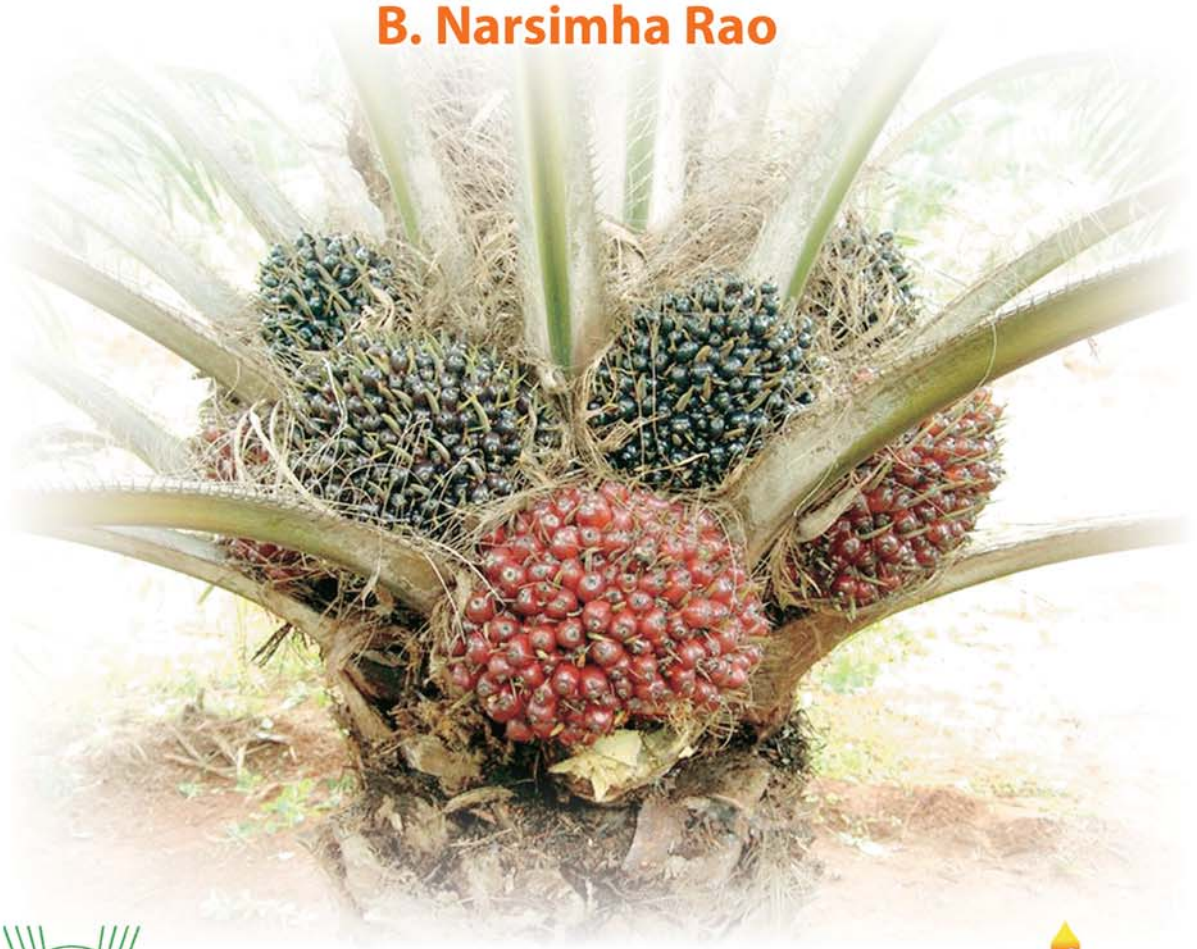
ASSESSMENT OF ADDITIONAL POTENTIAL AREAS FOR OIL PALM CULTIVATION IN INDIA

Compiled & Edited by
P. Rethinam
S. Arulraj
B. Narsimha Rao



Directorate of Oil Palm Research
(Indian Council of Agricultural Research)
Pedavegi-534 450, West Godavari Dt., Andhra Pradesh
http://dopr.gov.in
2012

