

# **The Lift Irrigation Impact of Mota Dharola Village:**

## **Case Study Highlights**

By

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During 1995-1996, the Sadguru Foundation initiated a community lift irrigation (LI) scheme at Mota Dharola village (currently Santrampur taluka, Mahisagar district, Gujarat). In February 2014, I visited Mota Dharola accompanied by colleagues, Ramesh Patel (Head of Forestry) and Kanhaiya Choudhary (CEO, Sadguru Foundation) and spoke to community leaders to assess the economic impact of lift irrigation.

The village currently has a mixture of 54 Patel households and 48 tribal households. Prior to the LI scheme, the village had access to Kadana canal irrigation system, but the irrigation water use efficiency was only 40% while the rest of the farmers were on the mercy of the monsoon rains. Due to the undulating terrain, the canal irrigation system was unable to transport waters to all farms evenly. The low groundwater table further discouraged even those who thought about drilling deep in search of water. Understanding the rough terrain-induced setbacks, villagers approached Sadguru Foundation and appealed to the directors to set up a LI scheme since it's the ideal technology suitable for the rugged drylands. Currently, all farmers who own a total of 470 acres in the village have become beneficiaries of Sadguru's lift irrigation scheme. The village-based irrigation cooperative maintains the LI scheme from the beginning, which is the lifeline.

The Mota Dharola village has enormously benefited through the lift irrigation-supported farming and the village community has made a profit margin of over two crore rupees annually alone through agriculture production. I visited numerous villages in Gujarat, Rajasthan and Madhya Pradesh, and I

must state that Mota Darola is one of the most progressive villages I have seen during the last eight years of my association with Sadguru. For example, each house in the village now has one or two government employees. Even retired government and corporate staff return there for resettlement since agriculture work keeps them fully occupied, both physically and mentally. I did not see any sub-standard houses (Fig. 1). A retired polytechnic principal for instance who recently returned told me that community members have better cooperation and unity without prejudice, which is the root cause for success. He even showed the neighbouring Nana Darola village as an example where the LI scheme that was put in place 10 years ago did not succeed, mainly due to the lack of internal unity and harmony among community members.



*Fig. 1: Main Street in Mota Darola village showing better housing quality like any town*



*Fig.2: An exclusive home built for livestock (white-washed left) while the family occupies the near by house (coloured on the right).*

The economic progress created by the Sadguru lift irrigation scheme eventually led the small and mixed village community of Mota Darola to start a new dairy cooperative society. Now the cooperative produces enormous amount of milk daily supported by high-tech freezer where milk trucks come regularly to pick up, transport and distribute milk in market. This new endeavour is the ultimate result of the enduring impact of LI scheme that produced not only crops, vegetables and fruits but also surplus fodder to sustain numerous livestock.

The president of the dairy society told me that they have a total of 250 buffaloes and 50 cows, each head costing approximately 50,000 rupees. The society members treat their buffaloes and cows with respect; the animals stay with their human families throughout their lives, even when they become unproductive. What fascinated me was that people keep their precious livestock indoor in their living rooms where both human and the non-human companions watch television together. Moreover, some even built concrete housing to keep their beloved livestock (Fig. 2), which shows the remarkable economic incentives brought about by the livestock.

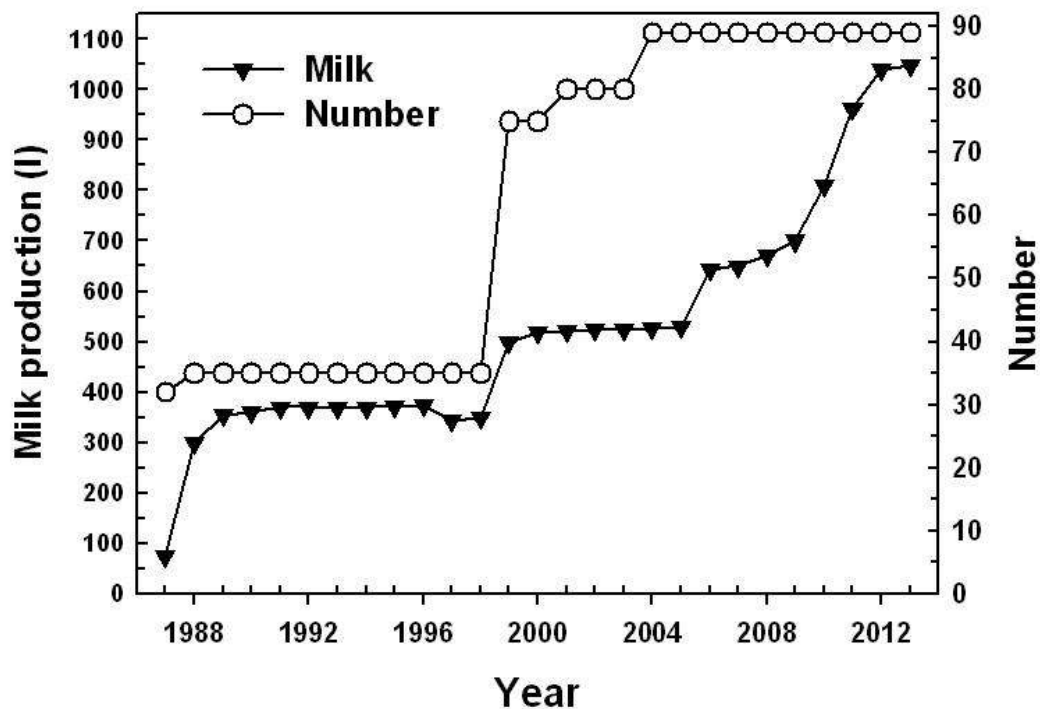


Fig. 3. Increase in the number of people joining dairy society and average daily milk production in litter between 1987 and 2013.

Mota Darola's dairy society currently has 105 members; it produces a total of 1200 litres of milk daily, which equals to 42,000 rupees. So the community's total annual profit from milk alone comes to an astonishing figure of 1.2 crore rupees. Even if the society membership gets 50% net profit after deducting all minor plus major operational overheads, it is an enormous economic benefit for a small rural community. The village dairy statistics clearly show that Mota Darola initiated the dairy business in 1987 but the milk output started to increase significantly only two years after the implementation of Sadguru's LI scheme (Fig. 3). The milk production has more than doubled especially during the last 10 years (Fig. 3) showing the longitudinal economic effect of lift irrigation.

The Mota Darola dairy model indeed reflects the national trend on how the dairy-based white revolution transformed India's past milk-deficient status prior to the 1970s to the world's leading milk producer later due to the influence of India's dairy cooperative pioneered in Gujarat. Recent statistics show that India produced 132.4 million tonnes of milk during 2012-13, which is 15% of the global production with an economic value of 270,000 crore rupees, making it one of the world's largest milk producers. Besides, the country exported 87,824.21 tonnes of dairy products worth over 1412 crore rupees to countries such as Bangladesh, Egypt, USE, Saudi Arabia, Algeria and Yemen.

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