

## **Summary of Impact Assessment Report**

### **Water Conservation Project**

Nanduri Dumala, Sangamner, Ahmednagar

The Corporate Social responsibility (CSR) Policy of CGCEL, is rooted in the belief that business sustainability is closely connected to the sustainable development of the communities and environment in which the business operates. Water Conservation, Skill & Entrepreneurship Development and Community Care are three focus areas identified under the CSR framework

One such project under Water Conservation was implemented in collaboration with Vanarai, a reputed NGO in this domain. The third-party Baseline, Endline, Structural Audit & HydroGeo Assessment of the project was conducted by NuSocia, an impact advisory firm.

**Project title:** Water Conservation Program

**Location:** Nanduri Dumala, Sangamner Block, Ahmednagar District, Maharashtra

**Implementation Partner:** Vanarai (Not-for-Profit Organisation)

**Project timeline:** January 2022 to June 2022

#### **Project Objectives:**

1. Increasing community participation in sustainable watershed development and further management
2. Preventing soil erosion, increasing soil moisture, raising groundwater levels, and conserving and increasing the biomass cover of the area
3. Controlling soil erosion by lowering runoff velocities
4. Increasing agricultural production of farmers

#### **Project Rationale:**

- Sangamner, Ahmednagar faces water scarcity problems due to its geographical location, with limited rainfall and an erratic pattern. As a result, the water supply is limited and the water resources are depleted which leads to water scarcity in the region
- Sangamner is predominantly an agricultural area, and the agricultural sector relies heavily on water for irrigation. The lack of water availability can severely impact crop production and yield, leading to financial losses for farmers and the local economy
- Climate change is causing changes in rainfall patterns, making it more unpredictable and erratic. As a result, it is essential to conserve and manage water resources effectively to adapt to these changes

- By implementing water conservation measures, there are potential economic benefits that can be realised. The improved availability of water resources can create opportunities for more sustainable economic development

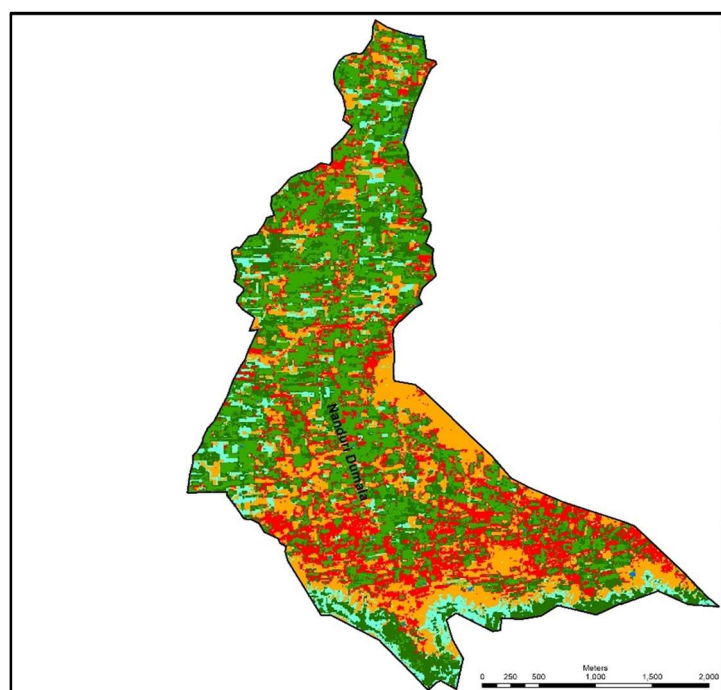
- **Key Interventions:**

Intervention	Quantity
Digging of Percolation Tank	01 Nos
Construction of new Cement Nala Bund	02 Nos
Repairing of Cement Nala Bund	02 Nos
Nala Deepening	01 Km
Loose Boulder Structures	300 Nos
Deep CCT	23 Ha
Tree Plantation	3840

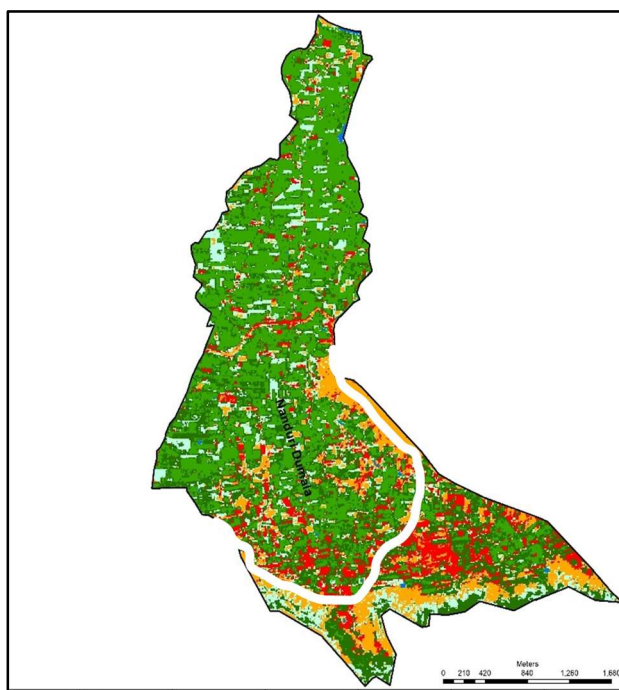
#### **Key Findings of the assessment:**

1. Change in Water Recharge:
  - The amount of runoff harvested indicates that approximately 25.4% of the area's total runoff has been captured because of Water Conservation Structures implemented under project
  - Total runoff conserved because of Water Conservation Structures for the year 2022-23 was 1.55 Lakh liters (155927.2 m<sup>3</sup>/kiloliters)
2. Change in area under cultivation:
  - On field research along with HydroGeo study indicates increase in area under cultivation because of the Water Conservation Project.

- 104 acre (42.16 hectare) area increased under cultivation from Waste/Fallowland.



Jan 2022



Jan 2023

*There is an increase in the cultivation area in the year 2023 has been observed*

### 3. Change in Cropping Pattern:

- 73% farmers confirmed that the change in cropping pattern is because of the water conservation project
- Corn, Soyabean, Wheat, Sugarcane cash crop cultivation has increased by 11% in the region because of the Water Conservation project

### 4. Change in Income & Expenditure:

- Water availability as a result of the Water Conservation Project led to changes in cropping patterns and it has also impacted the farming practices as more farmers have reinvested their income in good farming practices such as soil testing, seed treatment and cropping method.
- The Water Conservation Structures have helped in reducing the dependency on rainfed farming and hence increase in organised irrigation practices has been observed. For example, the farm bund method
- 69% farmers confirm that their annual farming income has increased because of the Water Conservation Project
- Average 12% increment in the annual income of farmers verified through field data
- Additional annual income gained by farmers reinvested in technology-oriented farming practices as well as reinvested in purchasing livestock.

### 5. Change in Agricultural Allied Businesses :

- 8% increase in the number of farmers who have started doing Livestock rearing of cows, buffaloes, and goats because of the availability of Water and Fodder due to the Water Conservation Intervention.
- 44% farmers confirmed that expenses on fodder have drastically reduced because the water availability leads to fodder availability
- In the month of January 2023, village dairy daily milk collection was nearly 300 litres more compared to the baseline because of water and fodder availability resulting from the Water Conservation Project

**Key Recommendation:**

- Formation of a village-level committee for on ground monitoring and evaluation
- Collaboration and leveraging resources and manpower can aid in effective implementation with the greatest impact possible
- Involve the local community in the planning and construction of water structures to ensure their ownership and sustainability

End of the document.