

TUTARKHED VILLAGE PROFILE

Tutarkhed was one of the first villages where UTMT started its Bees for Poverty Reduction program in Gujarat in 2009.

Housing a population of almost 2700 people, Tutarkhed has six hamlets, inhabited by mainly two tribes - the Warlis and the Kokanas.

Agriculture is primarily rainfed and therefore restricts cropping to a single crop in the monsoons. A few farmers have access to irrigation, cultivating during the monsoons and winters. The hilly terrain is uneven, rocky, with steep slopes, causing extensive rainwater run-off in the monsoon. Bunds and small wells are built on farms to hold water for irrigation, however the terrain limits their effect. In recent years, a new challenge for farming has been the increasingly unpredictable rainfall.

The major crops grown here include rice, finger millet (nagli), pigeon pea (toor), bitter gourd (karela), urad, broad beans (vaal-papdi), cow pea (chawli), bengal gram (chana), barnyard millet (varai). The millets, cereals and pulses are consumed at home, while fruit and some vegetables are sold. Many families have *wadis* of mango and cashew, given by the NGO BAIF 10 years ago.

The village has a Primary Health Center, two anganwadis and a primary school of its own. There are a few Aashramshalas too on the way to Tutarkhed. The village belongs to Group Panchayat of the Tutarkhed Group Gram Panchayat which has four other villages in it.

During the program's early days in 2009, the villagers were reluctant participants, challenging UTMT staff saying bee keeping would not take off as the area lacked bee colonies! The farmers were extremely scared of bees, and worried about being stung. The first training program saw only 4 farmers attending. This number grew each year as the activity took root - today Tutarkhed has 20 beekeepers (including 5 dropout farmers who have resumed the activity), and 100 beehives. Several of UTMT's most experienced technical staff hail from Tutarkhed, 2 having been with the program since its inception.

UTMT's Beekeeping Resource Centre is located in Tutarkhed, which is a one-stop shop for all beekeeping resources. It serves as a venue for new project trainings, meetings, storage of inputs, and also holds a 15 beehive apiary that is used during experiments in bee rearing.

A carpentry group here is active in making beehives for new UTMT projects, and trains new UTMT carpenters from other state programs.

The village was one of the sites for a 6-month beekeeping Impact Assessment study in 2011-12, done by an independent researcher. 16 crops were monitored (brinjal, chillies, tomato, jowar, cashew, flatbean, capsicum etc), and the results showed significant yield increases ranging from 227% (capsicum) to 27% (ridge gourd).

Perhaps the strongest evidence of agricultural impact comes from the farmers themselves:

Madhubhai, Tech Asst:

- "2013 was not a good year for the mango crop in this cluster. But there was a good crop of mangoes in the wadis having beehives, the other mango wadis had no crop."

- “What was earlier 15 man (“man” is a unit of measurement where 1 man = 20 kg) of mango output, is now 35 man. Cashew yields that used to be around 90kg, have become 150 kg with the same farming practices”

Cropping patterns here have undergone change since the arrival of beekeeping:

- Sunhemp – a valuable fodder crop commanding a good price at local milk dairies, and requiring little water – was not cultivated much as it used to not grow well. However, the few farmers growing it noticed it flourishing after beekeeping began. Word spread, and today sunhemp is commonly grown in the cluster. Madhubhai says his yields are 50-60% more than non-beekeepers’ sunhemp yields.
- Chana (bengal gram/ chickpea) was another crop not commonly cultivated. On learning that it is a bee-friendly crop, many beekeepers have begun to grow and consume it at home during winter.

Thanks to the new winter cropping pattern, the area has witnessed two annual bee division periods since 2012 – one routine period in Oct-Nov and a second smaller one in Jan-Feb, as opposed to only the former till 2011. Earlier the forest flora was too scarce in winters, to support a second bee division phase.

While the flora in Tutarkhed is not the best in the cluster, the honey output has been reasonably good. Between 2012 and 2013, 80 kg honey was produced from its beehives. In 2014, the honey flow was a record 88 kg. As word has spread about the activity, demand for honey is more than the supply. Often, government and other NGO staff, drivers, place orders before the season commences. Prices range from Rs. 300- 350 per kg.

An interesting feature is a kind of barter system with honey: beekeepers keep their boxes in other’s farms if there is insufficient flora around their own farm. Payment is eventually made in form of a little honey.

Honeyhunting practices common in villages, have reduced since beekeeping began. If people spot an *Apis cerana* colony, they inform the local technical staff and the colony is put into a beehive. Earlier, they wouldn’t think twice before destroying the colony for honey. Santubhai, a beekeeper trained on the job, was a honeyhunter with his father since childhood. His father today informs him when he spots a bee colony, following which he independently transfers the bees into a beehive.

Seeing the benefits their neighbours are reaping, several farmers approach the field staff for training. With its established base of technical staff and beehives, Tutarkhed and its cluster villages form a model beekeeping cluster, where exposure visits and advanced trainings are routinely held for new project beneficiaries.