

Role of Water Management in Second Green Revolution

Creation of Storage

- For second green revolution where is water required

Water is the most important component of Green Revolution

- The experience learnt from first Green Revolution is well-known and the total benefits of Green Revolution could not be achieved due to improper management of water resources.
- Lack of Dynamic policies
- Lack of capacity building
- Lack of attitudinal changes required
- Lack of infrastructure to support irrigation

Water Resources Management issues which could have helped in improving conditions of First Green Revolution

- Increase in water use efficiency
- Assured supply of irrigation water to farmers
- Participatory Irrigation Management
- Operation and maintenance of irrigation infrastructure
- Use of technology in ground water extraction
- Incentive mechanism for water saving
- Capacity Building of
 - Farmers
 - Engineers
 - NGOs

Proper Capacity building of engineers, farmers, agricultural workers

- Policy issues for encouraging proper O&M
 - Incentivising water saving
 - Proper minimum support price to encourage cropping pattern as per water availability.
 - Proper marketing facility for farms produce
 - Technology and agriculture extension programme.
 - Lower rate of interest to farmers
 - Encouragement of cooperative farming
 - O&M of irrigation infrastructure below minors by water users association.
- Engineers –
 - Exposure to success stances
 - Proper exposure at policy level to make consensus
 - Volumetric system for better efficiency
- Farmers –
 - Water use efficiency
 - Benefits of optimum use of water
 - Use of latest technologies
 - Benefits of adopting suitable cropping pattern
 - Food grain storages
 - E-Mandi

Proper building of institutions for sustaining the development management and operational maintenance of irrigation sector

- Over the years, irrigation infrastructure is suffering both development and management due to lack of –
 - trained manpower
 - financial support
 - Farmer friendly policies
 - Water sector friendly policies
 - Tenancy rights
 - removal of Sand from farmers fields
- Proper capacity building, recruitment of staff and proper multi-disciplinary attitudinal training should be encouraged for maintaining the already created infrastructure.
 - Upgradation of institutions like Walmies etc.
 - Linkage between Research Institutions, Agriculture extension programme and farmers

For Second Green Revolution new infrastructure

- By improving the condition of infrastructure already created, irrigation can be exercised with optimum efficiency will help in sustaining and advancing the benefits of already created infrastructure.
- New infrastructure should be created with ultimate target of larger irrigation efficiency, volumetric measurement of water demand management, cropping pattern as per water resources availability, proper participatory irrigation management.

Policy Issues

- Instead of free water and electricity optimisation of pricing and delivery mechanism through proper incentivisation of farmers should be encouraged.
- No encouragement on existing water bodies should be allowed.
- No polluted affluent should enter into any water body without treatment.
- Minimum support price to facilitate cropping pattern envisaged as per design
- Proper agro-based industries to support envisaged cropping pattern.
- Proper distribution of good quality seeds and other related issues should be encouraged and should be treated as part of proper water management.
- Storage facility for food grains produced should be available in near vicinity.
- Zero tolerance for food grain lost in storage.
- Proper marketing facility to avoid dipping of prices forcing farmers to burn their agriculture produce in the fields.
- The water utilization by industries and other uses should also be of efficient standard. Last but not the least, the minimum possible storages should be created. Proper mechanism to mediate for consensus building to practise which can help in implementation of long pending projects including ILR.