwadi	Godavari	1	1	922	1067	Yes
19	Botezari	Godavari	1	1	337	611	Yes
20	Dongargaon	Godavari	1	1	306	608.76	Yes
III	Pilot Projects 2008-09						
	Major						
21	Palkhed	Godavari	143	1	378	494.51	NO
22	Mula	Godavari	303	3	2089	2099.7	Yes
23	Ozarkhed	Godavari	27	1	246	479	NO

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S.No.	Name of Project	Basin	No.of WUAs in the project	No.of WUAs under Entitlement	No. of farmers under WUA	Area Under WUA in ha.	Whether included in MWSIP
1	2	3	4	5	6	7	8
	Medium						
24	Sukhana	Godavari	11	3	678	1045	Yes
25	Gharni	Godavari	8	2	779	1299	Yes
26	Chulband	Godavari	2	2	870	1016.58	NO
27	Kolar	Godavari	16	1	172	172.17	NO
28	Koradi	Godavari	13	1	145	164	Yes
29	Ghatsilpargaon	Godavari	6	2	981	475.65	Yes
	Minor						
30	Dastapur	Godavari	1	1	318	405	Yes
31	Nanduri	Tapi	1	1	164	313	NO
32	Dhamangaon Deshmukh	Tapi	1	1	206	387	NO
33	Anji	Godavari	1	1	414	775	NO
34	Ghoti	Godavari	1	1	152	493	Yes
35	Chare	Krishna	1	1	298	368	NO
36	Kalambwadi	Krishna	1	1	328	648	NO
37	Mamdapur	Krishna	1	1	410	360	NO
38	Walwad	Krishna	1	1	190	254	NO
39	Aundha	Godavari	1	1	327	402	NO
40	Kakaddhaba	Godavari	1	1	447	449	NO
41	Suregaon	Godavari	1	1	544	445	NO
42	Wadad	Godavari	1	1	172	220	NO
43	Mulzara	Godavari	1	1	587	818	Yes
44	Nichpur	Godavari	1	1	434	525	Yes
45	Sugaon	Godavari	1	1	881	715	Yes
46	Dhakani	Krishna	1	1	443	501	NO
47	Kankatrewadi	Krishna	1	1	295	190	NO
48	Shiraswadi	Krishna	1	1	457	275	NO
49	Tambave	Krishna	2	2	2843	1806	Yes
50	Manpadale	Krishna	1	1	1240	436	Yes
51	Atpadi	Krishna	2	2	2334	1170	Yes
52	Dudhebhavi	Krishna	1	1	672	872	NO
53	Siddhanath	Krishna	1	1	662	872	Yes
54	Deocope	WF	1	1	69	104.85	Yes
55	Kolhi	Tapi	1	1	601	758	NO
56	Banoti	Tapi	1	1	605	872	Yes
57	Pardeshwadi	Godavari	1	1	372	530	Yes
58	Bharaj	Godavari	1	1	864	668	Yes

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S.No.	Name of Project	Basin	No.of WUAs in the project	No.of WUAs under Entitlement	No. of farmers under WUA	Area Under WUA in ha.	Whether included in MWSIP
1	2	3	4	5	6	7	8
59	Pimparkheda	Godavari	1	1	445	582	Yes
60	Belgaon	Krishna	1	1	604	355	Yes
61	Golangri	Godavari	1	1	527	437	Yes
62	Kambali	Krishna	1	1	694	640	Yes
63	Nagthana	Godavari	3	1	257	492	Yes
64	Charthana	Godavari	1	1	123	419	NO
65	Harani	Krishna	12	5	482	1126	Yes
66	Yamai	Krishna	2	2	147	492.44	Yes
67	Badrakha	Tapi	1	1	358	335	Yes
68	Galan	Tapi	1	1	320	340	Yes
69	Shewaga	Tapi	2	1	168	411	Yes
70	Nawegaon Bandh	Godavari	2	2	797	3112.76	NO
71	Khapri	Godavari	1	1	272	566	NO
72	Mohri	Godavari	1	1	920	357	Yes
73	Ambazari	Godavari	1	1	316	620	Yes
74	Anji Bhorkhed	Godavari	1	1	284	595.77	Yes
75	Ashti	Godavari	1	1	301	351.26	Yes
76	Kannamwargram	Godavari	1	1	198	340.82	Yes
77	Umari	Godavari	1	1	282	749	Yes
IV	Pilot Projects 2009-10						
	Medium						
78	Rengepar medium	Godavari	4	2	428	448.8	Yes
79	Kanholinala Med	Godavari	6	2	593	1187	Yes
	Minor						
80	Isapur	Tapi	1	1	124	243	Yes
81	Kanadi	Tapi	1	1	172	453	Yes
82	Mozari	Tapi	1	1	297	675	Yes
83	Pimpalgaon Hande	Tapi	1	1	122	239.25	Yes
84	Khatijapur	Tapi	2	2	284	519	Yes
85	Sarswati	Godavari	1	1	250	324	Yes
86	Andhera	Godavari	1	1	207	241	Yes
87	Pimpalgaon Nath	Tapi	1	1	72	405	Yes
88	Telhara	Godavari	1	1	214	308	Yes
89	Zari	Godavari	1	1	254	293	Yes
90	Eklara	Godavari	1	1	214	372	Yes
91	Khadakdoh	Godavari	1	1	253	661	Yes
92	Hanjagi	Krishna	1	1	234	418	Yes

