COGENT

NEWSLETTER

ISSUE 1 | 2020

ICC-COGENT planning meeting report: January 2020

ICC-COGENT Steering Committee (SC) - recent and upcoming meetings

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Figure 1: COGENT Global Strategy Frontispiece

COGENT
is on the move

Joint Message from ICC's ED, and COGENT's Interim Coordinator

Dear COGENT stakeholder,

Despite the Covid-19 situation, in reading this we hope you will celebrate with us the **dawn of a renewed International Coconut Genetic Resources Network**, (COGENT) as a programme within the International Coconut Community. Following the first COGENT planning programme meeting (20-31 Jan- see section 2), in our first joint message to you all, we would like to outline COGENT's near horizon, and recent events. This extended first newsletter outlines COGENT's plans and recent projects, including: i) the International Coconut Genebank (ICG) appraisals; ii) reformation of the International Thematic Action Groups (ITAGs); iii) a history of COGENT, iv) a snapshot of the events calendar; v) and plans for COGENT's Steering Committee.

COGENT's exciting renewal is driven by a confluence of supporting drivers:

i) the ongoing **expansion of global coconut markets**, particularly VCO and coconut water, offers new opportunities for exchanging improved coconut germplasm;

ii) the recent **change to international status** of the former Asia-Pacific Coconut Community to become the International Coconut Community (ICC) allows the ICC to become the new host for COGENT (September 2019 see ICC report);

iii) the injection of substantial **support from ACIAR/ DFAT** during COGENT's 2-year re-establishment period (beginning January 2020-see section 6, include a note from their programme managers, Irene Kernot and Christine Pahlman) that allows;

iv) a much-needed boost to begin implementing **COGENT's Global Strategy** for Conservation and Use of Coconut Genetic resources. This includes:

- the (re-)forming of four **international thematic action groups (ITAGs)** within COGENT on: conservation, breeding & genomics, phytopathology & germplasm movement, and *in vitro* culture and cryopreservation (by June 2020). We are starting by confirming leadership and membership. The groups will spearhead development of COGENT priority projects within their thematic area (see section 8).
- a comprehensive **review of the International Coconut Genebanks** (ICGs) and their needs (by December 2020- see section 4)

v) Dr Jelfina C. Alouw's appointment as the **new Executive Director** of the ICC (January 2020 see ICC report), which is driving COGENT's reformation forwards.

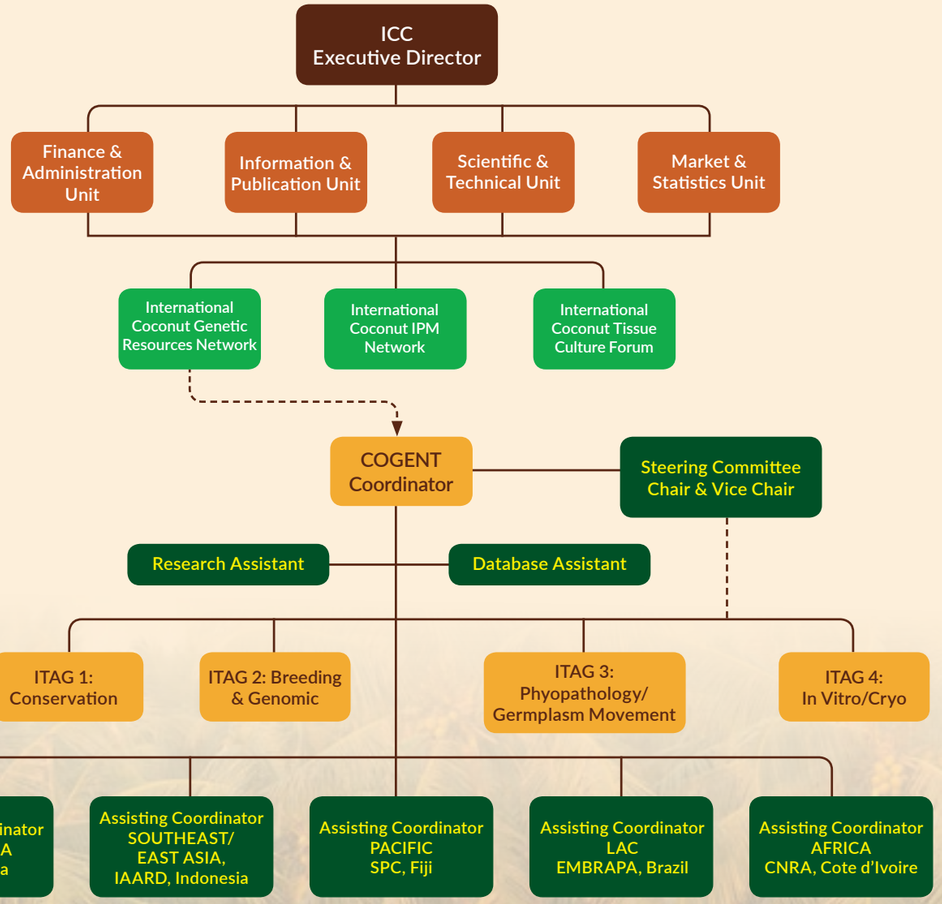
vi) The synergies of COGENT finally being physically located within a major coconut production area, and within the ICC- an organization linking coconut genetic resources conservation to their use (see fig 2 for structure of ICC and COGENT).

vii) The support for Vincent Johnson of the Bioversity-CIAT Alliance to continue as **interim COGENT Coordinator** (at least until December 2020), as well as providing support to ICC.

viii) The recruitment of a full time **COGENT Coordinator** based out of Jakarta, (circumstances prevented ICC appointing the selected candidate so we have re-opened the recruitment process) and for a part-time **assisting coordinator** (Dr Carmel Anne Pilotti, formerly of PNG now based with the Pacific Community (SPC) in Fiji) (from January 2020).

ix) Improvements to COGENT's **communications and website maintenance** (from January 2020).

Figure 2: Organigram for ICC &COGENT 2020



ACIAR grant planning: L to R: Mr Vincent Johnson (Bioversity-CIAT, Interim COGENT coordinator), Ms Irene Kernot, (ACIAR Hort Prog Mgr); Mr Uron Salum, (outgoing ED, ICC), Ms Mridula Kottekate, (Ass. Dir ICC), Dr Jelfina C. Alouw (ICC, ED), Mr Ramon Rivera, (PCA)

ICC-COGENT

Planning meeting report: January 2020

Main topics:

Coconut genetic resources conservation, ACIAR grant planning, ICG appraisals, Coordinator recruitment

Objectives:

1. Attending the handover of ICC-COGENT responsibilities from the outgoing Executive Director (ED) to the incumbent ED 2 (Jan 22).
2. Finalizing the appointment of the new COGENT Coordinator (Jan 23-24)
3. Finalizing the ACIAR/DFAT grant workplan for 2020, including Bioversity's contract
4. Driving forwards the remaining International Coconut Genebank (ICG) rapid appraisals
5. Driving forwards the reformation of the International Thematic Action Groups (ITAGs)
6. Discussing the appointment/ ICC allocation of the IT, communications and administrative functions for the COGENT Secretariat
7. Organising the next Steering Committee Meeting
8. Discussing capacity building and coconut germplasm data management

Meeting Summary

1. Attend inauguration ceremony of new ICC- ED
2. Handover of COGENT overview from outgoing ED to the incumbent ED- We participated in several planning and briefing meetings 20-31Jan
3. Finalizing the appointment of the new Coordinator – Interacted with Ramon Riviera who came from the PCA for interview. Formal offer delivered and provisionally accepted, provisionally to start 1st March, but later PCA endorsement of the 2-year secondment was withdrawn due to heavy commitments
4. Finalizing the ACIAR/DFAT workplan for 2020, including Bioversity's contract- planned major events and activities for 2020-21, especially the ICG appraisals, ITAG reformation, training meetings and SC meetings

