Scholarly Research Journal for Humanity Science & English Language,
Online ISSN 2348-3083, SJ IMPACT FACTOR 2016 = 4.44, www.srjis.com
UGC Approved Sr. No.48612, DEC-JAN 2018, VOL- 5/25

WATER CAN CHANGE FARMERS' LIFE: A CASE FROM MAHARASHTRA

Shankar Chatterjee, Ph. D.

Former Prof & Head (CPME), NIRD &PR, Hyderabad-500 030, Telangana, India

E-mail: <shankarjagu@gmail.com>

Abstract

Assured water is one of the important inputs for good harvest which is sine qua non for Indian farmers and if water is assured then not only they will sustain but country can prosper, as we all know Gandhiji long ago mentioned, "India does not live in its towns but in its villages" (mkgandhi.org/gandhi on villages).In view of this, we have to focus on development of farmers as they have been providing us food by doing hard labour in all the seasons.Keeping in mind of these, inAhmednagar district of Maharashtra at Bahirwadi village ofAhmednagarblock by constructing awatershedin2001, many farmers as well as 400 acres of agricultural land have been benefitted. Of course rainfall (normal in the area is 500 millimetres) should be normal. Keeping in mind of this, a study was conducted in January 2018 about the crops grown, its production, farmers' individual family income etc., and for this few farmers were contacted and data were collected from them.

Keywords: *agriculture, crops, farmers and income.*

Ahmednagar district is the largest district of Maharashtra located in western side. *Ahmednagar* city is the headquarters of the district. According to 2011 census *Ahmednagar* district recorded a population of 4,543,083. This gives the district rank of 33rd among the districts of India (out of a total of 640). The district had a population density of 266 persons per square kilometre. Its population growth rate over the decade 2001-2011 was 12.43% and had a sex ratio of 934 females for every 1000 males. The district had a literacy rate of 80.22% in 2011 and it is a part of Nasik Division.

. This district is known for the towns of *Shirdi* associated with *Sai Baba and Meherabad* associated with *Meher Baba and ShaniShinganapur* with *Shanidev* as sequel lot of tourists, visitors from India and abroad visit the district. In 2006 the Ministry of *Panchayati Raj* selected *Ahmednagar* one of the country's 250 most backward districts (out of a total of 640) and thus entitled to receive assistance from the Backward Regions Grant Fund Scheme (BRGF) (en.wikipedia.org/wiki/Ahmednagar_district). The district gets low rainfall as average rainfall is 500 millimetres and that too sometimes erratic in nature as a result farmers

suffer. We all know Gandhiji long ago mentioned, "India does not live in its towns but in its villages." (Mkgandhi.org/gandhi on villages). In view of this, we have to focus on development of farmers so that they do not live in economic hardship as they have been providing us food by doing hard labour in all the seasons. Keeping in mind of the development of farmers, in Ahmednagar district of Maharashtra, at *Bahirwadi* village of Ahmednagar block by constructing a watershed in 2001, many farmers as well as 400 acres of agricultural land have been benefitted. Of course rainfall (normal in the area is 500 millimetres) should be normal.

To get an idea about the farmers' income, cropping pattern etc., a study was carried out in January 2018 at *Bahirwadi village of Ahmednagar* block of *Ahmedngar* district. The village is spread over to an area of 974 hectares of land and home of 315 households with total population of 1628. In this village,a watershed was constructed in 2001 which facilitated to recharging water and thus water table had gone up. Many farmers had their own well so their wells were full of water if rainfall was normal. They informed that in 2016 and earlier two years rainfall was low so they could not harvest good crops but in 2017 because of good rainfall their harvest was adequate.

About *Bahirwadi* watershed:*Bahirwadi*watershed is located at 74°12'-74°13' East longitudesand 19°49'-19°50' North latitudes. The area of the watershed is 602.00hectares, dominated by shallow and medium depth black soil.Total irrigated area in this watershed was 422.00 hectares,rain-fed area was 30 hectares, area under cultivation 683.82 hectares, forest area 82.00 hectares and barren area was 68 hectares. Average rainfall in the village is500millimetres that too sometimes less like in 2016. In this section, crops grown before and after construction of the watershed are highlighted for the benefit of readers.

The secondary data provided by the block officials revealed the fact that before the watershed in Kharif, *bajra* was the major crop as more and more areas were under the *bajra* cultivation, followed by sunflower, onion, vegetables, fodder crop, green gram, etc. However, after the implementation of thewater shed project, a positive impact onagriculture is observed. For instance, area under *bajara* decreased and tremendous increase in area of onion cultivationwas reported also increased in the area of vegetables cultivation, fodder, green gram, sunflower etc.

Similarly, the data of provided by the officials on *Rabi* crops show that before the project *jawar* was the major crop and other crops were wheat, vegetables, garlicetc., but not in huge area. After implementation of the watershed project, *jawar*area decreased but onion area increased, followed by fodder crop, vegetables, wheat, garlic etc. and cultivated area also increased.

An attempt was made to work out SWOT analysis about the project which may be seen below:

Strength: Strength of *Bahirwadi* watershed is that ground water had increased, crop production, soil fertility etc., had also gone up. Thus farmers' income was enhanced and they were rearing buffaloes/cows/goats for milk purpose also.

Weakness: Free grazing was the main issue.

