

# **Proceedings of the 45<sup>th</sup> meeting of Project Approval Committee (PAC) of Technology Mission on Coconut held at Kochi on 22<sup>nd</sup> May 2015**

The 45<sup>th</sup> meeting of the Project Approval Committee (PAC) on Technology Mission on Coconut (TMOC) was held in the Board Room of Coconut Development Board, Kochi on 22<sup>nd</sup> May 2015. Shri T. K. Jose IAS, Chairman, Coconut Development Board and Chairman PAC presided over the meeting. The list of participants is enclosed.

At the outset, Chairman welcomed the members of PAC and informed that now more and more numbers of entrepreneurs are venturing in the Coconut processing sector and Coconut Development Board could utilize more than 100% of the fund allocated under TMOC in 2014-15. Chairman also informed the PAC members that year by year the export of coconut products is also increasing and in the case of Virgin Coconut Oil the export growth during 2014-15 was 404%. He added that there is tremendous scope for organic coconut products and it is high time to motivate farmers for organic method of cultivation and production of organic certified value added coconut products. There is huge scope for coconut value addition in states like Tamil Nadu and Karnataka, hence to provide more awareness about potential in coconut based industries, more 'Entrepreneurs Meet' is planned in Tamil Nadu, Karnataka, Andhra Pradesh and Kerala this year. After the introductory remarks, agenda items were taken up.

## ***AGENDA No. 1: Confirmation of the Proceedings of 44<sup>th</sup> Project Approval Committee Meeting held on 20<sup>th</sup> January 2015***

The Committee confirmed the proceedings of the 44<sup>th</sup> Project Approval Committee Meeting, held on 20.1.2015

## ***AGENDA No. 2: Action taken report on decisions of the 44<sup>th</sup> PAC Meeting***

The committee perused the action taken on decisions of the 44<sup>th</sup> meeting of Project Approval Committee.

## ***AGENDA No. 3 : Presentation of Completed Research project –***

### ***i) Region based recommendation to improve coconut production in Tamilnadu through remote sensing and GIS –Dr. Balaji Kannan, Principle Investigator, Asst Prof. , Dept. of Remote sensing and GIS, TNAU, Coimbatore:***

The findings of the project were presented by the P.I. before the PAC. Chairman CDB queried whether the GIS methodology developed is giving 99% accuracy in low density areas. He informed that the results of the study should be linked with Farmer Producer Organizations, markets and processing units. This data would be more helpful for processing industries to come up. More concentrated area means, more availability of raw material and will help to estimate production and productivity. Interaction between variables affecting the production also need to be assessed. The information has to be disseminated among the Coconut Producer Federations (CPFs). He pointed out that CPFs are going to be critical organizations in Tamilnadu, so ultimately this will benefit the farmers.

After detailed discussions, PAC decided that PI may use the 3 tier systems of CPS, CPF and CPC and arrange seminar for disseminating the findings in 4-5 major coconut growing districts of Tamilnadu i.e., Coimbatore, Tiruppur, Thanjavur, Dindigul and Theni/ Madurai. The farming community of these areas may be properly made aware of these findings. The unspent balance fund

may be utilized for this purpose.

## **ii) Evaluation of completed projects under TMOC**

a) While discussing the presentation of completed research projects, Dr. Aravindhakshan, Expert invitee mentioned that CDB has undertaken several research projects under TMOC. Board should critically evaluate the findings of these completed projects and list out useful technologies for commercial use. Some of the projects may need to be pursued further and improved upon.

b) It was decided by PAC that a Project Review Committee of TMOC under the Chairmanship of Dr. Aravindhakshan may be formed to review completed projects in view of the above suggestion. It was also decided that Publicity wing may publish a book on TMOC success stories and a brochure with details of TMOC.

## **AGENDA No. 4: Approval of new project proposals:**

### **1. Development of concentrated extract of Vyasakatvivaradi (VKV) formulation in VCO and evaluation of its genotoxic and carcinogenic effect (3<sup>rd</sup> phase) - AVP Research Foundation, Trichy Road, Ramanathapuram P.O., Coimbatore, Tamil Nadu.**

The objectives of the project are as follows:-

1. To formulate a concentrated Vyasakatvivaradi (VKV) in Virgin Coconut Oil by repeated heating for 7 times so as to reduce the effective dose in humans from 25ml to less than 4 ml.
2. To evaluate the hypolipidemic activity of conc. Vyasakatvivaradi (VKV) in Virgin Coconut Oil in different doses and its effect in wistar rat model (rodent).
3. Effective dose in re-evaluated in the rabbit model (non-rodent).
4. Development of capsule with conc. Vyasakatvivaradi (VKV) in VCO for oral consumption for hypercholesterolemia.
5. To evaluate clinical efficacy of the developed capsules in humans through a randomized clinical trail

Dr Ram Manohar, P.I. of the project presented the results of 2<sup>nd</sup> phase and detailed programme of 3<sup>rd</sup> phase.

The committee decided that 3<sup>rd</sup> phase may be restricted to animal studies and if results are positive, human studies may be taken up as 4th phase. P.I. may explore the possibilities of developing natural antioxidant also. The duration of 3<sup>rd</sup> phase may be reduced to 16 months restricting the studies to animals and budget may also be revised accordingly, clearly indicating 50:50 share of CDB and Institute. PAC approved the project in principle, with the above mentioned modifications. The revised project may be submitted to Chairman, CDB for approval.

