

CENTRE FOR INDIAN KNOWLEDGE SYSTEMS
REPORT OF WORK DONE DURING THE PERIOD
APRIL 2023 - MARCH 2024

1. SUSTAINABLE AGRICULTURE VALUE CHAIN DEVELOPMENT

This project supported by Supraja Foundation, Hong Kong for a period of three years (November 2022 – October 2025) is being implemented in three districts of Tamil Nadu viz., Tiruvannamalai, Dindigul and Pudukkottai districts covering ten taluks, 14 blocks, 72 panchayats and 175 hamlets. The project aims to link the production and marketing of value-added products made from Tamarind, Coconut, Honey, Kodo Millet, Foxtail Millet, Little Millet and Groundnut, as well as establish green enterprises and operate them sustainably. Five Farmer Producer Companies (FPCs) namely Cheyyar Farmer Producer Company Limited (CFPCL), Chengam Sustainable Agriculture Producer Company Limited (CSAPCL) of Thiruvannamalai district, Kurinji Sustainable Agriculture Producer Company Limited (KSAPCL) and Ayyampalayam Farmers Producer Company Limited (AFPCL) of Dindigul district, Pudukkottai Organic Farmers Producer Company Limited (POFPCL) of Pudukkottai district and five Farmers Interest Groups (FIGs) from three districts are involved in this project activities. We have selected 4964 beneficiaries from these three locations including 2134 (43%) women beneficiaries. Trainings covering various topics including sustainable agriculture technologies, standards for products procurement, enterprise wise business plan preparation, FPCs wise business plan preparation, on price fixing, packaging, labelling, branding and marketing, business plan preparation, storage techniques, compliance procedures, FSSAI license and E- NAM services , roles and responsibilities of FIGs office bearers, Directors and Chief executive officers (CEO) were conducted for the project beneficiaries, FIGs office bearers and FPCs Directors and CEOs. Five farmers groups were selected from three districts for the establishment of four Green Enterprises like neem seed processing unit, neem oil soap making unit, green manure seed production and enriched farmyard manure production. An exposure visit was conducted for the FPCs directors, representatives and CEO to Coimbatore coconut farmers producer company limited, Pollachi, Nehamam coconut farmer producer company limited, Nehamam, Borne technologies and SAMPACK

industries, Coimbatore. Facilitated credit linkages with a total value of Rs. 584 Lakhs to these five FPCs with NABAKISAN, SBI and ANTENNA. Also provided supports for receiving total grant of Rs.75.475 lakhs for Pudukkottai OFPCL, Chengam SAPCL and Ayyampalayam FPCL from NABARD, TNVKP, TNRTP, NABKISAN and PMFME. Pudukkottai OFPCL obtained a partial loan cum grant support of Rs. 100.55 Lakhs from TNRTP and TNSFAC. All these five FPCs are involved in procurement of raw materials like millets, tamarind, coconut, groundnut, honey and fruits from farmers, involving in value addition activities and marketing of value added products. Two evaluation visits were made by Supraja team comprising six members on 10th April 2023 and 10th February 2024 respectively to Pudukkottai OFPCL and Ayyampalayam FPCL.

2. SUPPORT FOR INSTITUTIONAL DEVELOPMENT THROUGH GROW FUND

The GROW Fund, initiated by EdelGive Foundation, supports one hundred organizations across India for 24 months from April 2022 to March 2024. This non-programmatic fund focuses on capacity building, core costs, and overall organizational development. It covers salaries of core staff, allowing senior team members to concentrate on high-priority tasks. Additionally, it aids in purchasing laptops, maintaining office vehicles, covering professional fees, and facilitating maintenance of office equipment. CIKS celebrated its 30th Foundation Day in January 2024, showcasing its activities since 1995, releasing publications, and unveiling a new website. The furniture and equipment at the Technology Resource Centre (TRC) were repaired and in some cases replaced with the help of GROW Fund. CIKS archived its newsletters and initiated memento production, collaborating with designers to create unique designs. Mugs were successfully produced and distributed to donors, well-wishers, and supporters at various events, expressing gratitude for their support.

