

Land, Water & Degradation

Investing in Rainfed Areas for
Secured Livelihoods & Regenerative Ecosystems
How to Sustain Farmers' Interest in Drylands

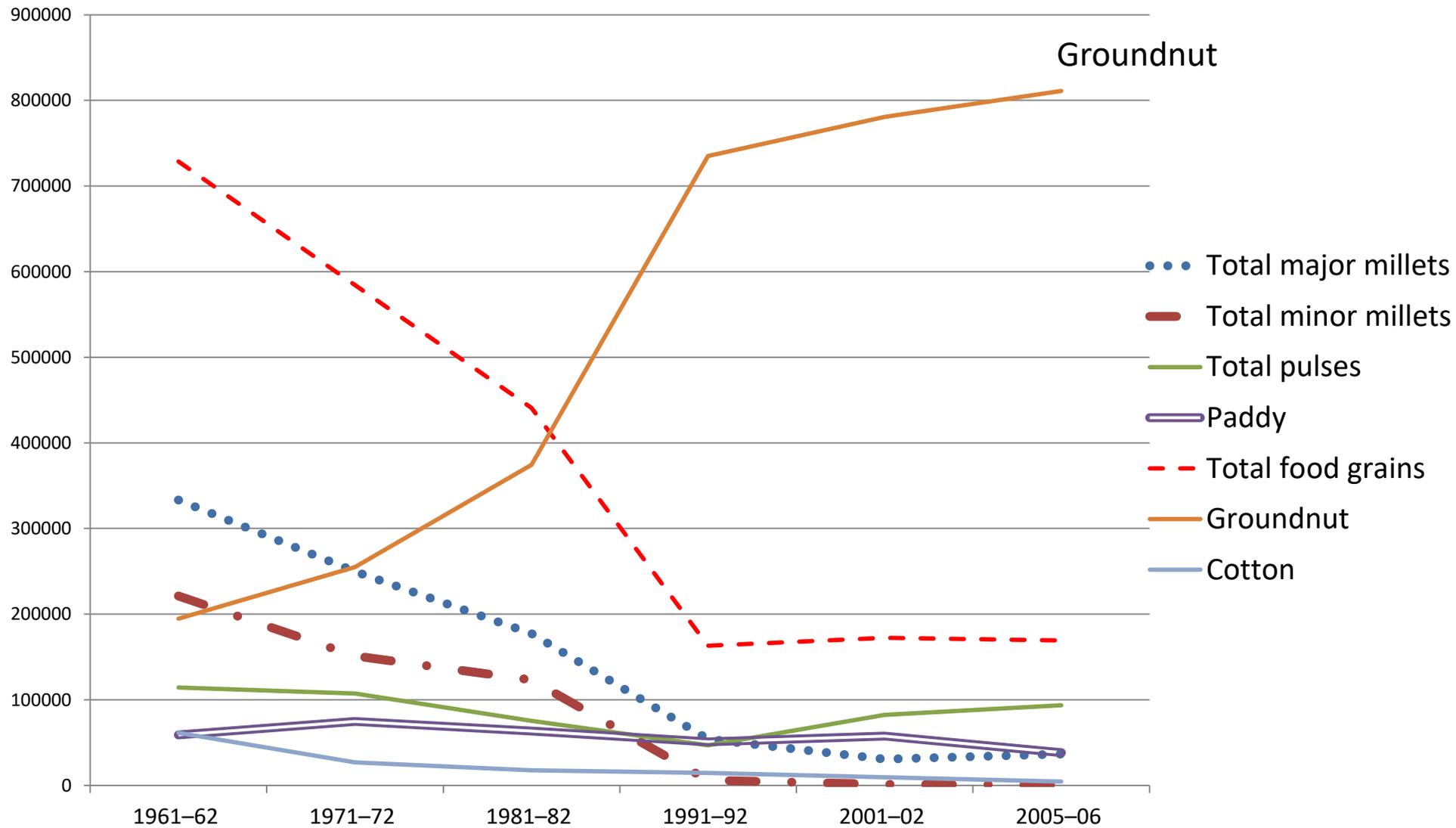


Ravindra, A
ravindra@wassan.org





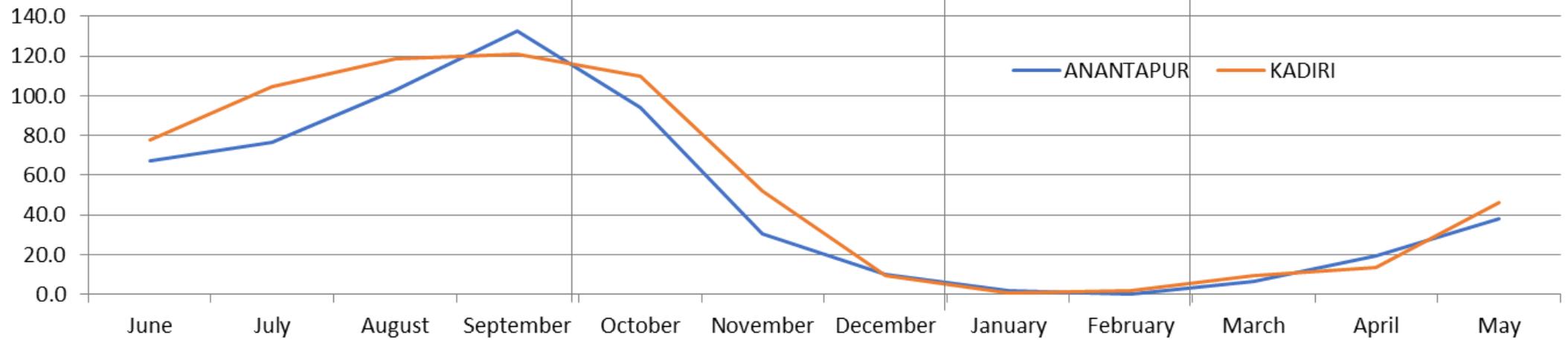
Anantapur: Trends in Crop Patterns