Opportunities: Farmers were rearing more buffaloes/cows/goats as area under fodder increased.

Threats: Exploitation of water through bore wells may cause problem in future particularly if rainfall is not at least 500 millimetres.

Field Cases:

This article has thrown light if rainfall is normal farmers can harvest good crops but if the same is low then farmers suffer. This study shows in 2001 the watershed supposed to benefit farmers in 422 hectares of land, if rainfall is good/ normal then only fruits of benefit will reach to the farmers. Based on field study carried out inJanuary 2018, few cases are presented here. All the farmers had their own well for irrigation and many of them had animal resource also.It is pertinent to mention that most of the famers in the village in Kharif cultivate onion and in Rabi season they grow garlic so onion and garlic are the main crops grown by the farmers of that village.

Case 1 Sri *Vishnu Jare* (63 years / 8thpass) with seven family members had nine acres of agricultural land. Due to drought in 2016, he could not reap good harvest but his luck changed in 2017 because of normal rainfall, his agricultural output was adequate. He mainly cultivates onion and garlic both in Kharif & Rabi. According to him in 2016, by cultivating onion in Kharif, he merely could get an amount of Rs.2.00 lakh as net profit. On the other hand, in 2017 during Kharif by cultivating onion, he could earn a net income of Rs.6 lakh. Similarly, by cultivating garlic in Rabi season in 2016 his earning was only around Rs. 1.75

lakh and in 2017through garlic (which will be harvested in March 2018) in Rabi, he is expecting around Rs.4.00 lakh. Because of watershed and his own well, water was sufficient for cultivation and his economic life changed.

Case 2: Sri *MajenowRhoidas B.R. Darkhande* (64 years/ 12th pass in science stream) with six members of family had five acres of land under irrigation and another five acres of dry land where millets are mainly grown. He had his own well and normal rainfall helped him to earn good income in 2017 as wells in the area were recharged. According to him millet crops were poorly grown in2016 but situation improved in 2017 as crop production was adequate. In addition, he cultivatedfodder for his buffaloes (three in number). By selling buffaloes milk on an average his net earning was hovering around Rs.30,000 per month. In 2016, by growing onion, his net income was Rs.2.50 lakh which was enhanced to Rs.5 lakh in2017. Sri *Darkhande* informed that his farming was organic way of farming, so he was not concerned about huge money.

Case 3: Sri *MajeRao Y. B.Darkunde* (66 years/ 11thpass) with six members' family survives on four acres of agricultural land. In the year 2016, by cultivating onion in Kharif he could earn a net amount of Rs.1.50 lakh which was Rs.5 lakh in 2017. Andin Rabi in 2016 by cultivating garlic his net earning was only Rs.50,000 and the same as expected by him in 2018 (March) would be around Rs.1.50 lakh. In addition, he had goats by selling goats' milk he was getting some amount and also family members consume milk.

Case 4:*Sri Vilash G. Darkunde (*40/ 10thpass) had three acres of land with well. With seven members in the family, he suffered in2016 but situation improved in 2017. By nurturing onion in 2016 he could earn around Rs.1 lakh as net profit and in Rabi virtually he did not get any crop so he had to work as wage labour at *Ahmednagar* town. However, in the year 2017 by growing onion in Kharif, he could earn a net income of Rs. 4.5 lakh and in 2017 (Rabi), his expectation was around Rs.2 lakh as net income through garlic.

Case 7: Sri *VairuLaxmanDarkunde* cultivates three acres of land with his wife *Ms.Himabhai.* Both had completed middle school and were in early 40 years of age. In 2016, by growing onion and vegetables in Kharif they could get a net income of Rs.1 lakh which was Rs.4 lakh in 2017. In 2016 during Rabi season his income was virtually nil but by producing vegetables and little onion his net earning was Rs.1 lakh in 2017 during Rabi.

Case 8:*Ms.JannhaBai (*47 years/ illiterate) after death of her husband started cultivating husband's agricultural land on nine acres of land of which three acres irrigated and six acres dry land but no crops were grown in dry land. She had two sons and one married daughter. Her problem was that because of invasion of deer (many in number) from nearby forest crops were eaten away by them in Rabi so the family members never grow any crop in Rabi. She further informed that in Kharif because of rainfall grass, fodder etc., were available in the forest (located in the upland) so deer did not have any problem. In 2017 during Kharif family could earn around Rs.3.50 lakh as net profit which was almost half in 2016.

Conclusion:

This study reveals that assured water is one of the important inputs for good harvest which is *sine qua non* for Indian farmers and if water is assured then the farmers will economically prosper. It was observed that in the village that the farmers never experimented with new crops such as cotton, orange, or any other crops which are beyond their knowledge. They had given importance to produce those crops which they had full knowledge. And that is why in spite of bad rainfall or low output no suicide of farmer took place in any year in the village among the farmers.

(The author extends his sincere thanks to Sri U G Karpe, former Project Director of DRDA, Ahmednagar and District and Block Agricultural Officer/Officials for their support in carrying out the study).

References:

Department of Agriculture, Taluka Agriculture Office, Ahmednagar, "Impact Evaluation of Bahirwadi WatershedAhmednagar", State Govt. of Maharashtra, Department of Agriculture

https://en.wikipedia.org/wiki/Ahmednagar_district

http://www.mkgandhi.org/gandhionvillages/upliftmentofvillages.htm