ABSTRACT

Rice occupies a position of overwhelming importance in the global food system. With the ever growing demand as a staple food, the task of arresting the declining trend in area under paddy cultivation in Kerala requires urgent attention. The present study was intended to fill the research gap in systematic identification of the trends in the coastal agricultural sector of the state especially with regard to the rice based farming practices in the low lying coastal agro-ecosystem. The economics of rice based cropping system practiced in the coastal agro-ecosystem of Kerala was explored through a detailed primary and secondary level investigation in the coastal tract of Kuttanad and Pokkali.

The crisis situation in the cultivation of major crops especially the decelerating trend in area under cultivation and the economic dimensions was clarified through the Compound Annual Growth Rate analysis. The comparative analysis of the input wise cost for paddy cultivation under monocropping and sequential farming in the selected tracts illustrated the cost advantages of the crop grown under the integrated system. Productivity comparison study also throws light on the superiority of rice based integrated farming in the coastal rice ecosystem. Benefit-Cost ratio was found very much favourable for rice–prawn rotational farming and rice-fish sequential farming against rice monocropping. The yield gap was found reduced under sequential farming and the findings suggested for a more scientific approach to tap the potential of the system. The resource use efficiency test has identified the Pokkali tract as a region with lower resource efficiency and hence resource reorganization was warranted. The findings of the
study strengthened the comparative advantage of rice based multi enterprises in generating additional employment opportunities.

The economic superiority of farmers participating in the rice based integrated farming paradigm increased competitiveness and the participatory approach for collective farming. The rice based integrated cropping system infused technologies not only reduced the use of agrochemicals, but also opened the way for an organic culture before the farming community.

(Key words: coastal agro-ecosystem paddy cultivation, coastal tract, monocropping, rice based cropping system, rotational farming, sequential farming, benefit-cost ratio, yield gap, resource use efficiency)