Through this project, CIKS prioritized staff capacity building through diverse training initiatives. They also acquired publications for soft skill development. Ayurveda for Women's Health workshops were held, covering ailments and practical home remedies, with personalized consultations. A comprehensive training on Instagram utilization aimed to boost the NGO's social media presence. First aid training ensured staff proficiency in CPR (Cardiopulmonary resuscitation) and handling emergencies. Additionally, staff engaged in various online and live workshops covering relationship

mastery, workplace feedback, time management, Google Drive usage, and exploring generative artificial intelligence, ensuring continuous professional development and skill enhancement.

CIKS underwent significant organizational development initiatives to enhance its efficiency and effectiveness including a review of accounting policies by external experts to align with legal and regulatory frameworks. Standard Operating Procedures (SOPs) were framed to enhance efficiency in the office, management, and accounting practices. Significant meetings held in January and March 2024 addressed various organizational matters and future planning. The Trustees meeting discussed key developments, while team meetings focused on academic issues, reporting systems, and organizational tasks. Council meetings in Chennai facilitated strategic planning and operational discussions. A draft of the consolidated report was prepared, with ongoing data collection for project execution, publications, and collaborations. Fund raising efforts yielded grants from Supraja Foundation and WOKA Foundation. Moreover, CIKS acted as a resource agency to support the submission of a proposal to secure extension support for two FPCs: Chengam Sustainable Farmer Producer Company and Managiri Sustainable Farmer Producer Company. CIKS celebrated International Women's Day by honoring women staff with gifts of their choice.

3. REPORT ON NAMMA NELLU PROGRAMME - CONSERVING TRADITIONAL RICE VARIETIES IN TAMIL NADU

During the period of 2023-2024, the primary focus was on conserving germplasm, expanding cultivation of Traditional Rice Varieties (TRVs), enhancing seed production, processing, value addition and increasing awareness. CIKS has conserved 161 varieties and generated high-quality seeds at the CIKS Technology Resource Centre (TRC) located in the Chengalpattu district of Tamil Nadu. Additionally, forty-eight traditional rice varieties were grown on twelve acres of the CIKS farm over two seasons. Detailed documentation of TRVs, covering 24 characteristics such as plant height, leaf length, tiller count, panicle length, flowering and harvest dates, as well as grain and straw yield was meticulously collected during this period. Furthermore, eleven TRVs were distributed to cover 5000 acres in farmers' fields across twelve districts of Tamil Nadu. Market connections were established with six Farmer Producer Companies, traders and a Private Limited company. The production of seeds for nine selected TRVs commenced on 14.5 acres spread across ten farmers' fields in four districts. Various

techniques like barbed wire fencing, installing lights during night hours, sound system and the use of crackers were adopted for managing wild pigs in TRV fields. A solar-operated mini rice-processing unit for TRVs was installed to efficient processing of paddy grains to rice. In January 2024, the Namma Nellu website underwent a revamp with new features, updated information, and released for use. A publication titled "Traditional Rice Varieties of Tamilnadu - A compendium" in Tamil was released, emphasizing the significance of 150 traditional rice varieties. Participation in exhibitions and expos was also undertaken to raise awareness about TRVs among the public. Efforts were made to produce *Nel pori* and *Rice pori* from 10 TRVs, including experiments in creating *pori urundai*. During Diwali, a collaboration with Sempulam resulted in a curated selection of sweets and savories made from distinctive and nutrient-rich traditional rice varieties. Furthermore, 3 TRV *Nel poris* were tested for nutritional parameters, revealing high levels of protein, iron, calcium, potassium, and zinc content. Nearly 200 capacity-building training programs were conducted for 5,000 farmers across Tamil Nadu covering various topics such as System of Rice Intensification (SRI), seed production, and the use of GrainPro bags. To create awareness among the younger generation, regular farm school programmes were conducted for the schoolchildren, educating them about organic farming technologies adopted from seed to market. The organic certification for the CIKS land was renewed after a thorough inspection by the certification agency. Similarly, seed processing unit license and seed selling license were also received from Department of Seed certification and organic certification.

