



A Case Study

Rural entrepreneurship development through agro processing

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SUMMARY : Agro processing (APC) at Hiwarkhed Tq- Akot Dist- Akola was established with aim to process grains in production catchments. Total initial investment of Rs. 1,18,750/- was made for procurement of processing equipments such as PKV mini dal mill, oil mill pulverizer, flour mill and paddy huller. Custom-hire type of enterprise processed total quantity 858 q which includes milling of pigeonpea, green gram, black gram (335 q), oilseeds (50 q), chili powder (13q), turmeric powder (10 q) sugar (15) cereals flour making (425 q) and paddy (10 q). Entrepreneur has generated profit of about Rs. 1,02,275/- and 36 man months employment, annually. The case study shows the prospects due to establishment of agro processing centre in production areas, thereby generating employment among rural youth and income as well.

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KEY WORDS :

Agro processing centre, Dal mill, Rice mill, Entrepreneur

BACKGROUND AND OBJECTIVES

Agro-processing is now regarded as the sunrise sector of the Indian economy in view of its large potential for growth and likely socio economic impact specifically on employment and income generation. Some estimates suggest that in developed countries, up to 14 per cent of the total work force is engaged in agro-processing sector directly or indirectly. However, in India, only about 3 per cent of the work force finds employment in this sector revealing its underdeveloped state and vast untapped potential for employment (Kachru, 2012; Kachru *et al.*, 1998).

Post harvest processing is one of the necessary steps in conversion, value addition and prevention of loss of agricultural produce. It is essential operation being carried out prior to consumption of agro produce. Most of the post harvest processing operations are performed at urban side resulting into increased cost of transportation and storage requirement besides loss of some important byproducts and post harvest losses. Primary or secondary processing of agricultural produce at village level will help to reduce the cost of processed material, giving

additional income source to producer, employment generation among the rural youths and in situ value addition. As a result, processed product will be available at lower cost for the rural population also.

Surplus production of any commodity affects the market price of that commodity, often resulting selling price at less than production cost. The transportation and storage of food grain is a costly affair. Along with edible parts, non-edible parts also are transported, which increases the cost of storage and transportation. Processing of these materials, resulting high to low volume would save the storage and transportation. Processed products require less space as compared to raw produce, add value to the product and improve livelihood. Increasing income are always accompanied by a change into food basket (Gotait and Pradhan, 2006).

Development of the society is directly related with the income generation capacity of its members with agriculture, as the key income generation activity the entrepreneurship on farm and home can directly affect the income of a major chunk of our population. Entrepreneurship on small scale is the only solution to the problems of unemployment and proper utilization of both human and non-human resources and improving

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the living condition of the poor masses (Singh, 2009).

It is now necessary to assess the potential for these processing operations at village level. This will generate data for design of model or pilot plant, which in turn can be installed befitting to the needs of the production locality. Such models will attract the farmers/village artisans, villagers, unemployed youths and rural entrepreneurs to adopt by themselves for producing value added products. Therefore, the Agro Processing Centres are needed to be established at production catchments.

Objectives:

- To establish the Agro Processing Centre in production catchments.
- To develop entrepreneurs in rural area.

Concept of agro processing centre:

Agro Processing Centre is an establishment, where required facilities for processing, storage, drying of cereals, pulses, oilseeds, spices, fruits and vegetables. Processed and packed food products are prepared and marketed with specific brand name (Kumar and Ilyas, 2003). The entrepreneurship of APC may be of an individual, community, cooperative or voluntary organization. The APC creates additional value to a product to increase marketability of surplus produce available in the rural areas.

Selection of agro processing:

For establishment of agro processing centre survey of number of sites and entrepreneurs were carried out. After meeting with number of entrepreneurs at different location Shri Ramdas Raut at village Hiwarkhed Dist- Akola was selected because of several advantages like production catchments, raw material, availability of infrastructure and interest to established APC.

Since he was already running one oil mill, three pulverizer, one flour mill and one huller. The entrepreneur was running all these machines on single electric motor of 10 hp, 3 phase by changing belts accordingly. It would be an ideal agro processing model centre if it is clubbed with PKV mini dal mill running on 2 hp, single phase electric motor. The layout of place of equipments was done by the space available (Fig.1).

Identification of technology:

The information regarding the resource, demand for consumption, potential for processing the produce and scope for introduction of the processing technologies was collected (Table 1). For processing of the local agricultural produce into value added products, the equipments, technologies and processes were identified. The village Hiwarkhed (Rup) is situated in Telhara tahasil, Akola district, 65 km away from Akola and has Pukka approach road. The village has 2,395 ha

Table 1 : General information regarding production, consumption and processing potential of village Hiwarkhed (Rs.)

