

Dilemma of Agricultural Practices and its Impact on Rural Livelihood: An outline on Billwagram G. P. in Nakashipara Block, Nadia District, West Bengal

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Received: March 27, 2018

Accepted: April 30, 2018

ABSTRACT

Agriculture is the main economic enterprise in which India's major populations is employed and sustains their livelihood. But the productions as well as economic profitability of agricultural activities are declining and becoming less competitive in spite of various developmental measures taken care of by different stakeholders. The negative scenario in India is perceived through studying the percentage of distribution of agricultural contribution in GDP and negates the overall national development in general and the rural agricultural societies in particular. In this study, the miserable scenario of agriculture and its impact on the socio-economic indices of agricultural families at Billwagram Gram Panchayat (G.P.) of Nakashipara, Community Development Block, in Nadia District have been investigated through rigorous field based survey. The ever increasing costs of production but uncontrolled exploitative market mechanism and instability of soil health have reduced the scale of profit. In consequence, cultivators feel apathy in agricultural practices and are forced to seek employment in other survival avenues which may not always be suitable for sustenance in the age old typical rural livelihood system of the Gram Panchayat.

Keywords: Livelihood, Stakeholders, Agricultural Society.

Introduction

Agriculture is the mainstay of rural villages in West Bengal which is the most important agricultural state among all the states in India. West Bengal occupies the first position in rice and vegetables production, second in potato production, third in flower and seventh in fruit production (Department of Agriculture, Government of W.B., 2013) in India. The districts of Burdwan, Hooghly, Howrah, South 24 Parganas, North 24 Parganas and Nadia also play an important role in Rice, Jute and vegetable production. Nadia district is potentially a significant crop production district in West Bengal. It belongs to alluvial flood plains of Bhagirathi River which is highly fertile and conducive for cultivation. But agricultural production is not satisfactory in this district. In the year of 2010-11, agricultural productivity of West Bengal was 245.30 (Economic Review, 2011-12). The corresponding figures for Burdwan, Hooghly, Howrah, South 24 Parganas, North 24 Parganas districts were 202.38, 225.25, 254.99, 238.93, 219.76 respectively, whereas that of Nadia was as low as 199.43. The problems plaguing agriculture in this district are mainly monsoonal vagaries, small size of landholding, low production, lack of marketing facilities and low profit. Cultivators mostly depend on their own family labours, animal powers and little bits of mechanization. Use of large quantities of chemical fertilizer, pesticide, insecticide oil for higher yield of cash crop has led to degradation of the environment, plunging the sector in crisis. Farmers are facing various problems in their activities connected with agricultural crop production. They are expressing unwillingness to cultivate land as their occupation has become less profitable. As agriculture is the main occupation of rural people, low agricultural production has adversely affected the rural livelihood.

The Study Areas

The study area is Billwagram Gram Panchayat under Nakashipara block of Nadia district in West Bengal. It is located at the right bank of Bhagirathi River in lower Gangetic region. It extends from latitude 23°32'30"N to 23°36'30"N and longitude 88°20'40"E to 88°25'20"E.

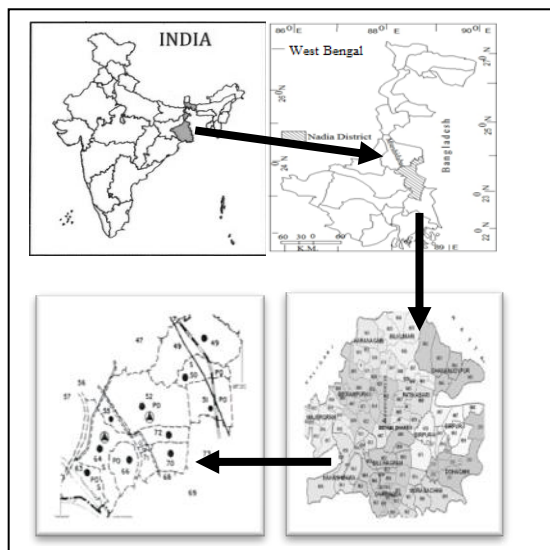


Fig.no.1.Location of the Study Area

Objectives

The objectives of the study are as follows:

1. To find out the problems of agricultural in Billwagram Gram Panchayat.
2. To examine the impact of agricultural problems on rural livelihood.
3. To draw feasible suggestion for solving the problems.

