

**Proceedings of the 54th Meeting of
Project Approval Committee (PAC) of Technology Mission on
Coconut held at MANAGE, Hyderabad on 04th July 2019**

The 54th meeting of the Project Approval Committee (PAC) on Technology Mission on Coconut was held at National Institute of Agricultural Extension Management (MANAGE), Hyderabad on **04th July 2019**. Smt. Usha Rani IAS Chairperson, Coconut Development Board and Chairman PAC presided over the meeting. At the outset Chairperson welcomed all the members of PAC and agenda were taken up. The list of participants is enclosed as *Annexure-I*.

AGENDA No. 1: Confirmation of the Proceedings of 53rd Project Approval Committee Meeting held on 29th April 2019

The Committee confirmed the proceedings of the 53rd Project Approval Committee meeting held on 29.04.2019.

AGENDA No. 2: Action Taken Report on Decisions of the 53rd PAC Meeting

The committee perused the action taken on decisions of the 53rd meeting of Project Approval Committee. Chief Coconut Development Officer informed that 13 (research) projects and 26 (adoption) projects sanctioned by the 53rd PAC and action for release of fund is in progress. First installment for 12 research projects and 13 adoption projects has been effected on signing of MoU.

AGENDA No. 3: Approval of New Project Proposals:

1. **Developing chitosan nano formulation as an alternate to toxic sulphur for the safe preservation of coconut copra- Center for Post Harvest technology Agricultural Engineering College and Research Institute Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu**

The objectives of the project are as follows:

- Synthesis and characterization of chitosan based nano formulation / nano spheres and confirming the stability of the formulation.
- Assessing the bio efficacy of the formulation against various microbial contaminants in coconut copra.
- Confirming the biosafety of the formulation and other health benefits.
- Developing protocol to commercialize the product for the benefit various stakeholders.
- Conducting bio efficacy trials in coordination with copra producers and assessing the impact of the interventions.

PAC perused on the recommendations of the ISC and **approved the project subject to the condition that the following details are furnished:**

- Details of consumables with cost.
- Year wise details of work to be carried out.
- Revise the project limiting the institutional charges for 10%.

2. Transforming Coconut Waste into High Value Carbon dots and Development of Nanobased Technology for Disinfection of water- Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu

The objectives of the project are as follows:

- To transform the coconut wastes (coconut shell, husk & fonds) into carbon dots (C-dots).
- To characterize the physical and chemical properties of synthesized C-dots
- To develop a water purification technology by utilizing C-dots to disinfect the water.
- To carry out bio safety tests for the developed product.

PAC perused on the recommendations of the ISC and **approved the project subject to the condition that the following details are furnished.**

- Details of consumables with cost
- Year wise details of work to be carried out
- Revise the project limiting the institutional charges for 10%.

3. Production and activation of Biochar From Coconut Shell.- Tamil Nadu Agricultural University, Coimbatore

The objectives of the project are as follows:

- To produce biochar and activation of biochar from coconut shell.
- To design a biochar reactor of 1 ton capacity with steam activation system Management of sooty mould.
- To optimize the process parameters for activated biochar production.

PAC discussed the project in detail and **not considered the project since the concept of objective is not clear. It was directed to collect more reference information and to come up with a revised project.**

4. Design and development of Smart Copra dryer- Agricultural Research Station, Kerala Agricultural University, Mannuthy

The objectives of the project are as follows:

- Design and development of a forced convection batch type copra dryer for high quality copra production.

- Conduct field test and assess the performance of developed copra dryer comparing with that of natural convection batch type copra dryer.

PAC deferred the project since the project could not be presented by PI through video conference.

5. Standardization of liquid formulation and mass multiplication of promising entomopathogen *Isaria fumosorosea* against Rugose Spiraling Whitefly, *Aleurodicus rugioperculatus* in Andhra Pradesh- Dr. Y.S.R Horticultural University, Ambajipeta, East Godavari, Andhra Pradesh

The objectives of the project are as follows:

- To study the morphological and physiological characters of *Isaria fumosorosea* an entomopathogenic fungus on rugose spiraling whitefly.
- To develop and standardize production protocols for preparation of liquid formulation of *I.fumosorosea*
- To identify the effective concentration of *I.fumosorosea* under *in vitro* and *in vivo* conditions
- To demonstrate the effective concentration of *I.fumosorosea* against spiraling whitefly in farmers coconut gardens.
- Large scale production and supply of liquid formulation of *I.fumosorosea* to coconut producer societies/ companies.