Sr. No.	Particulars				
1.	Area, ha	Geographical	2,395		
		Cultivated	2,167		
		Irrigated	69		
2.	Population Production, q		17,338		
		Cereals	11,694		
		Pulses	4,718		
		Oilseeds	819		
		3.	Processing facilities, No	Flour mill	17
				Oil mill	3
Mini dal mill	1				
Pulverizer	3				
Huller	1				
4.	Consumption, q			Cereals	9,492
		Pulses	3,163		
		Oilseeds	7,354		

geographical, 2167 ha cultivated and 69 ha irrigated area of land (Table 1). The cereals and pulses are grown to the extent of 11,694 q and 4,718 q, respectively meeting the demand of consumption. Production of oilseed is 819 q, which is quite below the consumption demand.

Presently, there are 17 flour mills, 3 mini oil mills, 1 mini dal mill, 3 pulverizers and 1 huller as a processing facilities available. In consumption demand of village, no additional flour mill is needed. In pulse processing it was observed that only 6 to 7 per cent pigeonpea dal was prepared using existing mini dal mill and most of the pulse grain were sold in the market and buy the total requirement of pigeonpea dal from market. The same procedure was adopted in case of green gram and Bengal gram also. Thus, there is great potential for adding pulse mill as only single unit of dal is running in the

Table 2 : Equipments installed at agro-processing centre, Hiwarkhed (Rs.)

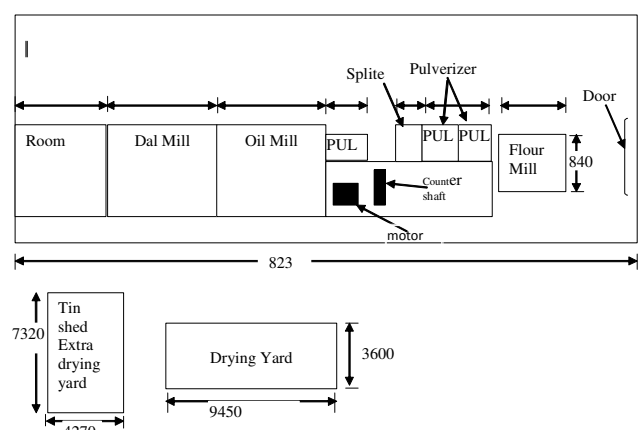
Sr. No.	Equipments	No. of Units	Capacity, kg/h
1.	Mini oil mill	1	50
2.	Flour mill	1	50
3.	Pulverizer	New	1
		Old	2
4.	Huller	1	400
5.	PKV mini dal mill	1	125

Table 3 : Details of agro processing centre at Hiwarkhed (Rs.)

Name and address of the centre	Agro processing centre, Hiwarkhed (Rup) Dist. Akola
Year of establishment	13 Nov., 2002
Total investment	Rs. 1,18,750
Products of the centre	Dal, Oil, spices powders, sugar powder, flour etc.
Marketing mechanism	Custom-Hire basis
Employment generated in man months annually	36

Table 4 : Annual income generated by agro processing centre

Processed products	Quantity processed (q)	Rate of processing (Rs./q)	Total amount collected (Rs.)	Total input cost (Rs.)	Total income generated (Rs.)
Dal pigeonpea	335	300	1,00,500	50250	50250
Oil	50	300	15,000	7500	7500
Chill powder	13	800	10,400	3250	7150
Turmeric powder	10	500	5,000	2500	2500
Sugar powder	15	300	4,500	2250	2250
Flour	425	150	63,750	31875	31875
Rice	10	150	1,500	750	750
Total	858		2,00,650	98,375	1,02,275

**Fig. 1 : Layout of agro-processing centre, Hiwarkhed**

village. The equipments installed at agro processing centre are given in Table 2.

To avoid the large investment and risk of marketing, only custom –hire type of business is followed. Annual income generated by the agro processing centre is shown Table 4. Flour is the major processed products followed by dal, and oil processed in the agro processing centre. The centre has generated total amount of Rs. 2,00,650/- and earned profit of Rs.1,02,275/-. Employment generated by the agro processing centre was 36 man months.

Conclusion:

The study showed that agro-processing centre could generate employment and income to the rural youth. Agro

processing centre established at Hiwarkhed (Rup) is becoming model for other upcoming entrepreneurs to establish Agro-processing centre.

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