

DOUBLING FARMER INCOMES THROUGH WATER RESOURCE MANAGEMENT IN FARAKKA

A. PROJECT DESCRIPTION

The project proposes to introduce 3 Lift irrigation schemes and modern agriculture practices to 175 farmers in 3 villages of Farakka Block, Murshidabad district, West Bengal

B. PROBLEM STATEMENT

Irrigation plays a vital role in improving agriculture productivity, and its consequent impact on poverty reduction is particularly striking. Various studies have found that in states where farmers have access to irrigation, the incidence of poverty is half, as compared to states where agriculture is primarily rainfed. West Bengal is one such state, where only 35 per cent of the cropped area is irrigated.

The proposed project villages are located in the Farakka block of Murshidabad district. With a total pop 2.74 lakh, this region is one of the most socio-economically backward blocks in the state. The project villages are located along the local Kalai River (local stream flowing from Jharkhand border to Ganga river), an area prone to frequent flooding and occasional droughts. Agriculture and animal husbandry are the primary sources of income. Nearly 80% of the farmers, (mostly tribal and minority groups) are marginal farmers and sharecroppers, farming less than 1.5 hectares of land, with an average income of Rs 32000-40000 per annum, under normal rainfall conditions. Agriculture in these parts, is predominantly rainfed providing a single crop of paddy or jute. In normal rainfall conditions, the yield of paddy is 2500 kg/ha falling to as low as 1400 kg/ha in sub-normal rainfall conditions. Some farmers are able to harvest a second crop of pulses if the monsoon is normal and there is sufficient residual soil moisture. Overdependence on the monsoon and the monocropping limitation, results in very low productivity and compels most farmers to migrate for employment in the offseason to the nearby towns. It has been observed that Farmers with irrigation facilities (less than 8% of farmers currently) are able to harvest three crops earning them incomes 141% more than those who grow rainfed crops.

On the overall, agriculture practices are outmoded and unscientific; farmers lack information on improved varieties of seeds and other inputs. Lack of access to market is another key challenge, as most farmers sell their produce to local traders and middlemen and are often denied fair prices.

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C. THE SOLUTION: LIFT IRRIGATION SYSTEMS

Lift irrigation(LI) is a method by which water, instead of being transported by natural flow (as in gravity-fed canal systems), is lifted from a river or irrigation canals using pumps or other mechanical means. LI is particularly useful in regions of erratic rainfall, undulating topography where water sources are typically low lying. Installing LI in such regions reduces monsoon dependency, boosts overall productivity and most importantly enables farmers harvest two and even three crops in a year. LI schemes are typically co-operatively owned by groups of small and marginal farmers.

Ambuja Cement Foundation has already supported three LI schemes in the project area, covering 223 farmers, currently irrigating 53 hectares; the average land holding of these farmers being 0.25 hectare (2 *bigha*). Post the installation of the LI , the farmers are harvesting three crops in a year (paddy, pulse/mustard and vegetables)



increasing cropping intensity by about 200%. After seeing results of the existing LI schemes, a large number of local farmers have approached us for similar support with a willingness to contribute to the overall project cost.

Project Duration: 3 years.

Year1: Primary focus on community mobilization and installation of LI systems

Year 2&3: Creation and strengthening of water user associations for maintenance and sustainable use of assets created.

Project Activities

The following activities are to be implemented to achieve above objectives.

- Community mobilization

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- Selection of site for Lift irrigation and survey estimate
- Discussion and finalization of modalities with community
- Installation of LIS as per design
- Institution Building
 - Formation of water user groups
 - Facilitating formation of groups role and responsibilities
 - Rules and regulation of group
 - Developing system for day to day maintenance of LI system
- Capacity building of farmers on improved crop production:
 - training on improved cropping system
 - Motivating to grow crops which give more return per unit of water consumed
 - Training on management of group records, accounting etc
 - Motivation to adapt efficient irrigation system
 - Market linkages to get right price of their produce



Expected outcomes:

- Increase area under irrigation : 100 ha
- Increase agriculture production: by about 1.5 times

D. ACF ROLE

- Awareness and Mobilization of community
- Survey, design and estimate for LI system
- Mobilizing community participation and contribution
- Installation of LIS
- Training to users for operation and maintenance of the system
- Providing hand holding support during operation of system

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- Formation and strengthening water user groups
- Capacity building of user groups on water use, crop selections
- Market linkages

E. PROJECT SUSTAINABILITY

The Creation and capacity building of Water User Associations is a key element of the project. The associations will recover water use charges from users, ensure maintenance and upkeep of LI assets and resolve any conflicts between farmers.

F. ESTIMATED BUDGET

- Total Project Cost 3 Lift Irrigation scheme : 76.25 lakhs
- Beneficiaries' contribution will vary from 6-10 % of total project cost: 3.24 lakhs
- GRANT AMOUNT REQUESTED: 73.01 lakhs

Item	Unit	Qty	Rs/unit	Amt in Lakh
LIS installation	WUA	3	18	54
Capacity building of 3 water user group	WUA	3	0.45	1
Project coordination cost	Year	3	4.2	13
NGO management cost (15%)				8
	Total			76.25
	Community contribution			3.24
	Grant requested			73.01

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