ASSESSMENT OF ADDITIONAL POTENTIAL AREAS FOR OIL PALM CULTIVATION IN INDIA

Compiled & Edited by

P. Rethinam
S. Arulraj
B. Narsimha Rao

भाकृअनुप
ICAR

DIRECTORATE OF OIL PALM RESEARCH

(Indian Council of Agricultural Research)

Pedavegi-534 450, West Godavari District, Andhra Pradesh

http://dopr.gov.in

2012

ASSESSMENT OF ADDITIONAL POTENTIAL AREAS FOR OIL PALM CULTIVATION IN INDIA

Published by

Dr. S. Arulraj
Director, Directorate of Oil Palm Research
Pedavegi - 534 450, West Godavari (Dt.), Andhra Pradesh
Phone : 08812 - 259409, 259532, 259524
Fax : 08812 - 259531
Grams : PALMSEARCH, Eluru
E-mail : dopr2009@gmail.com
Web site : http://dopr.gov.in

Compiled & Edited by

P. Rethinam
S. Arulraj
B. Narsimha Rao

Funded by

Department of Agriculture and Cooperation
Ministry of Agriculture
Govt. of India, New Delhi

Correct Citation

OIL PALM AREA ASSESSMENT REPORT- DOPR [2012]

Printed at

Swapna Art Home
Vijayawada 520 002, Ph : 0866 6520675

Index

i. Executive summary v

ii. Preface vii

iii. Acknowledgement..... ix

1. Introduction 01

2. Global scenario of vegetable oil production 03

2.1 Status of oil palm production in Malaysia 03

3. Vegetable oil production in India 07

4. Demand and supply of edible oils 09

5. Importance of oil palm 11

6. Genesis of oil palm in India 13

7. Earlier committees for identifying potential areas for oil palm cultivation 15

8. Present committee 17

9. Present status of oil palm cultivation in India 19

10. Status of processing sector 25

11. Potential areas identified for oil palm cultivation 27

11.1. Details of new states proposed to be included for OPDP..... 31

11.1.1. Arunachal Pradesh 31

11.1.2. Bihar 33

11.1.3. Meghalaya 35

11.1.4. Nagaland 36

11.2. Potential areas in the already identified states (but not implementing OPDP) .. 39

11.2.1. Assam 41

11.2.2. Maharashtra 41

11.2.3. Tripura 44

11.2.4. West Bengal 45

11.3. Additional potential areas in OPDP states 49
11.3.1. Andhra Pradesh 49
11.3.2. Chhattisgarh 50
11.3.3. Gujarat 51
11.3.4. Karnataka 53
11.3.5. Kerala 54
11.3.6. Mizoram 55
11.3.7. Orissa 58
11.3.8. Tamil Nadu 58
11.4. Total potential area for oil palm cultivation in India 61
12. Planting schedule for XII and XIII Plan periods 63
13. Future planting material requirements 67
14. Setting up of additional seed gardens 69
15. Outcome of the proposed development of oil palm..... 71
16. Policy issues 73

Annexures

1. GOI letter - Appointing the Committee..... 75
2. Promotion of oil palm cultivation in drought prone areas..... 77

Executive Summary

The demand for vegetable oil is growing at a rapid pace in India due to increased per capita consumption and growing population. The domestic production of vegetable oil from nine annual oil seeds is only 9.20 million tonnes after 25 years of intensive oil seed development programme (Technology Mission on Oil Seeds) through Mission Mode approach. A huge gap of 8.3 million tonnes exists between the demand and supply of vegetable oils. Oil palm, a perennial oil yielding crop with average yield of 4-6 tonnes of oil/ha/year is the best option for making a quantum jump in the vegetable oil production in the country. Hence, it was added as one of the crops under Technology Mission on Oil Seeds in 1986. During the initial years, oil palm, as a corporate planting under forest land could not give desired results due to poor management and further forest laws did not permit conversion of forest area to cultivable land. Hence, no further oil palm development took place during the nineties. Concurrently, various committees from 1985 to 2006 have identified a potential area of 1.03 million ha for oil palm cultivation under irrigated conditions in 14 States of the country.

