

Adoption of Oil Palm in Kari lands of Kerala under Rainfed Conditions - A Case Study

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ABSTRACT

Oil Palm is being cultivated in Kerala under rainfed conditions. Farmers have taken up oil palm under Oil Palm Development Programme. They adopted oil palm in kari lands in Kottayam District, Kerala under submerged conditions. Adoption of practices was studied and SWOT analysis on adoption was carried out. The study indicate cautious approach in adoption of oil palm under these conditions.

Key words : Adoption, oil palm, kari lands

INTRODUCTION

Oil Palm is being cultivated commercially in an area of 70,000 ha in identified potential states of India. Since 1970, an area of 6,000 ha was brought under oil palm cultivation in Kerala, out of which 1225 ha was under Oil Palm Development Programme (OPDP) under marginal and small farmers' conditions since 1992 to till date in 9 districts. Though the government is providing subsidies and other benefits to the farmers to promote Oil Palm, the area expansion is at slow pace due to various factors. The crop is being taken up by marginal and small farmers in kari lands of Kerala. In order to study the nature of adoption, two cases were studied viz., adoption of oil palm by a farmer and by a group of farmers in kari lands of Kuttanad, Kerala.

Adoption of oil palm by a farmer

Mr. Jose, age 50 years, resident of Athirampuzha village, Kottayam district, Kerala. He cultivated paddy prior to oil palm cultivation. Keeping in view of low income from paddy and advantages of oil palm, he adopted oil palm. He got the technical guidance from field staff of oil palm India Ltd., (OPIL). He strongly convinced that he can convert low yielding and submerged paddy land into high income generating oil palm plantation. Taken up oil palm during 2002, in an area of 3 acres. The farmer is cultivating oil palm under rainfed conditions. A perennial water source

(canal) is exist by the side of plantation, hence moisture is maintained in the plantation throughout the year except in May. In order to avoid water stagnation during monsoon, the intra row space of some plants is filled with soil brought from outside, from trunk bottom up to 2 feet height with a radius of 2 m around the trunk. Hence the submergence was reduced to some extent.

Fertilizers viz., urea (1.74 kg), rock phosphate (3 kg), murate of potash (2 kg) and Mg SO₄ (500 gms) / year / palm were applied once in a year as application of fertilizers could not be taken up during monsoon due to submergence. Harvesting FFB was done at 10 days intervals. Six tons of FFB / 187 plants was recorded. The subsidies were availed which was provided under OPDP through OPIL. Severe pruning was practiced every year due to lack of awareness, which caused reduction in yield in subsequent years. Good yields are anticipated in the coming years.

Adoption of oil palm by farmers association

Farmers of Kallara in lower Kuttanad area, Kerala shifted to oil palm cultivation from paddy, due to the problems like submergence, availability of labour, pests and non profitable nature of paddy. Farmers are growing paddy in an area of 8463 ha under submerged conditions. They are looking for an alternate crop to replace paddy in 450 ha belong to

SWOT analysis

Strengths	<ul style="list-style-type: none"> ● Strong will to grow oil palm. ● Adopted recommended variety. ● Filling the intra row spaces with soil as and when required. ● The yield during 4th year is encouraging under existing conditions.
Weakness	<ul style="list-style-type: none"> ● Growing oil palm in karilands under submerged conditions. ● Not filled the land with soil but prepared mounds around the trunk after 3-4 years of oil palm planting. ● Garden is looked after by his brother, not taking personnel care and interest. ● Not adopting regular management practices. Excessive pruning of leaves was observed.
Opportunities	<ul style="list-style-type: none"> ● Intra row spaces can be filled with soil so as to apply fertilizers and ease of harvesting. ● Can take up supplemental irrigation during summer if required. ● Split application of fertilizers can be adopted depending on moisture condition. ● Utilizing the technical services from Oil Palm India Limited. ● Can avail loans from Banks. ● By adopting recommended package of practices, yield can be increased.
Threats	<ul style="list-style-type: none"> ● If land value increases, farmer may use this land for some alternate uses i.e., may be for commercial purposes by replacing oil palm.

138 farmers, who are willing to grow oil palm. They separated and approached Oil Palm India Ltd., and got the assistance to take up oil palm under Oil Palm Development Programme. Farmers (138) of Kallara in lower Kuttanad area of Kottayam district, Kerala formed a PATASEKARA SAMITI (crop growing farmers association), to collectively cultivate oil palm and avail the support provided by government. The Samiti was formed with a common interest to grow oil palm with collective effort to improve the soil condition, cultivation of new crop, reap good harvest from the crop with an objective to improve the socio economic conditions of the people. The Samiti consists of president, vice president, secretary, joint secretary and 8 members. It took up oil palm cultivation in 185 ha during 2003. Samiti is looking after electrical arrangements for motor pump, to dewater from the field to the canal during monsoon, arrangements for rat control, replanting of seedlings, ablation, preparing outer bund and yearly maintenance etc., Due to submergence and rat problem some palms died during

initial period. Replanted with 8000 plants during 2004 and 2005.

Individual farmers are taking up farm activities in respective fields. Ablation often not practiced, rat menace was severe during monsoon, applying fertilizers once in a year. Digging new deep channels every year in every alternate rows to accommodate water to flow freely to out side to avoid submergence. Forming 5 km bund every year (8 ft X 8 ft) to arrest the inflow of water from canal (existing next to the plantation). The main issues tackled by the samiti are draining the water during rainy season, rat control, bund forming and strengthening during summer, widening the mounds (to provide space for good root growth). The money involved for development is Rs. 3,000 – Rs. 4,000 per palm. They are investing huge amount for channel preparation, bund forming, dewatering etc. They want to make cultivation of oil palm in kariland soils, as a role model venture for development of karilands into suitable land by growing oil palm for upliftment of their socio economic status.

SWOT ANALYSIS

Strengths	<ul style="list-style-type: none"> ● Strong will to grow oil palm. ● Adopted recommended variety and spacing. ● Partially adopted fertilizer application and applied once in a year.
Weakness	<ul style="list-style-type: none"> ● Growing oil palm in kari land. ● Not filled the land with soil but prepared mounds around the trunk after 3-4 years of oil palm planting. ● Water inflow in to the plantation for 4-5 months (submerged). ● Rat and other pest problem. ● Ablation is not practiced. ● Replanted huge number of seedling due to submergence / more due to rat problem. ● Adopting the blanket application of fertilizers applying in a single application. ● Soil testing not done. ● Plant mounds are fully surrounded by weeds and hence rat problem. ● Problem for harvesting.
Opportunities	<ul style="list-style-type: none"> ● Intra row spaces can be filled and widened with soil so as to apply fertilizers. and ease of harvest. ● Subsidies from Government. ● Technical services, bank Loans/financial support from OPIL. ● Commercial utilization of oil palm plantation. ● Fertilizers can be applied based on soil test results and recommendations. ● Systematic and planned way of adopting the practices with the linkage from OPIL / NRCOP / KAU etc., - Action plan need to be developed with above agencies.
Threats	<ul style="list-style-type: none"> ● Very huge investment for development of land. ● If land value increases, this may be used for commercial purposes by replacing oil palm. ● If investment increases, crop future may be in question. ● It may take long juvenile phase for producing good yields and economic returns.