CELEBRATING AGRICULTURE FOR DEVELOPMENT

Outcomes, impacts and the way ahead

The Crawford Fund 2022 ANNUAL CONFERENCE

Parliament House
Canberra ACT Australia
and online

15–16 August 2022

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PANEL

Nexus gains to the environment and sustainability

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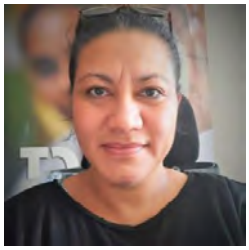
Chair: Dr Sandro Demaio

1 Land Resources Division, SPC, Centre for Pacific Crops and Trees (CePaCT)
2 Crawford Fund NSW Committee

Q: Chair

Following Dr Jean Balié's talk, we just want to finish off with a few questions.

Logo, Jean spoke comprehensively and passionately about the importance of diversification. One element of that is, of course, genetic conservation – your work. Could you explain a little bit about what you do and its role and importance in food and nutrition security in the Pacific?



A: Logotonu Waqainabete

I am very privileged to be looking after a very unique resource, the Pacific's regional gene bank, CePaCT (the Centre for Pacific Crops and Trees), that is hosted by the Pacific Community (SPC) and based in Suva, Fiji. We are not an international gene bank like the CGIAR centres, but we are an affiliated member through our collaboration with the Crop Trust and the International Plant Treaty and our key aim is to support the conservation, development and utilisation of the region's main plant genetic resources. Our crop mandate primarily focuses on plant genetic resources for food and agriculture. We also now incorporate forest trees, recognising the important contribution of these species to overall healthy ecosystems, linking to sustainable agriculture systems in the region. So, we now have a broad crop and tree mandate that we're dealing with. Of course, our ultimate aim, aligning to the aims of our organisation and our division that mainly looks after agriculture and forestry, is to contribute to improved food and nutrition security and resilience building.

Over the years, we have assembled around 56 crop and tree species where 66% of them originate from 16 countries in the Pacific region. We are still collecting, and still identifying and doing a lot of research with our members and also in partnerships with our universities and all other key stakeholders. That helps us not only to do research with a purely genetic focus, but also to look at systems approaches to make sure that the genetic resources that are in the gene bank are being rolled out for farmers to use, particularly in our member countries. It is a unique resource and, as I said, we have a lot of partnerships to make sure that the research that we do in the gene bank generates fit-for-purpose diversity that addresses the needs of the region around climate resilience and nutrition, which are very big issues that the region is facing, as Dr Audrey Aumua highlighted in the Sir John Crawford Memorial Address yesterday.

A quick example of the impact of research that we have been carrying out, with several partnerships and stakeholders, is the work that we do on taro. Our gene bank has the largest

collection of taro diversity globally. I am very happy to have met some of the key researchers that have had been pioneering this work over the last 20 years of the gene bank, and I am very grateful that myself and my team have inherited all this hard, hard work that has been going on in the past years.

The impact of the taro work is really shown in Samoa where, as you may have heard, there was a classic example of the taro leaf blight disease that wiped away a food security crop. For Samoa, taro is their number one staple (crop). It's also a main economic crop for Samoa although, of course, taro is also eaten and grown and in most other Pacific countries. I am Samoan, and I can vouch for the way people there had psychological stress when they didn't have taro to eat. This classic example and the research happened some 20 years ago. Fast forward to today, Samoa is once again planting, eating and exporting taro, simply because of the partnerships that were developed, the research that was carried out mostly in partnership with universities in Australia, and key funding support from DFAT and the partnership with ACIAR and other Australian universities like the University of Queensland. That really helped the research to develop new resistant taro breeding lines so that Samoa can grow taro again. That was a very successful program that I think is underestimated by many in our region. The success is not restricted to our region. We have also sent these taro breeding lines to Africa, the Caribbean, the Philippines and other Asian countries. And our colleagues in Ghana and Nigeria, where we send this material, tell us the lines are doing well and the farmers are picking them up. It is helping these countries manage taro leaf blight.

I think that is a good example of the research and the partnerships that we have developed and the investment that we have made.

Q: Chair

Thank you. That is an excellent example. To hear more, please speak to Logo during the break.

Anika, with your work in Australia and across the region, what are your one or two priorities that you think we need to have front of mind as we leave Canberra after this conference, in terms of getting the best outcomes for agriculture and the environment?

A: Anika Molesworth

I think for the large-scale transformative change which is required, which is being brought to light from these speakers, we need policies and strategies brought in line with the science, with the wealth of evidence which is being produced from scientists, from these people in the room. And for that we need more people to be educated, engaged and feel empowered. They need to be understanding what the research is showing, and how to utilise it, and to feel they too can do something with it.

I think that falls into the communications 'space': that is, how do we communicate science in a way where it's not just awareness but it's converted into activity, so that this information and evidence is applied practically on the ground? I think a challenge to set to the scientists in the room is: How can we connect scientists with artists, with people who can connect data to minds and hearts, so that we actually see change of mindset and behaviour?

Chair

That is a great call to action. Thank you, Anika.
We're going to have to stop here. Please give a big round of applause to these incredible experts. Thank you, Logo Waqainabete and Dr Anika Molesworth. There will be time in the break for you in the audience to ask more questions and to harvest more insights and wisdom.

Logotonu Meleisea Waqainabete, originally from Samoa, is responsible for the overall leadership and management of the Genetic Resources thematic area, including the renowned Pacific regional gene bank, CePaCT, of the Pacific Community (SPC). Prior to her current role, Logo was CePaCT's Assistant Curator for five years, later becoming Curator for six years. She has technical and management experience in gene banking and the conservation of ex-situ crop and tree collections of the Pacific. Prior to joining SPC, Logo worked in the Research and Quarantine Units of the Ministry of Agriculture, Samoa. Logo holds a Bachelor of Agriculture and a Post-Graduate Degree in Science (Biology) from the University of the South Pacific in both Samoa and Fiji. She is passionate about plants and their important contribution to meeting food requirements and healthy diets of Pacific people like herself. CePaCT and its genetic resources program is one of the four pillars of the Land Resources Division of SPC, and Logo hopes that through her pillar's work, people will continue to appreciate the value of science, technology and innovation to sustainable development.

Dr Anika Molesworth is a recognised thought-leader of agro-ecological systems resilience and international farming development. With a passion for rural communities and healthy ecosystems, she is committed to help create sustainable and vibrant rural landscapes now and for the future. She is a Founding Director of Farmers for Climate Action – a national network of over 5000 Australian farmers undertaking climate change action. In 2017, she presented at TEDxYouth@Sydney the talk "Farmers are key to a better future." She is also the author of the book, *Our Sunburnt Country*. Awards include 2015 Young Farmer of the Year, and 2017 Young Australian of the Year NSW Finalist.