ABSTRACT

The present investigation was located in the sub-mountainous part of the Punjab State. Among eighteen blocks having sub-mountainous pockets, seven were those having development project activities and remaining were without these activities. These were termed as Project and Non-project areas. The objectives of the study included (i) to analyze the existing pattern of farm resource use and the associated income levels; and (ii) to identify the economic gap in the existing resource use and the prescription for their optimal use and estimation of income levels associated with that level of use. The hypotheses constructed for the inquiry were (i) the farm research endowments were small but improved under the development project activities; (ii) the existing use of farm resources was sub-optimal. Although, it improved under the project activities but was still away from the optimal level of use; and (iii) the farm incomes rose under the development project activities. But these levels could improve further through the optimization of resource use.

The study sample was selected following the three stage stratified random sampling technique with block as the first, village the second and farmers the third and ultimate unit of sampling. This design provided a random sample of six and thirteen villages from Project and Non-project blocks respectively. A ten per cent sample of marginal, small, medium and large farms provided a total 100 farms in each category of blocks.

The findings on operational farm size, irrigated area, human and draft power use and crop mixes brought out that size of farm holdings and crop mixes showed marginal differences. Whereas, the proportion of area irrigated, intensity of irrigation and level of mechanization were conspicuously higher on Project area farms. Similar was the case of returns to fixed farm resources.

The regression analysis pointed to the need for increasing use of better quality of seed, balanced use of N,P,K fertilizers, higher use of FYM and rationalizing the irrigation water and draft power use on Project area farms. In case of Non-project area farms in addition to quality seeds and balanced use of fertilizers, there was a need to rationalize the use of human labour and draft power. In case of livestock activities, there was a focus on higher use of green foders, concentrates and veterinary care on Project and Non-project farms. The technical efficiency was found to be lower on Non-project area farms and this efficiency had a positive correlation with farm size.

The optimal plans were constructed at the existing and improved level of technology and by removing variable resource rigidities. Optimal planning exercises showed shift in favour of high value crops and high yielding milch animals in place of local cows and goats.

On the basis of these findings, the first hypothesis could be partially accepted. The second and third hypotheses came to be true.