5. Driving forwards the remaining International Coconut Genebank (ICG) rapid appraisals – planned the schedule of remaining appraisals, to be completed by Dec 2020, planned the ICG-SP appraisal in Manado back-to-back with SC meeting
6. Driving forwards the reformation of the International Thematic Action Groups ITAGs – reviewed the list of nominations for leaders and members, drafted the letters for ITAG leader confirmation and participation in the upcoming SC meeting
7. Discussing the appointment/ ICC allocation of the IT, communications and administrative functions for the COGENT Secretariat- interacted with ICC admin, finance, communications and IT staff. Discussed reporting obligations and agreed to provide reporting templates, discussed migration of website, production of newsletter, including the structure of website and newsletter and content of first issue
8. Organising Steering Committee meeting (March/April 2020), drafting invitations, organising SC nominations. Drafted permission letter for IAARD to host SC meeting in Manado and conduct ICG appraisal and data training. Planned dates, drafted detailed agenda and budget
9. Developed budget workbook to estimate how the budget will be disbursed and calculate more fine-tuned estimations of expenses within the four 6-monthly grant periods
10. Interacted with ACIAR horticultural research programme manager
11. Interacted with Assistant Director and ED in planning to harmonise COGENT and ICC country memberships

ICG Indonesia, discussion-L to R: Mr Vincent Johnson (Bioversity-CIAT), Dr Pons Batugal (ICC, TWG-Chair), Dr Hengky Novarianto (IAARD, Balit Palmae- Coconut Breeder); IAARD, Balit Palmae- Coconut Breeding team member; Dr Jelfina C Alouw (ICC, ED); IAARD, Balit Palmae- Coconut Breeding team members; Dr Ramon Rivera, (PCA)

Follow-up activities & recommendations

1. Invitations to be sent for SC nominations
2. Develop Strategy Implementation Plan during SC meeting
3. Develop new coordinator and assisting coordinator, induction programme
4. Liaise with SPC regarding assisting coordinator's proposed interactions with COGENT
5. Complete international and selected national genebanks appraisals/ surveys
6. Rebuild COGENT technical working groups (ITAGs), ensure they complement existing ICC groups
7. Develop plan for longer term funding raising
8. Develop scientific / technical capacity building/ /data management plan,
9. Fine tune research plan focusing on potential alternative strategies for conservation and exchange of material, referring to the Global Strategy
12. Continue interactions as often as possible with new Coordinator
13. Contact assisting coordinator in SPC, Fiji to develop common workplan
14. Set up monitoring for the ACIAR/DFAT workplan for 2020-21,
15. Finalise Bioversity-CIAT /ICC contract for COGENT work
16. Organise remaining International Coconut Genebank (ICG) rapid appraisals – especially the ICG-SP appraisal in Manado back-to-back with SC meeting
17. Send letters for ITAG leader confirmation and participation in the upcoming SC meeting
18. Articulate ICC-COGENT reporting obligations and provide reporting templates,
19. Migrate and redesign COGENT website,
20. Issue first newsletter
21. Finalise Steering Committee meeting (March/April 2020), including agenda and participants list, send invitations, for meeting and SC nominations.
22. Send permission letter for IAARD to host SC meeting in Manado and conduct ICG appraisal and data training.
23. Review budget estimations of expenses within the four 6-monthly grant periods
24. Organise regular interactions with ACIAR horticultural research programme manager and ICC
25. Contribute to ICC membership drive

Persons met or visited

International Coconut Community (ICC):

- Mr. Uron Salum, outgoing ICC Executive Director (ED)
- Dr Jelfina C. Alouw, incumbent ED
- Dr Pons Batugal, Technical Working Group Chair
- Ms. Mridula Kottekate, Assistant Director,
- Mr Sutrisno Halim, Admin & Finance Officer
- Mr. Mufid Febrianto, IT Assistant
- Mr. Arif Hakim, Information & Publication Officer

Philippines Coconut Authority

- Mr Ramon Rivera, Director, Zamboanga Coconut Research Station, Philippines

ACIAR

- Irene Kernot, Horticultural Research Program Manager

FAO Plant Treaty

- Daniele Manzella, Technical Officer (virtual conference)

CIFOR

- Dr Vincent Gitz, Director CGIAR FTA programme

Indonesian Agency for Agricultural Research & Development (IAARD)

- Dr Syafaruddin, Director ICECRD
- Dr Ismail Maskromo, Director, Balit Palma,
- Dr Hengky Novarianto, Principle Coconut Breeder
- Other team members of the ICG-SP, Manado

Additional Comments

Imminent planned meetings may be postponed by coronavirus crisis

Recent or ongoing COGENT-linked Projects

(traffic light colours indicate progress)

Coconut Cryopreservation

Title	*Developing cryopreservation protocols for sub-tropical crops and establishing a cryo-genebank at RDA with Bioversity International*
Donor	The Rural Development Administration, Ministry of Agriculture, Food and Rural Affairs South Korea (http://www.rda.go.kr/foreign/ten/index.jsp)
Partners	**Bioversity International,** RDA, Korea, Philippines Coconut Authority
Period	November 2015- December 2019
Aim	Recalcitrant coconut seeds cannot be stored. Cryopreservation offers a viable conservation complement to field genebanks. The tissues following can be used: zygotic embryos, plumules excised from zygotic embryos, somatic embryos and shoot meristem tips. Cryopreservation of coconut zygotic embryos and plumules have both been successfully developed but are still not applied on a large scale. Cryopreservation of coconut somatic embryos is hindered by the slow and difficult initiation phase and low establishment rate. Therefore, this work focuses on cryopreservation of shoot-tips derived from in vitro seedlings of coconut. After addressing the challenges to: i) Initiation of sterile tissue cultures; ii) Multiplication of coconut shoot cultures (using cytokinin to reduce shoot apical dominance); and iii) optimising cultures for Meristem tip regeneration. Work has optimized a droplet vitrification protocol (already proven successful in for many species). The protocol is being validated and will be subsequently used to cryo-preserve coconut germplasm.
Outputs	A viable cryopreservation protocol for coconut germplasm Cryopreservation capacities built, including local scientific capacity Establishing cryobank at RDA, Korea and Leuven, Belgium
Outcomes	Capacity for coconut cryopreservation to be applied in ICGs and in Bioversity, Leuven Moves towards establishing cryobanking at the 5 International Coconut Genebanks
Impact	consequences will contribute towards a more effective multilateral system for sharing coconut germplasm over the years to come.

Darwin Coconut conservation

Title	*Upgrading and broadening the new South-Pacific International Coconut Genebank*
Donor	UK, Department for International Development (DfID)-Darwin-Initiative (https://www.gov.uk/government/groups/the-darwin-initiative)
Partners	**Bioversity International,** SPC, Cirad, Gov'ts Fiji, PNG (KIK) and Samoa, ITPGRFA
Period	April 2016 - November 2017 (cut short – scheduled to end April 2019, so not able to implement germplasm prospecting, or register MSC or doctoral students)
Project aim	to identify those areas of Fiji, Papua New Guinea (PNG) and Samoa where coconut biodiversity is threatened and to ensure threatened coconut germplasm is conserved by: (i) developing the associated listing, (ii) characterizing its diversity and (iii) preparing for prioritized germplasm transfer to the ICG-SP, (part of COGENT), and placed under the protection of the international Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA). For more information, please have a look at the inception meeting report.
Main planned outputs	A germplasm collection methodology developed, including arrangements for managing and sharing the germplasm. Coconut germplasm characterization guidelines (building on Stantech manual) will be published by Dec 2020
	Selected threatened coconut germplasm were to be listed for introduction into the International Coconut Genebank of the South Pacific (ICG-SP) and in the international Coconut Genetic Resources Database (CGRD), available for future generations of researchers, farmers, consumers and other users.
	Prioritized new accessions would then be characterized taking in account local uses, and resistance to cyclones and diseases.
	In parallel, partners in both Fiji and Samoa were lined up to establish new genebank satellite-sites to receive the local new accessions, and eventually backups of the already conserved accessions in PNG.
	capacity for the three new Pacific genebanks was to have been built, including local scientific capacity
Outcomes : leveraging power for strengthening partnerships in the Asia-Pacific	Capacity for germplasm characterisation built and used in PNG genebank
	ICC has now accepted role of hosting COGENT, situated in the region, which will lead to more effective management of partnerships & activities in the region & elsewhere
	ACIAR /DFAT(Australia) provided an AUD$0.5 million grant over next 2 years to revitalize COGENT (grant started January 2020))
	COGENT, ICC and its Asia-Pacific Partners are now working more closely together
	COGENT, ICC and ITPGRFA, now working more closely together since 7th Governing body meeting (2017), particularly in finalizing new agreements between the International Coconut Genebank host governments, ICC and ITPGRFA. New agreements finalized during the 8th Governing Body meeting in Rome 11-16 Nov 2019 and subsequent exchanges.
Impact	consequences will contribute towards a more effective multilateral system for sharing coconut germplasm over the years to come.