### **2. Coconut wood furniture making through training for self help groups(SHG) - Dept. of Wood Science, College of Forestry, Kerala Agricultural University, Vellanikkara, Thrissur, KAU.**

The objectives of the project are as follows:-

- I. To set up a modern Coconut Wood Workshop-cum-Training Centre, installing advanced machineries for carving and manufacture of utility items such as furniture, interior decorative items, building materials, handicraft items etc., based on coconut wood and to market the finished products so as to popularize the use of coconut wood.
- II. To develop a value chain model of cocowood extraction, conversion, design, manufacture

and sale of cocowood furniture and other value added products in collaboration with the Kerala Furniture Consortium Pvt. Ltd., (KFPCL) and the Kodungallur Coconut Producer Co.Ltd. (KCPL).

After detailed discussions, PAC decided that unit may be developed as Training-cum-Technology Demonstration Centre for making value added products from coconut wood. Considering the need for sustaining the developed infrastructure, PAC suggested 2 options:

(a) The unit may be developed in KAU premises and after completion of 3 year project period, Kodungallur CPC may be allowed to utilize the machineries, equipments and building for commercial production and training for the next 10 years, for which an MoA will have to be signed between KAU and Kodungallur CPC.

(b) Alternatively P.I. may establish the unit on the site identified by Kodungallur CPC and after 3 years, the unit with machinery and equipments may be handed over to CPCs for commercial production-cum-Training & Demonstration.

PAC approved the project in principle and advised the P.I. to discuss the above options with University authorities and submit their decision on (a) or (b) above for Chairman's approval.

### **3. Build and Demonstrate a Power Assisted Coconut Tree Climbing Machine – GVR Manufacturing, G-20, Vishweswar Industrial Society, Bhosari, Pune**

The primary objective of the project is to build and demonstrate a prototype power assisted coconut tree climbing machine. Dr. Krishnan Nair, P.I presented the project before PAC.

After detailed discussions, PAC decided that P.I. should reduce the cost on transportation and other heads like report writing, consumables and contingencies, so as to minimize the total cost of the project. The project was approved in principle and PAC authorized Chairman to approve the revised project.

### **4. Protective Effect of Tender Coconut Water on whole Body Heat Stress Induced Oxidative Damage in Male Reproductive System of Rats - Serampore College, Department of Physiology, Serampore, Hooghly, West Bengal**

**Dr. Asima Das, P.I. presented the proposal.** The objectives of the project are as follows:- Evaluation of degenerative and oxidative changes in male reproductive organs in response to acute whole body exposure to ambient heat

- Investigation of relationship between rise of ambient temperature, scrotal temperature and testicular endocrine activities.
- Evaluation of possible effect of acute whole body heat exposure on adrenal morphology and endocrine functions.
- Evaluation of heat stress induced disruption in the internal secretory system such as hypothalamic-pituitary-adrenal axis and hypothalamic-pituitary-testicular axis.
- Evaluation of physiological effect of tender coconut water on normal male reproductive organs of rats, if any.
- Evaluation of ameliorating action of natural antioxidant of coconut water on whole body heat stress induced antioxidant defence system.
- Evaluation of heat stress induced free radical impact on the modulation of redox regulated transcription factor and to evaluate how far the said phytochemical can overcome the adverse effect of free radicals on this transcription factor.

- Investigation of the effect of the tender coconut water on the expression of stress protein, heat shock protein (HSP), as a mode of cytoprotection during heat induced testicular damages in rats.

PAC decided that P.I. may exclude institutional charges from the project and indicate share of CDB and the Institute on 50:50 basis in revised budget. PAC suggested that the project may concentrate only on one aspect rather than considering too many objectives. PAC approved the project in principle and authorized the Chairman to approve the revised project on 50:50 cost sharing basis.

**5. Setting up of a Desiccated Coconut Manufacturing unit - M/s. PAR Coco Products, 95/6 & 7, Periappa Nagar Extension, Palani – 624 601, Dindigul Dist., Tamil Nadu.**

The objective of the project is setting up of a desiccated coconut powder manufacturing unit with a capacity to process 30,000 coconuts per day for production of 3.00 MT desiccated coconut powder.

| Components                     | Total Project Cost | Eligible Project Cost | Maximum Eligible Subsidy |
|--------------------------------|--------------------|-----------------------|--------------------------|
|                                | (Rs. in lakhs)     |                       |                          |
| Land                           | Lease              | -                     | -                        |
| Building & Civil works         | 52.75              | 52.75                 | 13.19                    |
| Plant & Equipments             | 85.80              | 85.80                 | 21.45                    |
| ETP                            | 5.50               | 5.50                  | 1.38                     |
| Generator                      | 6.87               | 5.00                  | 1.25                     |
| Electrification                | 3.50               | 3.50                  | 0.87                     |
| Furniture & Office Equipments  | 1.86               | -                     | -                        |
| Preliminary & Pre op. expenses | 2.00               | 1.53                  | 0.38                     |
| Working Capital margin         | 25.72              | -                     | -                        |
| <b>TOTAL</b>                   | <b>184.00</b>      | <b>154.08</b>         | <b>38.52</b>             |

The project was approved with an eligible subsidy of Rs. 38.52 lakhs. The PAC advised the promoter to convert the unit into a Private Limited Company, before availing the eligible subsidy.

