Evaluation Study on Oil Palm Development Programme in Karnataka Department of Horticulture

Executive Summary

The Study

Oil Palm Development is being implemented under GoI programme 'Integrated Scheme for Oilseeds, Pulses, Oil Palm and Maize (ISOPOM)' since 1990. Thereafter, Oil palm cultivation and related activities were taken up and implemented under Rastriya Krishi Vikas Yojana (RKVY) since 2011-12. The GoI is in the process of starting a new programme Oilseeds & Oil Palm Mission by incorporating all the earlier programmes ISOPM-OPDP & RKVY.

The current assignment is to assess the oil palm development programme in the State of Karnataka and provide an independent feedback to the Government.

STEM has been assigned the study and signed a contract with KEA – Karnataka Evaluation Authority for Rapid Assessment of Oil Palm Development in Karnataka State.

Scope & Objectives of the Assignment

As both GoI and GoK intend to expand Oil Palm Development Activities through increased investment, time and effort, it was felt necessary to understand the impact of the past efforts. In view of this, it has been decided to undertake a Rapid Assessment of the experience gained in Karnataka State in the last two years under RKVY.

The following are the issues to be addressed by the rapid assessment:

- I. Assess the area under Oil Palm cultivation at present in Karnataka and assess the scope for further expansion.
- II. Furnish the economics of Oil Palm cultivation in Karnataka based on real life situation and compare it with other tree based oil seed crops.
- III. Assess the efficiency of Promotion of Oil Palm scheme implemented under RKVV by Horticulture Department in the last two years

IV. Identify the risks in promoting Oil Palm, identify the promotional needs of farmers and entrepreneurs and recommend better ways and means to popularise Oil Palm Cultivation in *the State of Karnataka*.

Sample Size/Criteria for Selection of Sample

A survey was carried out using a multi-stage sampling method, based on the selection of the sample on a combination of two or more sampling methods. The first stage was to represent by all the FIVE command areas and a lone Non-command area where the oil palm cultivation is being promoted in the State. The taluks under each Nodal Officer from each command area was selected in consultation with the Nodal Officers of Horticulture Department stationed at district Head Quarters covering a few districts in order to get a representative sample of oil palm farmers.

Secondly, the oil palm farmers were stratified on the basis of age of the oil palm, that is, up to 4 years, 5 to 8 years and above 8 years old oil palm gardens. The third stage of the multistage sampling method was a random sampling of the respondents available under the above stratification and also ensured that social group such as SC and ST was also represented in addition to OBC and General Categories to understand the target group for promoting oil palm cultivation.

Structured questionnaires were administered to 588 oil palm farmers from the selected 12 taluks covering all the five command areas and five private entrepreneurs operating in the State of Karnataka to elicit information on the palm oil production with the help of trained investigators under close supervision. The data collected were analyzed using simple statistical method.

The final sample consisted of 8 districts, 12 taluks and 588 participating farmers spread over 5 command areas, one non-command area covering all the five entrepreneurs in the State. The taluks were selected in consultation with the Nodal Officers of Horticulture Department. From each taluk at least 50 farmers were selected.

Research Methodology

The study combined a review of secondary materials, interviews with key stakeholders, primary research through surveys and individual interviews and personal discussions. Both primary and secondary data were collected for this study. The primary data were collected from the selected oil palm growers using a structured questionnaire designed to obtain relevant information regarding oil palm production, issues and their needs and with the aid of semi-structured questionnaire to collect qualitative data from private entrepreneurs and officials of Horticulture Department.

Main Findings

- 1. Oil Palm is a hassle free crop in terms of pests and diseases, labour requirements, marketing the produce, and provides regular monthly income from yielding stage.
- 2. The area under oil palm is shriniking in Karnataka. The potential area in the State of Karnataka for oil palm development is 2,60,000 hetares. Under various schemes implemented by Govt of Karnataka, about 36,000 ha were developed, which is only 14% of the potential area available. At present, only 11,983 ha (about one-third of the developed area) under oil palm is exisitng in the State. About 67 percent fall can be observed from the area developed under oil palm. This means, about 24,000 ha area under oil palm has been converted to grow other crops.
- 3. Though certain food crops, commercial and plantation crops occupied important place in the cropping pattern in all the selected taluks, it was observed that oil palm cultivation and production in the State could considerably be enhanced by their intensive cultivation, offering quality based better price for FFBs, effective awareness campaign about the oil palm and its economics and extending technical guidance to manage oil palm gardens effectively.
- 4. Extension efforts like field demonstrations, group meetings etc. were conspicuously lacking.
- 5. Continuous drought conditions & improper and inadequate technical

