

National Drinking Water Security Pilot Project

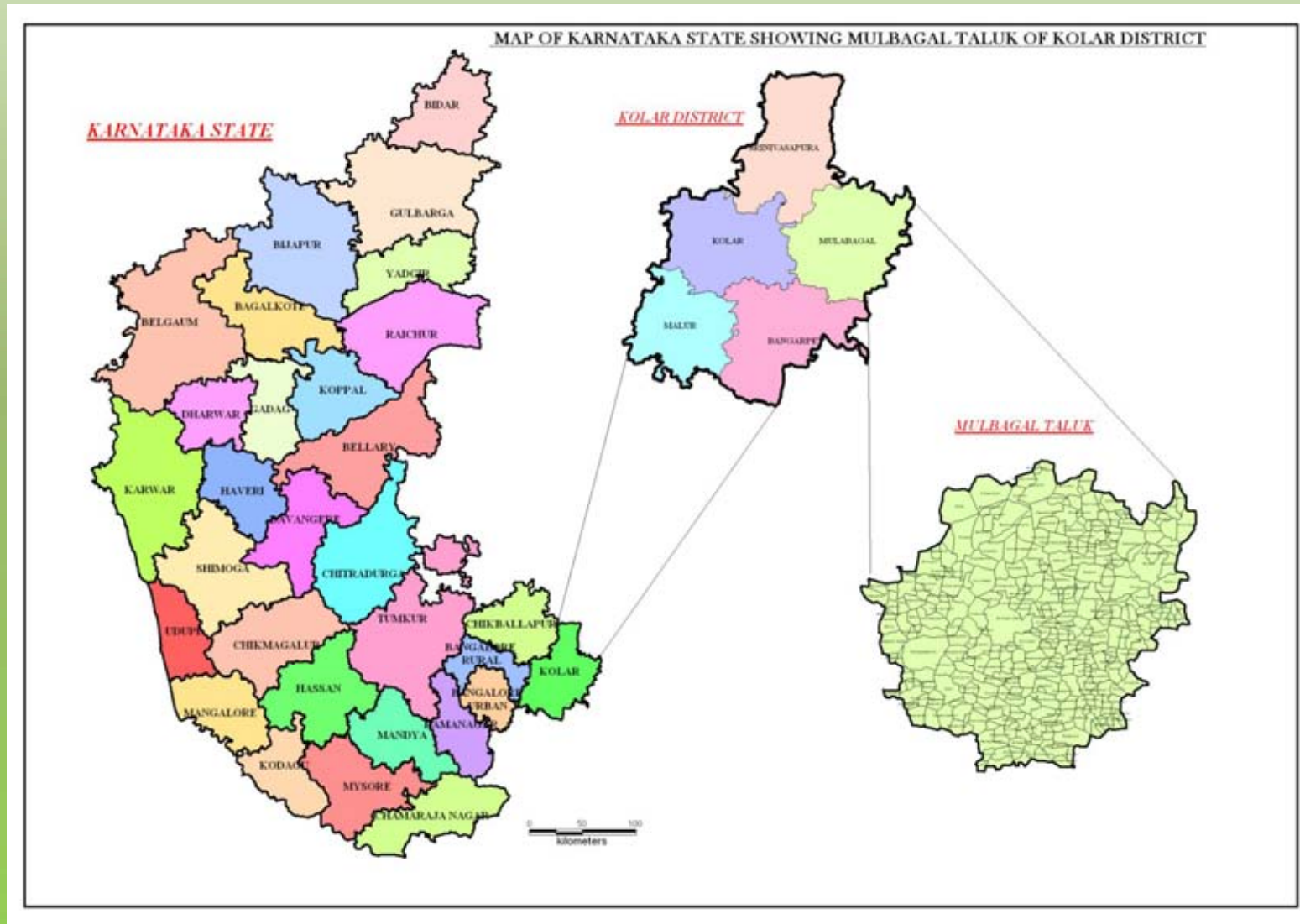
A case study – Mulbagal, Kolar district, Karnataka

