



EXISTING FARM PRODUCTION PATTERN IN THE FLOOD PRONE AREAS OF SIVASAGAR, ASSAM

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Abstract:

The rural mass of Sivasagar district are primarily dependent on Agriculture. Farming has been the mainstay of the large majority of the people. Settled cultivation is the general characteristics and rice has been the most dominant crop activity in the area. Of course, mustard, sugarcane, pulses and various types of vegetables are also grown to a limited extend. In addition dairy, poultry, piggery, pulses sericulture, weaving and fishery are some of the subsidiary occupation of the inhabitants of the area. However, the entire region under this sector are lagging behind due to lack of proper policies on utilization of farm land, lack of extension services, poor purchasing capacity of majority of the people, negligible investment in farm production and lack of technological knowledge among the cultivation folk, along with the inertia of remaining in the traditional set up of the farming community of the area.

KEYWORDS:

Existing , Production , flood prone , poultry , dairy.

INTRODUCTION:

To keep the minimum standard of living by the income through agricultural production, new technology has been evolved from time to time. The increase in farm income could be achieved in two directions. One is vertical and the other is horizontal use of the limited land resources. Another important aspect of farm production is technology which can shift the production process from the existing level to higher one. As farm land is extremely scarce & limited the way for enhancing farm production is vertical or intensive use of land input using modern technology of farm production. In any farm, this can be derived through adoption of improved / optimal/ efficient farm production planning. The farm plan developed in this way ensures rational use of available farm resources- maximizing output and minimizing slack inputs.

The farming system approach, which implies that a farm should be considered as one production unit where importance would be given not only to crops activities but also to all other subsidiary activities like dairy, poultry, duckery, piggery goater, sericulture, weaving , fishery, tea (raw leaf production) raised in the farm each contributing each to the total farm income. This farming system approach generates not only better farm income but also creates additional employment opportunity including smooth distribution of employment over the months of the year. The study is designed to examine the existing farm production pattern in the flood prone area in the district of Sivasagar Assam.

METHODOLOGY

The study was carried out in the flood prone areas of Sivasagar district of Assam as there is a sizeable area in the district. The sample for the investigation was taken using purposive and multistage

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random sampling technique. From the ADO (Agricultural Development Officer) centres a sample of 5 % centers, 20 % villages from each of the selected ADO centers and 20 per cent farm holdings were selected from each selected villages at random along with their operational holdings. The households are arranged in descending order of their holding sizes and the holding sizes are distributed to get classes of small, medium and large holding based on optimum classification technique. After this a sample of about 20 per cent farm holdings are selected randomly from each of small, medium, large and entire farm under each selected village. These are the ultimate sample for the study.

RESULTS AND DISCUSSIONS:

The results of the existing farm production plan of various farm sizes in the flood prone areas of Sivasagar district are placed in Table 1 and these are discussed below.

Table1. Existing farm production plan in flood prone areas of Sivasagar district.

Activity	Unit	Small farm	Medium Farm	Large Farm	Entire farm
Kharif crops: Local Sali Rice	per cent	9.60 (0.17)	7.71 (0.26)	6.82 (0.37)	7.65 (0.27)
Improved Sali Rice	per cent	14.12 (0.25)	12.76 (0.43)	10.88 (0.59)	11.90 (0.42)
Summer crops: Local Ahu Rice	per cent	7.91 (0.14)	7.42 (0.25)	7.01 (0.38)	7.65 (0.27)
Bao Rice	per cent	39.55 (0.70)	33.29 (1.12)	34.50 (1.87)	34.84 (1.23)
Ahu+bao rice	per cent	1.69 (0.03)	2.37 (0.08)	4.61 (0.25)	3.40 (0.12)
Bao rice +Pulses	per cent	1.13 (0.02)	1.48 (0.05)	2.58 (0.14)	2.26 (0.08)
Summer Vegetables	per cent	2.82 (0.05)	2.27 (0.08)	3.50 (0.19)	3.11 (0.11)
Rabi crops: Oilseeds	per cent	12.43 (0.22)	11.87 (0.40)	11.44 (0.62)	11.61 (0.41)
Pulses	per cent	2.82 (0.05)	3.56 (0.12)	5.16 (0.28)	3.96 (0.14)
Potato	per cent	3.39 (0.06)	2.27 (0.08)	1.66 (0.09)	2.26 (0.08)
Rabi Vegetables	per cent	4.52 (0.08)	14.84 (0.50)	11.81 (0.64)	11.33 (0.40)
Total cropped area	Hectare	100.00 (1.77)	100.00 (3.37)	100.00 (5.24)	100.00 (3.53)
Net cropped area	Hectare	1.40	2.78	4.56	2.86
Cropping Intensity	per cent	126.43	121.22	118.86	123.43
Other Activities: Local Cow	Number	0.93	1.15	1.71	1.12
Local goat	Number	2.85	2.08	1.74	2.35
Local Poultry	Number	15.53	18.20	21.78	18.17
Duck	Number	13.37	15.63	17.14	15.20
Farm Income (Crop Activities)	Rs/ Farm Rs/ hectare	30079 16994	80455 23873	121718 23228	77388 21923
Farm income (All Farm Activities)	Rs/ Farm Rs/ hectare	51824 29279	103242 30635	148727 28383	100756 28543

