

Integrated River Basin Management (IRBM)



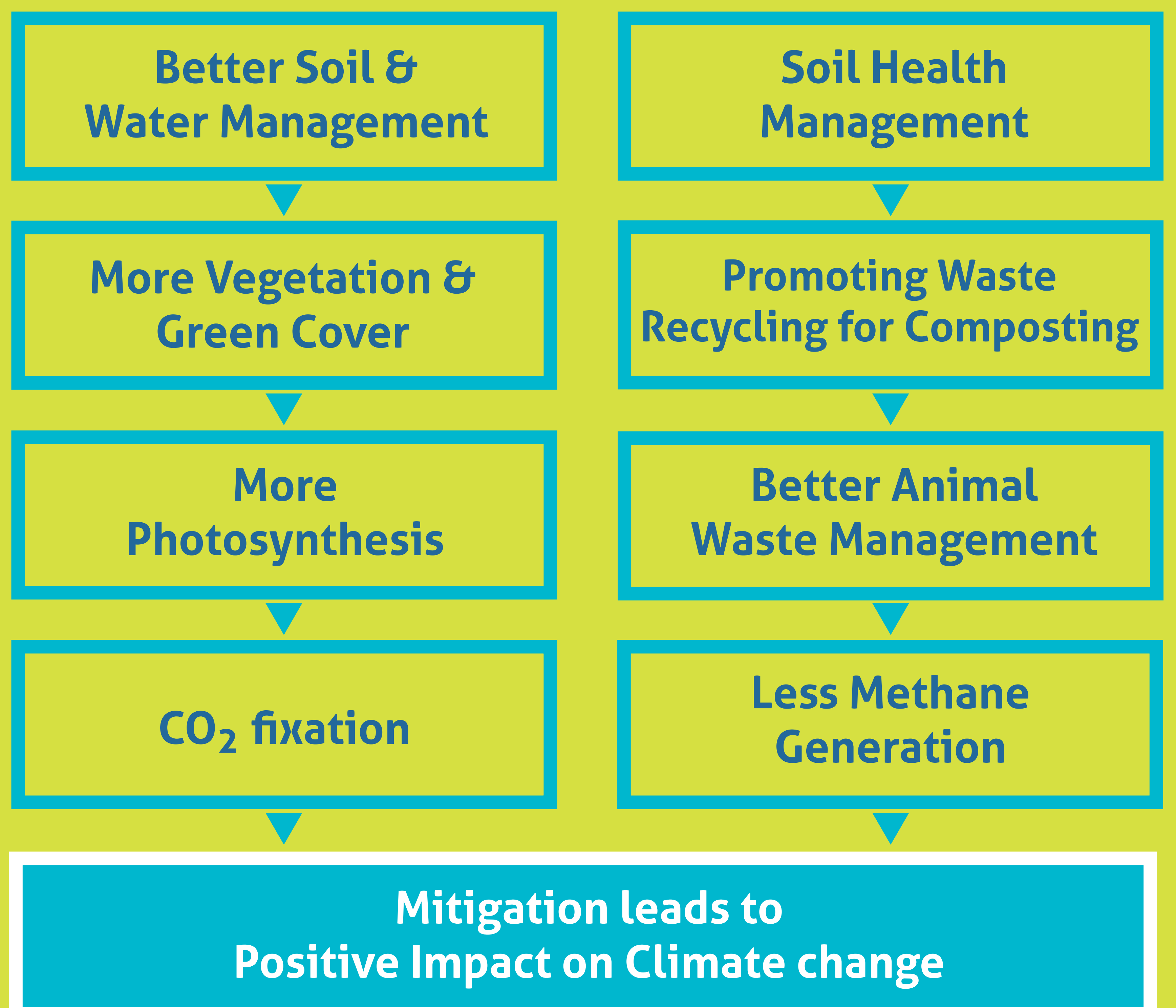
