Participatory Groundwater Management and Climate Change

One Day Seminar

On

Groundwater Management in India – Issues and Challenges

Organized by

National Law University, Delhi

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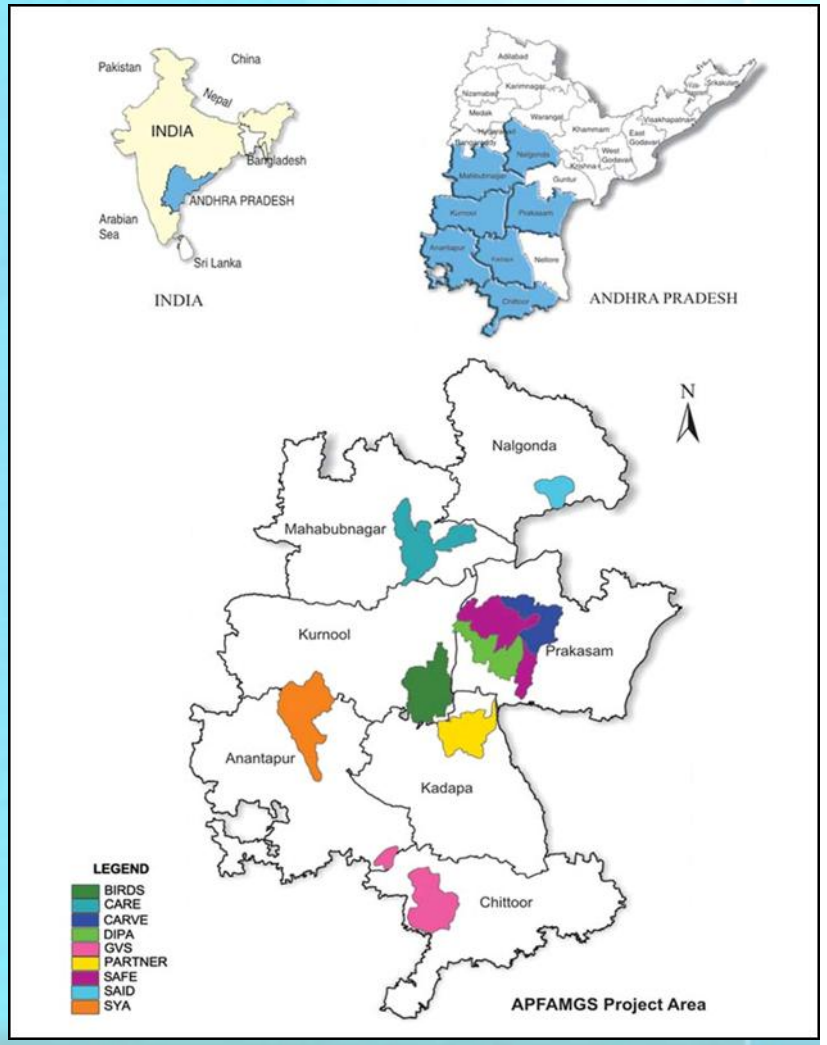
APFAMGS - Background

- 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 mange groundwater distress

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

Strengthen people's institutions to build pro-active partnerships between up-stream 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

