



**Water Conservation Initiative of  
Solapur District**



As per National Agricultural Research Project (NARP) classification of agro climatic zones of country, Solapur (Maharashtra) falls in scarcity zone. The average rainfall in solapur is roughly 488 mm. Out of 11 blocks 10 blocks are covered under drought prone area programme (DPAP).

The broader objective of the initiative was soil and water conservation to ensure sufficient availability of drinking water making Solapur free of water-scarcity. The Soil and water conservation work would achieve convergence of investments in irrigation. It involves Soil & Water conservation schemes while treating each village as one micro-watershed.

All concerned agencies at State, Taluka and Block level including Agriculture Department, Forest Department, Soil & Water Conservation Department, Zillah Parishad, Water Recourse Ministry, Ground Water Survey &



Development Agency (GSDA) were involved to work in integrated manner. The District Collector chaired the initiative.

Scientific approach was adopted for watershed development. Top to bottom approach area treatment works such as compartment bunding, continuous contour trenches (CCT), deep CCT, desilting, nala deepening, repairing of existing structures were preferred over drainage line works such as cement nala band, earthen nala bandh. This preference to area treatment over drainage line treatment was maintained in 70:30 Ratio. Reuse of waste water from urban and rural area was also done. Attempts were made to recharge ground water by reducing runoff and evaporation.

The following actions were taken:-

- a) **Use of Treatment potential map-** All Watershed works are planned according to treatment potential map. Each map contain micro watershed & mega watershed boundary, village boundary, survey number, contour, Afforestation area, river, lineament/ dyke. Area treatment & drainage line treatment area.



- b) **Water Budgeting Based Planning** - Awareness was generated among rural community for water budgeting in their village, amount of water available through runoff, amount of water required to fulfil the demand of human & livestock population. Crop wise requirement of irrigation water.
- c) **Third Party Evaluation & Geo Tagging** – Third party evaluation of all the work done under soil and water conservation was carried out by State Government appointed agencies. 100 percent geo tagging of all the soil & water conservation works done on MRSAC portal.
- d) **Nala Deepening & widening** works were undertaken through public participation and CSR funds.





These activities created significant irrigation potential in 2019-20. Compartment bunding was done across 1,77,467 hectare area, continuous contour trenching in 10 hectare area and deep continuous contour trenching in 1849 hectare area. 1600 farm ponds were built. Drainage line treatment was done in cement nala bund, earthen nala bund. Repairing of cement nala bund, percolation tanks and desilting of nallas was done. 19 new barage were constructed and together these efforts bought 1,04,068 hectare area under irrigation @ 0.50 thousand cubic meter water/hectare.

In rural area of Solapur district, soak pits were constructed which could be built and repaired with locally available materials. It is a small land area, low capital cost, low operating cost solution, which helps in recharging of groundwater bodies, reduces mosquito breeding thus preventing vector borne diseases. The streets are also left clean. As a result, around 10,691 million liters of water that is used in rural areas for domestic needs is available for ground water recharge.

Solapur Municipal Corporation has established three sewage treatment plants, which can purify 10.25

crore litre of water per day and the treated water is supplied to the Industry.

During 1972 drought, under a large number of percolation tanks were constructed in solapur district employment guarantee scheme. Over the period these tanks were silted, damaged due to lack of maintenance. To ensure that the water percolates to the ground, it is essential to repair the percolation tank by putting black cotton soil in the cut off trench. 384 percolation tanks were repaired with government funds and desiltation was done by people's participation (mainly local villagers). 685 percolation tanks were repaired, 78 village tanks were repaired. The effective storage capacity restored from repaired structures is 10,512 TCM (thousand cubic metres).

42 Km stretch of river Kasal ganga Odha covering 3 Blocks, 23 villages was rejuvenated with funds received from Tata Trust. The Vitthal Ganga (Bend Odha) rejuvenation Project was funded by the State government and NAAM Foundation, Precision Foundation. The 34 Km covered one block and 13 villages.

As a result of the efforts of the District Administration, the ground water level increased in October, 2019 by 1.40 m compared to average ground water level in October of last five year. The increase in the area of irrigated crops such as Onion, Wheat; Fruit crops such as Pomegranate, Grapes, custard and apple was more than 1.10 Lakh Hectare over rainfed crops due to availability of protective irrigation. Availability of safe drinking water due to decentralized water conservation structures in rural area also increased. 1.7 Lakh new water harvesting structures created irrigation potential of 1.36 Lakh hectare. 13,374 hectare area was bought under drip irrigation with increase in water use efficiency. The organic matter rich silt lifted from water bodies was spread on barren land increasing the productivity.