Daily Rainfall (mm)







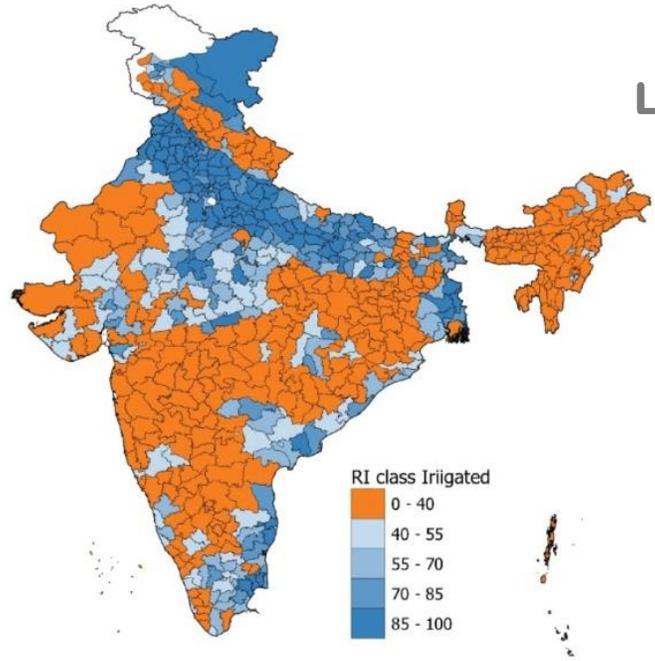
Case of Shifting Cultivation
in the Eastern India..



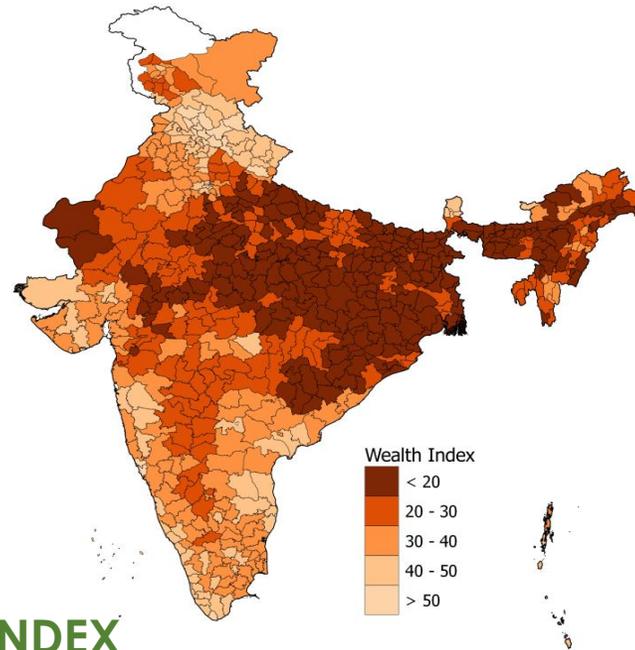
RAINFED AREA

LARGE PARTS OF INDIA AREA RAINFED

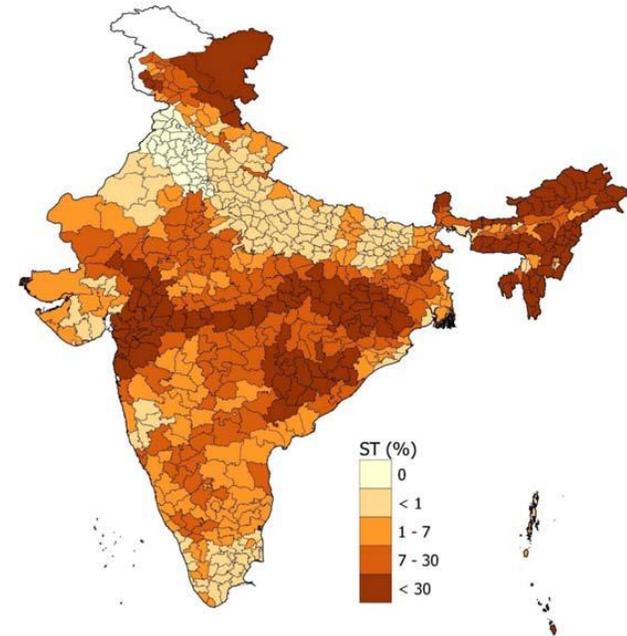
Largest Rainfed Areas in World
71.7 Million Hectares



