

Participatory Groundwater Management and Climate Change



One Day Seminar On Groundwater Management in India – Issues and Challenges

**Organized by
National Law University, Delhi**

On 21st June 2014

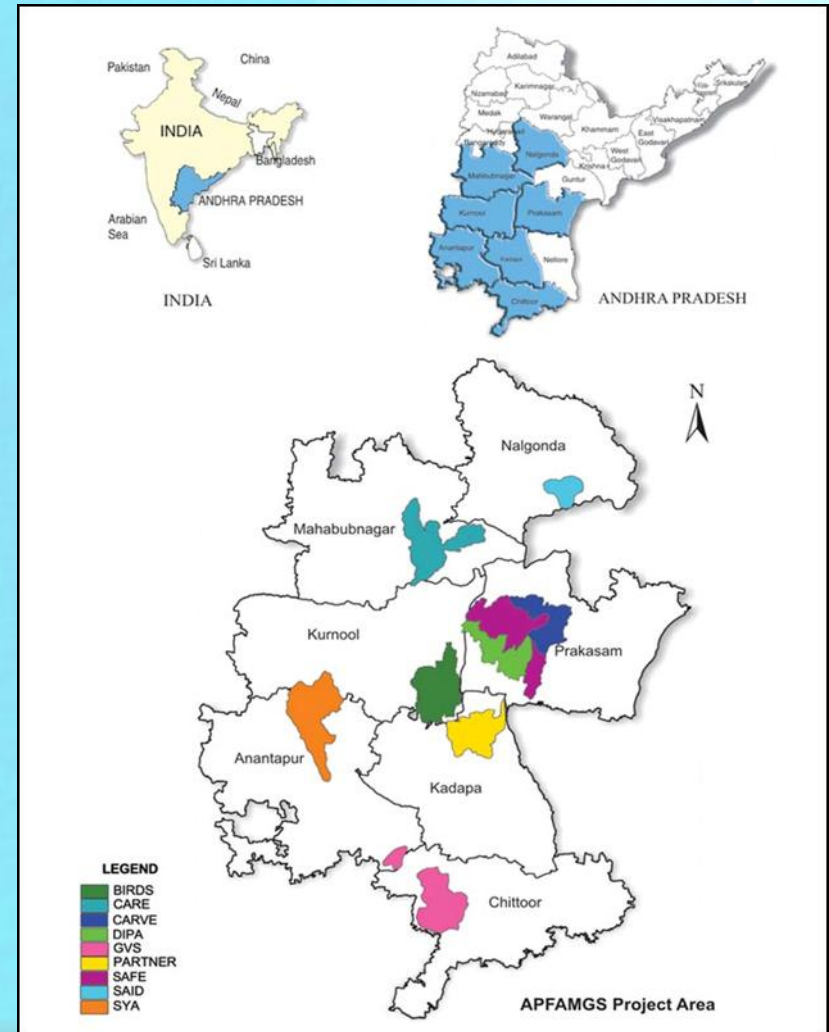
Presenter- V.Paul Raja Rao, BIRDS

paulrajv@yahoo.com

APFAMGS - Background



- Food and Agriculture Organization (FAO) is implementing the Andhra Pradesh Farmer Managed Groundwater systems (APFAMGS) Project as a Nationally Executed (NEX) project over 5 years (2004-09).
- The Implementation is through a federation of 63 registered farmer Institutions guided by 9 NGO's.
- Operational area of the project is spread over 40 mandals forming part of 303 Panchayats in 7 districts.
- The operational unit is Hydrological Unit (63 HU's) spread over 638 habitations.



Project Premise

APFAMGS project's approach is to empower people's institution to identify solutions to manage groundwater distress

Demystify science, offer skills, capacity and knowledge (no infrastructure support/ incentives)

Strengthen people's institutions to build pro-active partnerships between upstream and downstream water users

Group action ensure farmers work unitedly towards managing available groundwater resource optimally

Fully informed Farmers take tough decisions voluntarily (sacrifice for collective gain)