**6. Setting up of Desiccated Coconut Powder Manufacturing Unit -- M/s. M.S.C. Packaging, A/10, MIDC, Chincholi, Tal-Mohol, Dist. Solapur, Maharashtra**

The objective of the project is setting up of Desiccated Coconut Powder Manufacturing Unit for processing of 20,000 nuts per day for production of 2.00 MT desiccated coconut powder.

| Components                    | Total Project Cost | Eligible Project cost | Maximum Eligible Subsidy |
|-------------------------------|--------------------|-----------------------|--------------------------|
|                               | (Rs. in lakh)      |                       |                          |
| Land                          | Leased             | -                     | -                        |
| Building                      | 103.50             | 53.00                 | 13.25                    |
| Plant & Machinery             | 93.70              | 93.70                 | 23.43                    |
| Electrical installation       | 5.00               | 4.32                  | 1.08                     |
| ETP                           | 2.08               | 2.08                  | 0.52                     |
| Generator                     | 9.18               | 5.00                  | 1.25                     |
| Pre-op. Expenses              | 3.00               | 1.58                  | 0.39                     |
| Furniture & office equipments | 1.54               | -                     | -                        |
| Working Capital Margin        | 17.00              | -                     | -                        |
| <b>TOTAL</b>                  | <b>235.00</b>      | <b>159.68</b>         | <b>39.92</b>             |

The project was approved with an eligible subsidy of Rs. 39.92 lakh. The PAC advised the promoter to convert the unit into a Private Limited Company, before availing the eligible subsidy.

**7. Setting up of Desiccated Coconut Powder Manufacturing Unit - M/s. Sri Jayalakshmi Co-Co Products, Byranayakanahalli Village, Gudigondanahalli Panchayat Halkurke Road, Honnavally Hobli, Tiptur, Tumkur Dist, Karnataka.**

The objective of the project is setting up of a Desiccated Coconut Powder Manufacturing Unit with a capacity to process 15,000 coconuts per day for production of 1.5 MT desiccated coconut powder.

| Components                     | Total Project Cost | Eligible Project Cost | Maximum Eligible Subsidy |
|--------------------------------|--------------------|-----------------------|--------------------------|
|                                | (Rupees in lakhs)  |                       |                          |
| Land                           | Own                | -                     | -                        |
| Building & Civil works         | 20.00              | 20.00                 | 5.00                     |
| Plant & machinery              | 39.38              | 39.37                 | 9.84                     |
| Electrical Installation        | 3.15               | 1.96                  | 0.49                     |
| Deposits                       | 0.30               | ...                   | ...                      |
| Preliminary & Pre op. expenses | 0.10               | 0.10                  | 0.02                     |
| Working Capital margin         | 5.00               | ...                   | ...                      |
| Contingencies                  | 2.07               | ...                   | ...                      |
| <b>TOTAL</b>                   | <b>70.00</b>       | <b>61.43</b>          | <b>15.35</b>             |

The project was approved with an eligible subsidy of Rs. 15.35 lakhs. The PAC advised the promoter to convert the unit into a Private Limited Company, before availing the eligible subsidy.

**8. Setting up of a Desiccated Coconut Powder Manufacturing Unit - M/s. Sree Krishna Coconut Product Company, Vathipatti, Reddiyapatti Post, Natham Taluk, Dindigul Dist, Tamil Nadu.**

The objective of the project is Setting up of a Desiccated Coconut Powder Manufacturing Unit with a capacity to process 15,000 nuts per day for production of 1.5 MT desiccated coconut powder.

| Components             | Total Project Cost | Eligible Project Cost | Maximum Eligible Subsidy |
|------------------------|--------------------|-----------------------|--------------------------|
|                        | (Rs. in lakhs)     |                       |                          |
| Land                   | 7.63               | -                     | -                        |
| Building               | 76.50              | 43.00                 | 10.75                    |
| Plant & Machinery      | 82.33              | 67.01                 | 16.75                    |
| ETP                    | 6.30               | 6.30                  | 1.58                     |
| Working Capital margin | 29.23              | -                     | -                        |
| <b>TOTAL</b>           | <b>201.99</b>      | <b>116.31</b>         | <b>29.08</b>             |

The project was approved with an eligible subsidy of Rs. 29.08 lakhs. The PAC advised the promoter to convert the unit into a Private Limited Company, before availing the eligible subsidy.

**9. Expansion, Modernisation and Up gradation of Technology of Existing Desiccated Coconut Powder Manufacturing Unit- M/s. Mahavir Coconut & Agro Products Pvt. Ltd, Mahavir Nagar, 8<sup>th</sup> KM, Kunigal Rd, Hosur Village, Gulur, Tumkur.**

The objective of the project is Expansion, Modernisation and Upgradation of Technology of Existing Desiccated Coconut Powder Manufacturing unit for processing 90,000 nuts per day for producing 9.00 MT desiccated coconut powder from existing capacity of processing 70,000 coconuts per day.

| Components                      | Total Project Cost | Eligible Project Cost | Maximum Eligible Subsidy |
|---------------------------------|--------------------|-----------------------|--------------------------|
|                                 | (Rs. in lakhs)     |                       |                          |
| Building & Civil works          | 4.00               | 4.00                  | 1.00                     |
| RO/UV plant                     | 4.50               | 4.50                  | 1.12                     |
| Plant & Machinery               | 89.00              | 85.21                 | 21.30                    |
| Generator                       | 9.50               | 5.00                  | 1.25                     |
| Electrical Panel Board & Cables | 2.00               | 2.00                  | 0.50                     |
| <b>TOTAL</b>                    | <b>109.00</b>      | <b>100.71</b>         | <b>25.17</b>             |

The project was approved with an eligible subsidy of Rs. 25.17 lakhs.