Establishing Coconut Genomics Mapping populations in ICG-AIO

Title	*Establishing Coconut Genomics Mapping populations in ICG-AIO*
Donor	CGIAR FTA W2 funding (http://www.foreststreesagroforestry.org/)
Partners	**Bioversity International;** Cirad, France; CNRA, Côte d'Ivoire
Period	April 2017
Aim	As global markets expand, and millions of coconut farmers continue to rely on coconut livelihoods, researchers need to better understand how genetics can address the threats of pest and diseases such as Lethal Yellowing Disease, and drought or salinity, and at the same time improve productivity and quality. To provide material for genomics mapping, COGENT stakeholders established mapping populations of XXX at the International Coconut genebank for Africa and the Indian Ocean (ICG-AIO), on CNRA's Marc Delorme Station at Port Bouet, in Côte d'Ivoire
Outputs	An established mapping population as a source coconut germplasm for genome-wide studies
Outcomes	Material used for mapping coconut genome
Impact	consequences will contribute towards improved / elite lines to be used as material in breeding programmes

The International Coconut Genebanks (ICGs) appraisals-a prelude to more effective operations

Coconut seeds are recalcitrant (cannot survive drying or freezing) so cannot be stored. Each genotype must be planted in field genebanks, or their tissue or pollen frozen, as an 'accession'. Because of their reproductive nature, each accession normally comprises 45 palms (for dwarf-types) to 96 palms (for tall types). So, coconut field genebanks require greater area and are more costly to maintain. For a coconut field genebank with 30 accessions of each type, it will need at least 35ha for accessions, excluding nursery buildings and experimental plots. In 2013 estimates of the annual cost per accession varied between US$762 (COGENT) and US$2,787, so a 60-accession genebank would annually cost anything between US$46K and US167K (Global Strategy, 2018). The collections in Côte d'Ivoire, Indonesia and PNG are being moved to new sites, and a recent estimate for moving the ICG-AIO over an 8-year period came to over US$15 million for 59 accessions. Costs seem generally higher in Africa than in Asia.

Palm type	accession size	planting density	area/ accession	# accessions	total area	annual maintenance cost			
						US$/accession		US$ total	
	# palms	palms/ha	ha	#	ha	low	high	low	high
Dwarf	45	120	0.375	30	11.25				
Tall	96	120	0.8	30	24				
TOTALS				**60**	**35.25**	**762**	**2,787**	**45,720**	**167,220**

There are five International Coconut Genebanks (ICGs), established in the 1990s in Brazil, Côte d'Ivoire, India, Indonesia and Papua New Guinea. In common with many of the 19 national collections, all five ICGs face several challenges that constrain germplasm exchange. Previous surveys indicate that overall ICG management and capacities need strengthening, and they suffer from accessions' mislabelling, threats from pests and climate-change, land tenure issues, poor germplasm data management, lack of human and other resources, including financial support, and are in desperate need of upgrading, especially in terms of rejuvenation, backup, and collecting new material.

For an international collection to be ratified, the host government signs a tripartite 'Article 15' agreement with both the FAO-International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) and the COGENT host organisation (now the ICC), to hold the collection as a global public good to be accessible within the multilateral system of germplasm exchange, and to effectively maintain and protect the collection. New agreements for all 5 ICGs are being drafted, to accommodate COGENT's new host, the ICC.

New support from ACIAR/DFAT (see section 6) is allowing COGENT to conduct rapid appraisals of the 5 ICGs by the end of 2020, as also a survey of the national collections. The appraisal for the South Pacific Collection (ICG-SP) has recently been conducted and the report will be available soon. The ICG rapid appraisals will determine:*1. Status of the MOA/ ICG agreement; 2) Availability and status of ownership of ICG land; 3) Number of accessions planned to be/ actually conserved; 4) Number of palms per accession and representativeness; 5) Number of countries which requested/ were provided with germplasm; 6). How germplasm data is recorded/ stored;7) Disease/Pest threats;8) Planned duplications; 9) Commercial activities; 10) Research conducted: a. Collecting for additional conservation; b. Characterization of accessions; c. Yield evaluation; d. Disease resistance trials; e. Tissue culture; f. Advancing knowledge;* and *11) other information.*

Once the ICG appraisals and the national CG survey are conducted COGENT will compile a report on the state of global coconut genetic resources and how the community can ensure a sustainable system for coconut germplasm conservation, exchange and use. This will be linked to the genebanks sustainability plan (see section 6). The next newsletter will provide a progress update on these appraisals.

COGENT, ICC and the CGIAR: Then and Now

COGENT's Evolution

Next year COGENT will celebrate its 30th Anniversary. The International Board for Plant Genetic Resources (IBPGR est. 1974), became the International Plant Genetic Resources Institute (IPGRI) in 1977.CGIAR decided to include coconut in its research portfolio in 1991, and IPGRI was given the mandate to organize the International Coconut Genetic Resources Network (COGENT) to implement this decision. ACIAR Commissioner Dr Gabrielle Persley was personally involved in the foundation of COGENT which started with 15 coconut growing countries as members and has subsequently expanded to 39 member countries. IPGRI, along with the International Network for the Improvement of Banana and Plantain (INIBAP) became Bioversity International in 2006.Following CGIAR funding reforms in 2010, Bioversity no longer had sufficient funds to maintain COGENT, nor a full-time coordinator, and increasingly relied on part-time coordination provided by seconded Cirad specialists. In 2017 Bioversity decided to solicit a new host for COGENT, with APCC agreeing to host the network as one of its programmes. The transfer was ratified in 2019, in an arrangement that directly links coconut genetic resources conservation with their use, and locates the network HQ within the most productive coconut region globally. From January 2020, the Australian Centre for International Agriculture Research (ACIAR), and the Australian Department for International Trade (DFAT) are providing 2-year initial co-financing to establish this new arrangement (see section 6), and by end 2021 COGENT will be implementing an effective sustainability plan (see Fig 3 for graphic timeline).

COGENT still gathers 39 country-members and is organized into 5 regional sub-networks: i) Africa and the Indian Ocean; ii) Latin America and the Caribbean; South Asia and Middle East; Southeast and East Asia; and the South Pacific, each hosting an International Coconut Genebank (see fig 3 below). For the current outline of COGENT see section 1 as well as the Global Strategy pp 22 - 24).

COGENT programme priorities and activities will still be decided by a streamlined Steering Committee (see section 7), in consultation with the ITAG leaders (see section 8) and the Coordinator. Together they will coordinate the planning, implementation, monitoring and evaluation of COGENT's programme, projects and activities, and established linkages with collaborating institutions, programmes and donors.

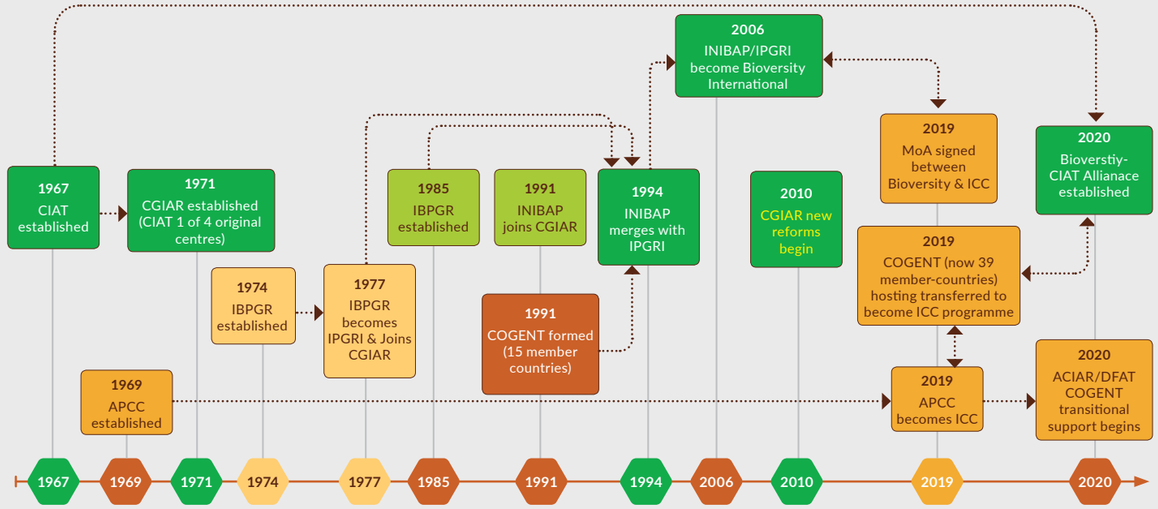


Figure 3: COGENT evolution

Table 1 Composition (membership) of COGENT by regional networks in 2020.

