

EMPOWERING LIVELIHOOD OF TRIBAL FARMERS OF GOA: ACHIEVEMENTS UNDER TSP 2013-2014



Compiled and Edited by
Narendra Pratap Singh, R. Maruthadurai, Z. B. Dubal



भाकृअनुप – केंद्रीय तटीय कृषि अनुसंधान संस्थान
(भारतीय कृषि अनुसंधान परिषद)
ओल्ड गोवा - ४०३ ४०२, गोवा, भारत



ICAR-CENTRAL COASTAL AGRICULTURAL RESEARCH INSTITUTE
(Formerly ICAR Research Complex for Goa)
(Indian Council of Agricultural Research)
Old Goa - 403 402, Goa, India

EMPOWERING LIVELIHOOD OF TRIBAL FARMERS OF GOA: ACHIEVEMENTS UNDER TSP 2013-2014

Compiled and Edited by
Narendra Pratap Singh
R. Maruthadurai
Z. B. Dubal

भाकृअनुप – केंद्रीय तटीय कृषि अनुसंधान संस्थान
(भारतीय कृषि अनुसंधान परिषद)
ओल्ड गोवा - 403 402, गोवा, भारत

ICAR-Central Coastal Agricultural Research Institute
(Formerly ICAR Research Complex for Goa)
(Indian Council of Agricultural Research)
Old Goa - 403 402, Goa, India



Tribal Sub- Plan Programme Glimpse of Achievements 2013-2014



Contributed by

- **A. R. Desai**
- **S. Priya Devi**
- **R. Ramesh**
- **Z. B. Dubal**
- **M. J. Gupta**
- **Safeena S. A**
- **M. Thangam**
- **H. R. Prabhudesai**



Compiled and Edited by

- **Narendra Pratap Singh**
- **R. Maruthadurai**
- **Z. B. Dubal**



Published by

- **Dr. Narendra Pratap Singh**
Director
ICAR-Central Coastal Agricultural Research Institute
Old Goa, Goa – 403 402
www.ccari.res.in



Fax : 0832 2285649
Telephone : 0832 2284677, 2284678
E.mail : director.ccari@icar.gov.in



भाकृअनुप – केंद्रीय तटीय कृषि अनुसंधान संस्थान
(भारतीय कृषि अनुसंधान परिषद)

ICAR-Central Coastal Agricultural Research Institute
(Indian Council of Agricultural Research)



Preface

Goa, a small state located on the Western Ghats of India is a house of native tribes like Dhodia (Halpati), Dubla, Naikda (Nayaka), Siddi, Varli kunbi, Gavda and Velip. Unlike other states, they have settled in urban and peri-urban parts of Goa well besides the rural regions of the state. They are widely distributed in both the districts of Goa (North Goa and South Goa). They are mainly involved in agriculture and allied activities.

The Kunbis are believed to be the oldest and the original tribe of Goa. They are perceived as mild mannered and industrious people. Velip tribes is very scanty in number making around few thousands. Velip are also original inhabitants of Goa. The members of this tribe are mostly found in the remote rural areas within the forests. Their dwellings are found in forest fringed areas of Canacona, Sanguem and Quepem, which are sub-district of South Goa.

With the objective to channel is the flow of benefits from general sectors in the Central Ministries/ Department for the development of scheduled tribes at least in proportion to their population, both in physical and financial terms, the Tribal Sub-plan is formulated by the Government. This sub-plan aims to substantially reduce the poverty and un-employment among the SC/ STs, creation of productive assets in favor of SC/STs and human resource development.

ICAR Research Complex for Goa, Old Goa has got an allocation of Rs.100 lakhs under TSP and the Institute had carried out various activities like supply of quality planting materials, fertilizers, agro-chemicals, farm machineries and implements, fruit processing etc. to the tribal people of the state during the year 2013-2014 period.

A handwritten signature in blue ink, appearing to read 'N. P. Singh'.

N. P. SINGH
DIRECTOR

CONTENTS

Sl. No	Name of the Project	Investigator(s)	Page No.
1	Technology intervention for higher productivity and production in plantation, spice and fruit crops for improving livelihood security of tribes in Goa	Dr. A. R. Desai Dr. R. Maruthadurai	1
2	Adoption of improved technologies in watermelon and cowpea cultivation for higher income of tribal community	Dr. R. Ramesh Dr. B.L. Manjunath Dr. R. Maruthadurai Dr. Gopal R. Mahajan	32
3	Demonstration, capacity building and seed distribution in improved varieties of vegetable crops for livelihood security	Dr. M. Thangam Dr. Safeena S.A. Dr. S. Priya Devi	38
4	Empowering tribes of Goa with post harvest machinery for processing and value addition in minor fruits	Dr. Mrs. S. Priya Devi Dr. Mathala Juliet Gupta Dr. M.Thangam	44
5	Improving livelihood security of tribal community by introduction of improved varieties of ornamental crops in the tribal area of Goa	Dr. Safeena S.A. Dr. M. Thangam Dr. S. Priya Devi Dr. Mathala Juliet Gupta	53
6	Agricultural mechanisation programme for small and marginal tribal farmers of Goa	Dr. Mathala Juliet Gupta	64
7	Naturally ventilated greenhouse for seedling production and crop cultivation for providing livelihood opportunities for tribal of Goa	Dr. Mathala Juliet Gupta Dr. M. Thangam	75
8	Empowering the tribal farmers of Aldona, Veiling and Taleigao villages for increasing productivity through drudgery reduction and technology	Shri. H.R. Prabhudesai Shri. V.Y. Gaonkar	78
9	Awareness campaigns for livestock health management for tribal farmers of Goa	Dr. Z. B. Dubal Dr. S. B. Barbuddhe Dr. S. K. Das	86