**10. Expansion & Modernisation of Existing Desiccated Coconut Powder Manufacturing Unit - M/s Maruthi Coconut Industry, Nagaraghatta Kaval, Kaidal Gate, Nonavinakere Hobli, Tiptur TQ, Tumkur Dist, Karnataka.**

The objective of the project is Expansion and Modernisation of existing Desiccated Coconut Powder manufacturing unit for processing 30,000 coconuts per day to produce 2.80 MT Desiccated Coconut Powder from existing capacity of producing 1.40 MT D.C. powder.

| Components             | Total Project Cost | Eligible Project Cost | Maximum Eligible Subsidy |
|------------------------|--------------------|-----------------------|--------------------------|
|                        | (Rs. in lakhs)     |                       |                          |
| Land                   | Own                | -                     | -                        |
| Plant & Equipments     | 35.00              | 35.00                 | 8.75                     |
| Building & Civil works | 35.00              | 4.75                  | 1.18                     |
| Working Capital margin | 5.00               | ...                   | ...                      |
| <b>TOTAL</b>           | <b>75.00</b>       | <b>39.75</b>          | <b>9.93</b>              |

PAC approved the project with an eligible subsidy of Rs. 9.93 lakhs. The PAC advised the promoter to convert the unit into a Private Limited Company, before availing the eligible subsidy.

**11. Setting up of Coconut Shell Charcoal Manufacturing Unit - M/s. Universal Coco Carb, Reg. Office- 6th Cross, Chamundeshwari Extention, Ghandhinagar, Tiptur, Tumkur Dist, Karnataka.**

The objective of the project is setting up of a Coconut Shell Charcoal manufacturing unit to produce 16 .00 MT Coconut Shell Charcoal per day.

| Components             | Total Project Cost | Eligible Project Cost | Maximum Eligible Subsidy |
|------------------------|--------------------|-----------------------|--------------------------|
|                        | (Rs. in lakhs)     |                       |                          |
| Land                   | Own                | -                     | -                        |
| Building & Civil works | 100.75             | 30.00                 | 7.50                     |
| Plant & Equipments     | 94.86              | 84.18                 | 21.04                    |
| Others                 | 46.00              | -                     | -                        |
| Working Capital margin | 20.00              | -                     | -                        |
| <b>TOTAL</b>           | <b>261.61</b>      | <b>114.18</b>         | <b>28.54</b>             |

The project was approved with an eligible subsidy of Rs. 28.54 lakhs. The PAC advised the promoter to convert the unit into a Private Limited Company, before availing the eligible subsidy.

**12. Setting Up of a Granulated Shell Charcoal Manufacturing Unit- M/s. Akanksha Agro Processing, Plot No.364, B.H.Road, Jajur, Arsikere, Hassan Dist., Karnataka.**

The objective of the project is setting up of a Granulated Shell Charcoal Manufacturing unit to process 10.00 MT coconuts shell charcoal per day.

| Components  | Total Project Cost | Eligible Project Cost | Maximum Eligible Subsidy |
|---|--------------------|-----------------------|--------------------------|
|   | (Rs. in lakhs)     |                       |                          |
| Land  | Leased             | -                     | -                        |
| Building & Civil works<br>(Renovation of building ) | 15.00              | 15.00                 | 3.75                     |
| Plant & Equipments                                  | 27.12              | 27.11                 | 6.78                     |
| Generator   | 4.60               | 4.60                  | 1.15                     |
| Electrification                                     | 2.00               | 0.86                  | 0.21                     |
| Furniture, Computer                                 | 2.20               | -                     | -                        |
| Preliminary & Pre op. expenses                      | 1.00               | 0.47                  | 0.12                     |
| Working Capital margin                              | 15.72              | -                     | -                        |
| <b>TOTAL</b>  | <b>67.64</b>       | <b>48.04</b>          | <b>12.01</b>             |

PAC approved the project with an eligible subsidy of Rs. 12.01 lakhs. The PAC advised the promoter to convert the unit into a Private Limited Company, before availing the eligible subsidy.

**13. Expansion of the Existing Coconut Shell Powder unit at Paramathi Velur, Namkkal District, Tamilnadu – M/s. Asian Industries, Office : D.No. 9<sup>a</sup> Bye Pass Road, Padamudi palayam, Velur PO, Namakkal Dist, Tamilnadu.**

The objective of the project is Expansion of the Existing Coconut Shell Powder Unit to produce 20.00 MT coconut shell powder per day from existing capacity of 10.00 MT coconut shell powder by installing another unit.

| Components             | Total Project Cost | Eligible Project Cost | Maximum Eligible Subsidy |
|------------------------|--------------------|-----------------------|--------------------------|
| (Rs. in lakhs)         |                    |                       |                          |
| Land                   | Own                | ...                   | ...                      |
| Building & Civil works | 22.00              | 14.40                 | 3.60                     |
| Plant & Equipments     | 85.07              | 82.70                 | 20.68                    |
| Pre-operative Expenses | 1.00               | 0.97                  | 0.24                     |
| Working Capital margin | 2.00               | ...                   | ...                      |
| <b>TOTAL</b>           | <b>110.07</b>      | <b>98.07</b>          | <b>24.52</b>             |

The project was approved with an eligible subsidy of Rs. 24.52 lakhs. The PAC advised the promoter to convert the unit into a Private Limited Company, before availing the eligible subsidy.