South Asia and Middle East	Southeast East Asia	South Pacific	Africa and Indian Ocean	Latin America and Caribbean
Bangladesh	China	Cook Islands	Benin	***Brazil***
India	*Indonesia*	Fiji	***Côte d'Ivoire***	Colombia
Pakistan	Malaysia	Kiribati	Ghana	Costa Rica
Sri Lanka	Myanmar	***Papua New Guinea***[1]	**Kenya**	Cuba
Sultanate of Oman	Philippines	**Samoa**	Madagascar	Guyana
	Thailand	Solomon Islands	Mozambique	Haiti
	Vietnam	Tonga	Nigeria	Honduras
		Vanuatu	Seychelles	Jamaica
			Tanzania	Mexico
				Trinidad & Tobago

In ***Italic***: International Genebanks. In **Bold**: country members of the COGENT Steering Committee in 201

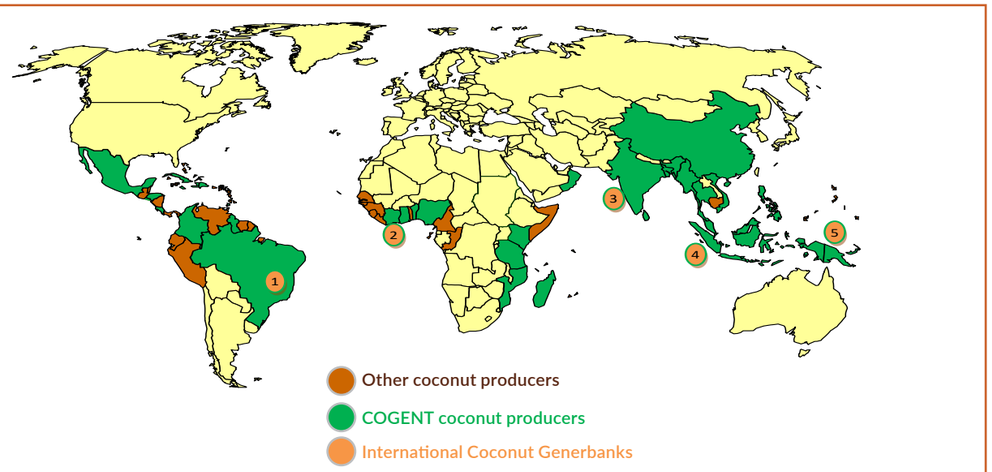


Figure 4: COGENT coconut producing countries

Three decades of COGENT coordination (1991-2022)

COGENT pays tribute to ACIAR commissioner and strategic research innovator, Dr Gabrielle Persley, who was responsible for raising much-needed awareness and harnessing global support for the conservation of coconut genetic resources while working in various capacities at ACIAR and the World Bank. This strategic effort led to the creation of COGENT and the inclusion of coconut in CGIAR's research agenda. Subsequently, she organized coconut Donor Support Group meetings during the CGIAR annual meetings in Washington D.C., where she and Dr Pons Batugal, then COGENT Coordinator (see below), presented and successfully obtained funding support for COGENT's priority projects such *ex-situ* and *in-situ* conservation, establishment of the five multi-site international coconut genebanks, genetic resources links to multi-purpose uses of the coconut and poverty reduction in coconut-growing communities. These dynamic activities resulting from Dr Persley's initiative attracted governments of coconut-growing countries to join COGENT which increased its membership from 15 to 38 coconut-growing member countries.

COGENT would also like to pay tribute to nine coordinators for their dedicated work spanning almost 30 years. Their dynamic professional pedigree is linked with prestigious international agricultural conservation and research institutions (see non-exhaustive logos table below). We acknowledge them in chronical order as follows:

1 The ICGs in PNG and Côte d'Ivoire are currently being relocated

Hugh HARRIES' (1991-1993) dynamic leadership provided the needed momentum to move COGENT forwards and we acknowledge his critical achievements that have helped conserve the diversity now held in collections across the world. COGENT acknowledges him as a veteran breeder and researcher, who achieved his professional goal many times over *to illuminate the exceptional importance of the coconut palm since the earliest times.* After launching COGENT, naming it the "International Coconut Genetic Resources Network" and linking it with the 15 initial member countries, Dr Harries initiated its operationalization. He continued to promote coconut up until his death on 7th February 2019[2], through his coconut timeline[3] website and a linked coconut knowledge platform[4] through Google groups.

Gerardo SANTOS (1993), the Division Chief III Breeding and Genetics Division, Philippine Coconut Authority, who was amongst other things was involved in drafting the first guidelines on *Standardised Research Techniques for Coconut Breeding* (Stantech Manual[5]).

With more than 20 years' experience in coconut improvement, including building the International coconut collection in Côte d'Ivoire, **Dr Michel de NUCE de LAMOTHE** (1993 – 1994) was instrumental in establishing the International Coconut Genebanks (ICGs), especially in Côte d'Ivoire. He successively became research director for the Research Institute for Oils and Oilseeds (IRHO), the French National Institute for Agronomic Research (INRA) and Cirad. He acted on the Boards of: the International Institute for Banana and Plantain (INIBAP), the International Plant Genetic Resources Institute (IPGRI) and the International Centre for Agricultural Research in Dry Areas (ICARDA); collaborated with many international organisations including FAO and the World Bank, and was President of the Agropolis Foundation in Montpellier, France.

Dr Ponciano BATUGAL (Pons) took up the baton for the next 12 years (1994-2006). He had previously worked with the University of the Philippines at Los Baños; the Philippine Council for Agriculture, Aquatic, and Natural Resources Research and Development (PCAARD) and the International Potato Center (CIP), Lima, Peru before he joined the International Plant Genetic Resources Institute (IPGRI) to coordinate COGENT. Dr Batugal transformed COGENT including increasing membership from 15 to 38 countries and attracting US$ multi-million resources to implement a wide-ranging coconut research for development programme. His work integrated sustainable coconut conservation and use with poverty alleviation, resulting in positive impact for millions worldwide. He also generated many publications too numerous to mention here. Dr Batugal is also the President and founder of the Farmers Community Development Foundation International. He now chairs the Technical Working Group of the International Coconut Community (ICC).

Dr Maria LUZ GEORGE (2007-2009) was the last full-time COGENT coordinator, as after her tenure the CGIAR funding mechanism changed. She assumed the management of flagship IFAD and projects DABAR projects, established by Dr Batugal, before moving on to the Wheat and Maize Research Center CIMMYT in Mexico.

Former Regional Programme Manager of the Sustainable Tree Crops Programme for IITA and Research Director for Bioversity International **Dr Stephan WEISE** now manages the Alliance of Bioversity and CIAT's research programme for Asia. He acted as an interim COGENT coordinator (2009 – 2011), until a more dedicated part-time coordinator was recruited. He implemented important work to update and validate the Guidelines for coconut germplasm movement and duplication[6].

2 See https://www.dorsetecho.co.uk/announcements/deaths/deaths/17434635.HUGH_HARRIES/ and https://www.palmtalk.org/forum/index.php?/topic/59395-hugh-harries/

3 http://cocos.arecaceae.com/

4 https://groups.google.com/forum/#!forum/coconut

5 http://www.cogentnetwork.org/images/publications/StantechManual.pdf

6 http://www.cogentnetwork.org/images/publications/tg-coconutembryotransfer.pdf

Capitalising on Bioversity's strong working relationship with Cirad, ethnobotanist and coconut diversity specialist, **Dr Roland BOURDEIX** (2011-2013) was appointed as the next (20% part time) coordinator, and amongst his prolific output, he was responsible for i) revising COGENT's infrastructure, steering committee, and website; ii) implementing key upgrading work in the International Collections; iii) introducing six International Thematic Action Groups (ITAGs- see section 8), and most importantly iv) developing a more coherent Global Strategy for the Conservation and use of Coconut Genetic resources[7] (the Global Strategy- see Fig 1).

