Agriculture, Livelihood and Related Issues in Bundelkhand: Draft Recommendations to Government of India

Sourindra Ghosh and Rizwan Uz Zaman

Development Alternatives

Objectives

Analysis and sharpening of the relevant issues of the Bundelkhand region along with like minded stakeholders

Audience

- Policy-makers at the district, state and national level
- A tool for other CSOs working in the same field to negotiate with the govt. agencies

Base doucmnets

- Analysis and crystallising of the findings in the "**Status Report on Water and Energy in Semi-Arid Regions of India**" by DA and partners
- Analysis and crystallising the recommendations of "**Perspective Paper on Water and Energy Use in Bundelkhand Region**" by DA and partners

Content…

- **Problems Afflicting the Bundelkhand Region**
- **Status of Water Use**
- **Policy Debates**
- **Alternative Framework**
- **Recommendations**

Problems Afflicting the Semi-Arid Region

- Low and erratic rainfall
- Low water retention capacity of the soil

Leading to:

- ➢ Low agricultural productivity
- ➢ Over-exploitation of already scarce resources
- ➢ Severe implications on poverty indicators and food security
- ➢ Out migration
- ➢ Livelihood stress

Status of Water

- Low and erratic rainfall, prolonged drought leading to heavy dependence on ground water for irrigation
  - In M.P. Bundelkhand, canal water provides irrigation to only 14% of net irrigated area
- Water-energy nexus in the region – large diesel pumps drawing ground water – often more than need
- Imbalanced fertiliser use (i.e. imbalanced N:P:K) leading to declining water & soil health

Policy Debates & Alternatives

- Fuel subsidy reduction doesn't lead to reduction of its use; so decreasing subsidy won't lead to farmers using less diesel and pumping out less water
- Prominent studies have shown a discouraging scenario regarding farmers opting for water-saving technologies
  - Water-saving technological innovation
  - Increase government support and spending in micro-irrigation initiatives
- Fertiliser prices played a role in imbalanced use of NPK over time
  - Fertiliser subsidy as a tool to affect price to maintain the scientific NPK ratio
  - Awareness among farmers

Recommendations

- **Change in Agri-strategy:**
  - **Shift from Rabi cultivation to Kharif cultivation**; less water intensive crops (pulses); open grazing of livestock should also be avoided.
  - **Timely planting** to reduce crop loss – information about monsoon, choice of crop, contingency plan and services
  - **Agri-diversification, agro-forestry**, integrating sericulture, pisciculture, horticulture, integrated with **degraded land and water conservation**
  - **Fodder cultivation** in low rainfall period, **livestock based** livelihood

Recommendations

- **Institutional development and management:**
  - Projects like **rain-fed area development, watershed development**
  - **Well integrated market system** in the region.
  - Water conservation/water-saving agricultural practices – **in-situ moisture conservation**, **rainwater harvesting and recycling**, **efficient use of irrigation water**, **conservation agriculture**, **energy efficiency** in agriculture and irrigation and **use of poor quality water in agricultural purposes**.

Recommendations

- **Institutional development and management (contd):**
  - The conflict of use between drinking water and irrigation can be resolved **through local regulations on water extraction, pumping and even cropping systems** formulated and enforced
  - **Integrated village level planning** – conservation, sustainable agri, funds
- **Technological Innovation:**
  - Developing and popularising **water-saving irrigation methods**. Custom fit to need. Small and micro irrigation
  - Currently **only 10% of irrigation through drip is mandatory**; irrigation is a state subject and these decisions have to be taken and influenced at state level.

Recommendations

- **Use of nature and existing traditional knowledge:**
  - Crops and varieties that are **resilient to high temperature, drought, and submergence, varieties with high fertilizer and radiation use efficiency and varieties which respond to high levels of CO2** should be developed. **Wild and extant varieties** with these traits can be made use as parents for breeding of tolerant varieties to climate change.
  - **Indigenous knowledge and farmers' wisdom.**

Recommendations

- **Integrating with schemes:**
  - **Combining existing schemes with climate change perspectives**, e.g. agro-forestry can be practised under MGNREGS.
  - Integrating with **Bundelkhand package for climate resilient agri-livelihood**
- **Knowledge services:**
  - Quantification of available water for various applications, irrigation, eco-systems etc.
  - Timely availability of information, forecasting and services support for taking care of unpredictable extreme events for village, block and district level planning of crops

Your Suggestions

Thank you!