



COGENT NEWSLETTER | Issue 2022

NEW HORIZONS

SUSTAINABLE INITIATIVES IN CREATING BETTER ENVIRONMENT FOR COGENT



Support to the international initiatives sustained the activities outlined within COGENT's Global Strategy. Maintaining COGENT as the coconut germplasm conservation network is indispensable when we consider the socio-economic importance of the crop on a global basis. The track record of COGENT should be reflected for its contribution in managing coconut diversity, germplasm distribution and crop improvement.

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COCONUT TISSUE CULTURE TECHNOLOGIES: ASPECTS AND PROSPECTS: COCONUT TISSUE CULTURE AND CRYOPRESERVATION WORKSHOP



A virtual roundtable discussion on the coconut tissue culture aspects and prospects was conducted on 27 April 2022 as a pre-symposium activity. Various companies from the private sector were invited in the discussion. This was initiated and conceptualized by ICC-COGENT Secretariat to evoke the interest of the private sector on the importance of conservation of and use of the coconut genetic resources in the industry development. It was emphasized in this event the vital role of the tissue culture and cryoconservation technologies as the key determinants of accelerating mass propagation and varietal improvement.

DID YOU KNOW?



The embryo culture protocol, as the most basic tissue culture technique was developed for mass production, embryo rescue and transfer of coconut. This enabled research and development of new hybrids and expansion of the genetic base of the different coconut growing countries. For somatic embryogenesis, plumule and ovary as explants were also found to be responsive in culture. In the case of the protocol using ovary, this needs further verification for it to be adopted commercially. The use of immature inflorescence and meristem shoots for direct organogenesis allows the enormous production of coconut plantlets without undergoing somatic embryogenesis, thereby, limiting the prolonged exposure of the tissues and plantlets to high concentrations of 2,4-D are limiting factors of the technology.

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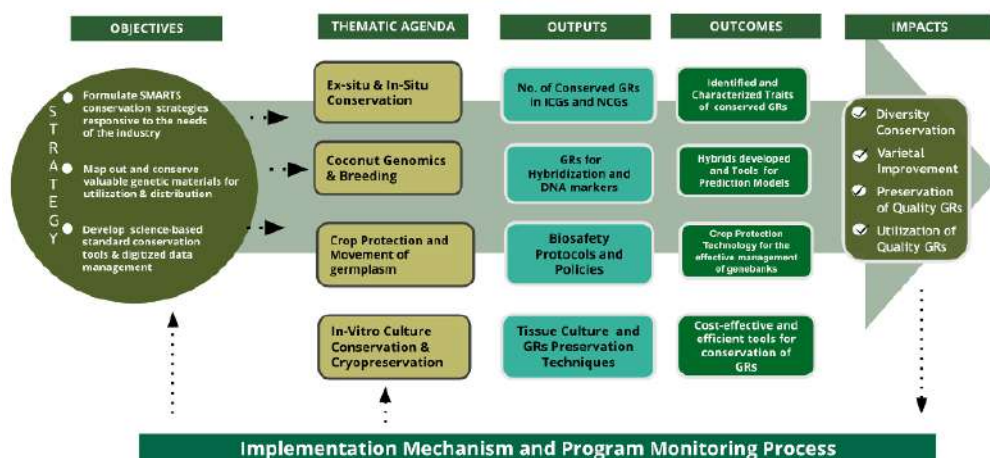
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COGENT'S ROAD MAP, A UNIFIED DIRECTION FOR A NEW HORIZON

PROPOSED ROAD MAP FRAMEWORK OF THE COGENT'S GLOBAL STRATEGY ON GENETIC RESOURCES CONSERVATION



COGENT is a network with strong and logical desire to achieve our goals proving its worth and relevance to the coconut industry in a holistic perspective. As a major program of ICC, initiatives have to be aligned to the quest of increasing productivity and increase incomes of developing countries from efficient use of its products. Under the umbrella of ICC, COGENT is mandated to undertake this global mission of coconut diversity protection, with the ultimate goal of providing support to the industry through the efficient use of genetic resources. Thus, COGENT aims to develop and implement a mechanism of global magnitude towards better management of genebanks and safe movement of germplasm for its utilization addressing the needs of the industry.

