Land, Water & Degradation

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

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Anantapur: Trends in Crop Patterns

- Total major millets
- Total minor millets
- Total pulses
- Paddy
- Total food grains
- Groundnut
- Cotton

Crop patterns from 1961-62 to 2005-06.
Case of Shifting Cultivation in the Eastern India..
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

Cumulative investments on watershed development in 40 years

Annual Subsidy on fertilisers

Mid-term review of XI plan, Planning Commission
“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.”
Risks of Rainfall Failures :
A Fundamental Issue in Rainfed Agriculture

Initial Drought

Uncertainty at the onset of monsoon

Medium drought spell

Prolonged Drought spells

Cumulative Rain (mm)
Lined Farm Ponds (in Red Soils) with mobile irrigation infrastructure.

Low cost: cement : earth lining of farm ponds.

Farm ponds/ WHS need to be integrated with a comprehensive drought risk management strategy/ plan with complementary investments.
Water can be transported for saving crops! Often with high ROI.
Mobile Life Saving Irrigation:
For early and mid-season droughts & at flowering times

Row Water Sowing for delayed onset of monsoons.

Photos: AF Ecology Center, Anantapur
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; 1950-2011
Even while only $\frac{1}{3}$ farmers have access to groundwater and $\frac{2}{3}$ are 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