

# Soil protection and rehabilitation of degraded land in India



## Context

Half of India's population works in the farming sector. In rural areas, small farmers' structures continue to constitute the basis for local food security. Yet about half of India's territory (147 million ha) is affected by land degradation caused by water and wind erosion as well as soil salinization and acidification due to inadequate agricultural practices or inappropriate irrigation. Cropping areas are under increasing pressure from high population growth, intensive land use and climate change. The Indian states of Madhya Pradesh and Maharashtra are particularly affected by drought and erosion, which increase cropping risks for

smallholder farms. State programmes and subsidies focus on irrigation systems and mineral fertilizers. Alternative techniques to improve soil health have not been enough disseminated enough. Public advisory services reach only a fraction of the farmers and soil fertility preservation is not a component of their training. Positive experiences with regard to soil protection and soil fertility made by civil society organisations, the private sector or the scientific community often do not find consideration in policy-making processes.

## Activities in India

- ▶ **Competences for soil protection:** Farmers receive soil health cards, are trained in implementing soil protection practices and management of home gardens. Coordinated guidelines for soil protection ensure sustainability and replicability of measures and create convergence with national programmes.
- ▶ **Digital solutions for sustainable soil management:** The digital consulting system "niceSSM" uses digital-analogue consulting and monitoring instruments related to soil protection through the state agricultural consulting system. It generates professional feedback to farmers and adapts advisory content to local needs.
- ▶ **Closing nutrient cycles to enhance soil fertility:** The Urban-Rural Nutrient and Carbon Cycle (URNCC) initiative establishes sustainable market-oriented approaches and new business models for the use of

compost in rural areas and value chains for the recycling of nutrients and carbon from cities.

- ▶ **Landscape and land use planning:** Large-scale planning integrates soil protection and soil fertility management through established landscape planning into water catchment areas.

### Our objective

Approaches for soil protection and rehabilitation are implemented on 153,000 ha of land. Improvement in the socio-economic situation of women farmers; minimum by two points on a scale of zero to five. Yields on the treated fields increase by 28 per cent. Additionally, implementation guidelines for two incentive mechanisms for soil fertility management, oriented towards the private sector and civil society, are made available.



## Regions

5 districts in the state of Maharashtra and  
2 districts in the state of Madhya Pradesh.

## Duration

May 2015 – June 2023

## Budget

EUR 22.235.000 EUR

## Commissioning party

German Federal Ministry of Economic Cooperation and  
Development (BMZ)

## Implementation partners

National NGOs (WOTR, BAIF and FES)  
National and international research: Birla Institute for  
Technology and Science, Indian Institute for Soil Science,  
International Crops Research Institute for the Semi-Arid  
Tropics, International Water Management Institute

## Lead executing agency

National Bank for Agriculture and Rural Development  
(NABARD)

## Target group

Smallholder farmers in the two states



## Bringing in the other half

Trained women farmers spurring a movement for women empowerment

“When in need, we call *Didi*” exclaims Kausalya Barkade, explaining, that she reaches out to her neighbour and friend Rajkumari Maravi – the *Didi* – when she is in doubt about an issue pertaining to farming or nutrition. Rajkumari Maravi is a dynamic and self-motivated woman farmer in her mid-30s. She has been chosen by her community as *Gram-Mitra* (village friend) and is also the head of the Mahila Sabha, the village women’s collective, in Kuruvai - a village in Mandla’s Anjaniya cluster just next to Madhya Pradesh’s Kanha National Park. The Rajkumari led Mahila Sabha has around 100 women members - both young and old in its ranks. “From seed improvement to learning new practices of sowing, we are benefitting,” he says. Rajkumari learnt these tips in a workshop organised by FES. She trained other women leaders in the hamlet, who in turn, have trained women farmers in villages across the cluster. “Women’s access to various institutions has improved. They have been raising issues related to drinking water, forests, girls’ education and domestic violence in Gram Sabhas and Panchayats (village councils),” says Ishan Agarwal, Team Leader of FES at Mandla.



Rajkumari Maravi (2nd from right) discussing farming issues with her friends from the village

## Results

As per end of 2019, 28,873 farmers have been reached by the project activities out of which 46% are women. A total area of 46,200 ha of land has been covered with implementing sustainable agricultural measures along with trainings provided to 23,640 farmers out of which 46% are women. In total 186 village level committees are formed in ProSoil project locations, with 41% representation of women farmers. Additionally, 11,812 farmers are registered users of the digital-analogue consulting platform niceSSM.

## Imprint

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