COGENT is tasked to create a strong and unified direction for sustainable and continuing Research and Development for coconut. It is inconsideration that the socioeconomic aspect has to be an overarching theme to be parallel to the function of ICC. The efforts of the International Thematic Groups or ITAGs with pool of experts conserved by COGENT will strengthen the capacity of the national, regional and global programs in the conservation, exchange and utilization of genetic resources. This will create a difference and accelerate changes through PARTNERSHIP and COMMITMENT.



The Global Strategy Plan is the lingering guide of the network to perform in the achievement of its goal now and beyond. It is of paramount importance to formulate STRATEGIES for better management and exchange of genetic resource. COGENT, crafted the Road Map with the aim of addressing the challenges and to grab the opportunities to have better germplasm management and facilitate safe germplasm exchange among member countries. The conduct of genebank appraisals and series of consultations with ITAGs served as the core basis of formulating these strategies. Review of the MoU and the stipulations of functions under the Treaty has to be a priority action through consultation with policy makers to effect strict compliance of host countries. Tissue Culture and Cryopreservation protocols has to be further supported by supplementary R & D to optimize its potentials to modernize approaches in conservation, exchange and mass propagation. Rehabilitation of the germplasm collections requires sufficient support to the management of the ICGs/NCGs. Farmer-participatory approach in the *in-situ* conservation will trigger the engagement of the farmers and interest in protecting indigenous genetic materials. National government can provide incentive to farmers to conserve indigenous populations. Promoting innovations and use of genetic resources have to be extensively undertaken through technology pitching. COGENT has already started with the International Coconut Tissue Culture and Cryopreservation technologies through the recent symposium and training workshop under the ACIAR-DFAT support in 2022. Other initiatives are planned such as training on updating of the germplasm data management of the genebank curators and data managers. To ensure risk-free adoption of innovative outputs, use of molecular markers to ensure purity and authenticity of the collected populations are priority R & D. This will ensure the integrity of the micro-propagated tissue culture plantlets for the massive planting/replanting program.

For stability of funding for the management of ICGs/NCGs, the integration of income-generating activities to augment ICGs/NCGs management costs is a logical approach. Moreover, climate change mitigating measures need to address biotic and abiotic stresses which is a major component of the COGENT's Global Strategy Plan in the breeding and genomics action program. All of these are encapsulated in the ITAGs key areas of concern as component of the COGENT's Road Map. It can be done by pooling our efforts and resources to propel industry development and ensure sustainable livelihood for the farming communities. The key drivers of change are diversity protection, promising genetic resources, technologies, policies and the unselfish support of the industry. The time is now to act and create a strong legacy of COGENT to the coconut industry.



STRATEGIES FOR BETTER MANAGEMENT AND GERmplasm EXCHANGE

In the recent COCOTECH Conference held in Kuala Lumpur, Malaysia from November 7-12, 2022, these strategies were presented as COGENT's logical approach. Coming up with the prospects in the coconut industry served as the key driver to bring back the COGENT's energy to achieve better germplasm management and exchange with the end goal of using of genetic resources as the essence of conservation and utilization. Hence, the conduct of genebank appraisals and series of consultations with ITAGs provided the core basis of formulating strategies to address identified challenges and needs. To effect strict compliance to the treaty of conservation and be responsive to the agreed responsibilities of the host countries of the genebanks, to have consultative meeting and get hold of the policy makers commitment were recommended. Likewise, priority researches to optimize and standardize the use of the CTC and Cryopreservation protocols as potential tools for better conservation, better germplasm exchange and mass propagation is vital.