PAC perused the recommendations of the ISC and **approved the project subject to the condition that the infrastructure facilities other than sprayers should be borne by the institute itself and also the project cost should be limited to Rs. 25.00 lakhs.**

6. Exploration of Entomopathogenic fungus *Isaria fumosorosea* wize for the management of emerging invasive whiteflies in coconut- ICAR-National Bureau of Agricultural Insect Resources (ICAR-NBAIR), Bengaluru, Karnataka

The objectives of the project are as follows:

- To standardize liquid and solid state fermentation technology for the mass production of *Isaria fumosorosea* to develop grain, talc & oil based formulations with longer self-life, persistence and higher bio-efficacy against the invasive whiteflies on coconut.
- To evaluate the bio-efficacy of *I. fumosorosea* against invasive whiteflies in coconut and to assess the impact of *I. fumosorosea* on non-target organisms (compatibility studies with predators, parasitoids and pollinators).
- To develop protocol for scale-up of mass production of *I. fumosorosea*.
- To give hands-on training to extension officials, scientist of SAUs, KVKs and FPOs on mass production and use of *I. fumosorosea* against invasive whitefly pests in coconut.

PAC perused the recommendations of the ISC and **approved the project at a total cost limited to rs.15.00 lakhs subject to following conditions:**

- Protocol standardization of the technology to be taken up in the project.
- Area of mass application to be limited to Karnataka and Tamil Nadu directly by NBAIR involving FPO's/ DSP Farms.

Revised project to be submitted as above.

7. Development of Potentially Viable Coconut Value Added Products- Tamil Nadu Agricultural University, Coimbatore.

The objectives of the project are as follows:

- To standardize the technology for the production of tender coconut kernel leather
- To spray dry the coconut water from copra to reduce the wastage.
- To study the physic chemical changes during storage with suitable packaging materials.
- To blend the coconut water power with instant energy drinks.

PAC deferred the project since the project could not be presented by PI through video conference.

8. Accelerated production of mature coconut water Vinegar- CSIR- Central Food Technological Research Institute, Mysuru, Karnataka

The objectives of the project are as follows:

- To accelerate the process of vinegar production from 4-6 weeks to 10-15 days.
- To produce a consistently similar product with defined cultures and process.

PAC perused the recommendations of the ISC and **approved the project with a total project cost of Rs.12.80 lakhs.**

9. Development of fermented tender coconut water with lactic cultures and its functional applications- CSIR- Central Food Technological Research Institute, Mysuru, Karnataka

The objectives of the project are as follows

- To extract and analyse various biochemical compounds from the fermented product.
- To study antimicrobial activities of fermented product (FP)
- To optimize different cultural conditions for the fermentation of tender coconut water with lactic acid bacterial cultures.
- Preparation of FP based food product utilising fermented coconut water for targeted ailment.

PAC perused the recommendations of the ISC and approved the project **with a total project cost of Rs.23.68 lakhs.**

Tender Coconut Water Packing Unit

10. Expansion of the Existing TCW packing Unit- M/s. Sakthi Coco Products, Unit No.9/2, Sakthi Industrial Estate, Udumalpet Road, Pollachi – 642003, TN

The objective of the project is Expansion of the Existing TCW packing Unit with capacity to process 20000 bottles per day

Components	Total Project Cost	Eligible Project Cost	Maximum Eligible Subsidy
	(Rs. in lakh)		
Land	Own	-	-
Building & Civil works	Own	-	-
Plant & Equipments	88.95	84.45	21.11
TOTAL	88.95	84.45	21.11

After detail discussion, PAC approved the project with a maximum eligible subsidy of **Rs.21.11 lakhs subject to the condition after verification of detail bank sanction & other documents (original) is furnished.**

Coconut shell charcoal Briquette Manufacturing Unit

11. Setting up of a coconut shell charcoal briquette manufacturing unit - M/s. Neo Global, SF No.77/C3, Senapathipalayam Village, karur NH Road, Kurukkathi, Vellakovil – 638111, Tiruppur Dist., TN

The objective of the project is setting up of a coconut wood briquette manufacturing unit with a capacity to process 10 Tons/day