Also from Cirad, food technologist, Dr **Alexia PRADES**, (2013-2017) took over as (20% part time) coordinator, winning a UK Darwin Initiative grant aimed at improving conservation of threatened coconut diversity in Fiji, PNG and Samoa, completing the compilation of the Global Strategy, and strengthening working relationships in the COGENT regions, particularly with the then Asia Pacific Coconut Community (now ICC). Although the UK grant was cut short, the work has been responsible for a soon-to-be-published *Coconut germplasm characterisation guidelines* and strengthened international relations.

Both Cirad coordinators were co-funded by Cirad and small funds from the CGIAR CRP Forests Trees and Agroforestry (FTA)

Ex-agronomist and currently science writer and project officer, **Vincent Johnson** of the Alliance of Bioversity and CIAT (ex-Bioversity), has assumed responsibility for interim part-time COGENT coordination since November 2017 (2017-2020), supported by funds from ACIAR and DFAT. Vincent developed ACIAR/DFAT proposals, that have allowed i) the publication of the Global Strategy, ii) the transfer of COGENT's hosting from Bioversity to the ICC and iii) funding a two-year transition period. He also provided support to COGENT coordinators from 2008 until now.

Recruitment is underway for a full-time coordinator with a tenure from 1st September 2020 until 30 June 2022

7 https://www.bioversityinternational.org/fileadmin/user_upload/Cogent_bourdeix_2018.pdf

ACIAR and the route to a self-sustaining COGENT

Australia has long been a supporter of coconut research-for-development, including the establishment of COGENT, in which ACIAR Commissioner **Gabrielle Persley** was personally involved (see section 5). A 2013 FAO Asia-Pacific Office expert consultation[8] generated recommendations for coconut germplasm conservation as well as rapid planting material production as priorities. These have been integrated into ICC's strategic plan. Coconut systems are strongly linked to ACIAR's strategic medium-term priorities for the Pacific island countries, which include: i) Integration and sustainability of agriculture, fisheries and forestry resource management and development; ii) Research into increasing resilience and reducing the impact of climate change on the development of sustainable agriculture, fisheries and forestry, and iii) Underpinning the competitiveness of agriculture, fisheries and forestry value chains.

Arising from an initial meeting between ICC, COGENT, Bioversity, ITPGRFA, SPC, ACIAR and DFAT in Brisbane 2018, COGENT was invited to develop a proposal for transitional support during 2020-2021, which was endorsed in 2019 and contract began January 1, 2020. This project aims to support **revitalizing COGENT**, achieve an orderly transition of COGENT's Secretariat from Bioversity International to ICC, and ensure technical support for the implementation of the recently formulated Global Strategy for Conservation and Use of Coconut Genetic Resources (the Strategy). This transfer will be synergised by ICC's expanded mandate to promote the global development of coconut. The proposed work will introduce measures to sustain COGENT within ICC beyond the 2-year implementation period.

The project will deliver:

1. A functioning and sustainable **COGENT Program**, coordinated by a financially accountable ICC, with a full-time coordinator based at ICC, Indonesia, supported by the Secretariat of the Pacific Community (SPC), with an assisting coordinator based at SPC in Fiji, and support staff in Indonesia, with links to Asia, Africa and Latin America (work package (WP) 1).
2. An **implementation workplan and budget** for the Global Strategy, highlighting links to the Pacific region. Part of this deliverable will flow from 4 **fully established International Thematic Action Groups (ITAGs-** see section 8). The COGENT Coordinator is ultimately responsible for strategy implementation in direct cooperation with ITAG leaders (WP 2).

8 FAO high level expert consultation on the development of the coconut sector in Asia and the Pacific Region 2013

3. A **status report on coconut genetic resources** held in trust in the five multi-site international genebanks and in the national collections in 19 coconut growing countries, along with **recommendations for restoring a functioning international multilateral system** and initial support for effectively sharing coconut germplasm for the benefit of breeding programs, as a strategy to improve coconut productivity and linked livelihoods, across the Asia Pacific and beyond (WP 3).
4. The two-year project will also develop **a sustainability plan** and international research collaboration that will help sustain the COGENT program and the national and international collections in the longer term (WP4).
5. Having a fully functional COGENT will play a pivotal role in ensuring the more effective conservation and use of coconut genetic resources, and will contribute to building coconut stakeholders' capacity and resilience across the value-chain. COGENT now being embedded within the ICC offers a golden opportunity to more effectively link coconut genetic resources conservation with their use, and concomitantly improving coconut-based livelihoods for coconut growing households and communities. This project will ensure that the capacity to conserve the genetic diversity of coconut is preserved and contributes to ACIAR's long-term program of work to rejuvenate the coconut industry in the Pacific and beyond.

A note from ACIAR and DFAT

ICC and COGENT have been more frequently interacting with ACIAR and DFAT colleagues since mid-2018, and have invited them to express a few words of support in this first issue of COGENT's newsletter

Australian Government
Department of Foreign Affairs and Trade

Message from **Christine Pahlman,** Assistant Director, Agricultural Development and Food Security Section; Agriculture, Infrastructure and Water Branch, Australian Department of Foreign Affairs and Trade

Australia through the Department of Foreign Affairs and Trade (DFAT) is pleased to collaborate with ACIAR to support the Coconut Genetic Resources Network (COGENT) through its transition to the International Coconut Community. Australia has decades of experience in supporting agricultural development and food security through our aid program. Australia recognises the importance of COGENT in safeguarding coconut production and genetic diversity and in contributing to smallholder livelihoods and food security including in our region, the Indo Pacific. We hope that this investment will lead to innovation and initiatives that enhance the genetic resources of coconuts whilst increasing productivity and sustainable resource use. We are looking forward to collaborating with COGENT and its partners and stakeholders.

ACIAR

Message from **Irene Kernot,** Research Program Manager Horticulture, Australian Centre for International Agricultural Research

ACIAR invests in Research for Development that facilitates research partnerships. Through these partnerships our projects aim to improve food security and deliver economic benefit while also contributing to gender equity, health and nutrition, climate resilience for the world's smallholder farmers. Preserving Coconut germplasm is a foundation project in this program because of the central role that coconuts can play in smallholder livelihoods. I encourage the researchers in this network to keep long term outcomes in mind as they will be central to the strong business case this team will develop to attract commitment and investment for the long-term future of coconuts in our environment and for small holder farming systems.

COGENT and ICC once again acknowledge and express gratitude for ACIAR and DFAT support, and are confident of a strong return on this significant investment.

COGENT
Steering Committee (SC) - recent and upcoming meetings

Summary of last 3 SC meetings

2014, Sri Lanka: In conjunction with the Sri Lankan Coconut Research Institute (CRI, Dr Lalith Perera), Bioversity International organized the 17th COGENT SC Meeting 13th to 16th July 2014, in Lunuwila, Sri Lanka. The meeting was funded by the CGIAR Research Programme on Forests, Trees and Agroforestry. The SC and participants from nine countries (Brazil, Côte d'Ivoire, France, India, Indonesia, Kenya, Papua New Guinea, Sri Lanka, Tanzania), including official COGENT representatives, endorsed **eight major international recommendations** to finalise and begin implementing COGENT's new *Global Strategy*.