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Figures in parentheses indicates actual area in hectares.
Farm income = gross returns less variable cost.
Small farm = up to 2 hectares
Medium farm = from 2 to 3.5 hectares
Large farm = above 3.5 hectares
Entire farm = average farm as a whole of the area.

SMALL FARM

The percentage of distribution of area under existing production plan of small farm indicated that among various crop activities, the most dominant crop was Bao Rice (summer crop) with 0.70 per cent cropped area. The next important crop was Improved Sali Rice (Kharif Rice) covering 0.25 per cent cropped area. The least important crop was Bao rice + pulses with 0.02 per cent cropped area.

Among other activities, the most dominant activity was local poultry with 15.53 unit in the small farm under existing production plan. The least important was local cow with 0.93 units in each farm. The total cropped area and net cropped area under existing production plan are 1.77 per cent and 1.40 hectare cropped area respectively. The cropping intensity was 126.43 per cent cropped area.

The farm income of small farm under crop activities was Rs. 30,079.00 and has increased to Rs. 51,824.00 per farm under all farm activities and it has increased from Rs. 16,994.00 to Rs. 29,279.00 per hectare.

MEDIUM FARM

The results of existing farm production plan of medium farm show that among crop activities the most important crop was Bao rice (summer crop) with 1.12 per cent cropped area followed by the Rabi vegetables (Rabi crops) with 0.50 per cent cropped area. The least important crop was Bao rice + pulses covering 0.05 per cent cropped area.

Among other activities under existing farm production plan local poultry occupied the highest position with 20.35 units. The local cow with 1.15 units was in lowest position. The total cropped area and net cropped area were 3.37 per cent and 2.78 hectare respectively.

The farm income of medium farm under crop activities was Rs. 80,455.00 has increased to Rs. 1,03,242.00 per farm under all farm activities and it has increased from Rs. 23,873.00 to Rs. 30,635.00 per hectare.

LARGE FARM

An anylisis of the results of existing farm production plan of large farm show that the dominant crop was Bao rice (summer crop) covering 1.87 per cent cropped area followed by Rabi vegetables (Rabi crops) with 0.64 per cent cropped area. The least dominant crop activity was potato with 0.09 per cent cropped area.

Among other activities of large farm under existing production local poultry occupied the highest position of 21.78 units and the lowest position was occupied by local cow with 1.71 units. The total cropped area and the net cropped area were 5.24 per cent and 4.56 hectare respectively. The cropping intensity was 118.86 per cent.

The farm income of small farm under crop activities was Rs. 1,21,718.00 and has increased to Rs. 1,48,727.00 per farm under all farm activities and it has increased from Rs. 23,228.00 to Rs. 28,383.00 per hectare.

ENTIRE FARM

The results of the farm production plan under existing technology of entire farm revealed that the most important crop was Bao rice with 1.23 per cent cropped area. The next important crop was improved Sali rice covering 0.42 per cent cropped area. The least important position was occupied by Bao rice + pluses and potato with 0.08 per cent cropped area.

Among other activities, local poultry was on the top of the list with 18.17 units and local cow on the bottom with 1.12 units. The total cropped area and the net cropped area were 3.53 per cent and 2.86 hectare respectively. 123.43 per cent was the cropping intensity of entire farm under existing farm production plan.

The farm income of small farm under crop activities was Rs. 77,388.00 and has increased to Rs.

1,00,756.00 per farm under all farm activities and it has increased from Rs. 21,923.00 to Rs. 28,543.00 per hectare.

The over all analysis of farm production plan under existing technology indicates that Bao rice was the most dominant crop among crop activities of all farm sizes and Bao rice + pluses was the least important in small farm, medium farm and entire farm. The potato was on the lowest position of large farm. Among other activities, local poultry has occupied the highest position and the local cow has occupied the lowest position in all farm categories. The total cropped area and net cropped area was increased as farm sizes increased and it showed a positive relationship between them. But the table shows a negative relationship between farm size and cropping intensity. The cropping intensity was decreased as the farm size increased. There is a positive trend of increasing farm income of crop activities (per farm) and farm categories. But the trend of increasing farm income per hectare under all farm activities and farm categories can be considered positive.

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