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S.No.	Name of Project	Basin	No.of WUAs in the project	No.of WUAs under Entitlement	No. of farmers under WUA	Area Under WUA in ha.	Whether included in MWSIP
1	2	3	4	5	6	7	8
93	Hotgi	Krishna	2	2	792	1199	Yes
94	Padvalkarwadi	Krishna	2	2	597	475	Yes
95	Pathri	Krishna	2	2	772	1114.42	Yes
96	Shirvalwadi	Krishna	2	2	752	655	Yes
97	Bothi	Godavari	1	1	454	660	Yes
98	Akharga	Godavari	1	1	154	378	Yes
99	Pilanwadi	Krishna	1	1	1348	415	Yes
100	Satewadi	Krishna	1	1	393	162	Yes
101	Shendhri	Krishna	1	1	1461	314	Yes
102	Dighanchi	Krishna	1	1	722	742	Yes
103	Kuchi	Krishna	1	1	650	392	Yes
104	Linganur	Krishna	1	1	680	307	Yes
105	Raitale	WF	1	1	70	60	Yes
106	Motsawanga	Godavari	1	1	509	864	Yes
107	Ranjangaon	Godavari	1	1	297	364	Yes
108	Konad	Godavari	1	1	1212	1346	Yes
109	Kasarbalkunda	Godavari	2	1	562	834	Yes
110	Bagalwadi	Krishna	1	1	150	441	Yes
111	Chougaon	Tapi	1	1	790	826	Yes
112	Kothare	Tapi	1	1	784	737	Yes
113	Mitgaon	Tapi	1	1	88	128	Yes
114	Nimgul	Tapi	1	1	260	400	Yes
115	Hatgaon	Tapi	1	1	153	442	Yes
116	Kankaraj	Tapi	1	1	527	437.89	Yes
117	Satighat	Godavari	1	1	257	484.73	Yes
118	Suwardhara	Godavari	1	1	205	547	Yes
119	Ukarvahi	Godavari	1	1	247	635	Yes
120	Urkudapar	Godavari	2	1	285	581	Yes
121	Zilpa	Godavari	1	1	157	352.08	Yes
122	Bhalwani	Godavari	1	1	932	650	Yes
123	Tikhhol	Godavari	1	1	860	405	Yes
124	Ekalhare	Godavari	1	1	133	351	Yes
125	Ramshej	Godavari	1	1	113	530	Yes
126	Kawadi	Godavari	1	1	125	226	Yes
127	Savangi	Godavari	1	1	141	226	Yes
128	Neoli	Godavari	1	1	267	399	Yes
129	Gotala	Godavari	1	1	568	937.15	Yes
	Total		1038	212	96256	104217.6	