4. SUPPORT FOR SUSTAINABLE AGRICULTURE ACTIVITIES FROM WOKA FOUNDATION

The WOKA Foundation of USA extended their support for a three-year (from December 2022 to November 2025) period for sustainable agriculture activities of CIKS. The support was provided for human resources, work relating to various aspects of TRV (Traditional Rice Varieties) including conservation, characterization, scaling up and biochemical and nutritional characterization. Additionally, the support was for building technical and soft skills of the team members. During Samba 2023, CIKS initiated the cultivation of 11 boutique varieties among 50 Traditional Rice Varieties (TRVs) in 2.3 acres at CIKS – TRC. Sustainable cultivation practices were ensured by adopting non-chemical pest control methods, including light traps, bird perches, placing

neem cake bags in irrigation channels, and manual weed removal using a cono weeder. Additionally, during the Foundation Day event in Chennai on January 23, 2024, CIKS launched the second edition of its Tamil book, "Traditional Rice Varieties of Tamil Nadu – A Compendium." To expand the cultivation of quality seeds, CIKS has identified five Traditional Rice Varieties (TRVs): Kamban Samba, Sanna Samba, Veethivadangan, Vellai Kudaivazhi, and Karungkuruvai. Karungkuruvai is cultivated in Nagapattinam district, while the other four are grown in Thiruvannamalai district. This initiative aims to ensure the availability of high-quality seeds for these TRVs, thereby contributing to the conservation and propagation of traditional rice varieties. At the CIKS TRC, efforts are ongoing to cultivate and document green manure seeds, produce farmyard manure, and vermicompost for sustainable agriculture. Despite facing technical and management challenges, exacerbated by the COVID-19 pandemic, community-based initiatives have been identified in Nagapattinam District, Tamil Nadu. These include community vermicompost units, and a community biofertilizer unit in Ilayamadhukudam village.

CIKS has developed a diverse range of value-added products utilizing Traditional Rice Varieties (TRVs) including *Kanji maavu* (Porridge mix), *Puttu maavu* (Mix for preparing *puttu*), *Murukku* (fried rice snack), *Idiyappam maavu* (String hopper mix), Rava (semolina), *Athirasam* (South Indian sweet), *Seedai* (deep-fried savory), *Aval* (flattened rice), and *Nel pori* (puffed rice). Furthermore, CIKS is pioneering pilot efforts for value addition by offering specially curated packs of nine *athirasams* made from nutrient-rich traditional rice varieties. For the festival of Deepavali, CIKS in collaboration with Sempulam Sustainable Solutions and Thaligai Restaurant produced a gift pack consisting of Navarasa Athirasam, Adukkku Nel Manoharam, 50 traditional rice Porivilangai urundai, Kallimadaiyaan Butter murukku, Neelan Samba Thattai, and Mukoodal Mixture, all derived from traditional rice varieties.

CIKS is committed to enhancing staff capacity through a comprehensive array of technical and soft skills development initiatives. Staff attended trainings focusing on pricing strategies for Farmer Producer Companies (FPCs), compliance with food safety regulations, and expertise in sensory evaluation of foods.. CIKS also conducted training sessions at the Technology Resource Center (TRC) for members of the Women Joint Liability Group (JLG) and staff, focusing on value addition products. Furthermore, CIKS staff attended training on organic farming in vegetables conducted by TNAU

(Tamil Nadu Agriculture University), emphasizing principles of organic farming. CIKS has made significant upgrades in the Technology Resources Centre (TRC), including the installation and trial runs of equipment for micro/small scale processing of TRVs. These upgrades aim to enhance rice processing efficiency while retaining original characteristics and reducing processing costs. The mini TRV processing unit is equipped with various machines such as pre-cleaner, huller, separator, destoner, grader, polisher, and flour machine, all operated with solar-powered systems, facilitating efficient processing of TRVs and production of value-added products.