New Delhi, 25th February 2014

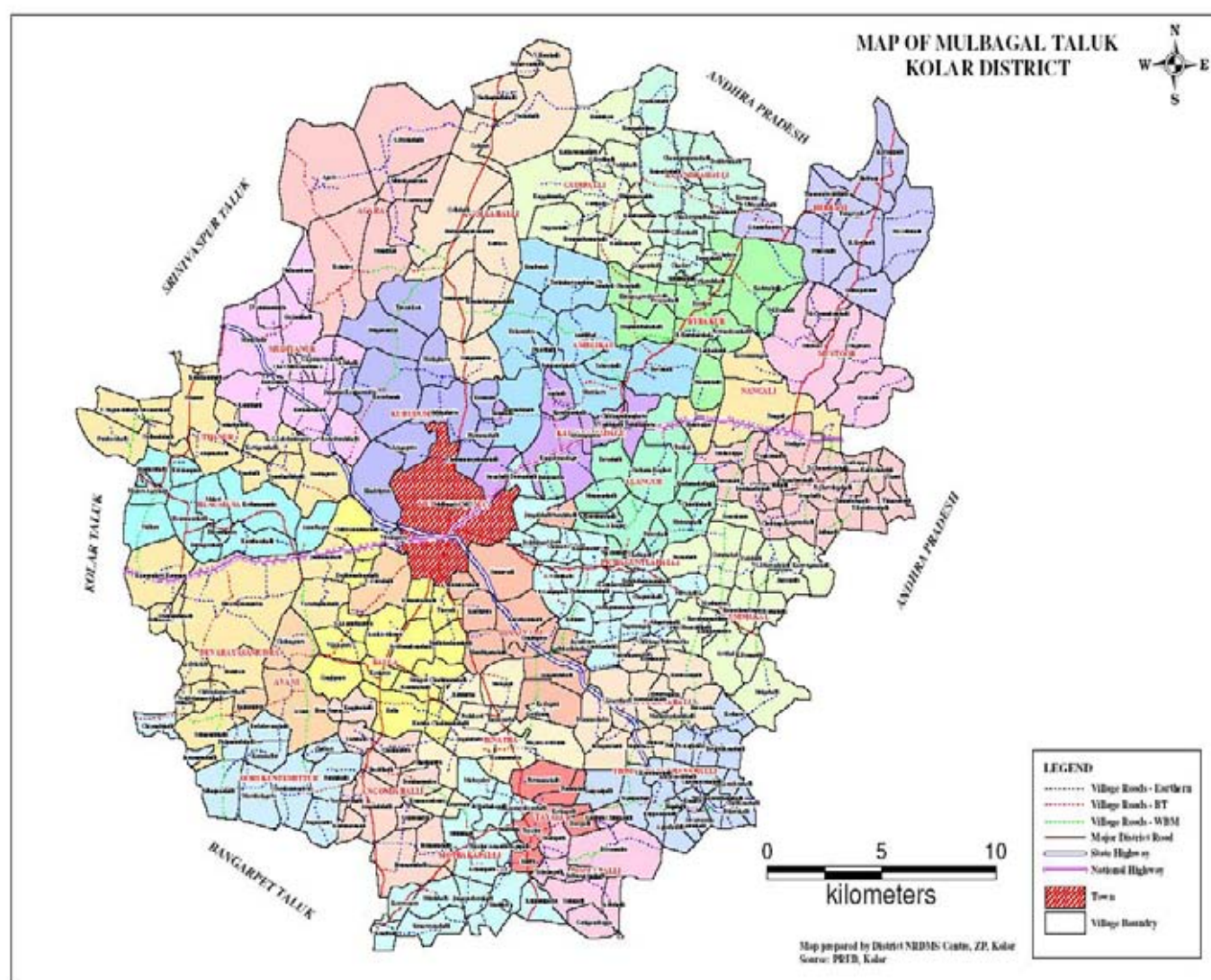
By

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Pilot Project Location



Salient Features of Mulbagal Taluk



GPs	30
Villages	298
Habitations	389
Area in ha	82,246
Households	42,413
Population	201,740
Major-watersheds	4
Sub-watersheds	18
Micro-watersheds	184

