

# Paradigm shift in farming practices in the context of Climate Change

a Case study from Enabavi Village in Andhra Pradesh

Agriculture is the main source of livelihoods for two-third of the population. The profound changes in Indian Agriculture since the 1960 have had cascading effects on Indian agrarian economy and Society. The existing ecological and economic crisis is due to the models which are based on external inputs viz: Seeds (Hybrids and GM), Synthetic Fertilizers and input-output market which are contributing to high energy use. Among the agriculture inputs, fertilizers ( $N+P_2O_5+K_2O$ ) consumption is very high in Punjab, Andhra Pradesh, Tamilnadu and Haryana ranges from 175-210 Kg/ha. The central subsidy on fertilizers reached is 1197.72 billion rupees. The total CO<sub>2</sub> emission from fertilizers during 2006 was 48 MT (Greenpeace).

## Some more alarming situations due to ecological and economic crisis are:

- More than 1.5 Lakh farmers committed suicide.
- Half of the farming house-holds in India are in debt.
- Ever increased cost of cultivation mismatch with MSP.
- Loss of control over seed.
- Depleting natural resources, Increasing dark zones, Soil salinisation etc.
- Change in land use pattern.

## Sustainable Initiatives:

- Changes in location specific cropping patterns and production practices.
  - Non Pesticidal Management,
  - Organic Soil Management,
  - Community Seed Banks,
  - Water Management & regulation.
- Integrating livestock and horticulture.
- Food security and livelihood security.
- Farmers Institutions.

## 1. Crop management practices adopted

- Locally available Agri-inputs such as Farm saved/Farmer-bred seeds used.
- Crop rotation, Intercrops and mixed cropping were adopted.
- Use Farmers' wisdom to manage Pest and Diseases.

- Soil fertility managed by using Tank silt, FYM, Poultry Manure Vermicompost, Green manure & Greenleaf manure.

## Marketing Initiatives

Direct marketing of food grains and vegetables have started through Producers' Cooperative which runs rural out let.

## Who does what?

**CSA:** The nodal NGO based at Hyderabad, Andhra Pradesh provides technical support, resources and handholding support.

**CROPS:** Warangal based grass root level NGO is the bridge between CSA & Farmers' which got good rapport is the Project Implementing Agency.

## Savings on Pesticides by Enabavi Farmers

Total cropped area (in acres)	230
Savings on subsidy to Govt. (Rs.)	9,71,152.00
Savings on NPK by villagers (Rs.)	1,06,639.96

## Comparative Profits (Chemical Vs Organic)

	Jillela Yella Reddy Kallem Village, Warangal uses pesticides & fertilizers	Ponnam Mallaiah Enabavi Village, Warangal uses organic farming methods
Investment on Cotton crop on one Acre	Rs. 15,250 /-	Rs. 8,550 /-
Total Yield	12 Quintals	10 Quintals
Gross Income	Rs. 24,600 /-	Rs. 22,000 /-
Net Income	Rs. 9,350 /-	Rs. 13,450 /-

## Impact

Agriculture in Enabavi has become zero budget after villagers took to organic farming. The village received Krishi Gaurav Award from Patanjali Trust. So far 30,000 visitors have been to Enabavi to learn Organic Farming methods. It has enriched local bio diversity.

## Conclusion

Enabavi, the small village in Warangal dist of AP is a RAY OF HOPE and Inspiration to many stakeholders through the India. They proved that agriculture is viable under sustainable means.

**About the village:** Enabavi, a village of 52 families, is abuzz. It is hosting farmers from the nearby Kallem village. who have come here for tips on profitable agriculture. Those who missed the excitement of the Green Revolution in the 1960s can get a glimpse of it here—there is the air of collective achievement, and farmers from neighbouring villages are here because they do not want to lose out. There is one big difference from the 1960s, though: farmers are teaching and earning ways of increasing productivity without applying synthetic chemicals. Agriculture is a happy story in Enabavi.

- Total area 230 acres under cultivation.
- Cultivates kharif, Rabi and summer crops.
- Major crops grown are Paddy, Cotton, Pulses, Oil Seeds, Vegetables and Tobacco.

Abridged: Down to Earth, Jan 1-15, 2009

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