Women's participation in decision making ensures improved groundwater governance



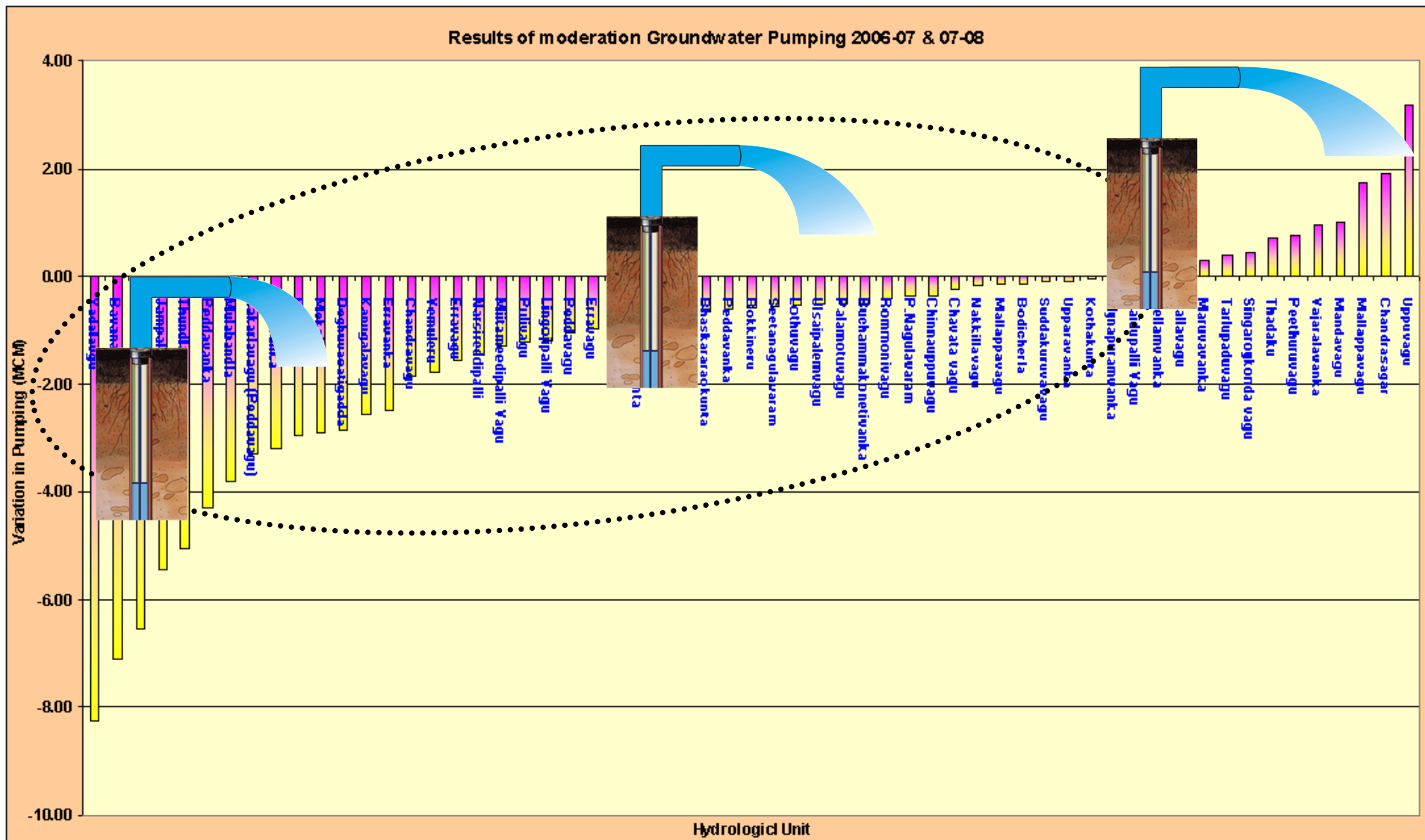
Achievements – Hydrological Network



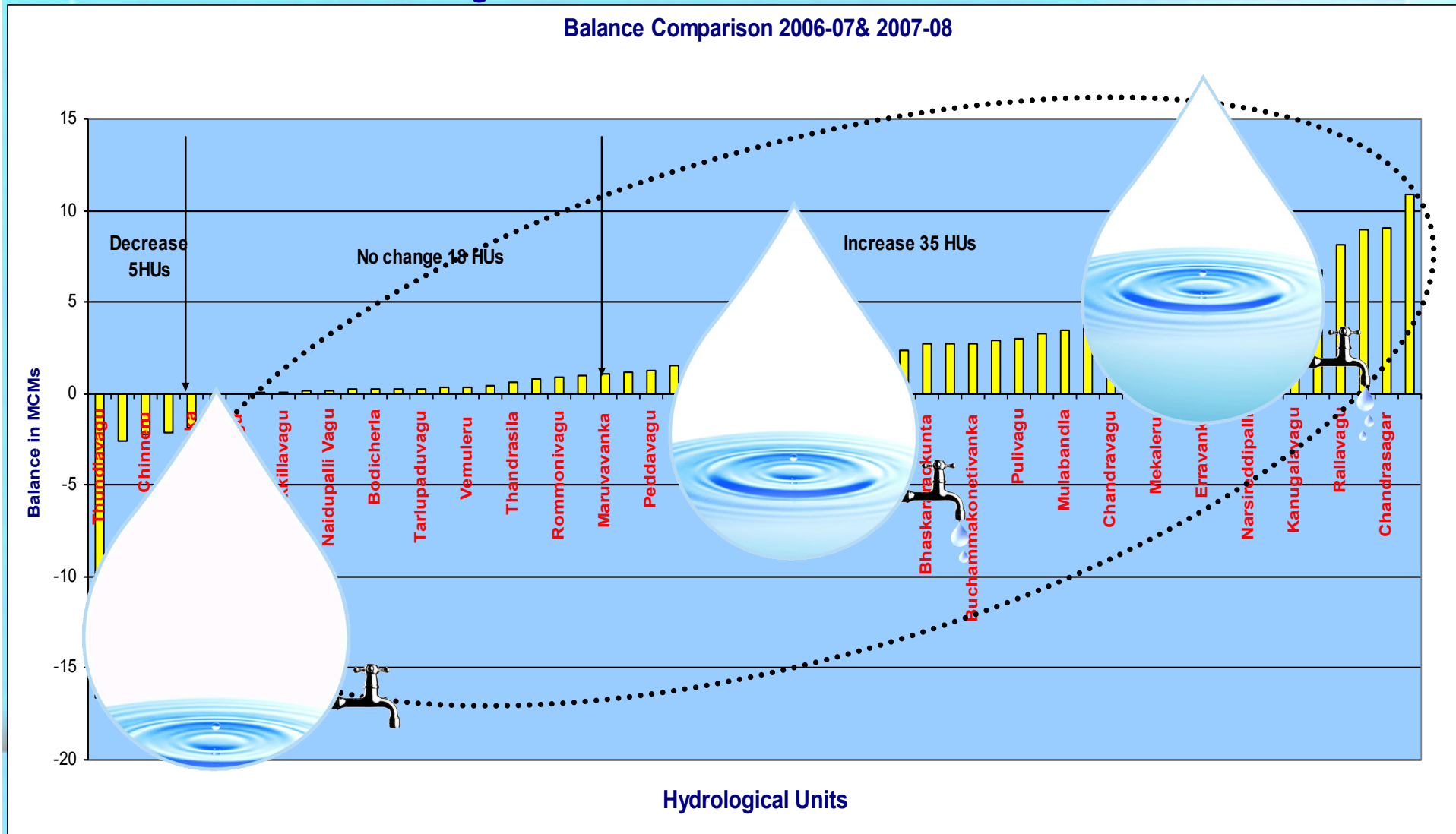
4333 farmer volunteers (men and women) collect data regularly from

- 190 rain gauge stations (every 5 sq kms)
- Groundwater levels from 2109 monitoring wells (every sq km)
- well discharge measurement from 969 monitoring wells
- Surface flow from 63 flow gauging stations
- Groundwater quality from 300 drinking water source (seasonal)
- Data organized as Computerized data base
- Data sharing with Government and institutions

Groundwater pumping for agricultural use significantly controlled over the four years



Groundwater Balance favorably altered in 53 Hydrological Units led by Demand Side Groundwater Management