Groundwater Scenario

Mulbagal block, Kolar district

Total annual ground water recharge: 4794 ham

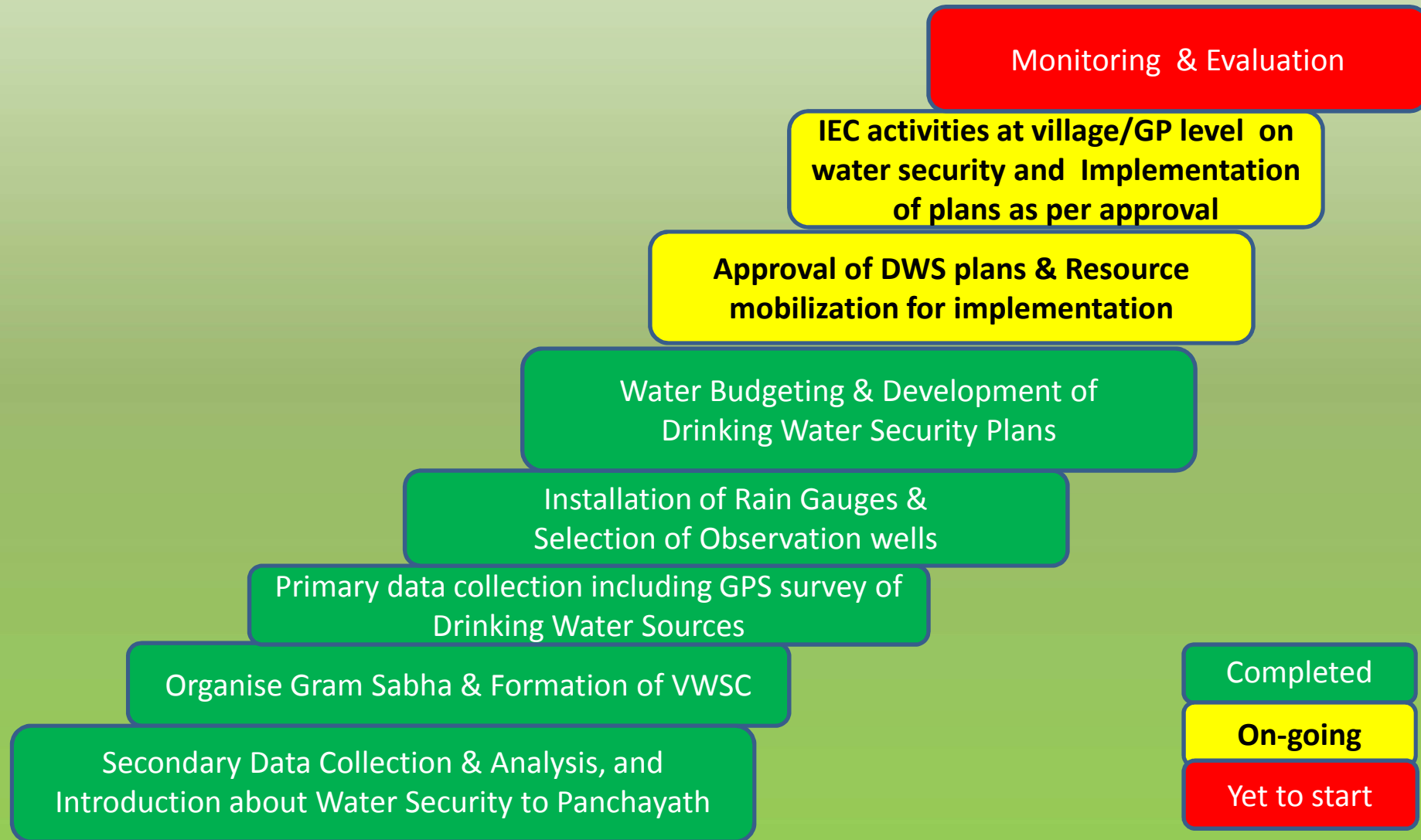
Net annual ground water availability: 4420 ham

Existing ground water draft: 8895 ham (201%)