**14. Setting up of a Ball Copra Making unit – Shri Bonam Suryanarayana Murthy, S/o. Papparao, Bonamvarimerake Lutukurru Village, Mamidikuduru Mandal, EG Dist, Andhra Pradesh.**

The objective of the project is establishing a Ball Copra Making unit to process 12.00 lakh coconuts per year in two batches.

| Components             | Total Project Cost | Eligible Project Cost | Maximum Eligible Subsidy |
|------------------------|--------------------|-----------------------|--------------------------|
| (Rs. in lakhs)         |                    |                       |                          |
| Land                   | 15.00              | ...                   | ...                      |
| Platform Dryer         | 22.70              | 22.70                 | 5.67                     |
| Working Capital margin | ...                | ...                   | ...                      |
| <b>TOTAL</b>           | <b>37.70</b>       | <b>22.70</b>          | <b>5.67</b>              |

The project was approved with an eligible subsidy of Rs. 5.67 lakhs.

**15. Expansion of the Existing Virgin Coconut Oil Unit - M/s. Pavithra Kera Products, Kavassery, Padur, Alathur Taluk, Pin – 678 543, Palakkad District, Kerala**

The objective of the project is Expansion of the Existing Virgin Coconut Oil Unit to process 15000 nuts per day from existing capacity of 10,000 nuts per day.

| Components             | Total Project Cost | Eligible Project Cost | Maximum Eligible Subsidy |
|------------------------|--------------------|-----------------------|--------------------------|
| (Rs. in lakhs)         |                    |                       |                          |
| Land                   | Own                | -                     | -                        |
| Building & Civil works | 11.50              | 11.50                 | 2.87                     |
| Plant & Equipments     | 37.95              | 33.95                 | 8.49                     |
| Electrification        | 3.05               | ...                   | ...                      |
| Pre op. expenses       | 1.00               | 0.45                  | 0.11                     |
| Working Capital margin | 6.50               | ...                   | ...                      |
| <b>TOTAL</b>           | <b>60.00</b>       | <b>45.90</b>          | <b>11.47</b>             |

The project was approved with an eligible subsidy of Rs. 11.47 lakh. The PAC advised the promoter to convert the unit into a Private Limited Company, before availing the eligible subsidy.



**16. Expansion & Modernisation of existing Tender Coconut Water Packing Unit at Vedasandur, Dindigul Dist, Tamil Nadu - M/s.VSA Foods & Beverages Pvt. Ltd., Office: 21/22 TNP Building, Thadicombu Road, Near M.V.M. College, Dindigul, Tamilnadu.**

The objective of the project is Expansion and Modernisation of existing Tender Coconut Water unit for processing of 20,000 nuts per day from its existing capacity of 10,000 nuts per day .

| Components                     | Total Project Cost | Eligible Project Cost | Maximum Eligible Subsidy      |
|--------------------------------|--------------------|-----------------------|-------------------------------|
| (Rs. in lakhs)                 |                    |                       |                               |
| Land & building                | Own                | -                     | -                             |
| Plant & Equipments             | 94.41              | 94.41                 | 23.60                         |
| Preliminary & Pre op. expenses | 1.00               | 0.94                  | 0.23                          |
| Working Capital margin         | 22.00              | -                     | -                             |
| <b>TOTAL</b>                   | <b>117.41</b>      | <b>95.35</b>          | <b>23.83 Limited to 22.48</b> |

The

project was approved with an eligible subsidy of Rs. 22.48 lakh.

**17. Project for Modernisation and Expansion of Existing Unit for Preservation and Packing of Tender Coconut Pulp and Tender Coconut Water - M/s. Lands Flavour, Adyar Village, Mangalore Bantwal Highway, Adyar, Mangalore, Karnataka.**

The objective of the project is Expansion and Modernisation of existing Tender Coconut Pulp Icecream manufacturing and Tender Coconut Water preservation unit for processing of 10,000 nuts per day from existing capacity of 2000 nuts per day.

| Components                          | Total Project Cost | Eligible Project Cost | Maximum Eligible Subsidy |
|-------------------------------------|--------------------|-----------------------|--------------------------|
| ( in lakhs)                         |                    |                       |                          |
| Land                                | Own                | -                     | -                        |
| Building & Civil works (renovation) | 64.70              | 36.00                 | 9.00                     |
| Plant & Equipments                  | 111.87             | 111.23                | 27.80                    |
| Preliminary & Pre op. expenses      | 3.23               | 1.47                  | 0.37                     |
| Working Capital margin              | 10.20              | ...                   | ...                      |
| <b>TOTAL</b>                        | <b>190.00</b>      | <b>148.70</b>         | <b>37.17</b>             |

The project was approved with an eligible subsidy of Rs. 37.17 lakh. The PAC advised the promoter to convert the unit into a Private Limited Company, before availing the eligible subsidy.