RAINFED INDEX



POVERTY INDEX

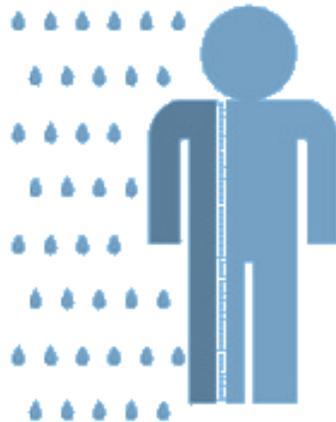


TRIBAL DENSITY

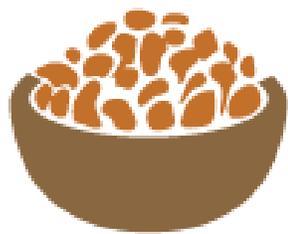
Major Poverty Landscape of India overlaps with Rainfed Area with high Density of Tribal population

RAINFED AREAS ARE PRODUCTIVE!

61%
OF INDIA'S FARMERS RELY
ON RAINFED
AGRICULTURE



52%
OF GROSS CROPPED
AREA (RAINFED)



40%
RICE



89%
MILLETS



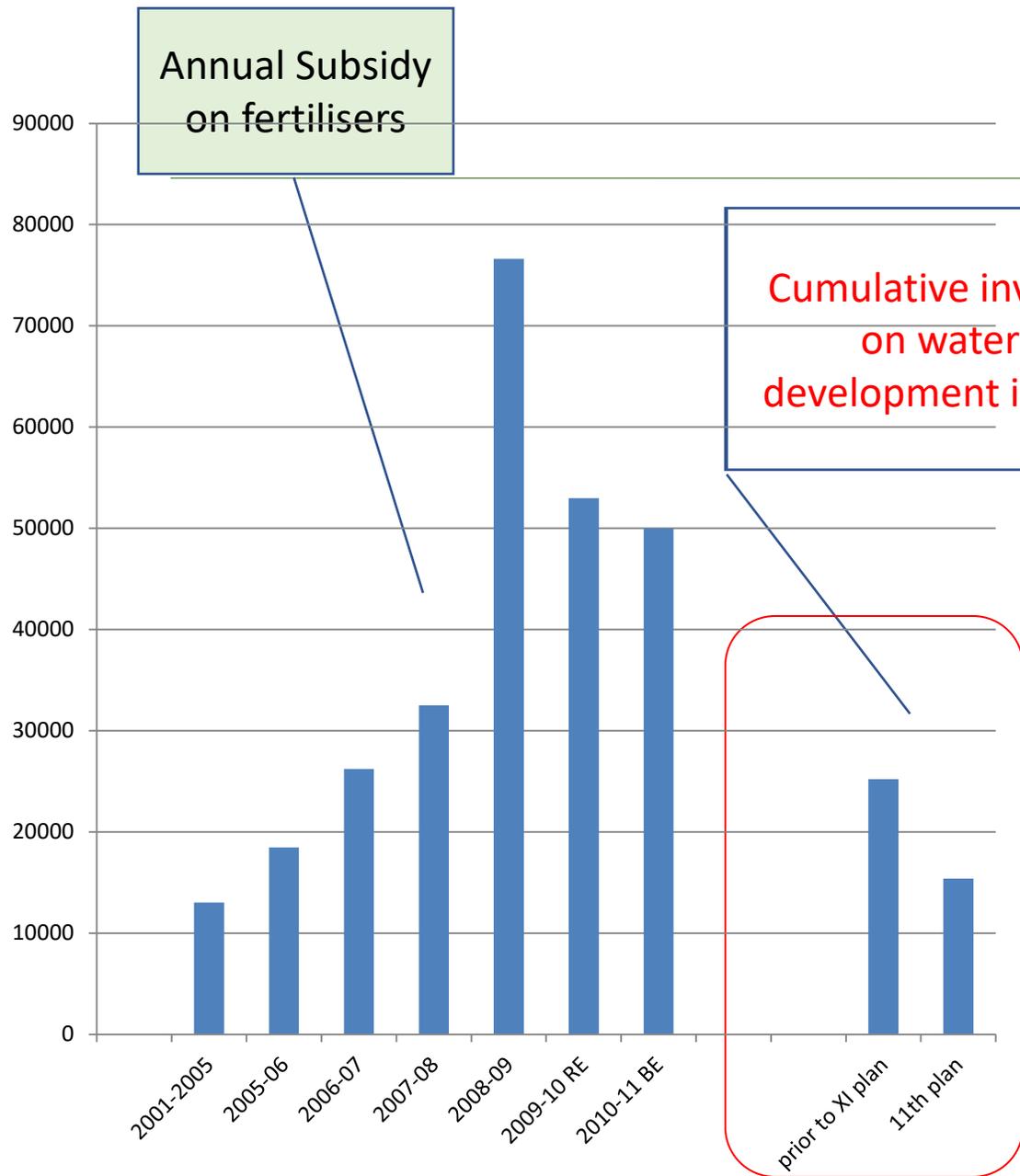
73%
COTTON



69%
OILSEEDS



88%
PULSES



PUBLIC INVESTMENT IN RAINFED AGRICULTURE

PUBLIC INVESTMENT TOWARDS RAINFED AGRICULTURE

Graph shows different public investments from 2010 – 11 to 2013-14 at a NATIONAL level ('000 crores)