Project Title	: Technology interventions for higher productivity and production in plantation, spice and fruit crops for improving livelihood security of tribes in Goa.
Name of PI	: Dr. A. R. Desai, Sr. Scientist (Horticulture)
Name of Co-PI	: Dr. Maruthadurai, R Scientist (Agricultural Entomology)

Background of the project:

While horticultural crops, in general play major role in state's economy, Plantation crops are integrals of rural economy of Goa. Cashew and coconut are the most important crops of the state. Although, these crops occupy the highest area (>80 000 ha.) in the state, production and productivity levels are far below the national average. The above situations are more pronounced especially in the areas where in tribes and socially oppressed are inhabited. Unlike in fore front urban areas, tribes in rural areas depend largely on the farming and allied activities as main source of income. These people still practice the age old traditional methods of farming due to inherent practical problems like lack of awareness about the potential of new production technologies. Their farming practices are subsistence in nature and hence are no longer sustainable in present competitive world. As a result of this, they are enduring with poor yield levels and low income from the major crops like cashew, coconut and mango. Therefore, there is a need to sensitize the rural tribes and create awareness among them about the improved production practices for crops, by which their social livelihood security can be enhanced through the technology interventions for reaping the higher yield levels in above major crops, thereby the higher levels of income. In view of the above, a project proposal is submitted with following objectives:

Objectives:

1. To sensitize and create awareness among tribal farmers about the enterprising potential of cashew, coconut and mango, a needed deviation from subsistence practices.
2. To impart technical know how through on-farm training and practical demonstrations.
3. To enhance the production and productivity levels of cashew, coconut and mango through technology intervention approach.

Technical programme:

During 2013-14, the TSP programme was undertaken which involved 16 SHGs of tribal farmers, i.e 13 SHGs (7 Old Groups and 6 new groups) from Cancona and 3 SHGs (1 Old group and 2 new groups) from Quepem zone in South Goa. The details of members and their address are furnished in Annexure-1.

Following technical programme proposed in the project for 2013-14 were executed.

- a) Establishment of Front line demonstration on cashew and mango production technology, with suitable high value inter-crops, in One hectare of land collectively owned by 39 tribal farmers' group of Taleshir SHG, in Bharss village in Cancona zone.
- b) Strengthening of irrigation infrastructures by providing Irrigation pump and pipeline-infrastructures for maintenance of FLD on cashew and mango production technology at Bharss.
- c) Farmers of 8 SHGs identified earlier will be provided with farm inputs and technical support for second year and 8 SHGs selected this year will be provided the similar benefits to ensure the adoption of the productivity maximization practices (PMP).
- d) Extension of technical support for Technology dissemination through conducting of field level demonstration on improved scientific production practices for enhancing productivity levels in plantation, fruit and spice crops in the Tribal villages of Cancona and Quepem taluks.
- e) Providing the identified Tribal farmers' groups with Farm machineries and tools to facilitate the adoption of improved scientific production practices.

Quarter-wise Action Plan

Following was the Action Plan (Table 1) and achievement for TSP programme-2013-14

Table 1. Action plan (quarter wise)

Sl. No	Technical operations / Activities	Quarter	Achievement
1	Lay out opening of pits for establishment of Front line demonstration on cashew and mango production technology and intercropping of turmeric:	First Quarter (April-June, 2013)	<p>Members of “Taleshir Group” (of 39 Tribal farmers) of Bharss village of Cancona Taluka were provided with technical Assistance for carrying out the works like laying out of field, pit making and preparation for planting of cashew and mango grafts for FLD.</p> <p>For intercropping, Turmeric Seed rhizomes of Var. Pratibha and farm inputs like fertilizers, FYM were provided to the Farmers’ group for taking intercropping in the above plot.</p> <p>Planting of turmeric was completed.</p> <p>Planting of Cashew grafts of improved varieties (Goa-1, Tiswadi-3, Ganje-2 and KN 2/98) and mango grafts (Mankurad, Amrapali, and Kesar) in 1 ha. area was completed.</p> <p>The grafts were provided by the Institute.</p>