

## Profitability of farm productions: A study in a semi-arid watershed

Biswajit Mondal\* and R.N. Adhikari

Central Soil & Water Conservation Research & Training Institute, Research Centre, BELLARY (KARNATAKA) INDIA

### ABSTRACT

Small and marginal farmers having very small holding size, are ignorant of the economic aspects of production process, especially, returns & costs concepts. An investigation was carried out in order to assess the various types of costs and returns from farm productions and comparison was made with the outside of the watershed area. Among various crops grown on the sampled farms, the highest per hectare gross return was found to be from Groundnut (Rs.11,335) but the return over Cost C was found to be highest in the case of Bengalgram (Rs.2791). Annual maintenance cost and gross income from buffalo was more than cow. The results showed much difference on account of cost and returns in crop enterprises with the control area, which is a direct reflection of higher yields due to implementation of watershed development programme but the effect was less visible in case of livestock rearing.

**Key words :** Watershed, Crops, Livestock, Cost, Income.

### INTRODUCTION

The bulk of the agricultural production is in the hands of millions of small and marginal farmers having very small holding size, whether it is land or animal. Most of the farmer-producers are ignorant of the economic aspects of production process, especially, returns & costs concepts. Hence, the studies on economics of farming production covering the same will be helpful in taking rational economic decisions while selecting the appropriate crop, their variety, the type and breed of animals & allocation of their meager resources (Singh *et al.*, 1987; Singh *et al.*, 1985; Rastogi and Reddy, 1985). Therefore, in this study, an attempt has been made to estimate and compare the costs and income from various crops and dairy enterprises using different costs and income bases in a semi-arid watershed

### MATERIALS AND METHODS

#### **Sampling and data collection :**

In order to assess the various types of costs and returns from farm productions, a watershed namely, P.C. Pyapili – B in Vajrakarur Mandal of Anantapur district (A.P.) was taken up. From the same Mandal one village (Kamalpadu) was selected as control area which has not been covered under any watershed based programme or activities for examining differential impact of watershed development programme on crop & livestock production system, if any. A family or household was adopted as the unit of investigation in this study. The primary data were collected on pre-tested schedule by personal interview and observation technique.

#### **Method of analysis :**

The data collected during the period of enquiry was coded, tabulated and compiled systematically, commensurate with the objectives of the study. Tabular analysis was used to analyse the data, wherein, simple statistical tools like average, percentage and ratios were employed to summarize and compare the various items in the study.

#### **Estimation of Costs :**

*For estimation of different kinds of costs in crop production the concepts used as follows (Shah, D., 2003):*

**Cost A:** Cost of inputs such as seed (both farm produced and purchased), manure (owned and purchased), fertilizers, insecticides and pesticides + value of hired labour + value of hired as well as owned bullock labour + hired machinery charges + value of owned machine labour + depreciation on implements and farm buildings + irrigation charges + land revenue and other taxes + interest on working capital + miscellaneous expenses.

**Cost B:** Cost A + rental value (imputed) of owned land + interest on owned fixed capital excluding land.

**Cost C:** Cost B + imputed value of family labour.

#### **In case of livestock enterprise the concepts used (Acharya, et al., 1987) as:**

**Cost A:** Expenses on feed & fodder + value of hired upkeep labour + veterinary expenses + maintenance & miscellaneous recurring expenses + depreciation on the value of milch cattle & their sheds.

**Cost B :** Cost A + interest on the value of milch cattle & their sheds.

**Cost C :** Cost B + imputed value of family labour.

#### **Bulk line cost:**

The bulk line cost which fairly represents the cost of bulk of producers is usually defined as the cost covering 85 percent of production of that commodity (Panse, 1958).

#### **Operational cost:**

In both the sector it was considered for the items which were being purchased by the farmer producers.

\* Author for correspondence.