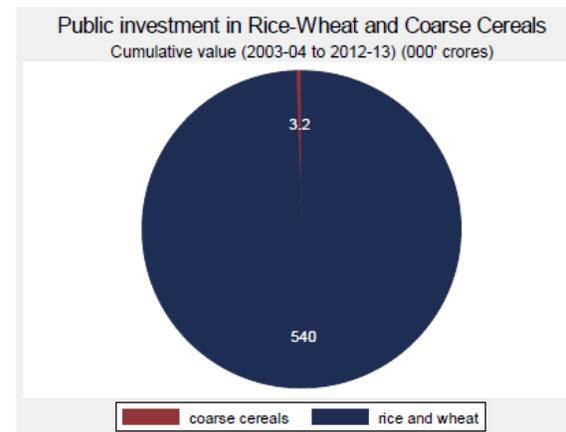
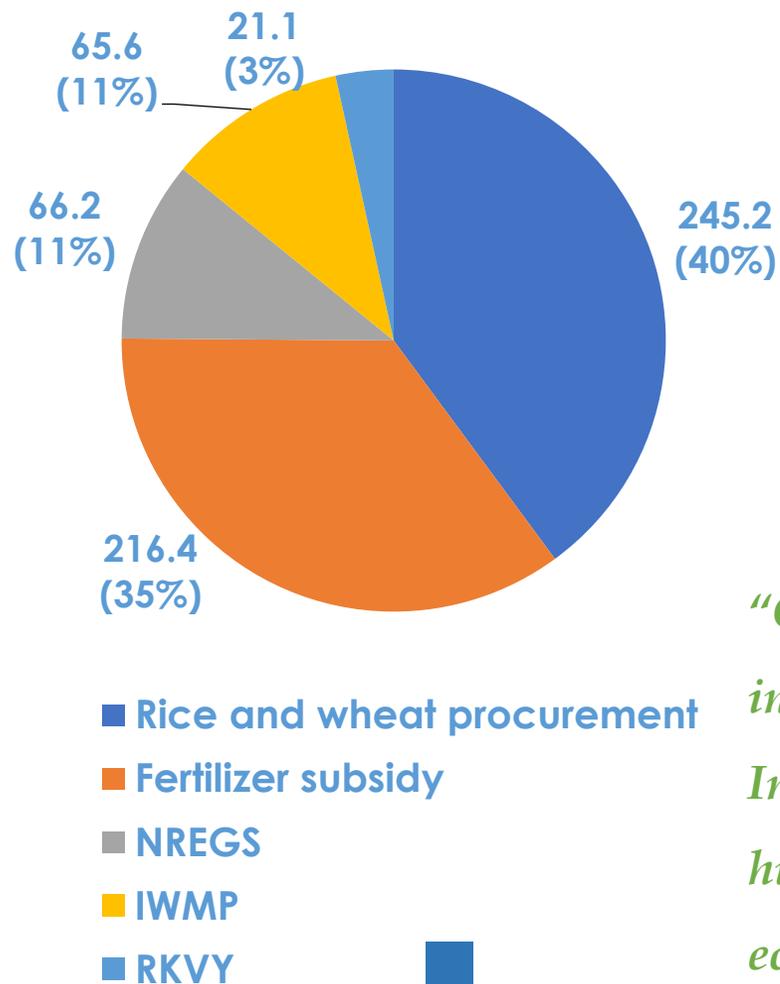
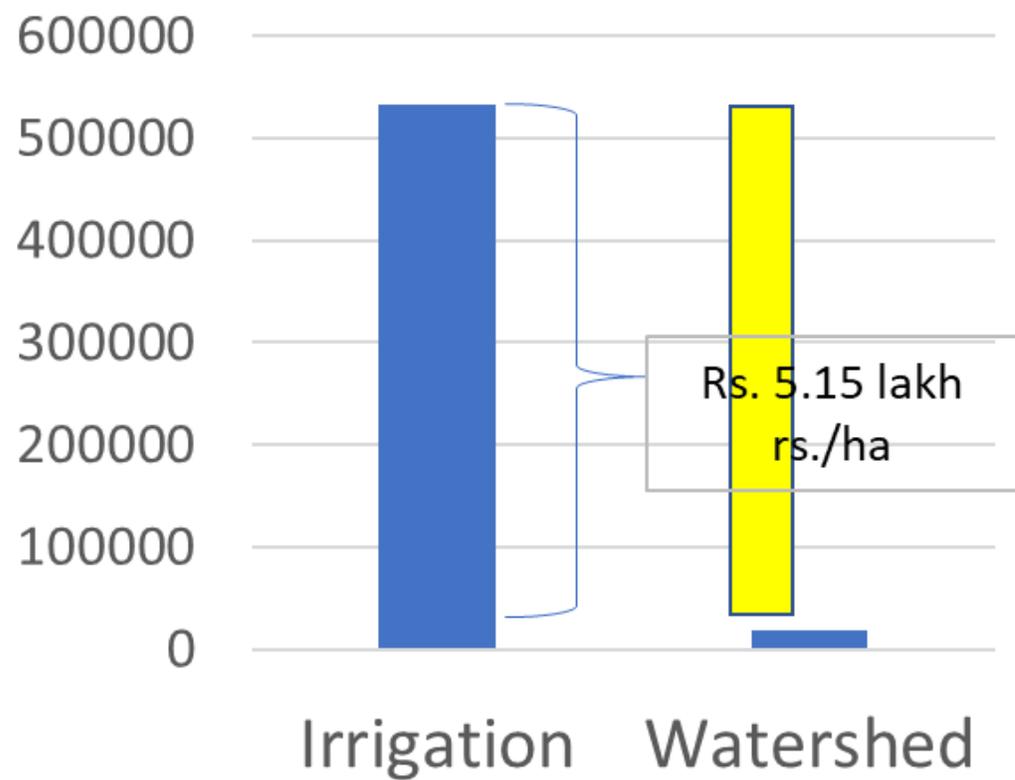