Database and Methods

The present study is based on primary survey and data has been collected from 110 households of 11 mouzas at Billwagram Gram Panchayat through purposive random sample survey with structured questionnaire schedule. Secondary data has also been collected from the Agricultural Development Office, Nakashipara and District Statistical Handbook of Nadia (2006, 2008). Finally, data has been tabulated and analyzed by using cartograms.

Agricultural Problems at the Billwagram G.P.

Though Billwagram Gram Panchayat belongs to alluvial flood plains which are highly fertile and conducive for cultivation of Bhagirathi River. But through the rigorous primary survey it is found that the farmers of Billwagram Gram Panchayat are facing various problems and hindrances in cultivation causing low agricultural production. The main problem of agriculture is that most of the time land remains under water in the part of the river area. As a result no production takes place in these lands for at least six months in a year. Irregular and untimely rainfall causes havoc loss in agricultural production and continuous river bank erosion is engulfing agricultural land of this area. On the other hand, in the rest of the area soil fertility rate is gradually decreasing because of excessive and unscientific use of chemical fertilizer.

Maximum farmers own very small holding size of land in this area. The irrigation system is not good as 88.18% farmers' source of irrigation is diesel shallow tube well and its operational cost is also very high due to price hike. The production cost of cultivation is gradually increasing year by year while selling price of crops is not increasing comparatively. Instead of profit, the poor farmers procure loan at a high rate of interest from local money lenders due to insufficient farmer friendly banking system. Finally, it is found that a few cultivators have got direct aid from governmental institution regarding cultivation. Only 20% of the cultivators have got the following free aids from the Government- seed supply, fertilizer supply, cash, Kissan Card, free training and free soil test etc (Table no.1). Naturally, since production is low, income is also meager and even loss making.

Table no:1. Cultivators Aided by the Government facility at Billwagram G.P.

Items	No. of Farmers	Farmers (%)
Government Aided to Farmers	Seed supply	2.72%
	Fertilizer supply	4.54%
	Cash	2.72%
	Kisan Card holder	3.63%
	Free training	3.63%
	Free Soil Test	2.72%
Farmers Without Government Aided	88	80%
No. of Sample	110	100%

Sources: Primary Survey at Billwagram Gram Panchayat (2017)

Source of Irrigation

Irrigation is the most important input in agricultural crop production. Usually cultivators depend on monsoonal rainfall in agriculture production. But they need irrigation facilities to cultivate in the irregular rainfall over year. In the study area irrigation is poor. It is the major problem for agriculture in this area. So, the cultivators express unwillingness to cultivate because of poor irrigational facilities. Primary survey reveals that irrigation system of the study area can be divided into three categories as -i).diesel shallow tube well, ii).electric deep tube well and iii).others sources for irrigation. 88.18% Cultivators use diesel shallow tube well for irrigation whereas only 13 cultivators have

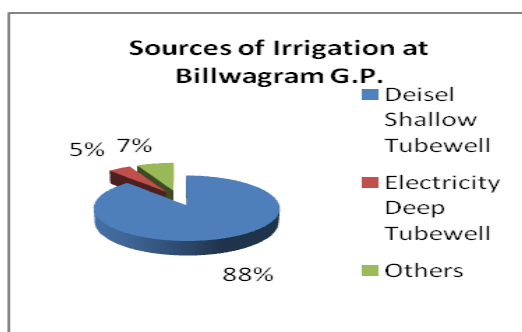


Fig.no.2.Irrigation System

ownership of diesel shallow tube well. On the other hand, 4.54% cultivators use electric deep tube well for irrigation purpose and 7.27% cultivators use others sources as Tank, *Bil*, *Khal*, River lift irrigation, open dug well etc for irrigation (Fig.2). From the above discussion it is clear that the main source of irrigation facilities to the maximum number of farmers is diesel shallow tube well and since the price of diesel is very high and ever increasing day by day, it is becoming difficult for most of the poor farmers to use diesel shallow tube well for irrigation.