**18. Market Promotion - Market Promotional Programme for “Establishment of 70 Integrated Coconut points by M/s. Palakkad Coconut Producer Company Ltd, Muthalamada, Palakkad, Kerala.**

The proposal was presented by Shri Vinodkumar P., Chairman, Palakkad Coconut Producer Company, Palakkad, Kerala. The objective of the project is to establish a network of Coconut Points in different locations to sell and market coconut value added products.

Shri. Vinodkumar briefed about establishment of 70 Integrated coconut points in selected different locations in Kerala. The PAC asked about the performance of already established coconut points. He informed PAC that in all the coconut points neera is sold out by forenoon. As the value added coconut products namely VCO, DCP and other products are also being sold, these points are getting popular as a retail sales point for public to get various coconut products. The promoter has informed that advanced action was taken to establish 70 points by availing loan from the bank and all the Federations under CPC started neera production. He informed that they have already approached the bank for availing loan for establishment of coconut points and hence submitted the project to CDB for approval.

PAC directed that establishment of coconut points should be linked to and based on quantum of neera production and the number of coconut points could be increased in phased manner. PAC appreciated the action initiated by PCPCL for popularising neera and other coconut value added products through these coconut points.

The details of one coconut point is as under.

| SL.NO | ITEM   | COST (Rs.) | UNITS | TOTAL (Rs)        |
|-------|--|------------|-------|-------------------|
| 1     | Fabrication                                      | 90,000     | 1     | 90,000            |
| 2     | Juice Dispenser(20Ltrs)                          | 42,000     | 1     | 42,000            |
| 3     | Interior Design                                  | 40,000     | 1     | 40,000            |
| 4     | Glass Door Fridge(350Ltrs)                       | 36,000     | 1     | 36,000            |
| 5     | Deep Freezer(200Ltrs)                            | 30,300     | 1     | 30,300            |
| 6     | Electrification, Plumbing, Fittings etc.         | 15,900     | 1     | 15,900            |
| 7     | Water Purifier                                   | 9,600      | 1     | 9,600             |
| 8     | Stabiliser Set (4KVA+1KVA+1KVA)                  | 5,500      | 1     | 5,500             |
| 9     | Heavy duty Mixer                                 | 4,000      | 1     | 4,000             |
| 10    | Frame for hanging the nuts                       | 3,000      | 1     | 3,000             |
| 11    | Steel desks                                      | 3,000      | 1     | 3,000             |
| 12    | Standee/Flex boards                              | 4,000      | 2     | 8,000             |
| 13    | Beach umbrellas                                  | 2,000      | 3     | 6,000             |
| 14    | Drums for handling waste                         | 1,000      | 2     | 2,000             |
| 15    | Knives-Large                                     | 400        | 3     | 1,200             |
| 16    | Chairs/Stools                                    | 300        | 10    | 3,000             |
| 17    | Knives-Small                                     | 250        | 2     | 500               |
|       | <b>Cost of One Coconut Point</b>                 |            |       | <b>3,00,000</b>   |
|       | <b>Total Cost of Project (70 Coconut Points)</b> |            |       | <b>210,00,000</b> |

The PAC approved the project in principle, considering the emergent requirement for setting up of coconut points and authorised the Chairman to reimburse 50% of the expenditure limited to Rs. 1.50 lakh per coconut point on case to case basis as and when the coconut points are established and bills /vouchers submitted by the promoter.

## V. Other Items

### 1. Approval of Copra Dryer Unit and Oil Mill Unit:

The 37<sup>th</sup> PAC held on 12/12/2011 has approved the project of M/s. Kalpamithra Oil & Kera Products, Kannur, Kerala for Setting up of a Coconut Oil Milling Unit at a total project cost of Rs. 92.45 lakh and subsidy of Rs. 16.56 lakh. When the tripartite MoU was forwarded to the promoter for execution,

the term loan lending financial institute, Kerala Financial Corporation, Kannur Br., Kerala informed that the promoter Shri. M.V Mathai, Moolechalil House, Kannur Dist has taken term loan for two separate units as detailed below:

- (a) **Copra Dryer Unit** – in the name of M/s. Kalikayam Coconut Processing, Kannur.  
Term loan sanctioned Rs. 11.00 lakh by KFC, Kannur.
- (b) **Oil Mill Unit** – in the name of M/s. Kalpamithra Oil & Kera Products, Kannur.  
Term loan sanctioned Rs. 30.00 lakh by KFC, Kannur.

On seeking clarification the promoter has submitted two separate project for Rs. 25.34 for Copra Dryer Unit and Rs. 67.11 lakh for Oil Mill Unit (with total project cost of Rs. 92.45 lakh) for financial assistance.

Since the projects under TMOC are considered based on the term loan sanctioned by the financial institute, therefore two separate projects were required to be sanctioned as per term loan, instead of one project as approved by 37th PAC held on 12/12/2011. Accordingly the project was split into two projects as per the loans sanctioned by KFC and submitted before PAC for approval.