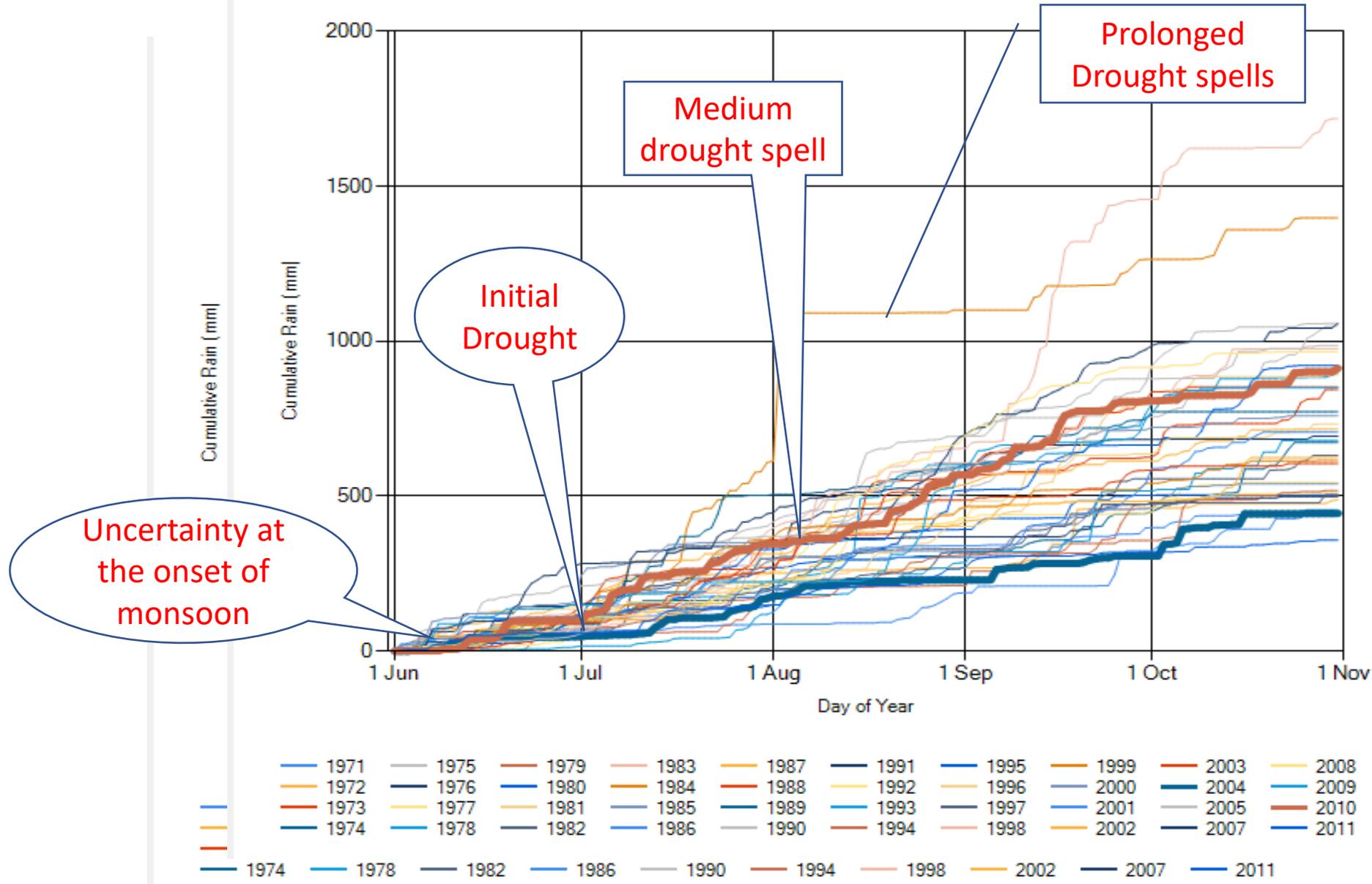
Fig. 1: Public Investment in Rice, Wheat and Coarse Cereals
 Source: Directorate of Economics and Statistics, Ministry of Agriculture and Cooperation, Government of India)