2017, Fiji: In conjunction with the Pacific Community (SPC, Land resources Div-Dr Jan Helsen) and Fijian Government, Bioversity International organized the 18th COGENT SC Meeting 31st October to 4th November 2017, in Nadi, Fiji .The meeting was co-funded by ACIAR and APCC and aimed to determine how best to sustain the conservation and use of coconut genetic diversity for the Asia-Pacific region and globally. The report is available, please click here. The workshop i) finalised and informally launched the *Global Strategy for Conservation and Use*

of Coconut Genetic Resources (*the Strategy*), particularly exploring how this relates to the Pacific region; ii) discussed measures to assure the technical and organizational underpinning for conservation and use of coconut genetic diversity in the Pacific and globally, and iii) considered how best to address key biotic (pests and diseases) an threats to coconut diversity in the Pacific, as well as other regions. Achieving these three objectives over the longer term were encapsulated in 10 steering committee recommendations:

2018: Thailand (back-to-back with COCOTECH 48) In conjunction with and supported by the ICC and the Thailand government's Department of Agriculture, Bioversity International organized the 19th COGENT SC Meeting 25–26 August 2018 Bangkok, Thailand. The meeting outlined plans for COGENT to address the global coconut community's needs for more effective genetic resources conservation and use. Delegates formally launched the new *Global Strategy for Conservation and Use of Coconut Genetic Resources 2018-2028* (the Strategy). COGENT again pays tribute to all those who contributed to this important document, which will guide the future of coconut diversity conservation and use. In response to the 18th SC meeting recommendations delegates planned for: i) reviving COGENT's International Thematic Action Groups (ITAGs) that will guide strategy implementation, ii) evaluating the International Coconut Genebanks' (ICGs), iii) implementing the above-referenced Strategy, and iv) progressing with the arrangements to transfer the COGENT Secretariat from Bioversity International to the ICC. The meeting addressed COGENT's key funding and technical issues, considering strategies to ensure efficiencies and effectiveness. Delegates highlighted the need for accessing quality planting material, harnessing new genetics and tissue culture technologies and dynamizing the coconut value chain.

New SC structure and membership

COGENT's new structure is articulated in section 1

COGENT programme priorities and activities are decided by its Steering Committee, which provides oversight and policy recommendations which are then reviewed by ICC to enhance complementarity and effectiveness. The COGENT Coordinator coordinates the planning, implementation, monitoring and evaluation of COGENT's programme, projects and activities, and establish linkages with collaborating institutions, programmes and donors.

Upgrading COGENT's organization was initiated in 2012 by conducting two organizational assessments and two participative meetings. The composition and the role of the Steering Committee (SC) was modified in order both to increase its stability and to allow other member-countries to fully participate to decision making. The venue of COGENT meetings was fixed as biennial and linked with the COCOTECH meetings of APCC, in order to reduce costs and increase interactions with stakeholders from the coconut value chain. Other innovations are the creation of the ITAGS (see section 8), and the possibility of making decision at distance using two distinct processes, remote consensus and remote voting. Further details on COGENT and its recent reorganization, including a study to explore alternative hosting arrangements for the Secretariat are provided in Annex 4 of the global strategy.

Following more recent discussions with the ICC, it has been decided to slightly change and rationalise the SC membership to having a single representative from each ICG within the each of the five regions: from Brazil, Côte d'Ivoire, India, Indonesia, and PNG; and adding a representative from the more active/ important national collections in Malaysia the Philippines, and Sri Lanka. The Executive Director of ICC and its technical working group chair have also been endorsed as SC members. These constitute the SC voting members.

The SC also invites non-voting, observer membership from international organizations: the CGIAR, the Pacific Community (SPC), The CropTrust, the UN Treaty, CIRAD, ACIAR, FAO-Genetic resources Div. and Crop Protection Div.), who may provide technical oversight and assistance.

A new vice-chair is voted in every two years who becomes the chair by default for the next two years.

ICC has now sent out invitations for nominees to join the Steering Committee and almost all have accepted. ICC will send out a communique to announce the new SC which will be formally recognised in the upcoming virtual SC meeting, subject to all conditions being met.

Next SC Meeting

Covid-19 constraints have led to postponing the originally-scheduled SC meeting in Manado, Indonesia, in April 2020. This meeting had been scheduled to include an assessment of the ICG-SEA in Manado, as part of the ICG rapid appraisal ACIAR programme work-package (see section 4). This was to have been followed by a coconut germplasm management database training (in Jakarta). Commitment letters had then been received from the Indonesian Agency for Agricultural Research & Development (IARRD). The main purpose of holding these events in Indonesia was to demonstrate and strengthen the very much needed commitment and support by ICC and COGENT to our host country. COGENT is resolved to seek ways to further identify opportunities to support the host country and will plan an important COGENT SC meeting within Indonesia during the course of the ACIAR programme. The rapid appraisal ICG-SAME will be re-scheduled for October 2020

It had then been proposed that COGENT hold its 20th SC meeting back-to-back with the 49th International COCOTECH Conference & Exhibition at Kuala Lumpur Malaysia on 12-13 September 2020 and include interactions on ICGs, ITAGS and the above-mentioned overview of coconut germplasm data management (see fig 5 for virtual SC meeting agenda). However, due to ongoing COVID-19 uncertainty, COGENT and the Malaysian host have agreed that the two events will be rescheduled (COGENT hopes to sometime in February 2021). In the meantime, COGENT will organise a series of first virtual SC meetings during the week of 22nd to 25th June 2020, or the week after according to availabilities. This will allow holding sharply focused and prioritised sessions, aiming for a daily duration of no more than two to three hours. COGENT is planning on asking the invited presenters to provide their (max 5 slide) pre-recorded presentations in advance, so delegates can download and listen to the presentations before the meetings and then time can be used for discussion. The final agenda to be circulated very soon. There will be separate virtual meetings on database training and ITAGs.

Figure 5: proposed agenda

Day	Date	period	cumulative			Activity area	Activity detail	who	type
		mins	mins	hrs	mins/day				
Mon	22-Jun	5	5	0,1	5	Welcome	Formal welcome address	Dr Syafaruddin, Director ICECRD	short speech
Mon	22-Jun	5	10	0,2	10			Jelfina Alouw, ED ICC	short speech
Mon	22-Jun	10	20	0,3	20			Christine Pahlman/Irene Kernot ACIAR	short speech
Mon	22-Jun	15	35	0,6	35	Introduction	Introducing participants	Vincent Johnson (VJ), COGENT Coordinator	short intro- will have pre-recorded introductions in presentations- discussions based on pre-recorded presentation
Mon	22-Jun	10	45	0,8	45	Discussing COGENT Planning	Outline of new COGENT structure and SC		
Mon	22-Jun	15	60	1,0	60		ACIAR grant outline and workplan		
Mon	22-Jun	10	70	1,2	70		COGENT Global GR conservation strategy and objectives		
Mon	22-Jun	10	80		80	SC endorsement	Formal endorsement of SC members	SC voting members, Chair and Vice Chair	Virtual discussion & endorsement process
Mon	22-Jun	10	90	1,5	90	ICC-link	How ICC strategic plan fits with COGENT	Pons Batugal, ICC TWG Chair	Discussion
Mon	22-Jun	30	120	2,0	120	Day 1 Action points for COGENT structure/ planning recommendations and next steps		all	discussion to produce recommendations
Tue	23-Jun	10	130	2,2	10	Discussing ICG matters	Overall ICG status summary	VJ	discussions based on pre-recorded presentation
Tue	23-Jun	10	140	2,3	20		New Article 15 Tripartite agreements	Daniele Manzella, ITPGRFA	
Tue	23-Jun	10	150	2,5	30		Brief discussion on status of ICG-AIO (Cote d'Ivoire)	Jean Louis Konan Konan, CNRA	
Tue	23-Jun	10	160	2,7	40		Brief discussion on status of ICG-LAC (Brazil)	Emiliano Costa, EMBRAPA	
Tue	23-Jun	10	170	2,8	50		Brief discussion on status of ICG-SAME (India)	Niral Vittal, CPCRI	
Tue	23-Jun	10	180	3,0	60		Brief discussion on status of ICG-SEA (Indonesia)	Hengky Novarianto/ Ismail Maskromo	
Tue	23-Jun	10	190	3,2	70		Brief discussion on status of ICG-SP (PNG)	Eremus Tade/Alan Aku, KIK	
Tue	23-Jun	10	200	3,3	80		ICG appraisal procedure and SP report discussion	Pons Batugal/ Vincent Johnson	
Tue	23-Jun	10	210	3,5	90		brainstorming on establishment and running costs of ICGs (NCGs)	Indonesian Team, plus Pons and Ramon	panel discussions- possibly based on presentations
Tue	23-Jun	10	220	3,7	100		multifunctional genebanks & intercropping- saving costs & generating income (sustainability plan)	Pons Batugal/Ramon Rivera/Roland Bourdeix	
Tue	23-Jun	10	230	3,8	110		quarantine issues for ICGs (LYD+ Jamaican case-study?), disease diagnostics	Jelfina Alouw/ Wayne Myrie/Fabien Pilet/ Carmel Pilotti	
Tue	23-Jun	30	260	4,3	140	Day 2 Action points for ICG-recommendations and next steps		all	discussion to produce recommendations
Wed	24-Jun	75	335	5,6	75	Discussing ITAG matters, including scope & outlining & harmonising priority projects per ITAG	formal launch of reformed ITAGs and then discussions on each ITAG	VJ	group discussion- possibly based on presentations
Wed	24-Jun		335	5,6			1.*Ex Situ* & *In Situ* Conservation -ITAG 1	Ehsan Dulloo, Biov-CIAT Alliance	
Wed	24-Jun		335	5,6			2. Genomics & Breeding -ITAG 2	Sudarsono	
Wed	24-Jun		335	5,6			3. Phytopathology, Entomology & Germplasm movement ITAG 3	Myrie	
Wed	24-Jun		335				4. In vitro culture & cryo conservation ITAG 4 (TC&Cryo)	Karun	
Wed	24-Jun		335	5,6			Resource mobilisation targets (based on priority projects)	all	
Wed	24-Jun	15	350	5,8	90		Global Strategy implementation discussion	Vincent/Roland/leaders	
Wed	24-Jun	30	380	6,3	120	Day 3 Action points for recommendations and next steps		all	discussion to produce recommendations
Thu	25-Jun	15	395	6,6	15	Discussing Germplasm Data managemnent	overview of germplasm data management	Max Ruas	(virtual) Presentation/ demonstration
Thu	25-Jun	15	410	6,8	30		background to the Coconut Germplasm Resources database (CGRD);	Roland/ Chantal Hamelin	prerecorded presentation
Thu	25-Jun	20	430	7,2	50		status of Coconut GR data- with reference to each ICG & its needs	all ICGs	discussion
Thu	25-Jun	20	450	7,5	70		overview of Grin-Global, (REF TO case-study of IRRI's database migration to Grin-Global- do's & don'ts?), and GENESYS	Matija Obrez/ CropTRUST	Presentation/ demonstration
Thu	25-Jun	10	460	7,7	80		overview of Cirad's BMS; https://bmspro.io/1742/how-to	Corina HABITO, IBS	Presentation/ demonstration
Thu	25-Jun	10	470	7,8	90		next steps/ COGENT's germplasm data management strategy.	all	Discussion/ groups
Thu	25-Jun	30	500	8,3	120	Day 4 Action points for recommendations and next steps		all	discussion