- guidance for new plantations forcing oil palm growers to take hasty decisions.
- 6. Oil palm is being cultivated mainly by medium and large farmers who have sufficient land holdings and other resources such as capital and water for irrigation.
- 7. Only about 10 percent of marginalized such as SC & ST community has taken up oil palm cultivation as their main source of income.
- 8. Extension efforts in general is lacking in the absence of field staff at the district and taluk level at the office of the Nodal Officers of Horticulture Department(Oil Palm Development) where they don't have any support in implementing the schemes, and wholly depending on the field staff recruited by the entrepreneurs.
- 9. There is an assured market for FFBs produced and the farmers need not look for market to sell their produce. Only glitch is the price offered and none of the oil palm grower is satisfied with the current price of Rs.7, 000/- for a ton of FFBs. Majority of them expect a minimum price of Rs.12, 000/- per ton of FFBs.
- 10. The yields are not up to the expectation though resource rich farmers are obtaining good FFB yield. There is not much difference in the FFB yield across the command area.
- 11.Factors causing constraints in obtaining optimum yields include improper intercropping practices, inadequate and untimely distribution and application of fertilizers and insufficient irrigation, lack of technical knowledge etc.
- 12.Irrigation has been found to be a critical factor for getting optimum yields and instability in production as oil palm is a water loving crop.
- 13. Competition: Sharp spurt in the prices of traditional crops like Arecanut, and sugarcane in Karnataka prompting oil palm farmers to convert their oil palm gardens.
- 14.Returns from Oil Palm are not being maximized through diversification. There is lack of utilization of bio products by processing industries.

15.Implementation of National Rural Employment Guarantee Scheme, though it is an useful scheme in providing employment, it has its impact on availability of agricultural labour, which has increased the cost of production of agricultural produces including FFBs of oil palm.

Reasons for Uprooting

- 1. Recently, reports from oil palm growing areas of Karnataka said that growers were uprooting oil palm trees. This is because they are unhappy with the price they are being offered. For the current quarter, Karnataka Govt has fixed Rs. 7/- for a kg of fresh fruit bunch. The price is revised periodically 3 to 4 times a year.
- 2. The problem with growing oil palm is that it has a gestation period of 4-5 years. Further, it takes another 2-3 years before the production starts peaking.
- 3. Though the Government oil palm cultivation through various subsidies, farmers seem to be running out of patience after switching over to the oil palm crop.
- 4. Also, a sense of negligence in taking care of the crop during the initial stages and lack of technical guidance results in poor yield, causing some farmers uprooting their plants.
- 5. Economics of oil palm cultivation is much better than other tree based oil seed crops such as Neem and Pongamia in terms of investment, cost of operations, income and profit from an hectare of plantation (Pl see the annexure)

Major Constraints

a) Resource Poor Farmers: According to the survey results, the proportion of resource poor farmers having marginal landholdings who have taken up oil palm cultivation is quite small. This is because; such farmers are usually not adequately equipped to bear the initial investments for taking up oil palm. On account of such a sizeable chunk of farmers being left out of the ambit of the scheme due to their being unable to afford even their own share of the costs after the subsidies, the development of oil palm cultivation remains largely

- limited to those few who have the resources such as large land holdings with multiple cropping to afford them.
- b) Delay in the Release of Central & State share of Subsidy Funds:

 The mismatch of timings in the release of Central and the State shares has also been cited as one of the major constraints that results in delay in the disbursement of subsidies by the district level officials in Karnataka.
- c) Lack of Qualified/Trained Field Staff: The lack of qualified and adequately trained field staff has been cited as a major constraint by the official stakeholders and oil palm farmers in almost all the areas where the oil palm is being promoted.
- d) **Price Offered for FFB:** The major glitch is the price offered by Govt, Rs.7.00 per kg of FFB.
- e) **Sudden increase in the price of competitive crops:** There is a sharp increase in the pricess of crops such as arecanut, sugarcane etc., which made oil palm farmers to get agitated compared to the current price offered for FFB.
- f) Increase in cost of Harvesting FFBs from tall trees: There is a sharp demand for labourers due to MGNREGA scheme being implemented by GoI. In addition, difficulties are being faced by farmers in harvesting FFBs from old and tall trees in the absence of appropriate tools for harvesting also made the cost of labourers dearer as the FFBs has to be harvested in time.

Suggestions/ Recommendations

Short Term Recommendations

The incentives through subsidies should be regulated and develop a system to ensure these incentives are reaching the right people at the right time.

Ensure adequate and timely supply of quality planting material, fertilisers and enhance subsidy limit for area expansion.

Decentralizing the planning process to local levels to undertake effective extension work through demonstrations, group meetings, supply of technical literature in local language, regular filed visit by the field staff to provide technical advice to reduce the risk and increasing the productivity.

The view of the farmers, officials from Department and Company is that growers should be given a fixed price for a term of at least five years. Another view is that the Government has to find a way to sustain the growers' interest through some additional payment.