After the discussion, PAC approved bifurcation of the project into 2 separate units viz (a) M/s. Kalpamithra Oil & Kera Products, Kannur for Setting up of a Coconut Oil Milling Unit and approved the projects with total project cost of Rs. 67.11 lakh and subsidy of Rs. 11.81 lakh and (b) M/s. Kalikayam Coconut Processing, Kannur for setting up of a Copra dryer unit with a total project cost of Rs. 25.34 lakh and subsidy of Rs. 4.75 lakh as detailed below:

**a. Copra Dryer Unit - M/s. Kalikayam Coconut Processing, Kannur, Kerala, Term loan sanctioned Rs. 11.00 lakh by KFC, Kannur**

| <b>Components</b>                               | <b>Total Project Cost</b> | <b>Eligible Project Cost</b> | <b>Maximum Eligible Subsidy</b> |
|---|---------------------------|------------------------------|---------------------------------|
|   | <b>(Rupees in lakh)</b>   |                              |                                 |
| Land  | 5.00                      | ...                          | ...                             |
| Building & Civil works                          | 14.93                     | 14.93                        | 3.73                            |
| Plant & Equipments                              | 3.70                      | 3.70                         | 0.93                            |
| Furniture                                       | ...                       | ...                          | ...                             |
| Electronic equipments & Electrical installation | 0.20                      | 0.20                         | 0.05                            |
| Preliminary & Pre op. expenses                  | 0.51                      | 0.18                         | 0.04                            |
| Working Capital margin                          | 1.00                      | ...                          | ...                             |
| <b>TOTAL</b>                                    | <b>25.34</b>              | <b>19.01</b>                 | <b>4.75</b>                     |

**b. Oil Mill Unit - M/s. Kalpamithra Oil & Kera Products, Kannur, Kerala, Term loan sanctioned Rs. 30.00 lakh by KFC, Kannur**

| <b>Components</b>                               | <b>Total Project Cost</b> | <b>Eligible Project Cost</b> | <b>Maximum Eligible Subsidy</b> |
|---|---------------------------|------------------------------|---------------------------------|
|   | <b>(Rupees in lakh)</b>   |                              |                                 |
| Land  | 3.00                      | ...                          | ...                             |
| Building & Civil works                          | 30.89                     | 19.71                        | 4.93                            |
| Plant & Equipments                              | 23.12                     | 23.12                        | 5.78                            |
| Furniture                                       | 0.50                      | 0.50                         | 0.12                            |
| Electronic equipments & Electrical installation | 3.30                      | 3.30                         | 0.83                            |
| Preliminary & Pre op. expenses                  | 1.44                      | 0.60                         | 0.15                            |
| Working Capital margin                          | 4.860                     | ...                          | ...                             |
| <b>TOTAL</b>                                    | <b>67.11</b>              | <b>47.23</b>                 | <b>11.81</b>                    |

**2. Establishment of one Coconut point by M/s. Kerasuraksha Federation of Coconut Producers Society, Malappuram, Kerala – ratification of the expenditure incurred.**

The PAC ratified the expenditure of Rs. 1,44,148/- reimbursed to M/s Kerasuraksha Federation of Coconut Producers Society, Malappuram for setting up of one Coconut point at Maranchery, Malappuram, Kerala.

**3. Setting up of one Coconut point by the M/s. Kadathanad Federation of Coconut Producers Society, Kozhikode, Kerala – ratification of the expenditure incurred.**

The PAC ratified the expenditure of Rs. 1.50 lakh reimbursed to M/s Kadathanad Federation of Coconut Producers Society, Kozhikode for setting up of one Coconut point near Govt. Hospital, Vadakara, Kozhikode

**4. Setting up of one Coconut point by M/s. Keraganga Coconut Producers Society, Ernakulam, Kerala – ratification of the expenditure incurred.**

The PAC ratified the expenditure of Rs.1,07,117/-reimbursed to M/s Keraganga Coconut Producers Society, Ernakulam for setting up of one Coconut point at Njarakadu in Paingattur Panchayat, Ernakulam, Kerala.

**5. Setting up of one Coconut point by M/s. Mananthawady Federation of Coconut Producers Society, Wayanad, Kerala – ratification of the expenditure incurred.**

The PAC ratified the expenditure of Rs. 1.50 lakh reimbursed to M/s Mananthawady Federation of Coconut Producers Society, Wayanad for setting up of one Coconut point at Vallurkave, Mananthawady, Wayanad.

**6. Setting up of one Coconut point by M/s. Tejaswini Coconut Producers Company, Kannur , Kerala – ratification of the expenditure incurred.**

The PAC ratified the expenditure of Rs. 1.50 lakh reimbursed to M/s Tejaswini Coconut Producers Company, Kannur for setting up of one Coconut point at Bus Stand, Cherupuzha, Kannur, Kerala.

**7. Setting up of two Coconut Points by M/s. Kaipuzha Coconut Producers Company, Kollam, Kerala – ratification of the expenditure incurred.**

The PAC ratified the expenditure of Rs. 2,07,460/- reimbursed to M/s Kaipuzha Coconut Producers Company, Kollam for setting up of two Coconut points one at Karunagappaly Bus stand and another at Bishop Jerome Nagar, Kollam.

**8. Project Proposal “Studies on the use of Virgin Coconut oil & Coconut water in Alzheimer’s disease (AD)” - Approval of project.**

The project was presented before 44<sup>th</sup> PAC held on 20.01.2015 by Dr. Rony, Metabolic Disorders Research Centre, Jagathy, Thiruvananthapuram, Kerala at a total cost of Rs 91.38 lakhs for a period of 5 years.

The 44th PAC had advised to reduce the project period and to take up the 1<sup>st</sup> phase on VCO and 2<sup>nd</sup> phase on tender coconut water. It was also suggested to limit the present proposal to animal studies. It was suggested that human studies may be taken up separately only after animal studies are completed, as a separate follow up project.