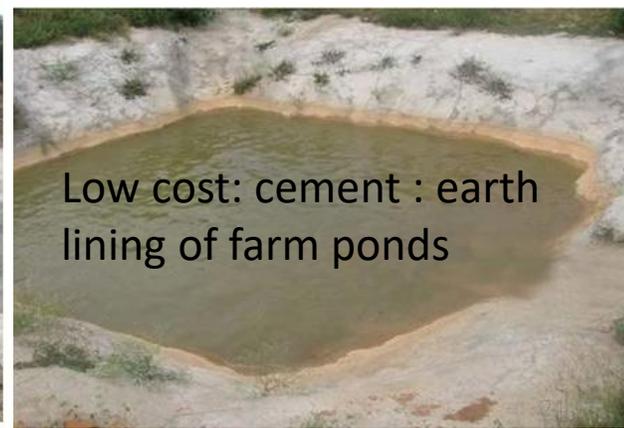
“Government investment and support is skewed in extreme in favor of Irrigated Farming. Investing in rainfed agriculture would have huge implications for the ecological, social and economic well being of the large and diverse populations that inhabit it.”

Investments Rs./ha

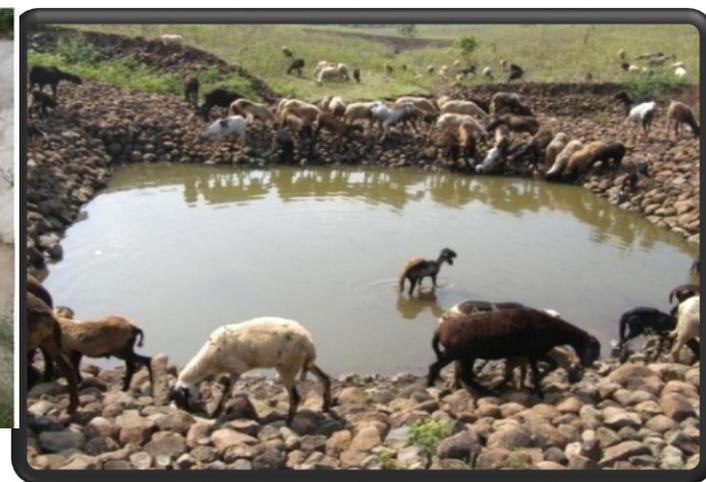


Risks of Rainfall Failures : A Fundamental Issue in Rainfed Agriculture





Low cost: cement : earth lining of farm ponds



Lined Farm Ponds (in Red Soils) with mobile irrigation infrastructure

2ND Line of Defence!
Short to medium drought spells.



Farm ponds/ WHS need to be integrated with a comprehensive drought risk management strategy/ plan with complementary investments.



Fire Fighting Droughts!

Water can be transported for saving crops! Often with high ROI.



Row Water Sowing for delayed onset of monsoons.