Enhance the price of FFBs and ensure a minimum price of Rs. 12/- per ton of FFBs will help the existing oil palm farmers to continue and encourage others to take up oil palm cultivation.

Improved harvesting machinery: at present crop height is a serious problem for harvesting in adult plantations of more than 10 years old trees. Harvesting is done either by climbing the tree or through an aluminum pole attached to a sickle.

Long Term Recommendations

The most important suggestion is to avoid adhoc approach and framing of a long term strategy with full involvement of State Department of Horticulture. It is emphasized the need for strengthening the organizational set-up at the district level by recruiting full staff required for the filed work.

Oil palm requires constant irrigation at constant intervals through protective watering. Concerted efforts must be made to bring larger irrigated area under the Oil Palm Development Programme.

Evolving high-yielding dwarf varieties of oil palm is of utmost

importance for increasing the area under oil palm cultivation and yield. Research Centres should be activated and infrastructural facilities should be strengthened to this effect.

Implementation of crop insurance scheme should be considered and sensitize commercial banks and NABARD for promotion of Oil Palm cultivation.

Policy Level Recommendations

Unstable import policy should be addressed seriously. Domestic prices of Oil Palm are significantly affected by cheaper imports from Malaysia and Indonesia hence fluctuates considerably. The policy of allowing duty-free import of crude vegetable oils is affecting oil palm growers.

Inadequate financial support by Government, resource and security related issues viz. credit from commercial Banks and NABARD, implementation of crop insurance schemes, enactment of legislation should be looked into seriously.

Formulate some legal provisions to recover govt. assistance/subsidy provided if oil palm is up-rooted/diverted without justification.

The Centre can utilise the duty collected from imports of vegetable oils for subsidising oil palm and other oilseed growers.

Recommendation for better ways and means to popularise oil palm cultivation in the State of Karnataka

Main Findings

- 1. Oil Palm is a hassle free crop in terms of pests and diseases, labour requirements, marketing the produce, and provides regular monthly income from yielding stage.
- 2. The area under oil palm is shriniking in Karnataka. The potential area in the State of Karnataka for oil palm development is 2,60,000 hetares. Under various schemes implemented by Govt of Karnataka, about 36,000 ha were developed, which is only 14% of the potential area available. At present, only 11,983 ha (about one-third of the developed

important place in the cropping pattern in all the selected taluks, it was observed that oil palm cultivation and production in the State could considerably be enhanced by their intensive cultivation, offering quality based better price for FFBs, effective awareness campaign about the oil palm and its economics and extending technical guidance to manage oil palm gardens effectively.

- 4. Extension efforts like field demonstrations, group meetings etc. were conspicuously lacking.
- 5. Continuous drought conditions & improper and inadequate technical guidance for new plantations forcing oil palm growers to take hasty decisions.
- 6. Oil palm is being cultivated mainly by medium and large farmers who have sufficient land holdings and other resources such as capital and water for irrigation.

- 7. Only about 10 percent of marginalized such as SC & ST community has taken up oil palm cultivation as their main source of income.
- 8. Extension efforts in general is lacking in the absence of field staff at the district and taluk level at the office of the Nodal Officers of Horticulture Department(Oil Palm Development) where they don't have any support in implementing the schemes, and wholly depending on the field staff recruited by the entrepreneurs.
- 9. There is an assured market for FFBs produced and the farmers need not look for market to sell their produce. Only glitch is the price offered and none of the oil palm grower is satisfied with the current price of Rs.7, 000/- for a ton of FFBs. Majority of them expect a minimum price of Rs.12, 000/- per ton of FFBs.
- 10. The yields are not up to the expectation though resource rich farmers are obtaining good FFB yield. There is not much difference in the FFB yield across the command area.
- 11.Factors causing constraints in obtaining optimum yields include improper intercropping practices, inadequate and untimely distribution and application of fertilizers and insufficient irrigation, lack of technical knowledge etc.
- 12.Irrigation has been found to be a critical factor for getting optimum yields and instability in production as oil palm is a water loving crop.
- 13. Competition: Sharp spurt in the prices of traditional crops like Arecanut, and sugarcane in Karnataka prompting oil palm farmers to convert their oil palm gardens.
- 14.Returns from Oil Palm are not being maximized through diversification.

 There is lack of utilization of bio products by processing industries.
- 15.Implementation of National Rural Employment Guarantee Scheme, though it is an useful scheme in providing employment, it has its impact on availability of agricultural labour, which has increased the cost of production of agricultural produces including FFBs of oil palm.