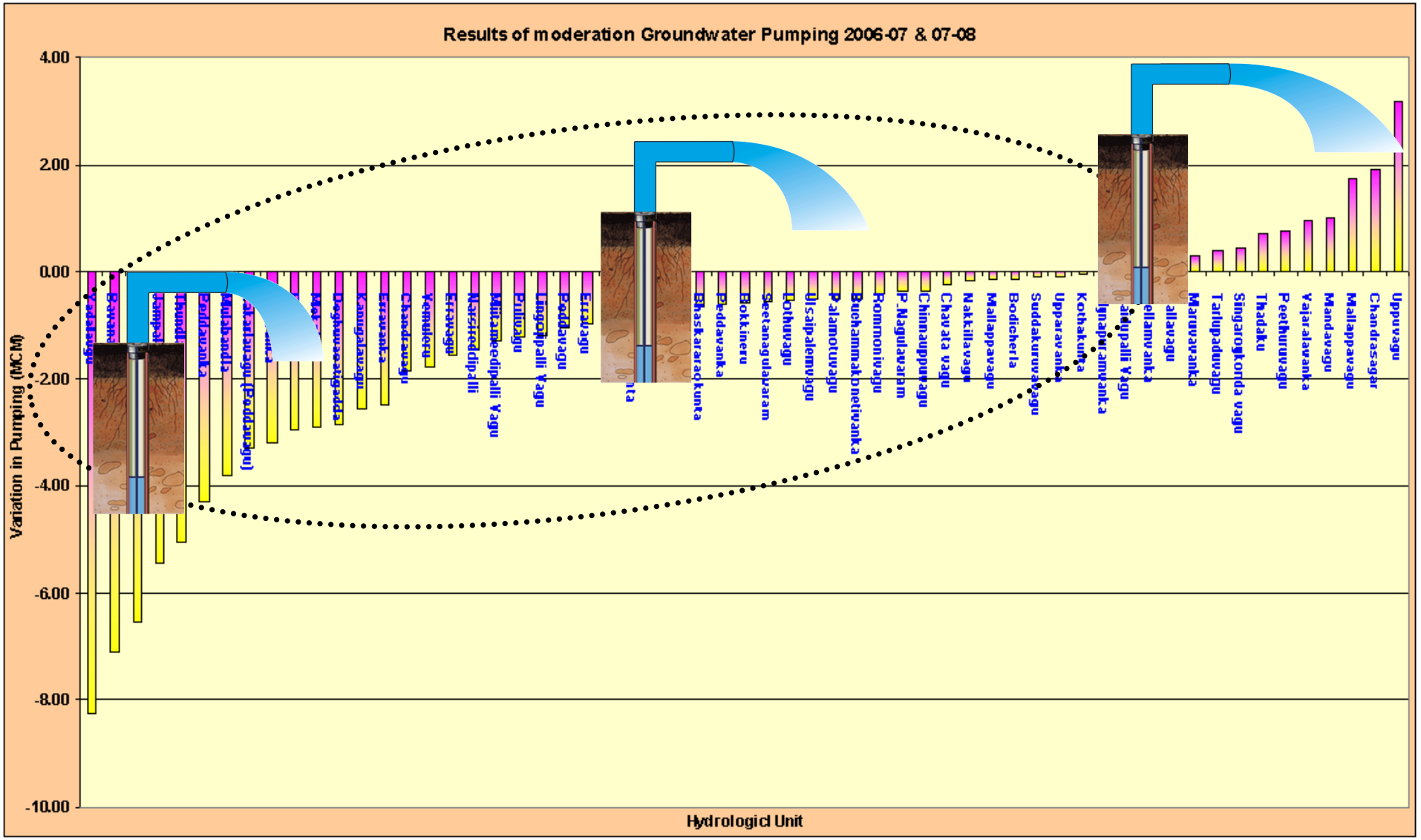
Achievements – Hydrological Network

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

- 190 rain gauge stations (every 5 sq kms)
- Groundwater levels form 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