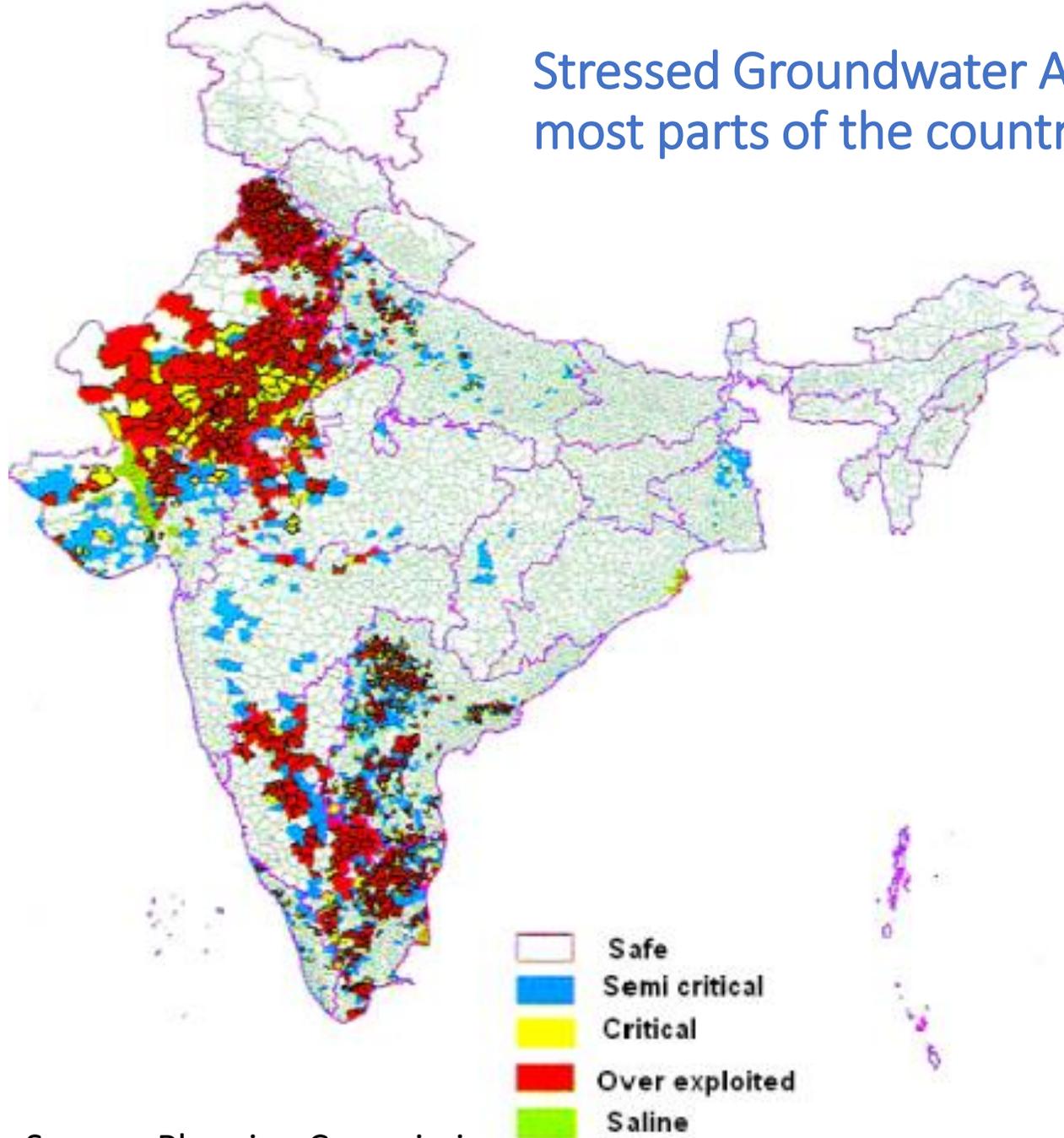
Photos: AF Ecology Center, Anantapur

Mobile Life Saving Irrigation:

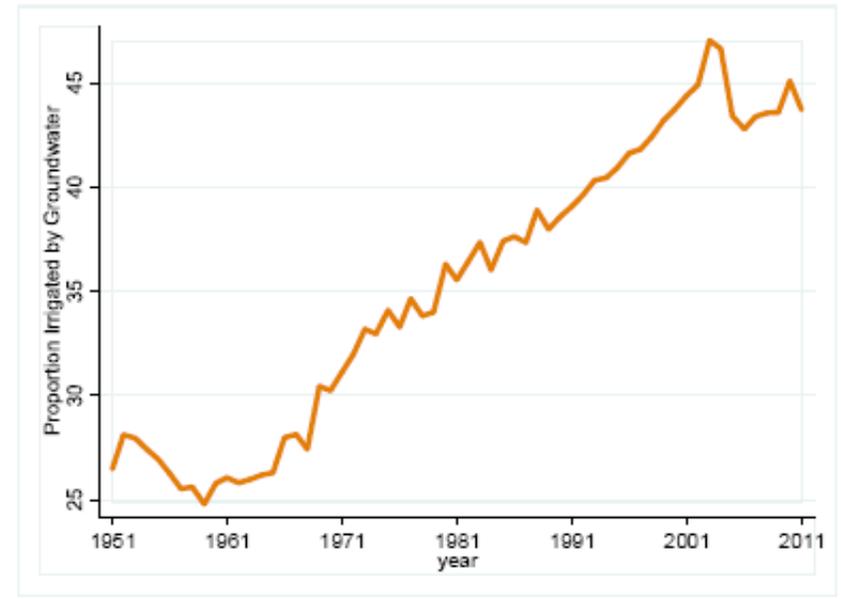
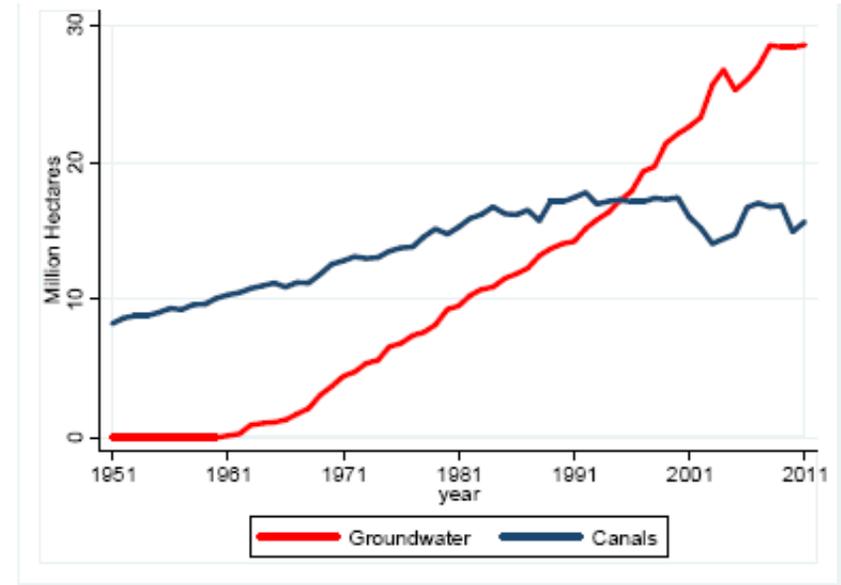
For early and mid-season droughts & at flowering times