Reasons for Uprooting

- 1. Recently, reports from oil palm growing areas of Karnataka said that growers were uprooting oil palm trees. This is because they are unhappy with the price they are being offered. For the current quarter, Karnataka Govt has fixed Rs. 7/- for a kg of fresh fruit bunch. The price is revised periodically 3 to 4 times a year.
- 2. The problem with growing oil palm is that it has a gestation period of 4-5 years. Further, it takes another 2-3 years before the production starts peaking.
- 3. Though the Government oil palm cultivation through various subsidies, farmers seem to be running out of patience after switching over to the oil palm crop.
- 4. Also, a sense of negligence in taking care of the crop during the initial stages and lack of technical guidance results in poor yield, causing some farmers uprooting their plants.
- 5. Economics of oil palm cultivation is much better than other tree based oil seed crops such as Neem and Pongamia in terms of investment, cost of operations, income and profit from an hectare of plantation (Pl see the annexure)

Major Constraints

a) **Resource Poor Farmers:** According to the survey results, the proportion of resource poor farmers having marginal landholdings who have taken up oil palm cultivation is quite small. This is because; such farmers are usually not adequately equipped to bear the initial investments for taking up oil palm. On account of such a sizeable chunk of farmers being left out of the ambit of the scheme due to their being unable to afford even their own share of the costs after the subsidies, the development of oil palm cultivation remains largely limited to those few who have the resources such as large land holdings with multiple cropping to afford them.

- b) **Delay in the Release of Central & State share of Subsidy Funds:** The mismatch of timings in the release of Central and the State shares has also been cited as one of the major constraints that results in delay in the disbursement of subsidies by the district level officials in Karnataka.
- c) Lack of Qualified/Trained Field Staff: The lack of qualified and adequately trained field staff has been cited as a major constraint by the official stakeholders and oil palm farmers in almost all the areas where the oil palm is being promoted.
- d) **Price Offered for FFB:** The major glitch is the price offered by Govt, Rs.7.00 per kg of FFB.
- e) **Sudden increase in the price of competitive crops:** There is a sharp increase in the prices of crops such as arecanut, sugarcane etc., which made oil palm farmers to get agitated compared to the current price offered for FFB.
- f) Increase in cost of Harvesting FFBs from tall trees: There is a sharp demand for labourers due to MGNREGA scheme being implemented by GoI. In addition, difficulties are being faced by farmers in harvesting FFBs from old and tall trees in the absence of appropriate tools for harvesting also made the cost of labourers dearer as the FFBs has to be harvested in time.

Suggestions/Recommendations

Short Term Recommendations

Oil palm requires constant irrigation at constant intervals through protective watering. Concerted efforts must be made to bring larger irrigated area under the Oil Palm Development Programme.

The incentives through subsidies should be regulated and develop a system to ensure these incentives are reaching the right people at the right time.

Ensure adequate and timely supply of quality planting material and Enhance subsidy limit for area expansion.

Decentralizing the planning process to local levels to undertake effective extension work through demonstrations, group meetings, supply of technical literature in local language, regular filed visit by the field staff to provide technical advice to reduce the risk and increasing the productivity.

The view of the farmers, officials from Department and Company is that growers should be given a fixed price for a term of at least five years. Another view is that the Government has to find a way to sustain the growers' interest through some additional payment.

Enhance the price of FFBs and ensure a minimum price of Rs. 12/- per ton of FFBs will help the existing oil palm farmers to continue and encourage others to take up oil palm cultivation.

Improved harvesting machinery: at present crop height is a serious problem for harvesting in adult plantations of more than 10 years old trees. Harvesting is done either by climbing the tree or through an aluminum pole attached to a sickle.

Long Term Recommendations

The most important suggestion is to avoid adhoc approach and framing of a long term strategy with full involvement of State Department of Horticulture. It is emphasized the need for strengthening the organizational set-up at the district level by recruiting full staff required for the filed work.

Evolving high-yielding dwarf varieties of oil palm is of utmost importance for increasing the area under oil palm cultivation and yield. Research Centres should be activated and infrastructural facilities should be strengthened to this effect.

Provide production based incentive to farmers. Also consider special incentive on yield of more than 25 Tons per hectare of FFB from 8 years old crops.

Implementation of crop insurance scheme should be considered and sensitize commercial banks and NABARD for promotion of Oil Palm cultivation.

Policy Level Recommendations

Unstable import policy should be addressed seriously. Domestic prices of Oil Palm are significantly affected by cheaper imports from Malaysia and Indonesia hence fluctuates considerably. The policy of allowing duty-free import of crude vegetable oils is affecting growers.

Inadequate financial support by Government, resource and security related issues viz. credit from commercial Banks and NABARD, implementation of crop insurance schemes, enactment of legislation should be looked into seriously.

Formulate some legal provisions to recover govt. assistance/subsidy provided if oil palm is up-rooted/diverted without justification.

In fact, the Centre can utilise the duty collected from imports of vegetable oils for subsidising oil palm and other oilseed growers.