Ground water status: over exploited

Depth of borewells (range): 220 to 310 meters

Process followed



Achievements so far in Mulbagal

1. Training of staff of SO and Line Department on Drinking Water Security
2. Sensitization/orientation workshop at district level with line department heads
3. Orientation workshop at block level with line department heads
4. Orientation workshop at block level with GP Presidents & PDOs
5. Exposure visit to APFAMGS on crop water budgeting & on improved water supply to Hebballi village
6. Training of Swachatha Doots and field level staff on Community Led Total Sanitation (CLTS)

Training, Workshops & Exposure visits



Formation & Strengthening of VWSCs

1. VWSCs were formed as per the State Government guidelines in all 30 GPs
2. Necessary resolutions were passed in all the GPs
3. Strengthening VWSCs on:
 - Composition, Roles & responsibilities of VWSC members
 - Operation & Maintenance
 - Maintenance of Books of Accounts
 - Annual Action Plan preparation
 - Tariff fixation and collection
 - Promotion of Hygiene & Sanitation

Village Water & Sanitation Committees



Baseline Data

1. Secondary data from line departments (Agriculture, Horticulture, Sericulture, Watershed, PRED, Animal Husbandry, Education, Health, KSRSAC, KSNMDC, CGWB, DMG) was collected
2. Primary data from field thru PRAs and key informants on drinking water sources, irrigation sources, crops, sanitation was collected
3. Census data, GWP maps, rainfall, groundwater details, land use – land cover maps, watershed and drainage maps, and topo sheets were also used
4. Data compilation, analysis & baseline data report preparation