ANNEXURE - II A

Pilot Projects for Entitlement - Rabi Irrigation for the Year 2009-10

Sr. No.	Name of Project	No. of WUAs in the project	No. of WUAs under Entitlement	No. of farmers under WUA	Area Under WUA in ha.	Applicable Entitlement (TCM)	Total water delivered in rabi (TCM)	% of water delivered in rabi to Applicable entt.	No of rotations	No of visit by regulator	Actual area irrigated in Rabi (ha)	% of Irrigated area to WUA area.	No. of farmers taken up Rabbi Irrigation	% of farmers taken up Rabbi Irrigation to total No. of farmers under WUA .	Whether HW proposed
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
A	PROJECTS HAVING RABI IRRIGATION FOR THE RABI SEASON 2009-10														
I	Pilot Projects 2006-07														
	Major														
1	Kukadi	117	10	6080	8029.00	2741.00	1367.44	49	1	1	1127.05	14	4585	75	Yes
2	Ghod	55	10	5002	6042.10	6120.65	5959.48	97	2	3	5740	95	3833	77	Yes
	Medium														
3	Mangi	8	8	3495	3898.00	8530.10	2084.00	24	—	—	575	15	398	11	Yes
	Minor														
4	Diwale	1	1	1145	323.00	1341.60	273.40	20	6	6	111	34	127	11	Yes
5	Benikre	1	1	311	358.00	891.35	526.16	59	3	7	190	53	301	97	Yes
II	Pilot Projects 2007-08														
	Major														
6	Lower Wunna	12	1	186	622.67	1976.00	1506.25	76	3	3	170	27	122	66	No
7	Hatnur	56	2	759	801.70	1747.90	63.82	20	3	2	8	1	11	1	No
	Medium														
8	Waghad	24	24	15916	9642.00	8645.68	4311.96	51	2	2	1626.53	17	2100	13	Yes
9	Panzara	19	2	569	573.39	715.72	603.27	84	7	7	101	18	110	19	No
	Minor														
10	Hiware	1	1	833	516.81	1327.40	334.00	25	1	1	22.1	4	38	5	Yes
11	Banganga	3	3	1936	1629.84	3509.60	1631.70	46	2	3	680	42	850	44	Yes
12	Nandwal	1	1	964	341.96	881.57	235.00	27	1	1	46.6	14	33	3	Yes
13	Chincholi	2	2	679	926.00	1323.30	148.60	11	1	0	50	5	65	10	Yes
14	Anjani	1	1	704	499.00	578.40	0.00	0	0	NA	0	0	0	0	Yes

ANNEXURE - II A

Sr. No.	Name of Project	No. of WUAs in the project	No. of WUAs under Entitlement	No. of farmers under WUA	Area Under WUA in ha.	Applicable Entitlement (TCM)	Total water delivered in rabi (TCM)	% of water delivered in rabi to Applicable entt.	No of rotations	No of visit by regulator	Actual area irrigated in Rabi (ha)	% of Irrigated area to WUA area.	No. of farmers taken up Rabbi Irrigation	% of farmers taken up Rabbi Irrigation to total No. of farmers under WUA .	Whether HW proposed
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
15	Dongargaon	1	1	306	608.76	2804.00	2642.00	94	5	6	499	82	302	99	No
III	Pilot Projects 2008-09														
	Major														
16	Palkhed	143	1	378	494.51	74.90	85.54	114	1	1	35	7	43	11	No
17	Mula	303	3	2089	2099.70	1820.00	763.00	42	3	3	286	14	358	17	Yes
18	Ozarkhed	27	1	246	479.00	379.00	167.04	44	1	1	69	14	115	47	Yes
	Medium														
19	Sukhana	11	3	678	1045.00	677.60	657.46	97	3	3	187	18	214	32	No
20	Kolar	16	1	172	172.17	165.00	162.40	98	5	3	70	41	75	44	No
21	Ghatsilpargaon	6	2	981	475.65	297.90	126.00	42	3	3	41	9	172	18	No
	Minor														
22	Dastapur	1	1	318	405.00	817.20	1155.00	141	6	6	82	20	81	25	No
23	Nanduri	1	1	164	313.00	1275.48	686.68	54	6	6	80	26	120	73	Yes
24	Dhamangaon Deshmukh	1	1	206	387.00	181.60	161.02	89	5	5	23	6	53	26	No
25	Chare	1	1	298	368.00	760.40	638.27	84	2	1	115.5	31	130	44	No
26	Kalambwadi	1	1	328	648.00	1534.00	912.58	59	2	1	176.6	27	211	64	No
27	Mamdapur	1	1	410	360.00	960.10	1003.12	104	2	1	247	69	235	57	No
28	Walwad	1	1	190	254.00	486.40	413.59	85	1	1	84.3	33	99	52	No
29	Wadad	1	1	172	220.00	963.80	546.00	57	3	3	122.15	56	141	82	No
30	Dhakani	1	1	443	501.00	1575.60	0.00	0	0	NA	0	0	0	0	Yes
31	Kankatrewadi	1	1	295	190.00	467.20	219.60	47	1	2	105	55	87	29	Yes
32	Shiraswadi	1	1	457	291.00	310.00	289.70	93	2	3	60	21	62	14	Yes
33	Tambave	2	2	2843	1806.00	2636.40	886.70	34	2	2	73.3	4	132	5	Yes
34	Manpadale	1	1	1240	436.00	611.90	0.00	0	0	NA	0	0	0	0	Yes