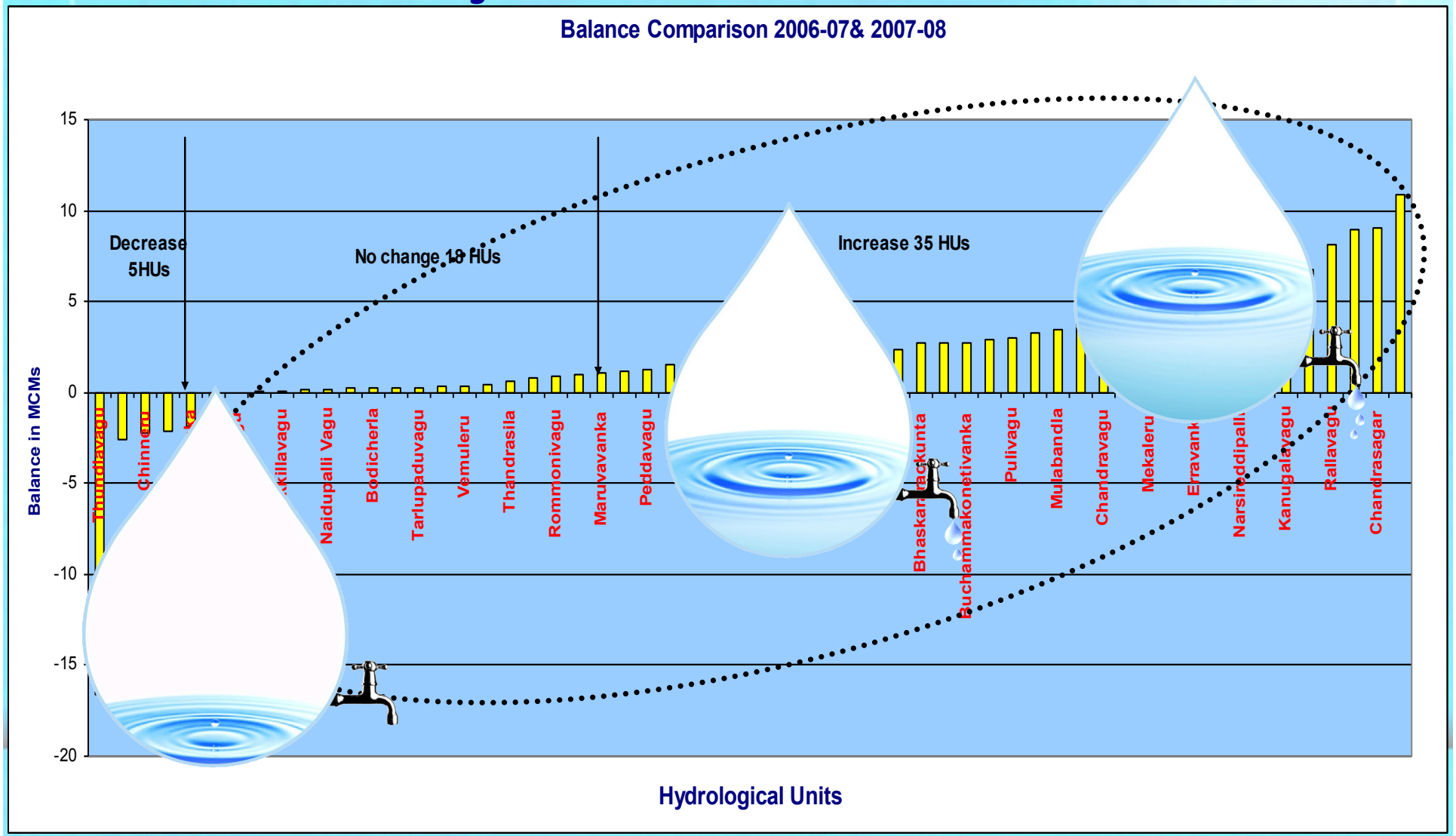
Results- Restraint in groundwater pumping

Groundwater pumping for agricultural use significantly controlled over the four years