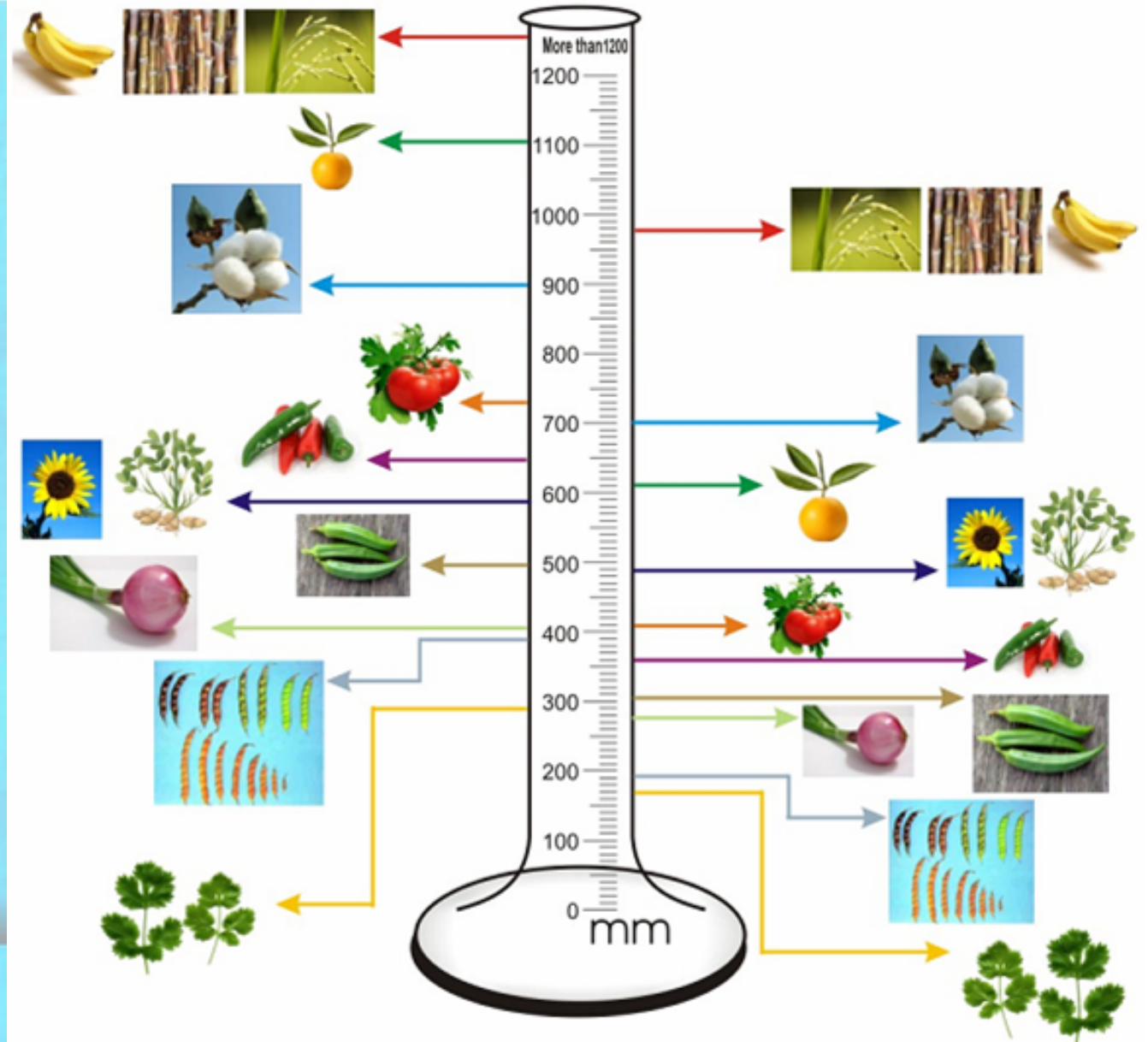


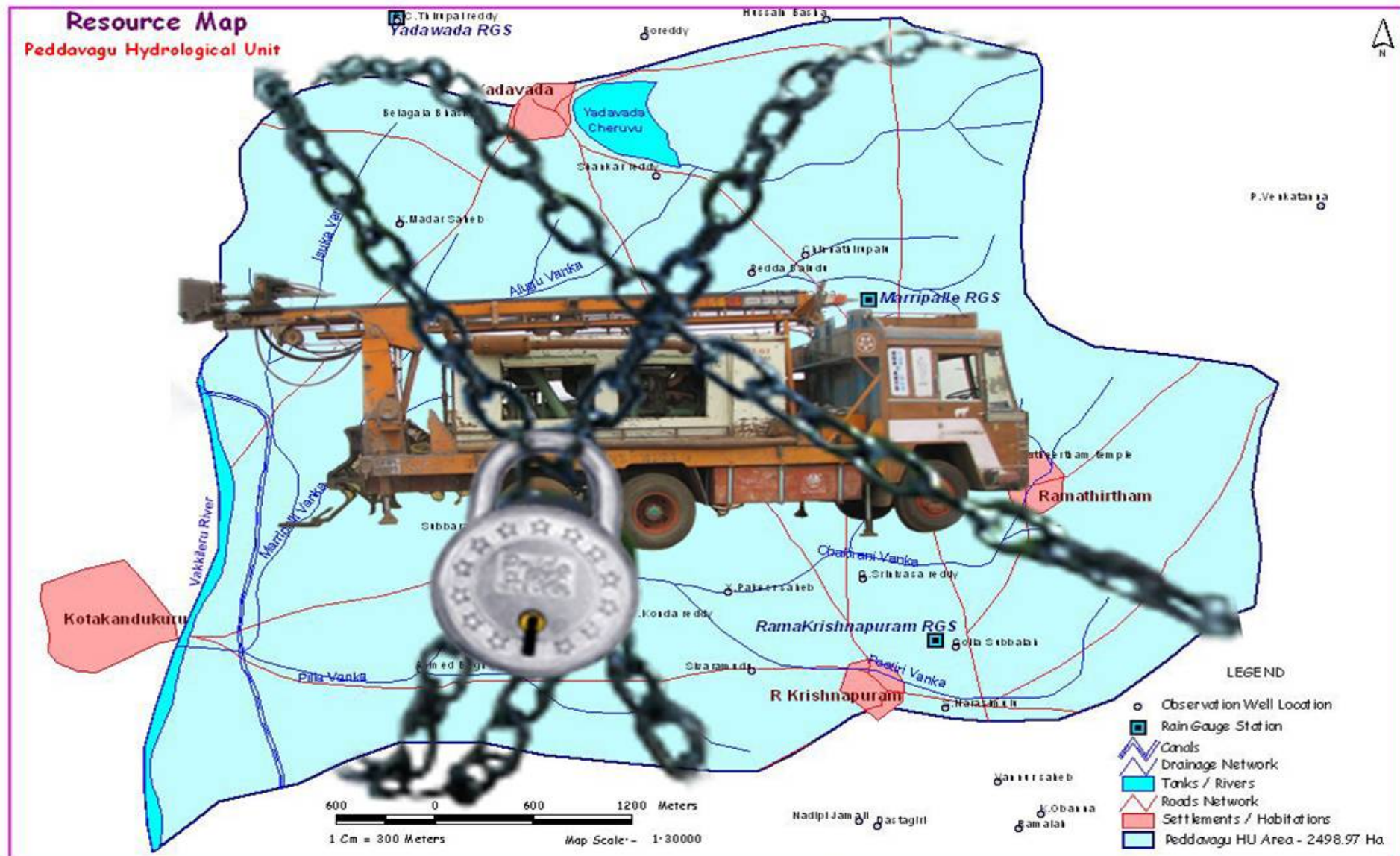
Quantification of Water Savings



Water savings
through devices
and efficient
irrigation
32 MCM

Efficient paddy /
reduction in
paddy area
53 MCM





IT enabling Demand Side Groundwater Management by Community



Rural Information Kiosk
Taking IT to farmers for improved understanding of crop water efficiency in areas subjected to groundwater distress - an FAO-India initiative

- Kiosk translates farmer collected data as graphics, animation and audio for getting a perspective on the cropping system at farm, drainage basin.
- GIS provides a visual perspective to cropping systems, groundwater availability.
- Responds to farmer queries on impact of crop changes on groundwater availability.
- Rugged and mobile.

Project Web Site <http://www.apfamgs.org>



Demystifying Science for Sustainable Development Andhra Pradesh Farmer Managed Groundwater Systems Project



Gender mainstreaming

Current News

[FAU Evaluation Mission Visit](#)

[5th Project Steering Committee Meeting](#)

[DA's Review Workshop](#)

Nationally Executed Partnership project between BIRDS and FAO of the UN

[Home](#)

[About APFAMGS](#)

[Achievements](#)

[Documents](#)

[Events](#)

[Photo Gallery](#)

[Archives](#)

[Information Center](#)

[Contact](#)

Andhra Pradesh Farmer Managed Groundwater Systems (APFAMGS) Project's

key premise is behavioral change leading to voluntary self regulation. In seven drought prone districts of Andhra Pradesh, India, thousands of farmers residing in 638 habitations spread over several hundred kilometers have voluntarily taken number of steps to reduce groundwater pumping, for tiding over problem of groundwater depletion.

Launched in July 2003, the APFAMGS project is a partnership with farmers for implementing Demand Side Groundwater Management concept. This project demonstrates an alternative model to the Supply Side approach which calls for spending billions for creating new structures. [more.....](#)

Final FAO Evaluation Report



PROJECT PARTNERS

[BIRDS](#) | [CARE](#) |
[CARVE](#) | [DIPA](#) | [GVS](#) |
[PARTNER](#) | [SAFE](#) |
[SAID](#) | [SYA](#) | [PRIYUM](#) |
[World Ed](#)

Season's Greetings

Christmas
and
New Year
Best Wishes



Habitation
Resource
Information
System + CWB

Is a store house of Habitation level database

[HRIS+](#)