Components	Total Project Cost	Eligible Project Cost	Maximum Eligible Subsidy
	(Rs. in lakh)		
Land	Own	-	-
Building & Civil works (including drying yard)	23.66	23.66	5.91
Plant & Equipments	69.59	69.07	17.27
Electrification	6.75	3.45	0.86
Computer system	1.08	-	-
Working Capital margin	3.79	-	-
TOTAL	104.87	96.18	24.04

After detail discussion, PAC approved the project with a maximum eligible subsidy of **Rs. 24.04 lakh.**

Other items:

1. The proposal for Market Promotion operational guidelines to promote market of coconut products by providing the support under following :

- Infrastructure support for establishment of procurement centers by FPOs.
- Setting up of sales outlets or kiosks for value added coconut products.
- Assistance for Quality Certification.
- Assistance to exporters for participation in international exhibitions/trade fairs/buyer seller meets.
- Brand Building support

After detailed discussion **PAC approved the proposal.**

2. Revised Ratification Proposal of fund sanctioned and released for Coconut Nursery at KVK,Motihari, Bihar and KVK, Gorakpur, Uttar Pradesh

PAC approved the proposal at a total cost of Rs. 6.70 lakhs.

3. Release of further subsidies to the legal heir of Shri. Adabala Satyanarayana Murthy for “Setting up of a Ball Copra making unit” at a total cost of Rs.49.20 lakh-

After detailed discussion PAC **approved to release the balance amount of Rs.1.75 lakhs to legal heir of Shri. Adabala Satyanarayana Murthy named Shri. Adbala Venugopal.**

Other points discussed:

- 1.** Since it is observed that most of the units assisted under TMoC have reported marketing problems for coconut products, it was decided to extend eligible market support to TMoC assisted units and to conduct state wise buyer- seller meets in support of these units.
- 2.** On observing that the pesticide residue in Tender Coconut Water mainly by root feeding, the Regional Office, Chennai was directed to collect some samples for detecting pesticide residue at recognized laboratories.
- 3.** Research stations should assure that the projects submitted for assistance under TMoC are not duplicated by certifying the same while submitting the project and there should be screening mechanism for the same.
- 4.** It was emphasized that the technology developed in the research stations should reach up to the farmer level and also should be farmer friendly.
- 5.** Coconut being a ‘Kalpavriksha’ and every part is useful and hence more entrepreneurs should be promoted to take up various products and by products of coconut.
- 6.** It was opined that handholding by the concerned state departments may also be considered to the entrepreneurs.

PAC meeting concluded with vote of thanks from the Chief Coconut Development Officer, Shri Saradindu Das.

Date: 07.07.2019
Place: Ernakulum

Chief Coconut Development Officer
Coconut Development Board, Kochi

Annexure-I

A	Project Approval Committee
1	Smt. Usha Rani IAS Chairperson, Coconut Development Board & Chairman PAC
2.	Shri. Dhanraj Joint Director (Hort) Govt. of Karnataka, Bangalore <u>Representative of:</u> The Secretary Horticulture, Govt. of Karnataka, Bangalore
3	Dr. Anil Kumar Deputy Agricultural Marketing Adviser, Directorate of Marketing & Inspection (DMI), 2 nd floor Kendriya Sadan, Sulthan Bazar, Hyderabad <u>Representative of:</u> The Joint Secretary & Agri. Marketing Adviser to Govt. of India, Krishi Bhavan, New Delhi-110 001.
4	Dr. KSMS Raghavarao Director, Central Food Technological Research Institute, Mysore-570 020
5	Shri. R.I.A. Selvan Deputy General Manager, NABARD, Hyderabad <u>Representative of:</u> The Chairman National Bank for Agri. & Rural Development (NABARD), C-24, 'G' Block, Bandra Kural Complex(East), Mumbai – 400 051
6	Shri. K. Velayudham Assistant General Manager Indian Overseas Bank, Regional Office, 5-9-299 2 nd floor Suryalok Complex, Gun Foundry, Abids , Hyderabad <u>Representative of:</u> The Managing Director & Chief Executive Officer Indian Overseas Bank, 763, Anna Salai, Chennai-600 002 Ph: 044-28519500
7	Shri Saradindu Das Chief Coconut Development Officer Coconut Development Board & Member Secretary, PAC
B	Officials of CDB
1	Smt. Jayashree A, Development Officer, CDB, Kochi