Improved Groundwater Balance

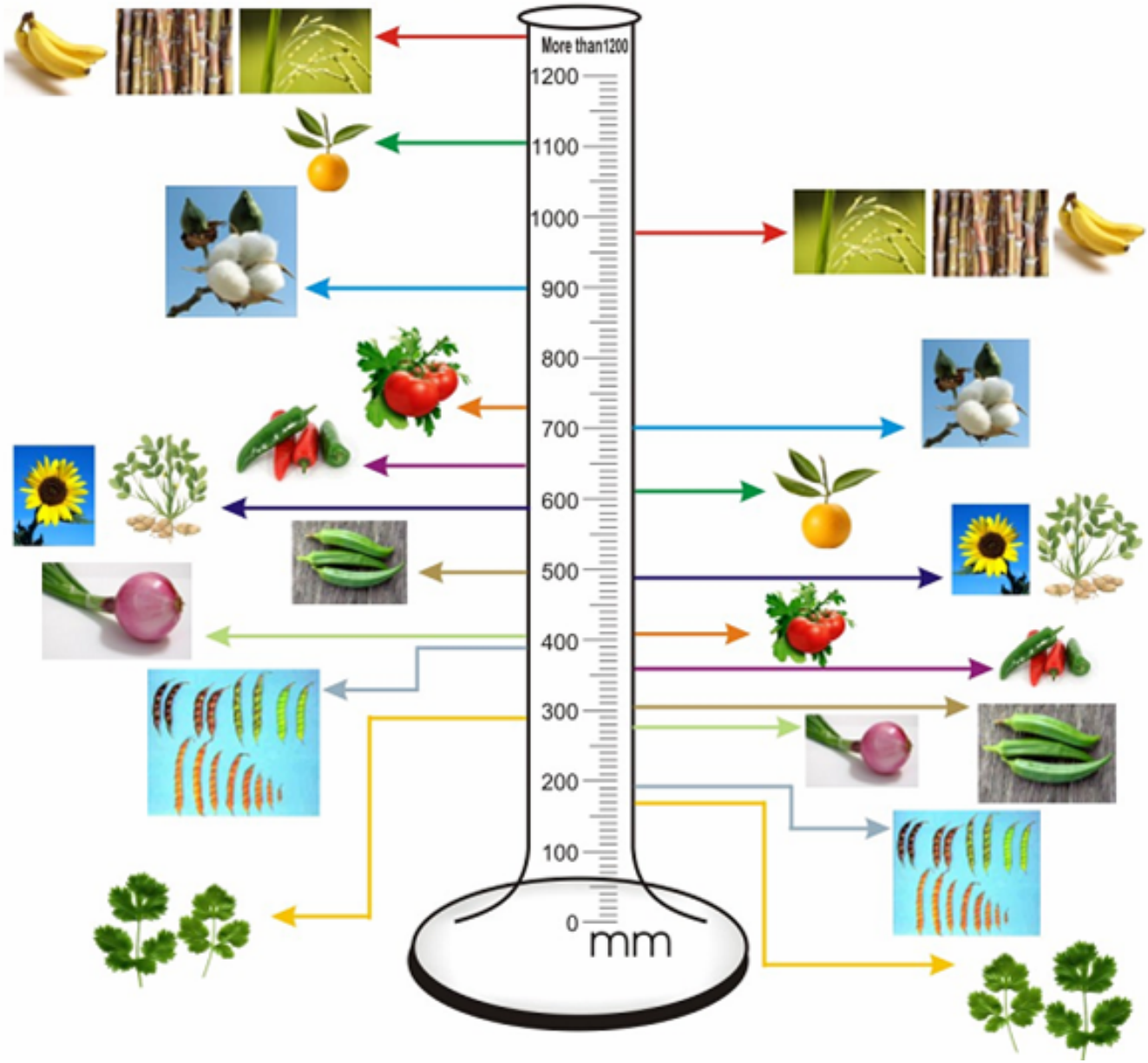
Groundwater Balance favorably altered in 53 Hydrological Units led by Demand Side Groundwater Management