Stressed Groundwater Aquifers in most parts of the country



Source: Planning Commission



Graph shows increase in proportion of ground water usage to total net irrigated area between 1950 and 2011

Source: Agricultural Census, 1996-2011



Even while only 1/3rd farmers have access to groundwater and 2/3rds waiting for it;

The aquifers are going dry!

Water conservation alone can't solve the problem.

Fundamental issue is how to secure groundwater access to larger rainfed areas/ farmers for securing them against droughts?

Groundwater for Extensive Protective Irrigation

The Last Line of defence !

- Water sharing with rainfeds
- Pooling borewells in a grid for extensive protective irrigation





Tulasamma is now a proud owner of a Casandra floriculture garden under tree shade with drip irrigation.

Without digging any new borewell!

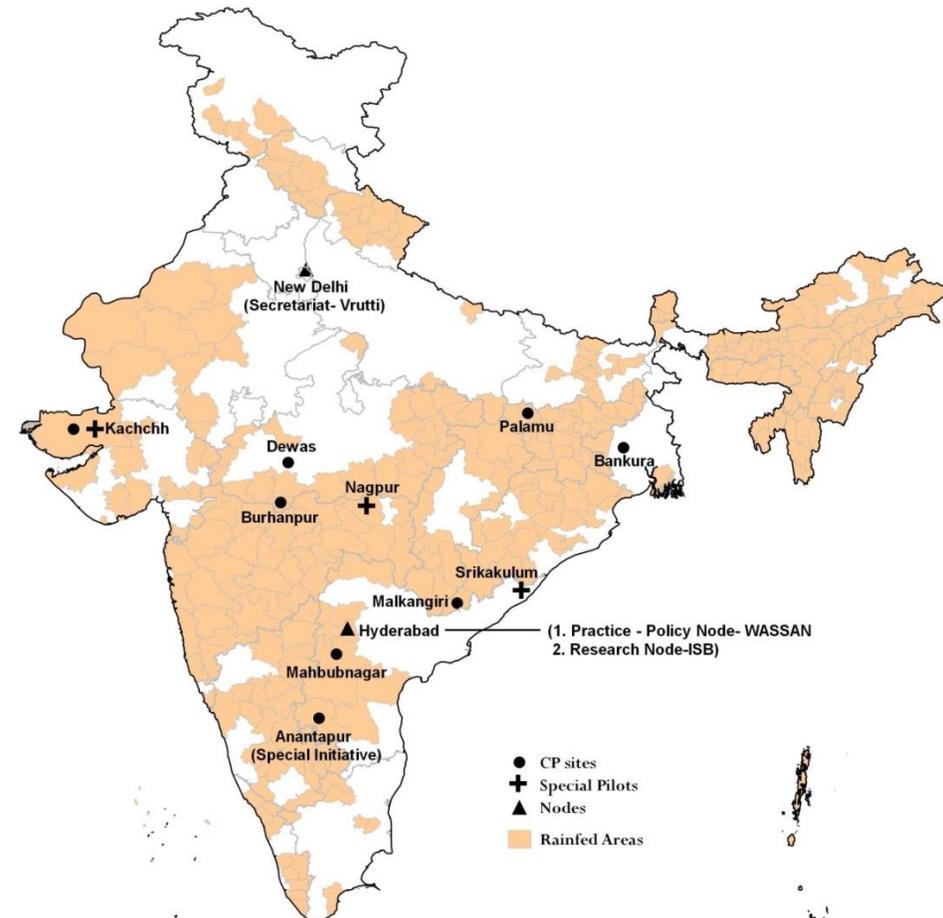
She earns Rs.300,000 an year.



Revitalising Rainfed Agriculture NETWORK

RRA NETWORK MEMBERS & ACTIONS

- 500+ Members
 - Civil Society
 - Researchers
 - Academics
 - Policy analysts
- 10 states
- 2,00,000 farmers outreach



- RRAN Google Group moderated & carefully selects members
- A daily news digest on RRA agenda published in different media from across India is sent
- 18 April 2019 marked 1628th News digest