

Research  
Paper

## Technology adoption in rice cultivation in saline soils (M.S.): An economics analysis

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### ABSTRACT

A cross sectional sample of 90 farmers randomly selected from Raigad district was further stratified into three groups according to the level of technology adoption index (TAI) in saline rice cultivation viz. Low Adoption (TAI < 66%), Medium Adoption (TAI = 66.02 – 72%) and High adoption (TAI =>72%) on the basis mean and standard deviation. Along with traditional cultivation practices of rice in saline soil. The farmers in High adoption category utilized the highest inputs per hectare as compared to Low and Medium adoption category. Obviously, the productivity was seemed to be highest (36.67 q/ha.) in High adoption category followed by 33.07 q/ha. and 29.70 q/ha. in Medium and Low adoption category, The per hectare cost of cultivation was also found to be maximum (Rs. 54702.80) in High adoption category followed by Rs. 52080.28 and Rs. 46695.83 in Medium and Low adoption category, similarly per hectare gross returns obtained from saline rice were Rs. 43994.77, Rs. 49631.23 and Rs. 54221.50 in Low, Medium and High adoption category, respectively. The benefit cost ratio was 0.94, 0.95, and 0.99 in the same order. As regards to resource use efficiency, most of the inputs were observed to be used in excess quantity as their marginal value product was far below the marginal factor cost. This revealed necessity of utilization of resources in enhancing saline rice productivity through technology adoption.

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**Key words :** Technology adoption, Cost, Returns and benefit cost ratio

## INTRODUCTION

The problem of saline-alkaline soils is one of the serious factor restricting economic utilization of available resources adversely affecting crop production and along the sea coast. Salinity and alkalinity are the major soil problems in certain part of the country, badly affecting productivity of soil. It is estimated that about seven million hectares area in India alone is having serious problem of salinity or alkalinity. Out of these, 2.1 million hectares area comprises the coastal saline soils and it mostly found in the coastal regions of West Bengal (0.80 m.ha.), Orissa (0.4 m.ha.), Tamil Nadu (0.016 m.ha.), Kerala (0.04 m.ha.), Andhra Pradesh (0.04 m.ha.), Pondicherry (0.004 m.ha.), Maharashtra (0.06 m.ha.), Gujarat (0.714 m.ha.), Karnataka and Goa (0.086 m.ha.).

In Maharashtra, the coastal saline soils are located in Konkan region which has about 720 km. coastal strip

of Arabian sea in four districts of Konkan viz. Raigad, Thane, Ratnagiri and Sindhudurg. The total coastal saline area is about 64,470 hectares covering about 14 per cent of geographical area of Konkan region. The land cultivation practices, planting practices, input utilization and productivity of rice cultivation in saline soils and rice cultivation in general soils are different. Therefore, the study on “Economics of rice cultivation in saline soils” was undertaken

## MATERIALS AND METHODS

A cross sectional sample of 90 farmers was selected randomly from the saline area of Raigad district. The sample farmers were grouped into different categories on the basis of technology adoption in rice production in saline soils. For accessing the impact of technology adoption following recommended technologies were