

# Wadi - An Agro-forestry Based Livelihood Development Model

Agricultural Diversification | Climate Resilience | Environmental Co-Benefits

*A sustainable model for livelihood security of small farmers*

2 States- 40 Villages      1500 Acres Under Climate Resilient Agriculture      1500 Tribal Farmers

Reduced migration amongst beneficiary population

25% Increase In Farm Returns

Reduced Soil Erosion Losses

Improved Soil Nutrient Levels

5-7 years is all it takes

*In five years, a poor village of 100 families gets converted into an orchard of 100-150 acres, producing hundreds of tonnes of fruits.*



## Wadi - A Remarkable Success On The Ground

Makho Devi from Nayakheda village started her wadi in 2010. Within a year, she had sufficient vegetables for self and started selling the surplus. Inspired by her, 15 more women opted for establishing their own wadis in 2012. Nayakheda village is gearing to become nutritionally secure an vegetable producers hub.



## Implementing The Integrated Watershed Management Model At The Grassroots – A Snapshot

### ***Productivity Optimisation through Sustainable Agriculture techniques and Water resources development***

The wadi model allows for optimising farm productivity levels by using an appropriate species mix that allows different agro-ecological niches to be utilised. While the fruit trees grow by tapping into water and nutrients at greater soil depths, the usual seasonal crops get their water and nutrients from more superficial soil levels. The adoption of improved seed varieties and high yielding and early fruiting varieties are promoted. Under the initiative, water resources are developed by creation of farm ponds, wells, farm bunding and cattle protection trenches.

*(contd...)*



### ***Farmers' Clubs for Collective Growth***

The wadi farmers of a village are collectivised into farmers' clubs. This allows them to engage collectively for sharing of water resources, share experiences and to interact with the market with greater collective bargaining powers. Training and capacity building of the farmers comprise a key component of the wadi initiative.

### ***Livelihood Diversification***

Livelihood diversification through farm and off-farm income generation activities are also promoted. For landless families, employment opportunities are created in the farm and non-farm sectors such as micro-enterprises based on food processing.



### ***Environmental Co-Benefits***

The wadi intervention leads to reduced soil erosion, improved rain water capture and soil nutrient retention. The pruning of the wadi trees and the bio-fencing plants provide the family with a sustainable supply of fuel and fodder leading to reduced extractive pressures on the local forests allowing ecological regeneration. The shade provided by mature wadi also significantly modify the micro-climate making it conducive for local biodiversity and also making it possible to cultivate shade loving crops for diversified farm yield.

## **THE OPPORTUNITY**

The tribal population of India is a staggering 80 million and a large proportion of this population are facing severe livelihood stress, mostly due to shrinking forests on which they were traditionally dependent. Not being traditional farmers, their landholdings are usually tend to be small micro-plots. The wadi model provides an effective solution to ensure their livelihood and nutrition security while also helping regenerate the environment.

The wadi model is equally suited for other farmers and larger farm sizes and thus the opportunity is virtually infinite in terms of enhancing the food production of the country using the same amount of cultivated area not to mention the immense environmental co-benefits.

With the Wadi intervention areas emerging as hubs of vegetable and fruit production, there is a further opportunity of linking these farmers to local and regional markets and even to public and private cross-country food distribution channels through value chain interventions and food processing based enterprise promotion to achieve excellent economic gains for the small farmer.