Baseline Data



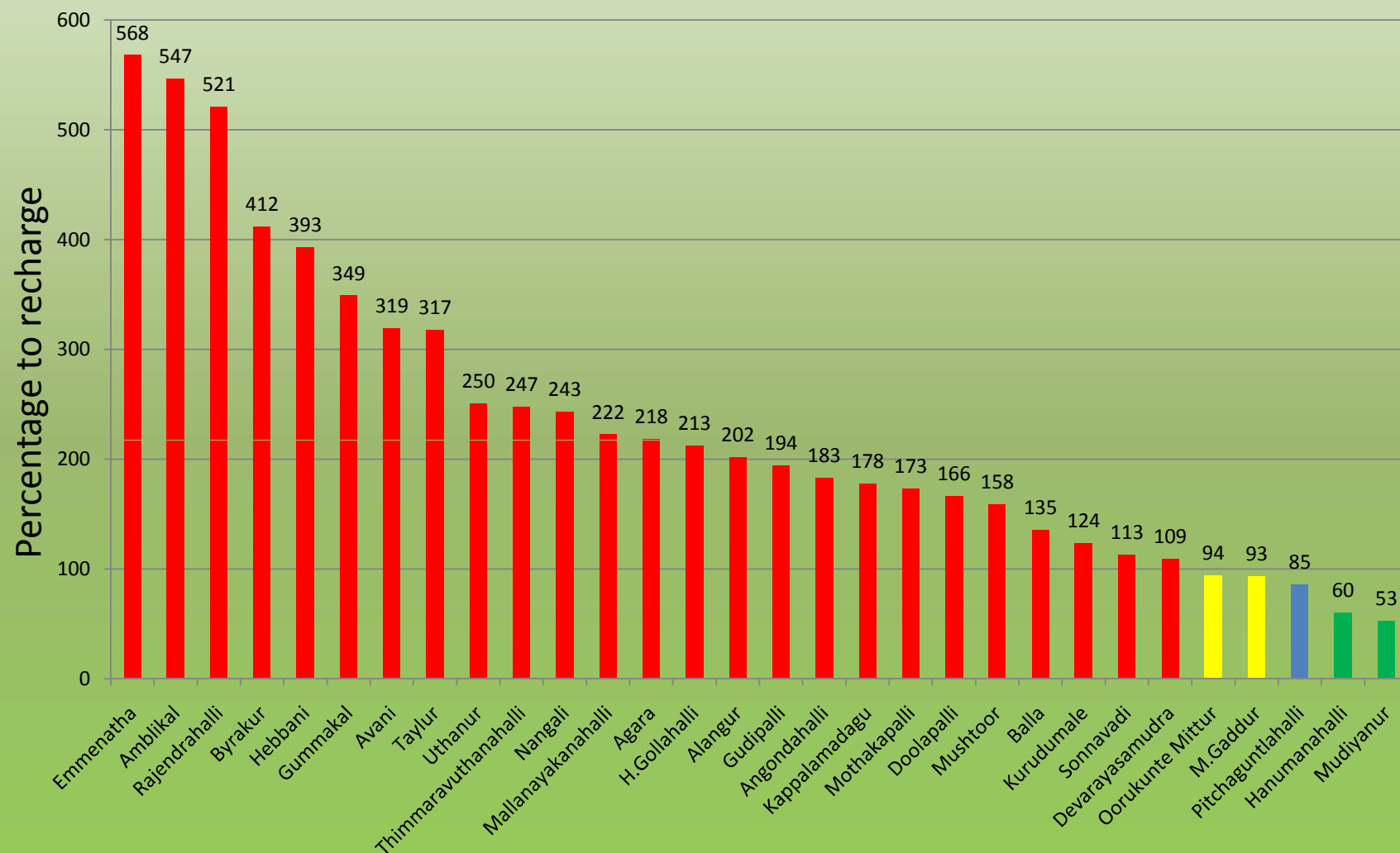
Water Budget Estimations

- 1. First Water Budget Estimation (WBE) workshop was held at Chiyandahalli in O.Mittur GP during October 2012 – facilitated by WSP representatives and endorsed by CGWB**
- 2. Initially village level WBE workshops were held during October 2012 to March 2013 (18 no.s)**
- 3. GP level WBE workshops were completed in all 30 GPs**
- 4. Drinking Water Security plans are being developed for approval by Gram Panchayats (One plan of Hebbani sent to MDWS for their approval)**