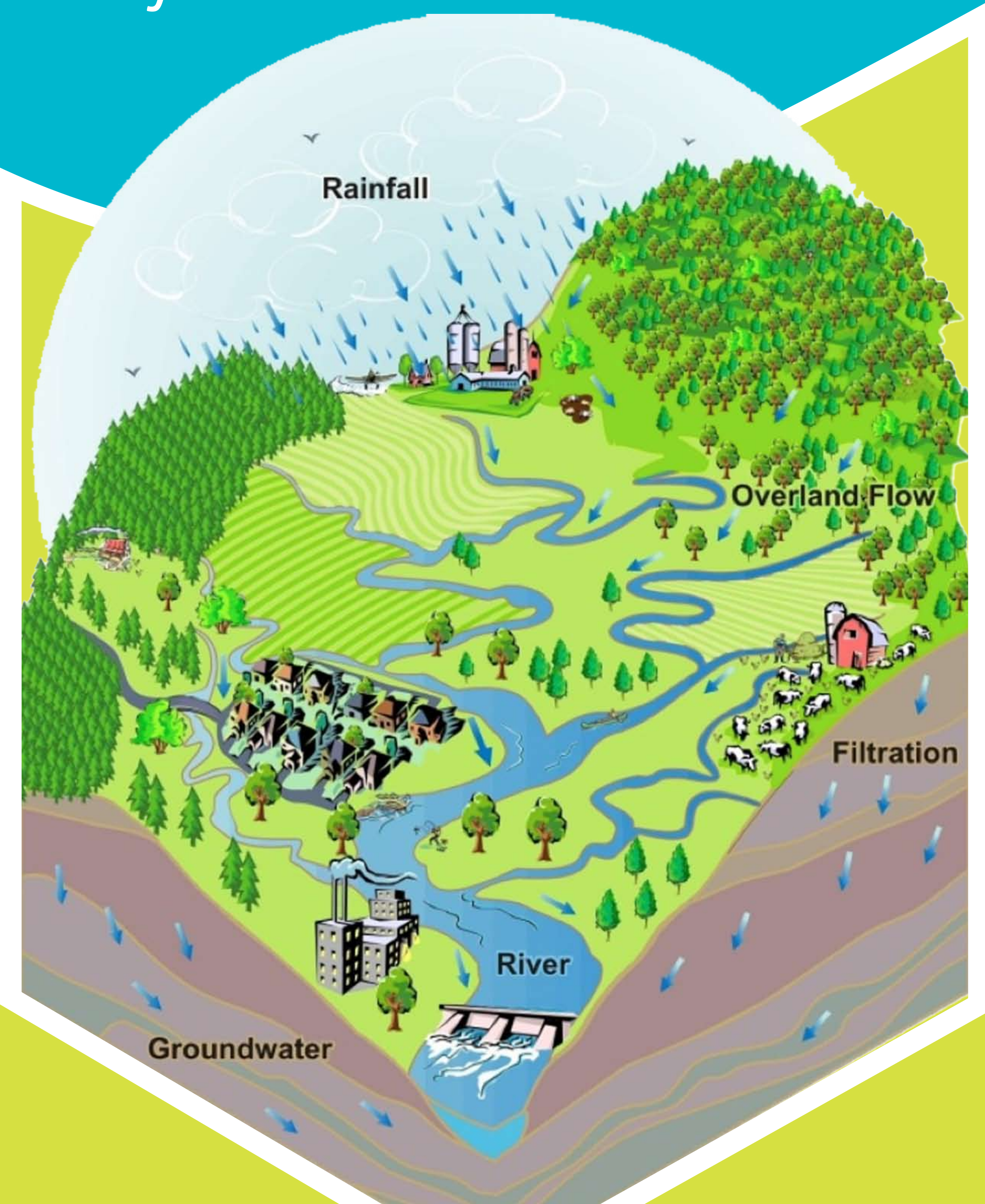
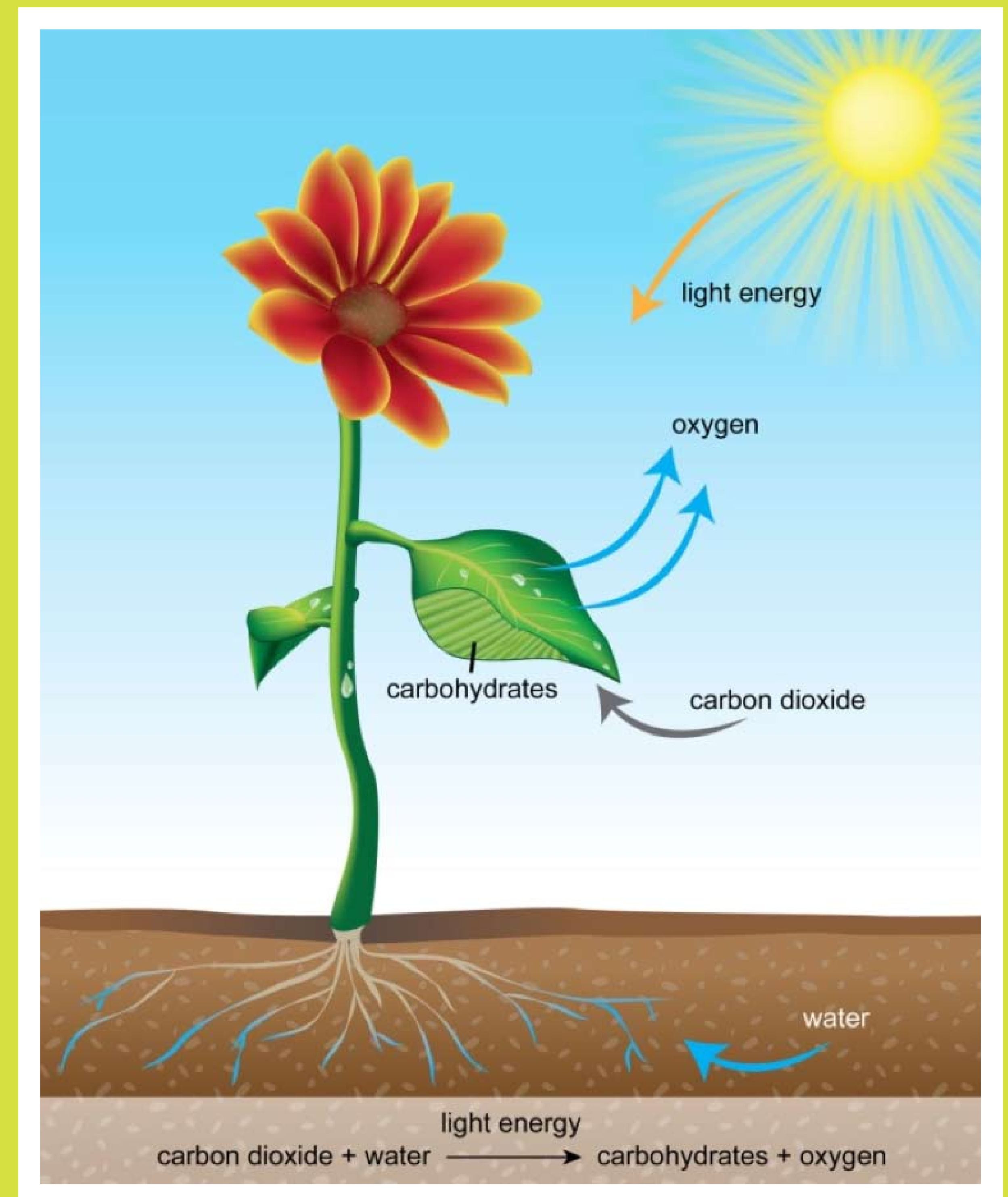
Burning Issue for the Earth: Climate change and major culprit of it is increasing CO₂ in the atmosphere.