(Participants in the COGENT's Steering Committee Meeting and ITAGs Workshop in Hotel Impiana, Kuala Lumpur, Malaysia on November 12, 2022)

In the same manner that rehabilitation of the genebanks requires sufficient support from the host countries of ICGs/NCGs from the host countries. It is also envisaged that farmer-participatory approach in the *in-situ* conservation will trigger the engagement of the farmers and interest in protecting indigenous coconuts. Given this idea, the policy makers of the national government can provide incentivized program for the farmers to conserve indigenous populations. This will be coupled with promotion of the use of genetic resources specifically those with superior traits to achieve increase productivity and enhance product quality. COGENT has already started getting out of the box in sharing available technologies through the conduct of the International Coconut Tissue Culture and Cryopreservation Symposium and workshops with the funding support of ACIAR-DFAT in May of 2022. Other initiatives are in the pipeline for this year such as training on updating of the germplasm data management. Moreover, to ensure risk-free adoption of innovative outputs, development of most needed tools is a priority R & D to ensure the integrity of the micro-propagated tissue culture plantlets for the massive planting/replanting program. But, the need to address fund sourcing for the sustainability of the management of ICGs/NCGs.

Integration of income-generating activities to augment CGs/NCGs management costs is a logical approach and COGENT provided the cost and return template for economic analysis. In parallel with the theme of the 58th COCOTECH which is climate change mitigating measures, measures to address biotic and abiotic stresses are considered in the COGENT's Global Strategy Plan especially in the breeding and genomics action program. All of these are encapsulated in the ITAGs key areas of concern supported by their keen commitment and COGENT's quest to provide technical support to the coconut industry under the auspices of ICC.

NEW INNOVATIONS IN TISSUE-CULTURE RESEARCH

Dr. Vijitha R M Vidhanaarachchi



Coconut is a perennial crop which propagate only by seed nuts mainly produced through cross pollination. Hence, formation of a heterogenous population is inevitable. Propagation through tissue culture is the only option available to avoid the heterogeneity and to produce true-to-type planting materials with promising characters.

Coconut is considered as a highly recalcitrant species for tissue culture. Mass production of coconut plants through tissue culture is still being a challenge though it is researched by different laboratories in the world. The potential of different explants including immature inflorescence, tender leaf, plumule and unfertilized ovary has been examined for micropropagation.

Tissue culture division of Coconut Research Institute of Sri Lanka has developed a successful protocol to generate clonal plants from unfertilized ovary tissue. Immature inflorescences which will open in 4 months time are collected from elite adult coconut palms. At this stage the inflorescence is covered by the two spathes hence, the ovary tissue is not pollinated and has the similar genetic make-up of the mother palm. This technology also facilitates collection of explants with a minimal damage to the selected adult coconut palm. The ovary is excised after removing the perianth segments of each female flower and cultured to induce callus. The amount of callus is increased by several callus multiplication cycles and plantlets are obtained through somatic embryogenesis. The *in-vitro* grown coconut plantlets are then successfully acclimatized before planting in the field.

Using this protocol hybrid coconut palms with promising traits were micro propagated and clones obtained were field planted in several locations for field evaluation. At present, the tissue cultured coconut plants in some fields has reached its bearing stage. Coconut Research Institute is planning to use this technology to produce true-to-type clones of disease and pest tolerant genotypes in future.

APPRAISAL OF THE INTERNATIONAL GENE BANKS

In 1999, COGENT which was previously under Bioversity International, has established five International Gene Banks (ICGs) across the Globe designating five member countries as the “Host Country” for each of the five ICGs namely:

- i. ICG-SEA (for South East and East Asia) in Indonesia
- ii. ICG-SAME(for South Asia and Middle East) in India
- iii. ICG-SP for South Pacific in Papua New Guinea
- iv. ICG-AIO (for Africa & Indian Ocean) in Ivory Coast
- v. ICG-LAC (for Latin America & Caribbean) in Brazil



(Left) Appraisal in ICG-SEA held in Manado, Indonesia; (Right) Appraisal in ICG-SAME held in India

Generally, conservation aims to prevent loss of crop genetic diversity worldwide. Hence, international agreements have been designed to encourage preservation of genetic diversity and promote the exchange of germplasm. The FAO International Treaty on Plant Genetic Resources for Food and Agriculture governs the exchange of germplasm for crops but, implementation has been hampered by a lack of consensus among the treaty's parties on the value of genetic resources. Thus, challenges of germplasm conservation must be addressed to ensure the sustainability of the conservation activities especially in the case of coconut being an economic and long-term crop which is logged to the accountability of COGENT.