ANNEXURE - II A

Sr. No.	Name of Project	No. of WUAs in the project	No. of WUAs under Entitlement	No. of farmers under WUA	Area Under WUA in ha.	Applicable Entitlement (TCM)	Total water delivered in rabi (TCM)	% of water delivered in rabi to Applicable entt.	No of rotations	No of visit by regulator	Actual area irrigated in Rabi (ha)	% of Irrigated area to WUA area.	No. of farmers taken up Rabbi Irrigation	% of farmers taken up Rabbi Irrigation to total No. of farmers under WUA .	Whether HW proposed
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
35	Atpadi	2	2	2334	1170.00	3326.30	878.00	26	2	2	240	21	325	14	No
36	Dudhebhavi	1	1	672	872.00	1745.80	0.00	0	0	NA	0	0	0	0	Yes
37	Siddhanath	1	1	662	872.00	1789.60	0.00	0	0	NA	0	0	0	0	Yes
38	Decope	1	1	69	104.85	1987.80	1545.00	78	15	15	44.69	43	45	65	K.S.
39	Banoti	1	1	605	872.00	1834.00	867.90	47	3	2	140.25	16	130	21	Yes
40	Pardeshwadi	1	1	372	530.00	416.20	420.81	101	3	3	35	7	40	11	No
41	Bharaj	1	1	864	668.00	1136.00	940.70	83	3	1	201	30	155	18	No
42	Pimparkheda	1	1	445	582.00	229.70	229.70	100	1	1	35	6	20	4	No
43	Belgaon	1	1	604	355.00	1202.50	0.00	0	NA	NA	0	0	0	0	No
44	Kambali	1	1	694	640.00	1303.20	621.10	48	4	4	50	8	109	16	No
45	Charthana	1	1	123	419.00	1168.80	571.00	49	3	3	210	50	92	75	No
46	Yamai	2	2	147	492.44	704.50	888.00	226	3	6	57	12	29	20	No
47	Badrakha	1	1	358	335.00	838.70	452.52	54	2	2	82	24	79	22	Yes
48	Galan	1	1	320	340.00	1134.30	849.92	75	2	2	166	49	135	42	Yes
49	Khapri	1	1	272	566.00	783.80	967.78	123	4	4	366	65	225	83	No
50	Mohri	1	1	920	357.00	656.00	211.20	32	4	4	26	7	85	9	Yes
51	Ambazari	1	1	316	620.00	842.50	655.62	78	6	6	132	21	193	61	No
52	Anji Bhorkhed	1	1	284	595.77	1039.60	574.60	55	4	4	171	29	160	56	Yes
53	Ashti	1	1	301	351.26	145.70	0.00	0	NA	NA	0	0	0	0	No
54	Kannamwargram	1	1	198	340.82	823.50	909.95	110	5	5	288	85	125	63	No
55	Umari	1	1	282	749.00	805.20	757.93	94	5	5	168	22	198	70	No
IV	Pilot Projects 2009-10														
	Medium														
56	Kanhholinala Med	6	2	593	1187.00	3359.10	2855.84	85	8	7	486	41	341	58	No