5. VARIETAL DIVERSITY OF FRUITS AND VEGETABLES PILOT PROJECT

This one-year project (October 2022 to September 2023) which is further extended, delves into the varietal diversity of fruits, vegetables and medicinal plants, aiming to uncover traditional knowledge about their nutritional and therapeutic properties because there has been no effort for a thorough or systematic study in this area. Beginning with an extensive literature review, insights were gathered from diverse sources including Ayurveda texts, technical magazines and journals. Field surveys spanning February to April 2023 covered 10 districts in Tamil Nadu, with dedicated survey team members for each district and nearly 10 to 20 farmers were surveyed in each district. A well-designed questionnaire was employed to capture nuanced data on varietal traits, shedding light on their cultivation practices, conservation efforts, nutritional and therapeutic properties. An interim report, synthesizing findings from both literature and field surveys, was shared with the team members on December 14, 2023, laying the groundwork for further research and conservation initiatives. In addition, as part of this project 24 varieties of traditional vegetables have been identified for cultivation, and the conservation of some of these varieties at the CIKS farm has also been started and is progressing well.

6. NABARD – PODF: NURTURING OF CHENGAM SUSTAINABLE AGRICULTURE PRODUCER COMPANY LIMITED

This project is being implemented under the NABARD's – Producer Organisation Development Fund (PODF) scheme from April 2023 onwards for strengthening of Chengam Sustainable Agriculture Producer Company Limited (CSAPCL) in Chengam Taluk of Thiruvannamalai District. Conducted trainings on price fixing, packaging, labelling, branding and marketing, business plan preparation and updation, storage

techniques, compliance procedures, FSSAI licence and E- NAM services to the Directors, representatives and CEO. Exposure visits were undertaken by CEOs to Coimbatore coconut farmers producer company limited, Pollachi, Nehamam coconut farmer producer company limited, Nehamam, Borne technologies and SAMPACK industries, Coimbatore. Chengam SAPCL purchased a four-wheeler transportation vehicle through NABARD – Business Development Assistance (BDA) as one time grant amount worth of Rs. 5 Lakhs with the support of CIKS. Through CIKS guidance, Chengam SAPCL obtained a Mezzanine Capital Assistance (MCA) of Rs. 10 Lakhs, working capital loan of Rs. 20 Lakhs and Rs. 4 Lakhs as a term loan from NABKISAN.

7. CENTRE FOR INDIAN KNOWLEDGE SYSTEMS (CIKS) COLLABORATION WITH MURUGAPPA CHETTIAR RESEARCH CENTRE (MCRC) ON CONSERVATION, DOCUMENTATION AND SCALING UP OF TRADITIONAL RICE VARIETIES