COGENT as an international coconut genetic network has two-pronged objectives in safeguarding and monitoring the existing ICGs and NCGs: 1) towards improving productivity and 2) protecting coconut biodiversity for future generation. As such, this appraisal is vital to be able to determine the economic values and significance of conservation not only in protecting biodiversity but, also focusing on its use to address industry needs for sustainable growth and development.

Hence, there are three major reasons in the conduct of the appraisal of the genebanks:

- a) it is necessary to justify the investments in genetic resource preservation in their natural settings (in situ conservation) and of genetic resources saved in gene banks (ex situ conservation);
- b) to establish the current situation of the germplasm collections including the challenges, gaps and needs for better management of the genebanks and formulate strategies for effective germplasm exchange.
- c) compliance to agreements for transferring and movement of genetic materials among countries adhering to the biosecurity protocols.

The appraisal followed a standard and comprehensive process to determine the physical maintenance and agronomic conditions of the germplasm collection comparing benchmark information and the current situation. Focused group Discussion with researchers and key informant interview of the curators were conducted. Included in the appraisal was the number of collections, exchanged germplasm and donated varieties were recorded and existing palms per accession in each genebank were imparted to the appraisal team.

Empirical data from the reports and the actual observations were the basis of comparison. The appraisal also focused on the strategies adopted and field management appraising the effects both the pros and cons to identify technology needs and gaps to be addressed at the immediate which will be based on the appraisal outputs. In the same manner that policy initiatives include broad-based programs of multilateral and bilateral financial assistance, stronger intellectual property rights, and international agreements for germplasm exchange were considered. In addition, the idea of appraising the cost of establishing and maintaining ICGs was estimated to integrate income-generating activities to augment the sustainability plan for the genebanks.



(Left) Appraisal in ICG-SAME held in India; (Right) Appraisal in ICG-LAC

SUSTAINABLE INITIATIVES IN CREATING A BETTER ENVIRONMENT FOR COGENT

The International Coconut Genetic Resources Network (COGENT) is tasked with ensuring the effective conservation, exchange, and use of coconut genetic resources worldwide. This ACIAR-DFAT project GP/2018/193 has supported maintaining COGENT's as an organization to sustainably continue its international initiatives. It has ensured an effective transition from EU-based former COGENT host, Bioversity International to the Jakarta-based International Coconut Community (ICC). As a strategic start, the project was able to boost the active participation of COGENT's International Thematic Action Group (ITAGs) in knowledge sharing and technology development for coconut germplasm management. Moreover, the project is expected to deliver the status report on coconut genetic resources held in trust in the five international coconut genebanks (ICGs) and in the national collections in 19 coconut growing countries (NCGs) for restoring a functioning coconut germplasm multilateral exchange system. Likewise, the project is expected to help develop a mechanism to foster income-generating components and international research collaboration to help sustain the COGENT program and the national and international germplasm collections in the longer term beyond this project.



End of Project Review held in Jakarta, Indonesia on 12 December 2022 with Mr Tristan Armstrong, Senior Sector Specialist at Department of Foreign Affairs and Trade (DFAT) and participated by Ms Irene Kernot, Research Program Manager for Horticulture, ACIAR and other relevant colleagues via zoom

Based on the project workplan, building the new COGENT Program was a major activity alongside finalizing and launching COGENT's Global Strategy which was published in 2018, after seven years of consultation. An equally important work activity was the assessment of the status of the global genetic resources held in the five ICGs and several NCGs with the aim of addressing the needs of the genebanks and improving the management of germplasm collections. Developing income-generating mechanisms in order to help sustain the COGENT program and coconut genebanks in the longer term has been initiated.