International Thematic Action Groups (ITAGs): New structure and membership

COGENT is (re)establishing four International Thematic Action Groups (ITAGs) to lead in the identification and coordination of priority projects for germplasm conservation and use, linked to implementing COGENT's Global Strategy for the Conservation and Use of Coconut Genetic Resources. During the 2012 SC meeting, participants from 18 countries recognized the need to create six International Thematic Action Groups (ITAGs), aiming to promote and coordinate international theme-specific research related to coconut genetic resources. The terms of reference for these ITAGs were discussed during the SC meeting. (ITAGs are not decision-making bodies). The ITAGs objectives are to:

- assemble a group of the best specialists
- strengthen communications between researchers working in different countries but in the same thematic field.
- provide useful recommendations to COGENT's SC, (the decision-making body) and secretariat.
- provide new research ideas to spearhead the implementation of the Global Strategy in the relevant thematic area, and develop funding proposals (see below for list of current priority projects).
- help to protect the specific research interests of COGENT member countries

The 2012 recommended 6 ITAGs were: i) *Ex situ* conservation; ii) Genomics; iii) Breeding; iv) Phytopathology & germplasm movement; v) Ethnobiology & Socioeconomics and vi) *In vitro* culture. During the funding hiatus little was further developed until the ACIAR/DFAT proposal development.

In 2018 the SC recommended the addition of one new ITAG and slight changes to ITAGs 5 and 6 as follows: v) **Farmers' Participatory Research**, Ethnobiology & Socioeconomics, and vi) *In vitro* culture and **cryopreservation**, and the new group vii) dedicated to value-chain research.

In 2019, ACIAR/DFAT endorsed the proposal to support revitalizing COGENT, as a programme within ICC (see section 6), with a caveat that the ITAGs be rationalized to 3-4 in number. Also, since COGENT is now an ICC programme, the socioeconomic and value chain work can be housed in other ICC programmes. The 4 proposed ITAGs are: i) Ex- & **in situ** conservation; ii) Genomics & breeding; iii) Phytopathology, entomology & germplasm movement; and vi) In vitro culture and cryo-preservation.

Figure 6: ITAG proposed leaders and memberships

Suggested new ITAG name	Leader				Team member				Response to attend meeting
	First name	Last name	email	Country	Response	First name	Last name	Country	email	
1. Ex Situ & in Situ Conservation ITAG 1(Cons)	Ehsan	Dulloo	e.dulloo@cgiar.org	Mauritius	yes	Hengky	Novarianto	Indonesia	hengkynovarianto@yahoo.com	Yes
						Jean Louis	Konan Konan	Ivory Coast	konankonanjeanlouis@yahoo.fr; konankonanjeanlouis@gmail.com	Yes
						Semiramis	Ramos	Brazil	semiramis.ramos@embrapa.br	Yes
						Eremas	Tade	PNG	etade@kik.com.pg	
						Christopher	Biai	Malaysia	christopherjb@doa.gov.my	yes
						Rajesh	MK	India	mkraju_cpcri@yahoo.com	yes
						Luc	Baudouin	France	luc.baudouin@cirad.fr	Yes
						Niral	Vittal	India	niral.v@icar.gov.in;niralv@yahoo.com	yes
						Yaodong	Yang	China	yyang@catas.cn	yes
						Ismail	Maskromo	Indonesia	ismailmaskromo2010@gmail.com	Yes
2. Genomics & Breeding ITAG 2 (G&B)	n/a	Sudarsono	sudarsono_agb@apps.ipb.ac.id	Indonesia	yes	Lalith	Perera	Sri Lanka	kanthaperera@yahoo.com	Yes
						Mathieu	Rouard	France	m.rouard@cgiar.org	
						Roland	Bourdeix	France	roland_bourdeix@yahoo.fr	Yes
						Emiliano	Costa	Brazil	emiliano.costa@embrapa.br	yes
						Bi Tra Serges	Doubi	Ivory Coast	doubitraserge@yahoo.fr;doubitraserge@gmail.com	yes
						Ramon	Rivera	Philippines	rtrivera_pca@yahoo.com.ph	Yes
						Deusdedith	Mbanzibwa	Tanzania	mbanzibwad@yahoo.co.uk	Yes
3. Phytopathology, Entomology & Germplasm movement ITAG 3 (PE&GM)	Wayne	Myrie	cocindsrd@cwjamaica.com;waynemyrie@hotmail.com	Jamaica	yes	Fabien	Pilet	France	fabian.pilet@cirad.fr	Yes
						Kristi	Kueto	Philippines	cacueto@yahoo.com	yes
						Jelfina	Alouw	ICC	jelfina@cocunutcommunity.org	Yes
						Ndede	Yankey	Ghana	ndedeyankey@yahoo.com	Yes
						Carmel	Pilotti	SPC	carmelp@spc.int	Yes
						Mridula	Kottekate	ICC	mridula@apccsec.org	Yes
						Steve	Adkins	Australia	s.adkins@uq.edu.au	Yes
						Carlos	Oropeza	Mexico	carlosmos@yahoo.com; cosciy@gmail.com	Yes
4. In vitro culture & cryo conservation ITAG 4 (TC&Cryo)	Anitha	Karun	anitha.karun@cari.gov.in;anithakarun2008@gmail.com	India	Yes	Kristi	Kueto	Philippines	cacueto@yahoo.com; kristicueto@gmail.com	yes
						Bart	Panis	Belgium	b.panis@cgiar.org	
						Quang	Nguyen	Vietnam	quang.nguyen212@gmail.com	Yes

Figure 6 articulates the proposed group leaders and initial members, which has been developed from recommendations arising from the 18th SC meeting and subsequent interactions. The groups will convene to design the ITAG-linked priority projects and help to develop funding proposals with the support of COGENT-ICC. The COGENT coordinators and chair of ICC's technical working group have drafted a first non-exhaustive list of priority projects (see below), and Figure 7 summarises the proposals pipeline with which we have been engaged since January 2020.

