

MANAGING GROUNDWATER AND SURFACE IRRIGATION AND RURAL LIVELIHOODS

Members of the group



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Water Management and Irrigation in XIth Plan: *Problems vs Strategies*

- Overall thrust seems to be extension of irrigation into rainfed areas through a conventional manner – even using exogenous water
- PROBLEM
 - Demand-side issues
 - Gap between potential and utilisation
 - Overexploitation of groundwater
 - Groundwater quality
- STRATEGIES
 - Irrigation infrastructure creation – dams and lifts for flow irrigation
 - ‘Groundwater potential’ to be realised – hinting at *dig and drill*
 - Management – through *user groups* – passing reference only
 - Clamour for recharge but no mention of strategies or even ways of getting there – supply augmentation measure

No mention of equitable distribution and rainfed agriculture

Overarching imperative for XIIth Plan

- To provide limited, but assured quantity of water on an equitable basis to all
 - To provide limited but assured quantities to the rainfed components of the household farming systems in order to stabilise their livelihoods

Need for developing a typology for rainfed agriculture

- Rainfall
 - RFA in severely drought-prone regions
 - RFA in mildly drought-prone regions
 - RFA in assured rainfall regions
- Uncertainty in rainfall regime
- Livelihood pattern of the region
- Prevalence of irrigation – disaggregated between surface water and ground water
- Geo-hydro-ecology and social profile

A matrix using these factors could define the typology – in order to prioritise investments

Critical concerns and issues

- Ownership of water
- Depleting resources
- Mode of irrigation – efficiency
- Subsidy – elite capture and unsustainable use of the resource
- Institutions: primacy of local elected bodies, roles and responsibilities
- Prioritisation of purposes of water use – need to allocate ‘protective irrigation’ (or livelihood water) as separate priority
- ‘Generics’ – non-acknowledgement of groundwater as a resource in large parts of Himalayan region; water quality as a major issue in agriculture

Ownership

- Treated as a Common Pool Resource – social regulation
- Treated as common property to be held in Trust by the State, subject to specific conditions
- Governance & management of water with the lowest appropriate levels of elected bodies

Subsidy

- Reorient subsidy
- One time subsidy through capital investment to set up systems
- Recurring subsidy should be removed and put on users
- Cross-subsidisation across different uses
- Differential pricing
- Surface irrigation pricing to be reviewed due to present high subsidy
- Subsidies as incentives – equity, sustainable use and collective management

Experiences and good practices

- Decentralised, farm pond initiative – like PRADAN's 5% model
- Bore hole pooling – APDAI programme – WASSAN
- Social regulation and sharing of groundwater – CWS programme – RIDS – recharge + regulation
- Hivre Bazar – Ahmednagar district - water conservation, planning and regulation
- APFAMGS – water balance, crop planning
- Pani Panchayat – delinking of land and water rights to ensure equitable distribution
- Group-based lift irrigation schemes – AKRSP & Sadguru
- Tank irrigation – Dhan Foundation
- IDEI – treadle/pedal pumps linked to decentralised moisture management and micro-irrigation

Recommendations - 1

- Imperative: to provide limited, but assured quantity of water on an equitable basis to all – to help stabilise and improve the rainfed components of household farming systems. *This is different from simply increasing the area under irrigation.*
- Investment - labour & material components
 - Labour – as employment support
 - Material – as concessional finance

Recommendations - 2

- Management and governance of water systems (excepting the large and medium projects) - entrusted to the elected bodies at lowest appropriate levels in a nested institutional framework
 - Gram sabhas & elected bodies - politically, economically and legally empowered
 - Local bodies empowered to charge tariffs – to cover recurrent (O & M) charges from users.
 - Large scale capacity building to be taken up.
 - All the necessary data should be freely made available

Recommendations - 3

- Recharge measures and regulation of groundwater – through empowered local bodies
- Equitable water distribution to be made integral part of WSD programme, including dedicated investment
- Restructuring of mainstream irrigation systems to provide supplementary water for rainfed areas
- Irrigation data (and assessments) should shift to household basis (as unit of reporting) as against current “area” basis

Recommendations - 4

- Best practices – potential of being replicable with adequate financial support
 - Situational and investment analysis of best practices to be carried out
 - Group investment-support portfolio to be offered to such groups
- Investment in recharge of groundwater in the Himalayan region in context to anthropogenic and CC pressures; similar thinking for other typological contexts

Non-negotiables

- Water as a “commons”
- Respect the natural resource regime of an area – even at the scale of a village or microwatershed
- Water related data availability and accessibility are critical for livelihood security plans even in rainfed agriculture
- Empowerment of local elected bodies for improved management of water