ANNEXURE - II A

Sr. No.	Name of Project	No. of WUAs in the project	No. of WUAs under Entitlement	No. of farmers under WUA	Area Under WUA in ha.	Applicable Entitlement (TCM)	Total water delivered in rabi (TCM)	% of water delivered in rabi to Applicable entt.	No of rotations	No of visit by regulator	Actual area irrigated in Rabi (ha)	% of Irrigated area to WUA area.	No. of farmers taken up Rabbi Irrigation	% of farmers taken up Rabbi Irrigation to total No. of farmers under WUA .	Whether HW proposed
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	Minor														
57	Khatijapur	2	2	284	519.00	621.44	621.00	100	6	6	180	35	120	42	No
58	Sarswati	1	1	250	324.00	1152.00	817.00	71	6	6	112	35	99	40	No
59	Andhera	1	1	207	241.00	706.00	426.22	60	3	3	103	43	159	77	No
60	Pimpalgaon Nath	1	1	72	405.00	393.09	--	0	0	0	--	0	0	0	No
61	Hanjagi	1	1	234	418.00	586.14	200.00	34	0	NA	40.5	10	38	16	No
62	Hotgi	2	2	792	1199.00	2240.70	521.72	23	1	2	163.7	14	170	21	Yes
63	Padvalkarwadi	2	2	597	475.00	850.50	400.00	47	2	2	260	55	228	38	Yes
64	Pathri	2	2	772	1114.42	3665.20	2367.93	65	1	1	462	41	570	74	Yes
65	Shirvalwadi	2	2	752	655.00	907.20	361.00	40	0	NA	68.7	10	65	9	No
66	Pilanwadi	1	1	1348	415.00	466.80	0.00	0	0	NA	0	0	0	0	Yes
67	Satewadi	1	1	393	162.00	414.70	0.00	0	0	NA	-	0	-	-	No
68	Sendhri	1	1	1461	314.00	1139.40	194.86	17	3	3	25	8	85	6	Yes
69	Dighanchi	1	1	722	742.00	1315.80	170.55	13	1	1	25	3	50	7	Yes
70	Kuchi	1	1	650	392.00	1220.00	0.00	0	0	NA	0	0	0	0	Yes
71	Linganur	1	1	680	307.00	817.70	0.00	0	0	NA	0	0	0	0	Yes
72	Raitale	1	1	70	60.00	785.20	605.00	77	15	15	11.1	19	46	66	K.S.
73	Ranjangaon	1	1	297	364.00	597.40	247.32	41	4	3	52.8	15	59	20	No
74	Konad	1	1	1212	1346.00	724.50	450.87	62	1	1	120	9	163	13	No
75	Bagalwadi	1	1	150	441.00	599.00	392.00	65	2	5	45	10	51	34	No
76	Chougaon	1	1	790	826.00	822.20	889.39	108	4	4	139	17	166	21	No
77	Mitgaon	1	1	88	128.00	597.20	223.14	37	2	2	59	46	51	58	No
78	Nimgul	1	1	260	400.00	358.50	291.12	81	4	2	72	18	73	28	No
79	Hatgaon	1	1	153	442.00	684.00	379.39	54	2	2	85	19	60	39	Yes

ANNEXURE - II A

Sr. No.	Name of Project	No. of WUAs in the project	No. of WUAs under Entitlement	No. of farmers under WUA	Area Under WUA in ha.	Applicable Entitlement (TCM)	Total water delivered in rabi (TCM)	% of water delivered in rabi to Applicable entt.	No of rotations	No of visit by regulator	Actual area irrigated in Rabi (ha)	% of Irrigated area to WUA area.	No. of farmers taken up Rabbi Irrigation	% of farmers taken up Rabbi Irrigation to total No. of farmers under WUA .	Whether HW proposed
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
80	Kankaraj	1	1	527	437.89	226.40	0.00	0	NA	NA	0	0	0	0	No
81	Suwardhara	1	1	205	547.00	313.00	311.17	99	4	4	35	6	45	22	No
82	Ukarvahi	1	1	247	635.00	923.90	916.40	99	3	3	231	36	135	55	No
83	Urkudapar	2	1	285	581.00	752.30	845.64	112	4	2	108	19	156	55	No
84	Zilpa	1	1	157	352.08	898.00	900.00	100	4	4	94	27	105	67	No
85	Tikhhol	1	1	860	405.00	326.00	325.27	100	3	3	84	21	116	13	Yes
86	Ekalhare	1	1	133	351.00	1038.50	199.67	19	2	2	59	17	60	45	Yes
87	Ramshej	1	1	113	530.00	375.00	369.53	98	1	1	320	60	110	97	No
88	Kawadi	1	1	125	226.00	319.00	171.53	54	3	3	75	33	103	82	No
89	Savangi	1	1	141	226.00	464.80	291.77	63	8	10	54	24	41	29	No
90	Neoli	1	1	267	399.00	0.00	0.00	0	NA	NA	0	0	0	0	No
	TOTAL for A	891	157	77522	75155.79	113703.11	59647.84	52			18784.87	25	20813	27	

ANNEXURE - II (B)