The District Rural Development Agency plantations (1988), the Oil palm Demonstration Project of 1000 ha each in three states (1989-90) and the Oil Palm Development Project (1990-91) have had little impact on oil palm area expansion in 11 States over three decades. An area of 2,03,186 ha has come under oil palm cultivation, of which Andhra Pradesh alone possesses 1,19,564 ha. Twenty three processing units have been established in the country with a total processing capacity of 266 tonnes/hr, of which Andhra Pradesh alone has 13 processing units. The existing six indigenous seed gardens could produce 2 to 3 million tenera seeds per year and at present, the bulk of the seeds/sprouts are imported to meet the additional requirements. There were two instances of price fall (1999-2000 and 2008-09) that played an important role in slowing down the Oil Palm Development Programme in the country. In the recent months, price policy and incentives provided by the Ministry of Agriculture, Government of India under Rashtriya Krishi Vikas Yojana Project gave strength to hasten the oil palm development in the country.

The present committee, appointed during 2011 has identified additional potential areas in the existing Oil Palm Development Programme States and other States. A total potential area of 1.93 million ha in 18 States has been identified for growing oil palm. This area could further be enhanced, if critical assessment is made for ground water potential and soil type at micro-level. The committee identified an area of 3.25 lakh ha in 'new' States like Arunachal Pradesh, Bihar, Meghalaya and Nagaland. The Committee still feels that the potential for growing oil palm in North Eastern Region has not been fully exploited and there is still scope for additional area to be brought under oil palm cultivation. An additional potential area of 5.36 lakh ha has been identified in the 'already identified' States of Andhra Pradesh, Assam, Chattishgarh, Goa, Gujarat, Karnataka, Kerala, Maharashtra, Mizoram, Orissa, Tamil Nadu, Tripura and West Bengal. The States of Assam, Maharashtra, Tripura, and West Bengal identified as potential states by DAC Committee, 1988 were deleted in the recent report of DAC Committee in 2006. These areas were again brought under the category of "potential areas" by the present Committee, after discussions with officers of the respective State Government.

A planting schedule for XII and XIII Five Year Plan periods has been suggested in this report to cover an area of 7.55 lakh ha, which would help in achieving a total area of 9.62 lakh ha under oil palm cultivation by the end of XIII Plan.

The road map for increasing the domestic seed production capabilities has been suggested in the report. Six more seed gardens of atleast 20 ha each are to be established as suggested by earlier Committee and could involve public - private partnership. Planting of *duras* and *pisiferas* (TxT) from advanced breeding cycles of indigenous sources could be done. However, concurrently additional promising *duras* and *pisiferas* may be imported from Indonesia, Ivory Coast, Nigeria, Malaysia etc. Further requirement of tenera sprouts needs to be imported from potential countries.

Constraints hindering the effective implementation of Oil palm Development Programme in the country are discussed in the Report and policy initiatives to overcome these constraints are also listed.

Preface

Higher levels of per capita consumption of vegetable oils along with increased population have resulted in an enormous increase in demand for vegetable oils requirement in the country. However, we are still consuming less than the recommended level as prescribed by World Health Organization of 18 kg/person/year. Even with the present per capita consumption of 14.60 kg, our total demand had gone up to 18.41 million tonnes/year. Domestic production of vegetable oils from 26.11 million ha has been about 9.20 million tonnes which necessitated the bulk import of 8.30 million tonnes of vegetable oils in 2010-11, out of which palm oil accounted for 6.68 million tonnes.