Average Crop Production

Farmers of Billwagram G.P. are facing the problems of irregular rainfall, poor irrigation system, excessive

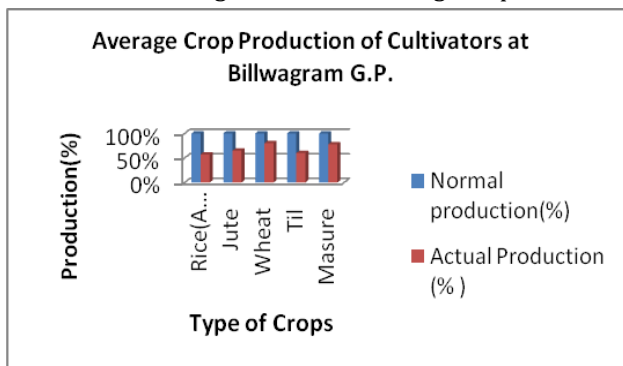


Fig.no.3.Crop Production

use of chemical fertilizers, less soil fertility and poor loan facilities etc. As a result, crop production varies and production level is low. Crop production as measured by the yield of Rice (Aus), Jute, Wheat, *Til* and *Masure Dal* is low from normal production. It shows that various crop productions in a season per *Bigha* or 0.16 hectare. The actual average production of Rice (Aus), Jute, Wheat, *Til* and *Masure Dal* are 342.81kg(57.14%), 259.83kg (64.95%), 400kg(80%), 60kg(60%) and 116.5kg(77.66%) per *Bigha* or 0.16 hectare respectively whereas normal production of those crop is 600kg, 400kg, 500kg, 100kg and 150kg per *Bigha* or 0.16 hectare respectively.

Sources of Loan and Borrow Money

In the Study, it has been found that loan facilities are available but not easy access. As the cultivators are poor, they are compelled to borrow money from various sources of money lenders including banks. There are only three recognized Bank (SBI,UBI,Gramin Bank) available for loan credit. But even getting loans is not easy. For this reason, maximum farmers are compelled to borrow money from *Mahajons* or Hoarders and thus fall into the traps of these unscrupulous people because of the *Dadan* system. Apart from this, farmers are also forced to borrow money from local rich money lender with high rate of interest. The diagram shows that only 5% cultivators consumed loan facilities from various government credit institutions as Bank, LIC, Credit Societies, 40% cultivators borrowed money from local money lender with high rate of interest, 35% cultivators borrowed money from *Mahajons* or Hoarders and only 20% cultivators don't use loan or borrow money.

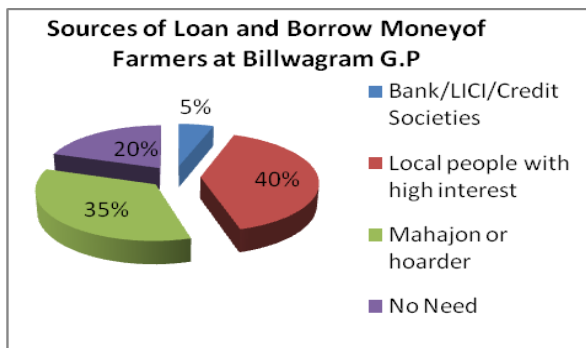


Fig.no.4.Loan Facility

Cultivated Land Holding

According to agronomists land is the field for agricultural practices. It is the basic resource where farmers set up agricultural productions. According to land size of agricultural production, land holders are divided into four types as marginal farmers (<.16 hectare), small farmers (.16-.64 hectare), medium farmers (.64-1.60 hectare) and large land holding farmers (>1.60 hectare). There are 50.90% marginal farmers, 24.50% small farmers, 20.90% medium farmers and 3.60% large holding farmers at the Billwagram G.P. Most of the farmers have no capability to buy new agricultural land because of their production is low; resulting no profit and less income.