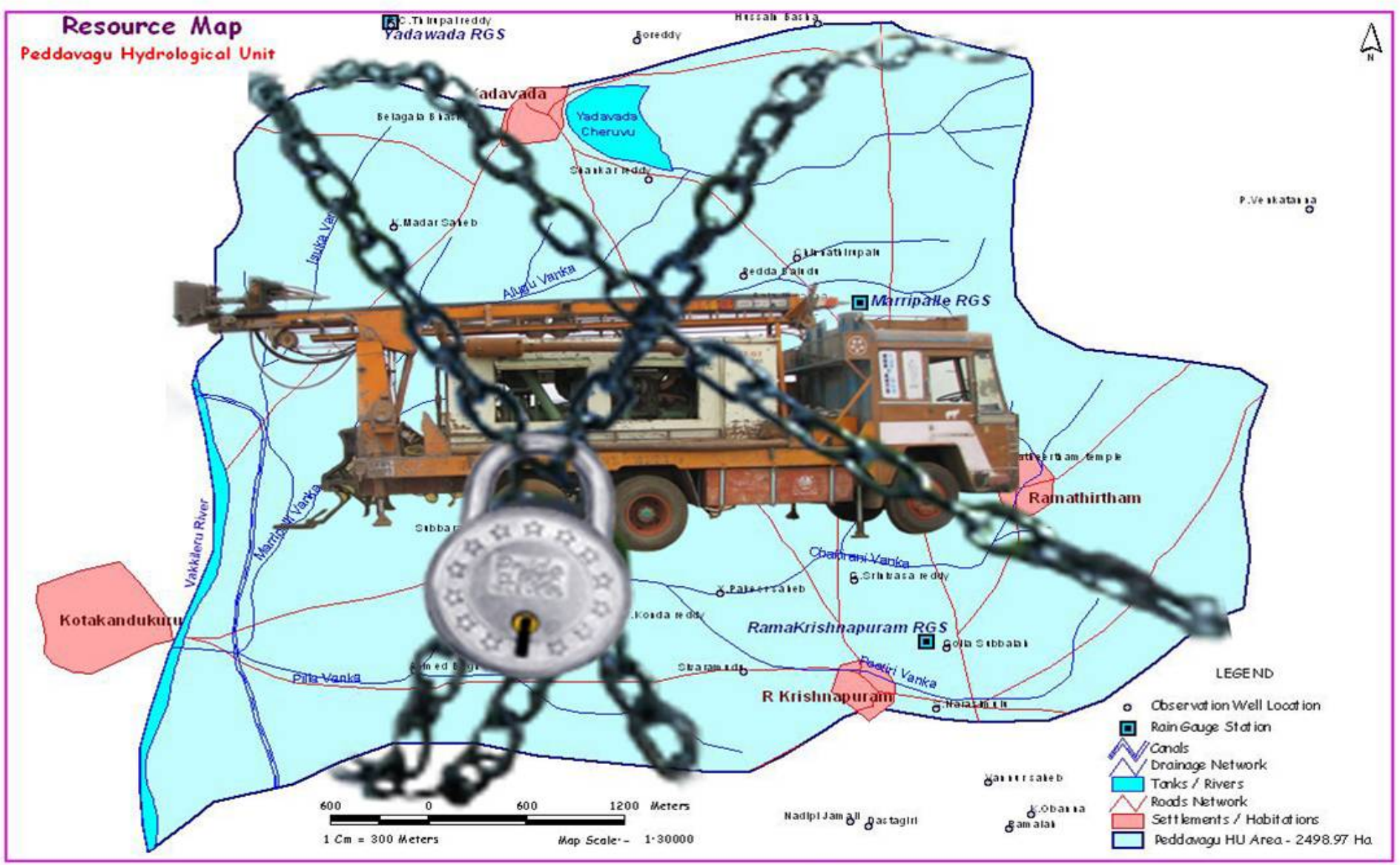
Quantification of Water Savings

Water savings through devices and efficient irrigation
32 MCM

Efficient paddy / reduction in paddy area
53 MCM



Check Growth of new wells



IT enabling Demand Side Groundwater Management by Community

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