COGENT Priority research areas for ITAGs (first discussion 24 Jan 2020)

1. PROGRAM 1: COCONUT GENETIC RESOURCES CONSERVATION

(*Program Title:* ***Support to Replanting Programmes***)

1.1. Project 1: Strengthening the International Coconut Genebanks
1.2. Project 2: Strengthening the National Coconut Genebanks
1.3. Project 3: Implementation of the *Global Strategy for Conservation of Coconut Genetic Resources*
  1.3.1. Study 1: Genomics and Breeding
  1.3.2. Study 2: Ex-and In-situ Conservation
  1.3.3. Study 3: Pest management and Germplasm movement
  1.3.4. Study 4 In vitro culture and cryo-preservation
  1.3.5. Study 5: Infrastructure development of the International Coconut Genebanks
1.4. Project 4: Capacity Building
  1.4.1. Study 1: Controlled Hand Pollination
  1.4.2. Study 2: Genetic resources database development & management
  1.4.3. Study 3: Molecular and morphological characterisation
  1.4.4. Study 4: Germplasm prospecting and collecting
1.5. Masters and PhD fellowships, short term training to address key challenges

2. PROGRAM 2: COCONUT GENETIC RESOURCES UTILISATION

(PROGRAM TITLE: SUPPORT TO REPLANTING PROGRAMMES)

2.1. Project 1: Tissue culture for rapid coconut planting material propagation
2.2. Project 2: Massive selection of priority varieties linked to effective nursery management and replanting programmes
2.3. Project 3: Hybridisation of priority varieties for precocity, productivity, HVP, tolerance to priority abiotic and biotic stresses
2.4. Project 4: Supporting national replanting programmes and planting expansion in coastal areas

3. PROGRAM 3: STRENGTHENING COGENT MANAGEMENT TO PROVIDE GREATER SERVICE TO MEMBER-COUNTRIES

3.1. Project 1: Sustainability plan for COGENT- Study on how different countries private sector/ government levy schemes

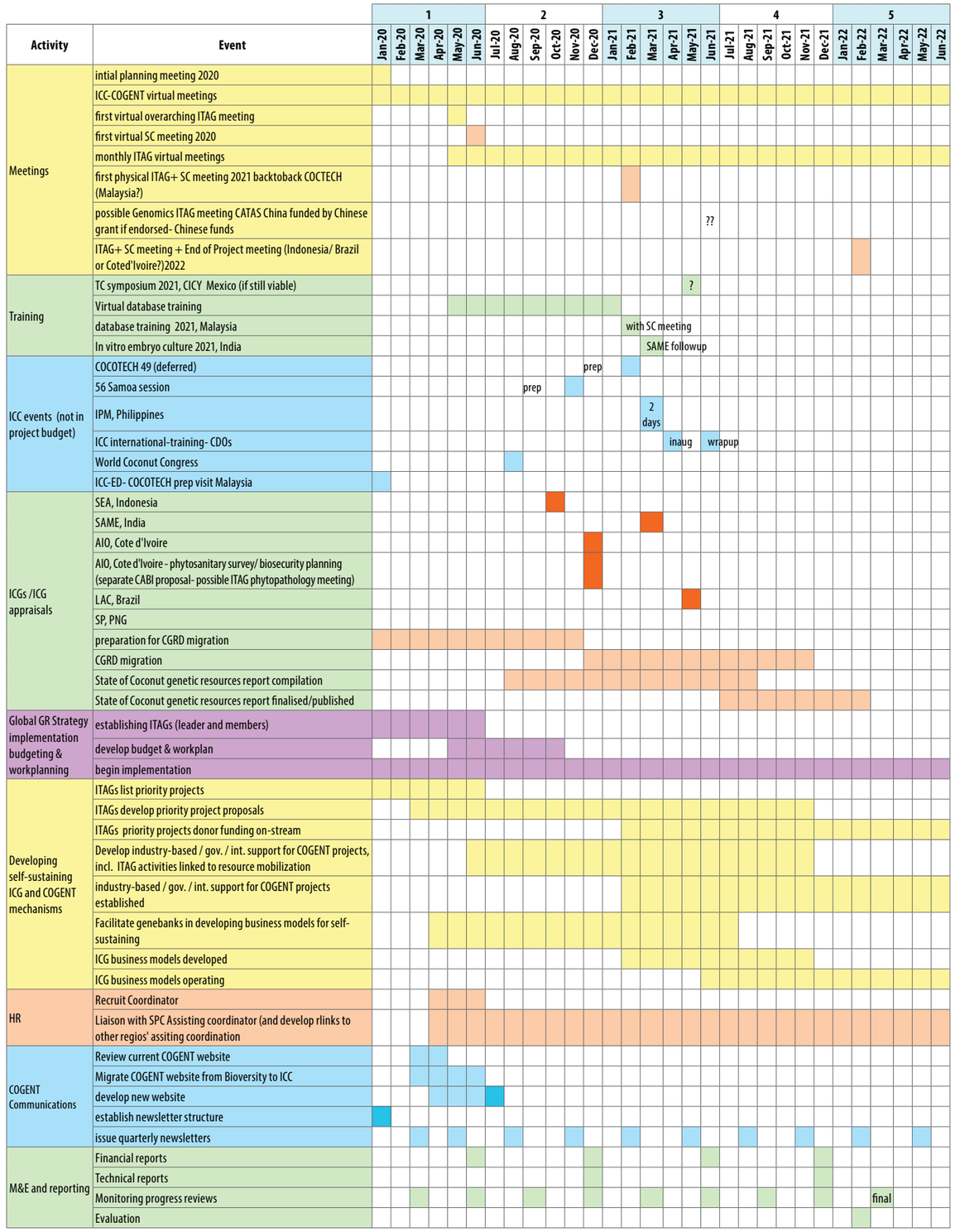
Proposals Pipeline:

Since January 1st We have begun developing several proposals and where indicated submitted

Propsoal type	ITAG	Donor	status		lead applicant	deadline	date submitted	amount (US$'000)	Title
Phase 1	Genomics and Breeding	CHINA	pending	submitted	CATAS	30/04/2020	30/04/2020	285,00	Cooperative Research on Pan-tropical Population Genetic Diversity of Coconut Based on Pan-genome Analysis
EOI phase 1	Conservation	USAID	rejected	submitted	ICC	03/04/2020	02/04/2020	not specified	piloting & mainstreaming broader genetic diversity, with sustainable climate-change adaptation, coconut-linked food-system and poverty-reduction interventions, through an NRM and food-system strategy in poor coconut-growing communities in Côte d'Ivoire, Kenya, and Tanzania
CN-phase 1	Conservation	Science for Nature and people partnership (SNAPP)	developing	developing	ICC	10/06/2020	08/06/2020	200,00	Biodiversity conservation modeling to promote sustainable development in poor coconut-growing communities
bespoke	Phytopathology/ Germplasm Movement	CABI	developing	developing	ICC or CNRA Cote d'Ivoire	n/a	n/a	not specified	Biosecurity planning for ICGs
bespoke	Phytopathology/ Germplasm Movement	??	developing	developing	ICC or Cirad	n/a	n/a	not specified	Thermotherapy treatments to disinfect coconut germplasm
bespoke	ICC health & Nutrition	multi-donor (targetting GATES, DfID, Philippines, Indonesian Govts amongst others	developing	developing	ICC	n/a	n/a	300,00	Randomized Clinical Trial on the Use of Virgin Coconut Oil (VCO) and Monolaurin Taken Orally Against COVID-19
EOI phase 1	ICC health & Nutrition	Canada, IDRC	developing	developing	TARI/KALRI	26/06/2020	pending	230K-750K	Coconut can increase the capacity of food systems, particularly informal food systems, to be resilient to current and future pandemic shocks, while ensuring increased market competitiveness of/demand for healthy and sustainable food. Kenya, and Tanzania

Figure 7: COGENT_ICC proposals pipeline Jan-Jun 2020

Events calendar 2020-2022




INTERNATIONAL COCONUT COMMUNITY
1969


COGENT