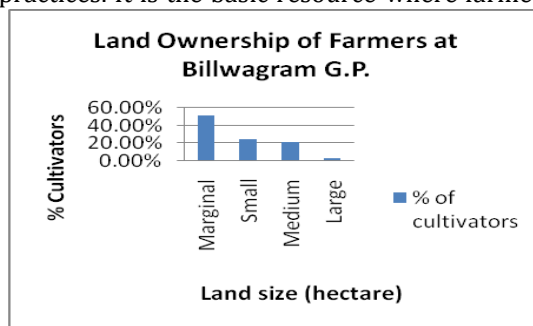


Fig.no.5.Land Ownership

Occupational Problems

Occupation provides money that is necessary for human livelihood. The socio-economic growth depends on occupational structure of any society. The farmers of the study area have suffered from less production in cultivation and ever increasing stressed by socio-economic burden of their family. They are involved in occupation related to cultivation because they do not get others jobs regularly. In the Billwagram G.P. 15% work in their own cultivated land, 65% farmers involved in at least two occupations as agricultural labour with meager cultivation, 20% farmers involved in three or more work, they cultivate along with running grocery shops, engagement in *beedi* making, working as barbers and other such occupation.

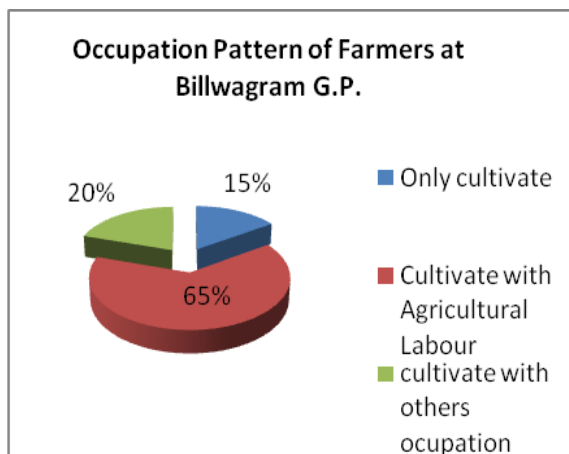


Fig.no.6.Occupation Structure

come Level

It has been indicated that most of the farmers' living standard is not good because production as well as profit are decreasing day by day, consequently they cannot expend sufficient money in food, cloths, education, health and other basic cultural demands. The monthly income of the 67.30% households is below only ₹5000, 25.50% income of households is ₹5000-10000 and 7.10% income of households is above ₹10000.

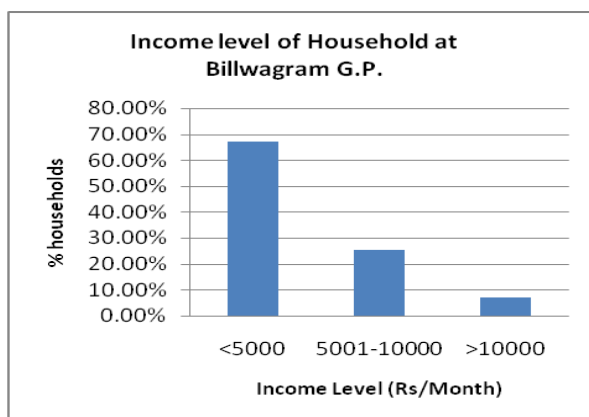


Fig.no.7.Income level

Distributional Pattern of Expenditure

Agricultural problems directly affect expenditure on daily necessary amenities. In the study area, the crop production is not satisfactory, so is the income. The maximum (84%) income is spent for food, only 4% for education, 3% for cloths, 2% for health and 7% for other necessities. So it is clear from this study that very low amount money is spent for necessary amenities.