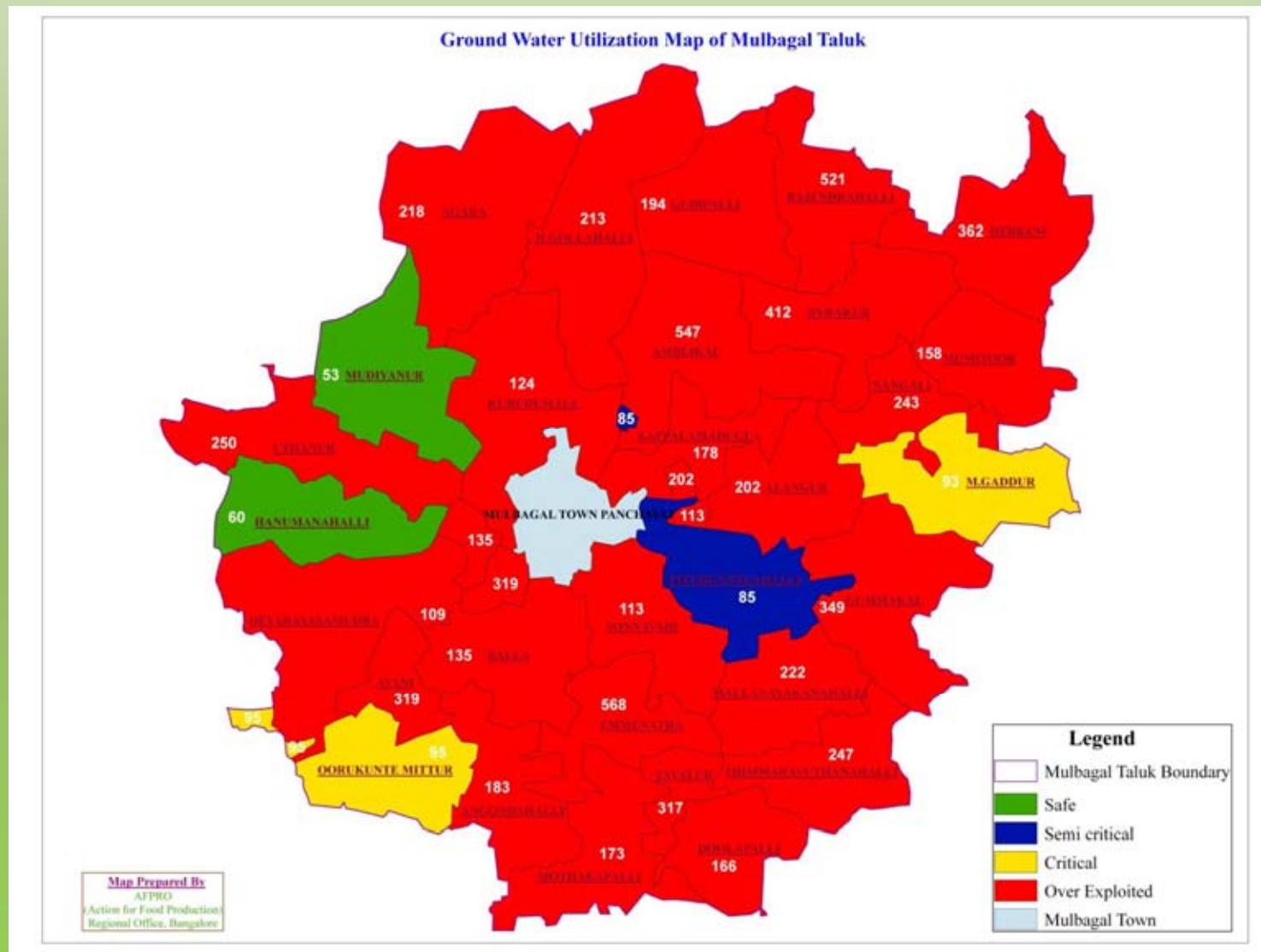
Water Budget Estimations



Groundwater draft in Mulbagal Taluk



Groundwater Draft – 2012-13



Rain Gauges & Observation wells

- 1. Established 30 rain gauges @ one per Gram Panchayat**
- 2. Identified 186 Observation borewells in all 30 GPs, on an average 6 per GP**
- 3. Trained GP staff, watermen and VWSC Members on measurement of rainfall, water levels & borewell discharge, and record keeping in 5 pilot GPs**

