

Farmers' Field School: A School without Walls Coping up Mechanism of Farmers in Semi-Arid Regions

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Action for Food Production (AFPRO) with the collaboration of India Water Partnership have established Farmers' Field Schools (FFSs) under WACREP Phase-I, with the objective of improving capacity of farmers to adopt improved agricultural technologies for enhancing production in both Kharif (rainy season) and Rabi (dry season) seasons. The project was launched in ten selected villages of Sihnar Watershed area in Bhinder Block of Udaipur District, a semi-arid region in Rajasthan, India that was experiencing a drastic reduction or total failure in crop production owing to age-old cropping patterns and practices used by farmers.

FFS is a platform or a 'school without walls', was capable in stimulating local innovations for sustainable agriculture, livestock and proper management of water for irrigation. FFS assisted in reviving traditional practices and blending them with modern scientific approach in agriculture, water and animal husbandry which will assist in evolving practices for climate change adaptation. It is a participatory approach of agricultural extension, whereby farmers are being given multiple options and methods of production through discovery based approach. Most importantly, the methodology facilitated transferring technologies to farmers even with low literacy rates. The three different types of schools; Farmers' Field School on Agriculture (FFSA), Farmers Field School on Livestock (FFSL), and Farmers Field School on Water (FFSW) are being supported by Experts, State and District level line Departments and representatives of the farming community.

The farmers who are interested in taking new initiatives, willing to share their experiences with other farmers in project as well as non-project villages actively participated the training programmes and were instrumental in motivating others to apply good agricultural practices, joined the FFSs.

FFS on Agriculture (FFSA):



Cultivation under FFSA

Nearly 26 progressive farmers were trained on "Climate Smart Agriculture" practices. Inter cropping/mixed cropping practices were introduced to the farmers to augment the crop production with given climate change. They were trained on; maintaining the plant gap and plant quantity per hectare, use of Farm Yield Measurement at summer, seed treatment, weather based farming decisions to reduce risk of crop failure, suitable agriculture practices to be followed given the late on-set of monsoon or heavy rains and optimal usage of organic fertilizer. After the trainings, farmers started growing vegetables both for sale and household, using the newly introduced methodologies and were obtained higher yields.

FFS on Water (FFSW):

Proper management of water and its judicious use are the integral parts of water conservation. The water users group consists of ten farmers was trained through FFSW at village Chunakawela. The main source of irrigation water at Chunakawela is open wells. The training educated the farmers on managing water collectively through ground water recharge systems and developing the habit of judicious use of irrigation water.

An unlined and silted open well was selected for renovation at village Chunakawela (Khedafala) as a demonstration. The well is being used by five small and marginal farmers and irrigate almost one hectare of farm lands. Renovation of the well facilitated enhancing the water storage of the well and people are now planning to grow crops in three seasons per annum – Kharif, Rabi and Jayed.



Well before renovation



Well after renovation

FFS for Livestock (FFSL):

Animal husbandry plays an integral part of livelihood of the farmers in Rajasthan. Farmers prefer to maintain smaller livestock, with goats and sheep rather than cows or buffalos due to inadequate water as well as lack of green fodder. Through the FFSL, a Goat Users' Group (GUG) was formed with 35 selected goat farming families out of which five were identified as 'buck managers' who were given responsibility of managing five bucks and facilitating services to all FFSL members. Five bucks of breed *Sirohi* (the most popular breed of goats available in Rajasthan is hardy and can survive under any type of harsh climatic conditions. They can also live on any type of fodder and less water. *Sirohi* goats are popular for their weight gain and lactation even under poor quality rearing conditions) were purchased and distributed among the buck managers. A proper management system have been jointly developed by the group for managing and maintaining *Sirohi* bucks.



Buck Managers with *Sirohi* Goat

Water and Climate Resilience Programme (WACREP) is an innovative initiative of Global Water Partnership (GWP) South Asia devised to improve the climate resilience of South Asian countries to withstand the impact of climate change. More than 40 climate resilience interventions were undertaken in the first phase of WACREP.

The FFS initiative was undertaken by Action for Food Production (AFPRO) with the support of India Water Partnership

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