Due to the efforts taken by Ministry of Agriculture, Government of India, through Technology Mission on Oil Seeds from 1986 onwards, the area and production of annual oil seeds could rise from 18.3 million ha and 11.27 million tonnes of oil seeds in 1986 to 26.11 million ha and 24.93 million tonnes of oil seeds, respectively in 2009-10. This indicates that through annual oil seeds alone, self sufficiency in vegetable oil requirement could not be achieved. Considering the need to produce more vegetable oil in the country and also realizing the production potential of oil palm, the Government of India included oil palm as one of the components in Technology Mission on Oil Seeds in 1986.

Initial efforts for the promotion of oil palm were started in the form of raising as a small holders' crop in Pedavegi Mandal of West Godavari district, Andhra Pradesh in about 200 ha under District Rural Development Agency programme. Oil palm demonstrations were taken up in 1000 ha each in the States of Andhra Pradesh, Karnataka and Maharashtra by Department of Biotechnology, Government of India jointly with Agricultural Departments of the respective States. Massive Oil Palm Development Programme (OPDP) was launched during the Eighth Five Year Plan by the Ministry of Agriculture, Government of India. DAC Committee (2006) identified a total potential area of 1.03 million ha for oil palm cultivation and also offered suggestions for strengthening the programme. At present, the Ministry of Agriculture, with renewed interest, has gone for oil palm development under Rashtriya Krishi Vikas Yojana programme in a large way and increased the area expansion target to 60,000 ha/year.

As the XII five year plan is to be formulated for achieving better vegetable oil production targets, the Government of India constituted another committee for reassessing the additional potential areas for oil palm cultivation in India. The Committee consisted of the following members:

1. Dr. P. Rethinam, Former Director, National Research Centre for Oil Palm, Pedavegi - Chairman
2. Dr. S. Arulraj, Director, Directorate of Oil Palm Research, Pedavegi, West Godavari District, Andhra Pradesh - Member
3. Secretary/Director of Agriculture/Horticulture from the State concerned - Member
4. Four nominees from private sector oil palm processors - Member
5. Dr. B. Narsimha Rao, Principal Scientist (Horticulture), Directorate of Oil Palm Research, Pedavegi, West Godavari District, Andhra Pradesh - Member
6. Dr. A. P. Singh, Deputy Commissioner (TMOP), Department of Agriculture and Cooperation, Ministry of Agriculture, Government of India - Member Secretary

The following four members from oil palm processing sector were included in the Committee as co-opted members nominated by the Processors:

Sri S. G. Beriwala, Vaidehi Palm Pvt. Ltd., Kolkata.

Dr.V. M. Reddy, Godrej Oil Palm Ltd., Vijayawada.

Sri Y. S. Ranganayakulu, Ruchi Soya Industries Ltd., Hyderabad.

Sri P. T. Natarajan, 3F, Oil Palm Agrotech Pvt. Ltd., Hyderabad.

The Committee visited the States of Assam, Bihar, Maharashtra, Meghalaya, Nagaland, and West Bengal to assess their potential for oil palm cultivation. In addition, one or more members of the Committee visited Andhra Pradesh, Arunachal Pradesh, Gujarat, Karnataka, Kerala, Mizoram, Orissa and Tamil Nadu to assess the performance of oil palm and offer suggestions for its improvement.

A Consultative meeting was also held at Directorate of Oil Palm Research, Pedavegi during October 10-11, 2011 to discuss in detail, regarding the additional potential areas for oil palm cultivation in the States of Andhra Pradesh, Chhattisgarh, Gujarat, Karnataka, Mizoram and Tamil Nadu.

The draft reports of proceedings of the meetings held in the respective States were sent to the concerned officials for their comments and their suggestions were incorporated.

Based on the field visit as well as discussions with State Departmental officials, processors and a few farmers in different regions, the present report was prepared. We recommend that the report could be used in guiding the implementation of Oil Palm Development Programme in the coming years.

P. Rethinam
S. Arulraj
B. Narsimha Rao