Rain Gauges

Dulappali



Rajendrahalli



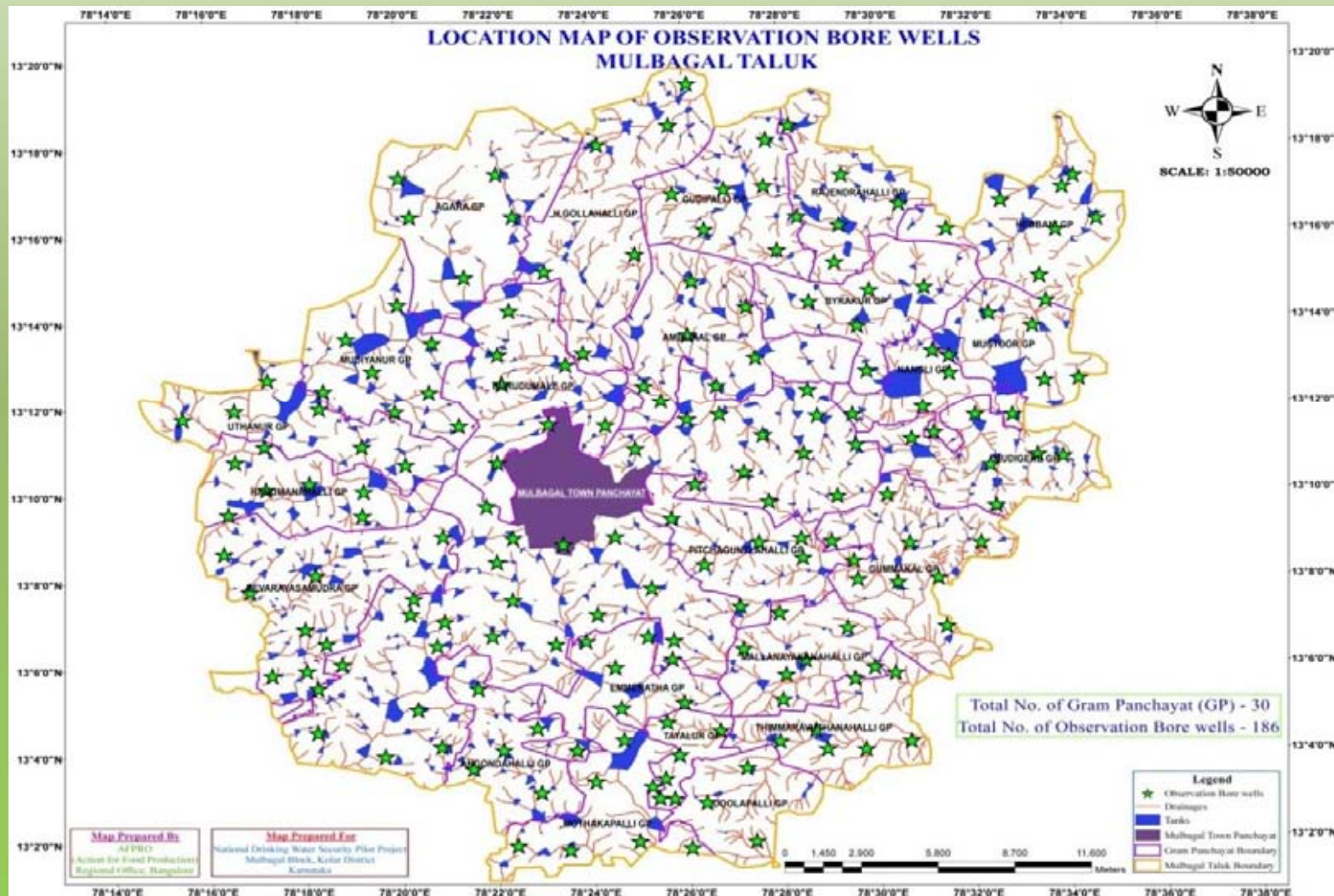
Alangur



Mudigere-Gadduru



Identified observation wells



Observation borewell & metered tap connection



Sanitation status

Total Rural households in the block	42,413
Households with toilets as on 31.3.2013	9,081
Households without toilets (Target)	33,332
Date(s) of CLTS organised	June 18-22, 2012
Number of Swachatha Doots Trained	34
Toilets completed from July 2013 to February 15, 2014	8,147
Toilets under construction	1,722
Number of villages where 100% toilets constructed	7

Sanitation



Water Quality

Particulars		Quantity
Number of samples analysed (Pre-monsoon during 2013)		421
Number of habitations with contaminations		81
Population affected due to contamination		45,458
Parameter	Affected	
	Habitations	Population
Fluoride	24	17,537
Iron	1	851
Salinity	5	1,659
Nitrate	51	25,441

Convergence with line departments

Type of work	Department/ Programme	Already developed	In progress
Minor irrigation tanks rejuvenation	NREGA	21	134
Kalyanis rejuvenation	NREGA	17	41
Check dams construction	NRDWP & Watershed	17	32
Recharge pits (new ones)	NRDWP		48
Farm ponds	Watershed	43	55
Drip irrigation for agriculture (no. of farmers)	Agriculture	86	82
Drip irrigation for agriculture (area in ha)		68	70
Drip irrigation for horticulture (no. of farmers)	Horticulture	868	294
Drip irrigation for horticulture (area in ha)		946	316
Drip irrigation for sericulture (no. of farmers)	Sericulture	612	100
Drip irrigation for sericulture (area in ha)		1057	150
Construction of toilets	NBA	8147	25185

Progress under NRDWP – T. Agara village



Percolation tank – Naganahalli



Progress under NRDWP - Naganahalli



Progress under NRDWP - Naganahalli



Rejuvenation of Tanks under NREGA – T. Agara



Rejuvenation of Tanks – T. Agara



Rejuvenation of Kalyanis - Byrakur

Before



During



After



Rejuvenation of Kalyanis - Dulappalli

Before



During



After



Rejuvenation of Kalyanis - Mudiyanur

Before



During



After



Drip Irrigation





THANK
YOU!