End of Project Review held in Jakarta, Indonesia on 15 December 2022 | Hybrid face-to-face and online event participated by Mr Vincent Johnson, Ms Carmel Pilotti, Ms Andrea Garavito, and Mr Lalith Perera as well as ICC headed by ED Jelfina Alouw and AD Mridula Kottekate, Mr Klaudio Hosang and Mr Alit Pirmansa and COGENT Coordinator Mrs Erlene Manohar.

Maintaining COGENT as the coconut germplasm conservation network is indispensable when we consider the socio-economic importance of the crop on a global basis. The track record of COGENT should be reflected for its contribution in managing coconut diversity, germplasm distribution and crop improvement. Thus, it is crucial that the following proposed recommendations based on lessons learned and best practices from the implementation of this project must be continued with the provision of support from donor agencies and engagement of the private sector. There are seven major areas to consider:

1

Program design and monitoring and evaluation for clearer strategy and focus on the adoption of either the Theory of Change (ToC) or Logical Framework approach (LF), depending on donor preference. This will help reflect indicators, baseline data, targets and assumptions and risks in ensuring that impact is properly measured.

2

Reactivating existing COGENT member countries to boost and revitalize country membership, functionalities and benefits of member countries have to be re-defined in the membership regulations highlighting the complementation of support and roles of ICC and COGENT. Presently, only 16 out of the 39 COGENT member countries are members of the ICC and the remaining 23 countries have yet to be coordinated to become members of ICC.

3

Adoption and strengthening effective strategic communication and information dissemination system.

Expand utilization of tools for broader global reach to refresh awareness and interest on germplasm conservation, exchange, utilization, and mass propagation which is vital for crop improvement, increased crop productivity and quality and improved livelihoods. The need to create and institutionalize a coherent strategy and platform for communications.

4

Alignment of COGENT's strategy with that of ICC strategy to be fully coherent, the COGENT strategy should be complementary to that of ICC. This can be done by ensuring the congruence of COGENT's program to the ICC's mandate with the support of ICC and key partners and stakeholders. ICC and COGENT synergies on conservation and utilization must be defined along with clear functions and complementary strategies.

5

Forging partnerships and collaboration should be expanded to include research, academic institutions and private companies through collaborative research that will increase the network's ambit. Institutionalize COGENTs collaboration with private sector, research agencies and coconut farming smallholders harmonized within the policies of ICC.

6

Sustaining the support to COGENT's initiatives and mobilization of resources,

there is a need to realign COGENT's priorities into need/demand-based programming. It is imperative to identify and overcome the roadblocks to germplasm exchange and utilization. Donor networks must be identified in parallel with a good resource mobilization strategy with the adoption of suitable business models for an improved investment portfolio.

7

Strengthening ICGs and their management. Informed by the ICG appraisals and a follow up NCG survey, the collections should be upgraded in terms of improving genebank infrastructure; germplasm accessions and data management, including characterisation; technical capacity, links with host countries for policy compliance and biosecurity and business plans for ongoing sustainability. Part of such business planning must include comprehensively valorising the coconut genetic resources which they maintain.

THE UNIFIED DIRECTION OF THE ITAGS: OUTPUT OF WORKSHOP IN KUALA LUMPUR, MALAYSIA



ITAG Workshop held from 7-12 November in Kuala Lumpur, Malaysia participated by ITAG members and Steering Committee Members lead by COGENT Coordinator Mrs. Erlene Manohar.

