

# Rural Infrastructure and Marketed Surplus of Various Crops in North 24 Parganas District

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**Abstract**—The Agriculture sector plays an important role in the rural economy of India. It is the back bone of our Indian economy as well as our country and is the dominant sector in terms of employment and livelihood. The volume of marketed surplus reflects the rate of development in agricultural sector in an economy. In the study areas where road network is very good, the farmers may be interested to grow some market-oriented crops. In other word, the availability of good road network system helps the farmer to cultivate their crop commercially. But in the absence of good road network farmers are generally of subsistence in nature and mostly producing for their home consumption only. The study represents the amount of total production, on farm retention and marketed surplus of major crops grown by farmers of North 24 Parganas district of West Bengal. Moreover, the marketed surplus was higher in developed areas, because most of the farmers of the developed areas were market oriented and they generally produce crops for the market besides meeting their domestic requirements. With this background, an attempt is made in this paper to study the impact of Agricultural Infrastructure on marketed surplus in Developed Area over Under Developed Area in North 24 Parganas District, West Bengal.

**Keywords:** Agriculture, Agricultural infrastructure, Marketed surplus, Road network.

## 1. INTRODUCTION

The Agriculture sector plays an important role in the rural economy of India. It is the back bone of our Indian economy as well as our country and is the dominant sector in terms of employment and livelihood. Agriculture still contributes significantly to export earnings and is an important source of raw materials as well as of demand for many industrial products particularly fertilizers, pesticides, agricultural implements and a variety of consumer goods etc. The performance of the agricultural sector influences the growth of Indian economy. Over 65-70 per cent of rural population in India is dependent on Agriculture for their livelihood. In West Bengal, productivity growth in agriculture, particularly in food grain production, contributed significantly to overall economic growth of the state since the early 1980s. Agricultural growth has a significant impact on poverty reduction (Ravallion and Datt, 1996).

With this background, an attempt is made in this paper to study the impact of Agricultural Infrastructure on marketed surplus in Developed Area over Under Developed Area in North 24 Parganas District, West Bengal.

## 2. METHODOLOGY

The present study was consisting of 300 sample households out which 150 samples was taken from developed area and rest 150 samples was taken from underdeveloped area. The samples households under developed and underdeveloped areas were collected by using Multistage Random Sampling procedure. In the first stage, North 24 Parganas District have been selected purposively. Then from the district, one developed and one under developed block was selected randomly. In the third phase, 10 villages have been selected randomly from each block. Finally from each village 15 sample households was selected randomly.

The selected households were then categorized into four different groups viz. marginal, small, medium and large depending upon their size of land holding. The size classes are as follows

Marginal	below 1.0 ha
Small	1.01 – 2.0 ha
Medium	2.01 – 3.0 ha
Large	above 3.0 ha

Thus, a total 300 sample farmers were selected randomly, comprising of 102 marginal, 31 Small, 5 medium, and 12 large from developed area and 62 marginal, 66 small, 12 medium, 10 large from under developed area. The distribution of sample farmers in different areas according to size classes of holding is presented in table 1.

### 3. COLLECTION OF DATA

The required information was collected through a pre tested structured schedule. Data were collected in a face-to-face situation.

**Table 1: Distribution of sample farmers across various size groups of farm households**

Categories	Developed Area	Under developed Area	Total Samples
Marginal farmers	102	62	164
Small farmers	31	66	97
Medium farmers	5	12	17
Large farmers	12	10	22
Total	150	150	300

### 4. MARKETED SURPLUS

Marketed surplus refers to the amount of commodity actually sold out by the farmer in the market. The quantity and amount of marketed surplus is generally determined by the volume of total production, size of the family, repayments for kind payments, seed and feed and more importantly the price of the commodity in the market. The communication network and availability of good transportation facilities to transport the commodity to the nearby market also govern the volume of marketed surplus produced by the farmers.