Pilot Projects for Entitlement - Hot Weather Irrigation for the Year 2010

Sr. No.	Name of Project	No. of WUAs in the project	No. of WUAs under Entitlement	No. of farmers under WUA	Area Under WUA in ha.	Hot Weather Applicable Entitlement (TCM)	Actual volume supplied in TCM during HW	% of water delivered in HW to Applicable entt.	No of rotations (during HW season)	No of visit by regulator (during HW rotations)	Actual area irrigated in HW (ha)	% of Irrigated area to WUA area. (During HW)	No. of farmers taken up HW Irrigation	% of farmers taken up HW Irrigation to total No. of farmers under WUA .
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
I	Pilot Projects 2006-07													
	Major													
1	Kukadi	117	10	6080	8029	2950.43	1446.78	49	1	NIL	1005	13	4298	71
2	Ghod	55	10	5002	6042.10	5245.27	5169.14	99	2	2	1528	25	2380	48
	Medium													
3	Mangi	8	8	3495	3898	13734.74	15846	115	4	2	2080	53	1820	52
	Minor													
4	Diwale	1	1	1145	323	994.80	110.35	11	4	4	84	26	80	7
5	Benikre	1	1	311	358	408	407.95	100	2	3	100	28	245	79
II	Pilot Projects 2007-08													
	Medium													
6	Waghad	24	24	15916	9642	7118.22	5241	74	2 each	2 each	1169.43	12	1477	9
	Minor													
7	Banganga	3	3	1936	1629.84	2288	1066	47	2	2	102	6	220	11
8	Chincholi	2	2	679	926	911.07	592.7	65	3	2	52	6	89	13
9	Anjani	1	1	704	499	675	178.3	26	2	2	65	13	80	11
III	Pilot Projects 2008-09													
	Major													
10	Mula	303	3	2089	2099.7	1823	1392	76	3+2+2	3+2+2	427	20	550	26
11	Ozarkhed	27	1	246	479	185.62	262.167	141	1	1	110	23	164	67
	Minor													
12	Nanduri	1	1	164	313	588.25	500	85	5	10	55	18	35	21
13	Dhakani	1	1	443	501	1435	315.2	22	2	1	22	4	42	9

ANNEXURE - II (B)

Sr. No.	Name of Project	No. of WUAs in the project	No. of WUAs under Entitlement	No. of farmers under WUA	Area Under WUA in ha.	Hot Weather Applicable Entitlement (TCM)	Actual volume supplied in TCM during HW	% of water delivered in HW to Applicable entt.	No of rotations (during HW season)	No of visit by regulator (during HW rotations)	Actual area irrigated in HW (ha)	% of Irrigated area to WUA area. (During HW)	No. of farmers taken up HW Irrigation	% of farmers taken up HW Irrigation to total No. of farmers under WUA .
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
14	Shiraswadi	1	1	457	291	144	190	132	3	1	22.3	8	60	13
15	Tambave	2	2	2843	1806	1400	1422	102	1	1	42.5	2	123	4
16	Manpadale	1	1	1240	436	270	228.29	85	3	6	97	22	230	19
17	Dudhebhavi	1	1	672	872	877	1087	124	3	3	105	12	230	34
18	Siddhanath	1	1	662	872	705.6	188	27	1	2	30	3	90	14
19	Banoti	1	1	605	872	609.6	214.2	35	1	1	41.8	5	49	8
20	Badrakha	1	1	358	335	379.1	96.23	25	1	1	18	5	22	6
21	Galan	1	1	320	340	229.6	225.71	98	1	1	35	10	47	15
22	Mohri	1	1	920	357	292	109.5	38	2	2	20	6	47	5
23	Anji Bhorkhed	1	1	284	595.77	429.7	191.38	45	6	6	111.14	19	117	41
IV	Pilot Projects 2009-10													
	Medium													
	Minor													
24	Hotgi	2	2	792	1199	1163.93	977.01	84	2	6	126.3	11	86	11
25	Padvalkarwadi	2	2	597	475	590	293.41	50	2	3	71.8	15	95	16
26	Pathri	2	2	772	1114.42	2266.4	1560.85	69	2	3	230	21	192	25
27	Pilanwadi	1	1	1348	415	1463.83	241.98	17	4	4	130	31	156	12
28	Sendhri	1	1	1461	314	650	422.31	65	3	4	87	28	265	18
29	Dighanchi	1	1	722	742	1315	414	31	2	2	30	4	80	11
30	Kuchi	1	1	650	392	925.5	699	76	3	3	50	13	160	25
31	Hatgaon	1	1	153	442	505	134.64	27	1	1	85	19	60	39
32	Tikhhol	1	1	860	405	668	657.6	98	3	3	131	32	243	28
33	Ekalhare	1	1	133	351	454	238.54	53	3	3	52	15	115	86
	TOTAL	568	90	54059	47365.83	53695.67	42119.24	78			8315.27	18	13947	26