In reactivating the ITAGs as the technical backbone of COGENT the need to know COGENT status, the challenges, efforts undertaken, and the outcomes of these initiatives for the last 3 years, highlighting the importance of germplasm conservation in the context of industry development. It is a fact that sustainability of coconut production and livelihoods of the coconut farming communities critically depend on maintaining the broad genetic diversity of coconut through germplasm conservation. COGENT as a network now under ICC, provides the industry with access to new and quality genetic material such as early-bearing and high-yielding varieties to address the lingering problem of supply-demand gap. Hence, the need to converge and harmonize the unified directions of the ITAGs to achieve the goal of increasing productivity using improved planting materials for planting/replanting and breeding programs.

Specifically, these can be achieved through a) development and implementation of the mechanism of coordinating research activities of global significance. b) establishment of strong basis for collaborative researches among ITAGs; c) strengthening the capacity of the national, regional and global programs on conservation, exchange and utilization of coconut genetic resources. For such reasons, ITAGs jointly identified the priority thematic areas and strategies that will be put into actions, which was crafted during the back-to-back workshop with the Steering Committee meeting in Hotel Impiana, Kuala Lumpur on November 12, 2022.

ITAGs Priority Thematic Areas, Strategies & Action Plans

ITAG 1	ITAG 2	ITAG 3	ITAG 4
Genebank (ICGs/NCGs) management and sustainability plans, SOP	Genotype selection with special traits for breeding program	Status of key pests and diseases globally Standard Biosecurity protocol development in coherence with the national/international biosecurity policies	Standardization and optimization of the CTC and Cryopreservation and germplasm exchange protocols including the field performance evaluation
Data collection and updating data management system in the ICGs/NCG using coconut ontology	Characterization of germplasm for molecular breeding using markers	Digitized forecasting models for pest outbreaks and disease distribution to safeguard genebanks. Development of Markers with reference to germplasm resistance to lethal diseases (ITAG 2 & 3)	Commercialization of the proven CTC protocols for mass propagation using plumule and inflorescence explants
Compliance to the treaty policies on germplasm exchange, distribution and benefit sharing and germplasm exchange targets	Germplasm Exchange for Breeding and varietal improvement including in-vitro cultures	Pathogen-host pathways for diagnostics and production of clean tissue cultured planting materials	Analysis of somaclonal variation in mass propagation protocols as preventive risk management measure
Development of proposals for income-generating activities	Pangenomic studies in collaboration with ITAG1	Project proposal for better and safe germplasm exchange with ITAG4	R & D Program and Investment Portfolio for business opportunities

DEVELOPING A NEW COCONUT GERMPLASM DATA MANAGEMENT SYSTEM (CGDMS)

Vincent Johnson and Andrea Garavito

An appraisal conducted by COGENT in 2022 confirmed that different national and international coconut genebanks use different germplasm management systems, also that data management and collection vary in the absence of a standard protocol. The CGDMS needs harmonizing approaches that should use common data collection methods, the use of the coconut ontology (trait dictionary - https://croponontology.org/term/CO_326:ROOT), and the same database program for coherence. There is also the need to replace the previously used Coconut Genetic Resources Database (CGRD) that was developed by CIRAD. Germplasm data should be collected, processed and managed according to a standard protocol to achieve international consistency. This will facilitate location and access to coconut germplasm worldwide. COGENT is working to establish a common coconut germplasm data management system (DMS), which should involve the coconut genebank host countries.

COGENT will solicit support from the Crop Trust to help standardize coconut germplasm data management across all the genebanks. COGENT's ITAG 1 and 2 have also proposed holding a preparatory webinar and virtual discussion on coconut germplasm management. This will involve several panelists including FAO-ITPGRFA, the CropTrust, COGENT, CIRAD, the Integrated Breeding Platform (IBP- <https://bmspro.io/>) and genebank curators and germplasm data officers. Once the common needs and approaches have been clearly identified, discussed and reconciled a working group can begin to implement the common systems.



REMEMBERING A PILLAR OF COGENT

The International Coconut Community (ICC) and the International Coconut Genetic Resources Network (COGENT) are sad to announce the tragic loss of Dr Ponciano (Pons) Batugal (October 3, 1940, to December 27, 2022), who passed at the age of 82 years.