### 5. RESULT AND DISCUSSION

#### Marketed Surplus of various crops in North 24 Parganas District

Table 2 represents the amount of total production, on farm retention and marketed surplus of major crops grown by farmers of North 24 Parganas district of west Bengal. Amon rice, Boro rice, vegetables and Potato were the main crops grown by the farm households. The items included under the head on farm retention were requirements for the farm family consumption, kind payments for labour, seed and feed requirements and amount needed to meet other social obligation. The table showed that the marketed surplus for Amon and Boro Rice was directly related to farm size in the developed area. It was mainly due to higher level of output produced in the larger farms. The table also shows the marketed surplus of various crops in under developed areas of North 24 Parganas district. Here for almost all the crops the marketed surplus per farm has recorded an increase with the increases in farm sizes.

A comparison of the two areas has revealed that, in the aggregate level, the marketed surplus was higher for all the crops in developed areas than the under developed areas. Marketed surplus per farm in the pooled data for all crops

were significantly higher in developed area than the under developed area.

The difference in marketed surplus between these two areas of North 24 Parganas district could be attributed mainly due to road network connecting the villages coupled with adoption of improved agricultural production technologies facilitated by supporting extension machineries and institutions. Good road communication certainly helped in commercializing in the developed areas also. Moreover, the marketed surplus was higher in developed areas, because most of the farmers of the developed areas were market oriented and they generally produce crops for the market besides meeting their domestic requirements. The greater market intelligence among the farmers of the developed areas was one of the major reasons for getting higher marketed surplus of the crops compared to the farmers of the under developed areas. The easy accessibility to urban markets often encourages farmers of the developed areas since it not only helps in disposing the perishable products in time but also helps in fetching remunerative prices of the produces as well. The on farm retention in the under developed areas usually compared to the volume of production. Moreover poor road network and distance markets, higher transport cost and lack of storage facilities especially for the perishable products discourages the farms to produce commercially in the under developed areas. Since the farmers in the under developed areas dispose their produce to the middleman usually they receive remunerative prices for their products. All these factors ultimately resulted in lower marketed surplus in the under developed areas. Thus, it may be concluded from the above discussion that the good road networks helped the farmers to attain higher marketed surplus in almost all the crops grown in the developed areas compared to the under developed areas.

**Table 2: Marketed Surplus of various crops (Quintals per farm)**

Size group	Amon Rice			Boro Rice			Vegetables			Potato		
	Total Production	On farm retention	Marketed Surplus	Total Production	On farm retention	Marketed Surplus	Total Production	On farm retention	Marketed Surplus	Total Production	On farm retention	Marketed Surplus
Developed area												
Marginal	1.81	1.43	0.38	1.78	1.32	0.46	2.68	0.64	2.04	7.87	5.45	2.42
Small	2.67	1.92	0.75	2.34	1.82	0.52	2.98	1.17	1.81	9.68	5.34	4.34

Medie m	6.4	2.21	6.21	4.23	1.98	4.34	2.32	2.02	15.98	8.78	7.2
Large	8.52	6.42	2.10	6.00	4.11	1.89	2.78	3.43	30.21	21.23	8.98
Average	4.85	3.49	1.36	4.08	2.87	1.21	4.05	1.72	2.33	10.23	5.73
Under Developed area											
Mar ginal	1.42	1.12	0.30	1.32	0.98	0.34	1.56	0.98	0.58	2.45	1.36
Small	1.93	1.62	0.31	1.54	1.11	0.43	1.78	0.38	1.4	4.54	2.89
Medie m	4.43	2.24	2.19	4.32	2.24	2.08	2.67	1.12	1.55	8.34	4.00
Large	6.43	4.21	2.22	6.00	4.20	1.80	4.32	2.23	2.09	18.53	5.79
Average	3.55	2.29	1.26	3.29	2.13	1.16	2.58	1.17	1.41	7.40	3.51

## 6. CONCLUSION

The volume of marketed surplus reflects the rate of development in agricultural sector in an economy. In the study areas where road network is very good, the farmers may be interested to grow some market-oriented crops. In other word, the availability of good road network system helps the farmer to cultivate their crop commercially. But in the absence of good road network farmers are generally of subsistence in nature and mostly producing for their home consumption only. The Marketed surplus was higher for all the crops in the developed areas than the under developed areas.

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