Now the P.I. has furnished the revised proposal modifying the project giving emphasis for VCO and reducing the project period to 2 years with a total project cost of Rs 70.00 lakhs with Board share of Rs 35.00 lakhs.

PAC suggested to exclude the institutional charges and to assess the capability of the institute for conducting such research. Chairman, CDB was authorized to approve the project after institutional assessment and budget revision of the project excluding institutional charges.

**VI. Any other items with the permission of Chairman**

**1. Project -“Investigations and development of technology for desiccated coconut industry effluent water treatment” sanctioned to the IISc, Bangalore**

P.I.- Dr. J. R. Mudakavi, Dept. of Chemical Engineering, IISc., Bangalore

The project was approved by the 36th PAC held on 12th August 2011 at Kochi at a total cost of Rs. 11.572 lakh for a period of 2 years i.e. from October 2011 to October 2013. The objectives of the project were (i) To develop reliable treatment and monitoring methods for coconut processing industry effluent water (ii) To characterize the effluent water of the desiccated coconut industry. (iii) To develop an environment friendly effluent treatment process for desiccated coconut industry (iv) To explore alternate byproducts from coconut water and (v) To evolve good sanitary practices for the industry.

The results of the study were presented before 41st PAC on 11.10.2013 and PAC has approved extension for 12 months for continuing the project as phase 2 to design the scaled up industrial digester with an additional amount of Rs. 8.80 lakh. It was also decided to initiate action to set up one mini pilot plant at CDB Institute of Technology, Vazhakulam and another in any of the reputed D.C. units in Tumkur Dist., Karnataka. Accordingly P.I. proposed to set up a pilot plant in Tumkur.

After discussion PAC decided that P.I. may present the findings of phase 1 & 2 as well as fund requirement for establishment and demonstration of pilot plant at Tumkur before ISC. Based on ISC recommendation, Chairman may approve the fund required for setting up of pilot plant and for maintenance of the plant for 12 months.

**2. Project- “Neera Cold Chain Projects- by Palakkad Coconut Producer Company Ltd,(PCPCL), Palakkad, Kerala**

Shri Vinodkumar, Chairman, PCPCL along with Presidents of CPFs, presented the proposal of 3 CPFs under Palakkad Coconut Producer Company, for “Harvesting of neera through cold chain”.

As the proposals were not discussed in ISC, PAC suggested that the proposal may be discussed in detail by ISC and authorized Chairman to take suitable decision to meet the fund requirement under “Technical support and Emergent Requirements”, as it is an initiative by Farmer Producer Organizations, after assessing the need and ground situation.

Chief Coconut Development Officer

**List of Participants**

|           |   |
|-----------|---|
| <b>A.</b> | <b>Project Approval Committee</b>   |
| 1         | Shri T.K. Jose IAS<br>Chairman, Coconut Development Board<br>Kochi<br>Chairman PAC.   |
| 2         | Dr. V. Krishnakumar<br>Head, ICAR, CPCRI, RS, Kayamkulam<br>Representative of - Assistant Director General (Plantation Crops),<br>ICAR, New Delhi                             |
| 3         | Dr. Anilkumar R.<br>Assistant Agricultural Marketing Adviser, DMI, Kochi<br>Representative of - Joint Secretary & Agricultural Marketing Adviser<br>Govt. of India, New Delhi |
| 4         | Dr. KSMS Raghava Rao<br>Chief Scientist, CFTRI Mysore<br>Representative of - Director, CFTRI, Mysore  |
| 5         | Smt. Usha K.<br>AGM, NABARD, Regional Office,<br>Thriuvananthapuram<br>Representative of - Chief General Manager, Technical Services,<br>NABARD, Bombay                       |
| 6         | Ms. Martina Yohannan<br>Asst. Manager, Indian Overseas Bank, Kochi<br>Representative of - AGM,<br>Indian Overseas Bank, Bangalore   |
| 7         | Shri Sugata Ghose<br>Chief Coconut Development Officer,<br>Coconut Development Board, Kochi<br>Member Secretary PAC   |
| <b>B.</b> | <b>Experts</b>  |
| 8         | Dr. D.M. Vasudevan<br>Principal(Retd), AIMS, Kochi  |
| 9         | Dr. M. Aravindakshan<br>Co-ordinator, Amrita School of Environmental Studies, Coimbatore &<br>Ex-Chairman, CDB, Kochi   |
| <b>C</b>  | <b>In Attendance</b>  |
| 1         | Dr A.K. Nandi<br>Secretary, CDB, Kochi  |
| 2         | Shri Rajeev P. George,<br>Director, CDB, Kochi  |

|   |   |
|---|---|
| 3 | Shri Hemachandra<br>Deputy Director, CDB, Kochi             |
| 4 | Shri K.S. Sebastian<br>Assistant Director(Mkg.), CDB, Kochi |
| 5 | Shri S.S. Choyal,<br>Assistant Director (TMOC), CDB, Kochi  |
| 6 | Shri P. Sabareenathan<br>Finance Officer, CDB, Kochi        |
| 7 | Smt. Annie Eappen,<br>Chemist, CDB, CIT, Vahzakulam, Aluva  |
| 8 | Smt. Resmi D.S.<br>Technical Officer, CDB, Kochi            |