During his 60-year career as an international agricultural research scientist, Dr Batugal's research and development initiatives helped lift millions of poor farmers from poverty. Part of his rich legacy is the knowledge that can be found in the hundreds of publications which he (co-) authored. This also was linked to an extensive track-record in capacity building for thousands of academic and technical staff and coconut farmers. He will be especially remembered for those publications in coconut breeding and germplasm characterisation, which helped in conserving or improving many of the 400+ coconut genotypes collected in 5 international and 19 national coconut genebanks. Another part of his rich legacy is his successful 12-year tenure as COGENT coordinator, during which time he helped to build the country membership from 15 initial members to 39 members of today. He will be remembered also as one of the most successful coordinators, mobilising millions of dollars to support a wide range of critical research and development initiatives that alleviated rural poverty across the globe. He was the recipient of numerous awards, including:

- August 2019- Tree of Life Award of the International Coconut Community in the individual award category
- August 2018- Distinguished Alumnus Award for Poverty Alleviation and Human Development, University of the Philippines Alumni Association
- April 2007- Best Paper Award, Crop Science Society of the Philippines
- April 1998- Honorary Fellow, Crop Science Society of the Philippines
- November 1998- Most Outstanding Development Award, Phil. Department of Science and Technology
- April 1984- Most Outstanding Agricultural Extension Award, Crop Science Society of the Philippines
- August 1969 - Rockefeller Foundation Fellowship, University of California at Davis, USA
- April 1964- Cum laude, B.S. Agriculture, University of the Philippines at Los Baños

In his later years, Dr. Pons established his own charitable foundation the Farmers Community Development Foundation International, of which he was the Chair, based in his native Philippines, which continued the development work to which his whole life has been devoted. Dr Pons will also be remembered for his critical contributions to a number of boards including the Bureau for the Development of Research on Tropical Perennial Oil Crops (BUROTROP) in the Philippines, Kokanas Industri Koporesan (KIK), Papua New Guinea and Chair of the ICC's Technical Working Group.

In having recently celebrated COGENT's 30th anniversary (Nov 2022), ICC and COGENT gratefully acknowledged his enormous contributions to this network over its entire lifespan. Dr Pons will always be remembered as an intellectual powerhouse with a generous heart. What a dynamo he was, and how much we will all miss his presence.

Bravo Pons.

THE MAN BEHIND BRINGING COGENT TO ICC



It is with our deepest grief to learn the saddened death of Mr. Uron Neil Salum, General Manager of the Coconut Resource Limited, Kokonas Industri Koporesen, Government of Papua New Guinea and Former Executive Director of International Coconut Community.

We greatly appreciate and we are extremely grateful of his sincere contribution and dedication as the 6th Executive Director of ICC during 2014 to 2020. Mr. Salum's contributions created significant milestone and leap to the ICC and coconut industry,

Mr. Uron brought a great and memorable impression to ICC Secretariat of strong leadership combined with a very sincere attitude. Mr. Uron is the Executive Director that brought APCC to an even larger scope of International Organization which from 2018 the name has renewed as International Coconut Community. He made remarkable collaborations of ICC with many significant organizations around the globe that jump started ICC to build global networking for many years ahead.

He is focusing on the massive and rapid development of Coconut Industry of all Member Countries especially balancing the Country that needed the most of technology transfer, capacity building and knowledge sharing like Member Countries in Pacific Region

Mr. Uron has inspired the Secretariat and next leaders of ICC with all his achievement and progress undertaken by him.

We deeply admire his immense effort of sustainability development of the local and global coconut sector that surely gave positive impact to the coconut Industry including small farmers.

We hope the attributes and legacy of Mr. Salum could keep inspiring us not only related to coconut industry but also with his strong leadership, great personality and work ethics. We offer our prayers for the comfort of family and the loved ones. May the departed soul of late Mr. Uron Neil Salum, Rest in eternal peace.