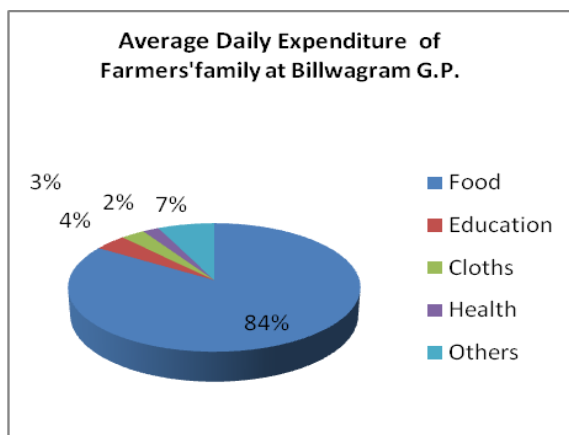


Fig.no.8. Expenditure Pattern

The overall affect of agricultural problems on rural people's livelihood has been shown diagrammatically in figure no.9.

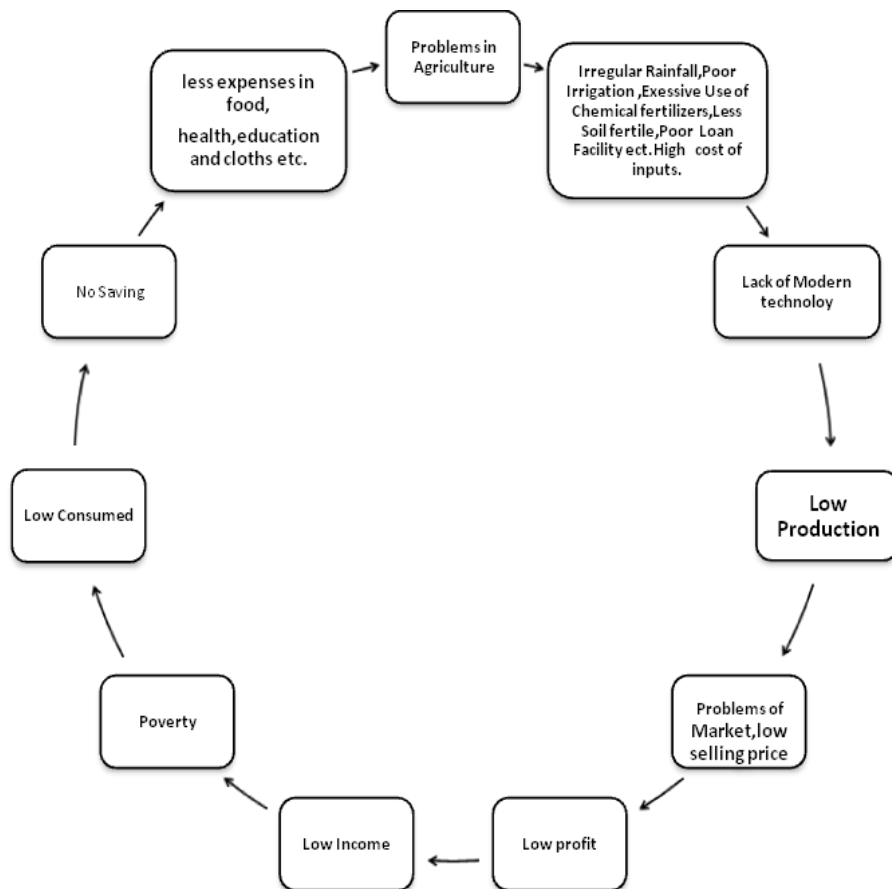


Fig.no.9.Impact of agricultural problems showing with a Chart

Suggestions and Conclusion

From the study, it is clear that at present the farmers of Billwagram Gram Panchayat are facing a crisis in cultivation. If the agricultural problem continues, the condition of the farmers would be quite critical. Under such circumstances, the government should take suitable actions to improve the cultivator's condition by providing better irrigation facilities at lower cost, loan facilities should be easy and it should be directly handed over to the cultivators. The market mechanism should be spared from middleman and the selling price of produced crops should be insured. The government should supply seeds, fertilizers, training and soil test free of cost. Kishan Credit Card should be distributed among the cultivators and crop insurance could be insured and should initiate such programmes to give a boost to agricultural development. Above all the government should take proper initiative to control the hike in petrol, diesel and fertilizers price including the opening of other small scale cottage industries to absorb seasonal unemployed human resources for the betterment of the very human rural livelihood.

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