Solution for Mitigating Climate Change:
Promoting PHOTOSYNTHESIS to consume CO₂

Landscape Approach for promoting photosynthesis: INTEGRATED RIVER BASIN MANAGEMENT

Farms, forests, water bodies and settlement are not isolated elements, but part of a wider landscape in which all land uses are integrated. A landscape approach entails viewing and managing multiple land uses in an integrated manner, considering both the natural environment and the human systems that depend on it.

IRBM is the process of coordinating conservation, management and development of water, land and related resources within the river basin, in order to maximize economic and social benefit while preserving and where necessary restoring freshwater ecosystems.






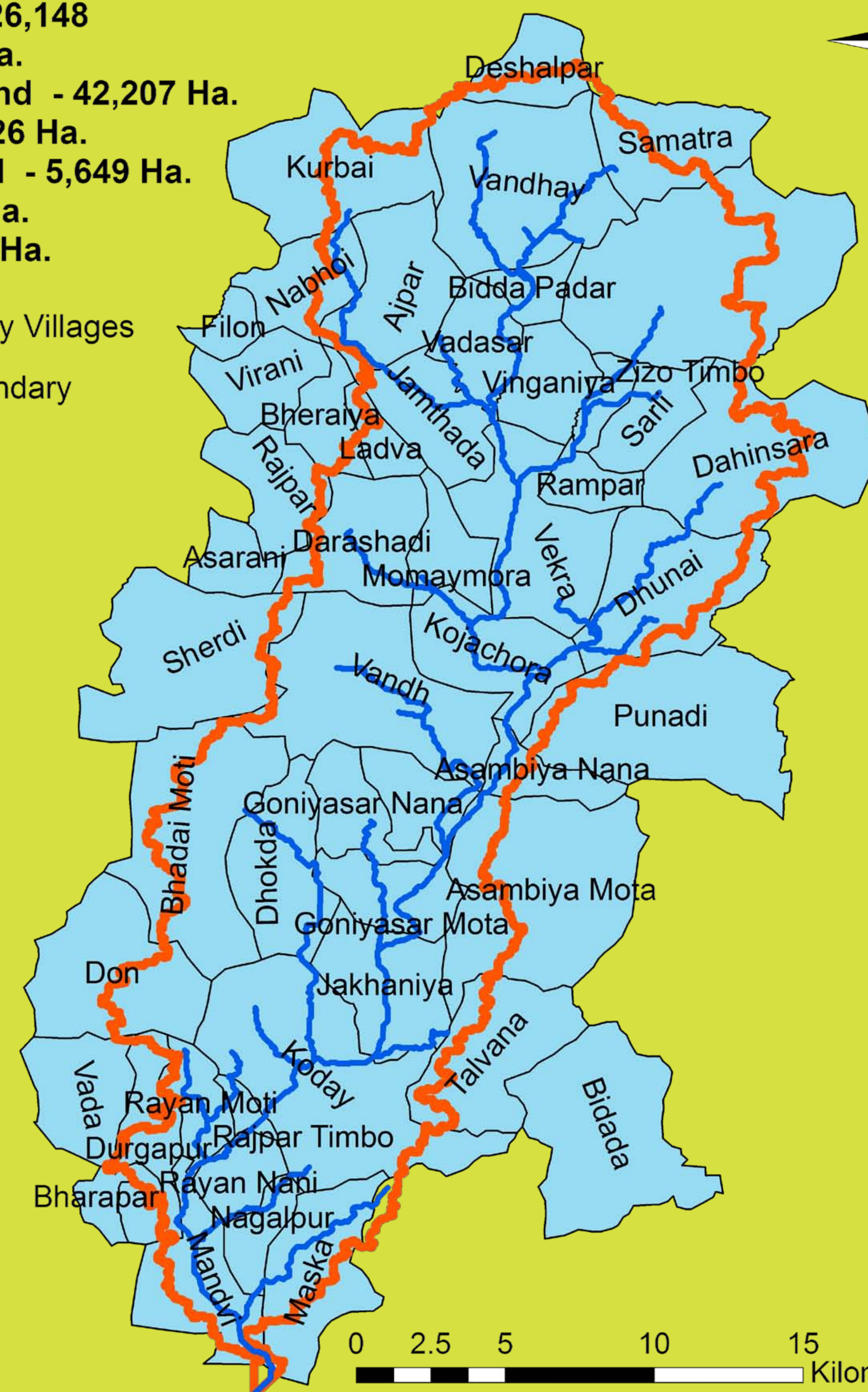
Rukmavati River Basin

Casestudy from Kutch, Gujarat



No of Villages - 55
 Total population - 1,26,148
 Total Area - 72,030 Ha.
 Total Agricultural Land - 42,207 Ha.
 Irrigated Land - 18,526 Ha.
 Cultivable Wasteland - 5,649 Ha.
 Forest Area - 4,282 Ha.
 Other Land - 21,801 Ha.

 Rukmavati Study Villages
 Watershed Boundary
 Drainage



Water Resource Management (Hydrology):

New check dams – 107,
 Storage capacity - 40 Million Cubic Feet,
 Beneficial farmers – 1692, Area under irrigation - 3784 hectares

Desilting in 84 structures and 504 hectares benefitting 379 farmers resulted in reduced requirement of chemical fertilizer.

50% saving in water through promotion of drip irrigation in 3684 Ha area.

Natural Resource Management

2000 MT waste converted to compost from 400 Ha of area by 750 farmers resulted in improvement in soil fertility

Promoting legume as inter crop – nitrogen fixation in soil and also providing food security (Nitrogen fixation - 103 MT in 3600 Ha (224 MT urea saving)

Animal husbandry

Pasture land development in 500 Ha of land to provide fodder security.

Farm bunding to conserve soil moisture and control soil erosion, in 64 hectares of land resulted in improvement of productivity by 8 – 10%.

Improving market linkage, 20% increase in income

Tree plantation

35,000 trees planted in basin area to improve greenery

Horticultural plantation of Date palm, Pomegranate, Mango, Ber, Banana and Papaya in 500 Ha to provide income to farmers.