This is a collaborative project between CIKS and MCRC for a period of five years (April 2023 - March 2028) for the conservation, cultivation, documentation and scaling up of Traditional Rice Varieties (TRVs). In this project, during the Samba 2023 season (July 2023 – January 2024) conserved 161 traditional rice varieties in 1.45 acres in CIKS – Technology Resource Centre located in Sukkankollai village near Vedanthangal bird sanctuary. Seed to seed package of practices followed for these 161 TRVs and good quality seeds are stored in seed bank at TRC. We have also cultivated 25 boutique varieties in 3.6 acres and now the seeds are stored in seed storage room. Detailed agronomic characteristics documentation are done for 161 TRVs conserved and for 25 boutique varieties. Cultivated 9 TRVs by 10 farmers in 16 acres for seed production purpose. Applied organic manures and organic growth regulators during the crops cultivation. Adopted non chemical plant protection measures to manage the pests and diseases. Adopted lighting system, sound system, human hair application, crackers bursting, organic repellent spraying through drone, established barbed wire fence and manual monitoring to save the crops from wild pigs attack. Conducted trainings regarding organic methods of traditional rice cultivation to farmers in Chengalpet, Kancheepuram, Thiruvallur, Cuddalore, Ulundurpet, Krishnagiri, Pudukkottai, Nagapattinam, Mayiladurai and Ramanathapuram districts. Procured 8.69MTs of 10 traditional rice varieties seeds from 10 farmers for the distribution to be done during the forthcoming year. Distributed 90 Kgs of 3 TRVs seeds to farmers for the cultivation

during Navarai 2024 season (January – April 2024) season and now the crops are in early maturation stage. A Team of 9 members comprising 7 officials and two farmers from MCRC visited CIKS – TRC on 15th December 2023.

8. NABARD – MCID – PHYSICAL MARKETING OF PRODUCTS OF CHENGAM SUSTAINABLE AGRICULTURE PRODUCER COMPANY LIMITED – MOVABLE CART IN THIRUVANNAMALAI DISTRICT

This project is being implemented under the NABARD's – Micro Credit Innovation Development Fund (MCID) scheme from December 2023 onwards for strengthening the marketing of products from Chengam Sustainable Agriculture Producer Company Limited (CSAPCL) in Chengam Taluk of Thiruvannamalai District. In this project, a movable smart cart with name board was prepared by Chengam Sustainable Agriculture Producer Company Limited (Chengam SAPCL) to strengthen its business activities even in remote working areas. Chengam SAPCL purchased a bill printer and a m-POS machine for its business activities through this project. The movable cart started its business activities after the formal launch on 15th March 2024 onwards.

9. 30th CIKS FOUNDATION DAY CELEBRATION

The CIKS 30th Foundation Day celebrations took place on the 23rd January 2024, Chennai.. The senior team members -Mr.A.V.Balasubramanian, Dr.K.Vijayalakshmi, Ms.Subashini Sridhar and Mr.K.Subramanian delivered a presentation highlighting the overview of CIKS activities since 1995. Future challenges and tasks ahead were also briefly presented. Invitees also shared their insights about their thoughts and suggestions for improvement of our organization. During this occasion, the revamped and updated new Namma Nellu website was launched. (<https://nammanellu.com/>). Prof.S.Lakshmi Bala declared the website open and the key features of the revamped Namma Nellu website were explained by Mr.Vipin Nair of Smudge Design.

In the year February 2020 we released a publication in Tamil titled “*Tamilnattin Parampariya Nel Rakankal – Oru Thakaval Kalanjiyam*”. This book was revised and enlarged and the reprinted version of this book was also released during the 30th CIKS foundation day celebrations. Mr.Raghunath Narayanan (Catalyst group, Bangalore) released this book and the first copies of the book were received by Dr.Unnamalai (Shri AMM Murgappa Chettiar Research Centre) and Mr.Manigandan (Farmer, Sirkazhi). This book totally contains 6 chapters and reference section. Chapters 1 to 3 highlight

the characteristics of TRVs, the need to conserve them, technologies that should be adopted to conserve them, organic cultivation methods, SRI method and insitu conservation. Chapter 4 mentions about the agronomic characteristics of TRVs. Chapter 5 explains about the nutritional and therapeutic properties of TRVs and comparative analysis against national standards. Chapter 6 contains comprehensive details about 150 TRVs. Ms.K. Parimala (Co-author of this book) delivered an insightful presentation about the book and its contents. The free e-book can be downloaded from our official CIKS website (<https://ciks.org/2024/01/24/2nd-edition-of-traditional-rice-varieties-of-tamilnadu-a-compendium-tamil/>)