

Newly Commissioned Molecular Lab to Address Testing Timeliness



Minister for Agriculture, Waterways and Environment - Hon. Dr. Mahendra Reddy (Left) SRO Plant Protection - Mr. Toloi Vasuidreketi and Head of Agriculture Research - Mr. Shalendra Prasad during the launch of the new Molecular Lab in Koronivia.

A state of the art molecular laboratory was officially commissioned on 14 July at the Ministry of Agriculture's Koronivia Research Station, Nausori.

Speaking at the commissioning of the molecular lab, Minister for Agriculture Hon. Dr. Mahendra Reddy said the vision to establish a new molecular laboratory for fast and accurate diagnosis of pest and disease pathogens had begun in 2018.

"This new lab will greatly assist Ministry researchers in conducting tests on plant pest and disease pathogen occurrence locally instead of sending samples for pest identification overseas."

"To date, all test samples in Fiji

has to be sent to either SPC or to Australia or New Zealand for verification. This is of course expensive and time-consuming. But now, with the opening of this new molecular lab, the Ministry can process up to 20 samples at a time, with results available in six to eight hours," said Minister Reddy.

"That is why, in recent years, we have been aggressively investing in our diagnosis facilities, acquiring new, state-of-the-art equipment and recruiting essential qualified workers. Thanks to the Research expertise for the initiative and Government for the funding support," he added.

Minister Reddy extended a special acknowledgement to the

Australian Centre for International Agricultural Research (ACIAR) for their close collaboration with The Pacific Community (SPC) and the Ministry of Agriculture for their impressive participation and professional assistance in seeing the establishment and completion of the new lab. "The Australian organization has continually provided support for Fiji agricultural research and capacity building yet once again provided great assistance in funding the training equipment that are currently installed in the lab that can be used to conduct online training such as molecular diagnosis or plant health clinic locally and regionally as well.

"With the installation of this new lab testing equipment, Fiji's Ministry of Agriculture will be well equipped with the latest technology to conduct molecular pest diagnosis and management in the country, keep our farm produce safe and healthy, sustain food security and local market consumption and continue with global campaign of exporting agricultural goods to overseas markets," he said.

The new molecular laboratory is designed to bring significant benefits for detection, identification, quantification and successful management of plant pest and diseases by farmers and important stakeholders now and into the future.

These benefits include a faster, reliable and more sensitive

alternative Molecular diagnostic methods to traditional immunoassays and culture techniques allowing for the detection of lower amounts of infectious agents and the ability to detect infections earlier than was previously possible.

Additionally, through the use of Polymerase Chain Reaction (PCR) which is particularly useful for the identification of fastidious pathogens; unknown pathogens including detection of known pathogens that require lengthy culturing and bioassay techniques; the detection of multiple and unrelated pathogens in a single PCR (multiplexing); and the identification of the components of mixed infections or disease complexes can be conducted here locally for a fraction of its earlier associated costs.

Currently, real-time PCR is considered gold standard method for detection of plant pathogens, as it allows high sensitivity and specificity in the detection of one or several pathogens in a single assay.

Through the new laboratory, molecular methods are no longer available only to specialized centers but will also play an important role in the diagnosis of common infections seen in ambulatory practice. It is especially practicable for the detection of pathogens that are difficult to cultivate, especially viruses that PCR has become the reference method for.

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IAEA Country Program Framework for Fiji Signed



PS Agriculture - Mr. Vinesh Kumar during the signing of the agreement between the Fijian Government and the International Atomic Energy Agency (IAEA) Country Program Framework in Raiwaqa HQ.

The International Atomic Energy Agency (IAEA) Country Program Framework (CPF) 2022-2027 was signed between the IAEA and the Fijian Government at the Ministry of Agriculture's conference room on Friday 08th July 2022.

The CPF was signed by the Director General of the IAEA Mr. Rafael Mariano Grossi and the Permanent Secretary for Agriculture Mr Vinesh Kumar, the signatory on behalf of the Fijian Government.

The main objective of this CPF is to support Fiji in achieving national priorities where nuclear science and technology have a comparative advantage over other technologies and can make a cost-effective and meaningful contribution.

Mr Grossi said the national development priorities that will be capitalized through this framework include Radiation Safety and Nuclear Security, Food and Agriculture, Health and Nutrition and Water and Environment.

"It's a confirmation on both sides on how well we are going to be working," said Mr. Grossi.

He added the program had been endorsed by the Technical Cooperation between the Republic of Fiji and the IAEA.

On 2nd November 2012, the Republic of Fiji acceded to the Statute of the International Atomic Energy Agency (IAEA) and became the 157th Member State. Since then, the

cooperation between Fiji and the IAEA has continued to play an important role in the development of nuclear science and technology in Fiji.

The CPF document is aligned to the 2018 – 2022 United Nations Pacific Strategy which IAEA is a party to, the UN Sustainable Development Goals 5 and 20-year National Development Plans, the Fijian Ministry of Agriculture's 5-year Strategic Development Plan (2019 – 2023) and the Ministry of Health and Medical Services Strategic Development Plan 2020 – 2025.

In his response, Mr Kumar said that this was indeed a milestone for Fiji as it constitutes the structure for the provision of Technical Cooperation between the Republic of Fiji and the IAEA for the next 5 years from 2022 – 2027.

"The Country Program Framework was formulated after in-depth consultation took place between IAEA, competent authorities and all relevant stakeholders in Fiji, on the role of nuclear science and technology in supporting socio-economic development objectives," said Mr Kumar.

Mr Kumar said the agreement would ensure that relevant designations benefited through applicable capacity-building programs, networking, and knowledge sharing, following which Fiji would further develop partnerships at the regional and sub-regional levels.

"Government is committed to strengthening regulatory and radiation safety and providing nuclear securities infrastructures that ensure safe and secure utilization of nuclear science and technologies and today's signing demonstrates shared interest and responsibilities towards our people, the environment and their wellbeing to ensure that no one is left behind," said Mr Kumar.



(4th from left) The Director General of the IAEA Mr. Rafael Mariano Grossi and the Permanent Secretary for Agriculture Mr. Vinesh Kumar, with Senior Officials and IAEA representative after the signing.



New Policy to Support Rural Youth Farming



PS Agriculture - Mr. Vinesh Kumar (middle) with MoA Officials and other Senior Representatives from line agencies during the workshop on Youth in Agriculture.

The Ministry of Agriculture in collaboration with the Food and Agriculture Organization of the United Nations (FAO) and in partnership with line agencies have drafted a Youth in Agriculture Analysis Report which will become the basis of the Youth in Agriculture Policy.

The Policy's intent is to support rural youth farming and promote their empowerment through participation in the economy, governance and decision making.

This is inclusive of the Ministry of Agriculture's 5-year Strategic Development Plan's vision of developing a Sustainable Competitive and Resilient agriculture sector and that is to prepare and promote young people to transition into and develop a lifelong career in the sector.

The Fiji Youth in Agriculture report is based on an in-depth analysis of the data collected

from the 2020 Fiji Agriculture Census which recorded that one-third of members of the total farming households are Youth and 5 percent of those youth are women.

The Permanent Secretary for Agriculture Dr. Vinesh Kumar during the Youth in Agriculture Policy consultation with key stakeholders said it was vital that an environment that actively promotes young people in agriculture is created.

"Globally, the average age of farmers has grown to over 60 years old, as young people leave the rural economy for the cities, here in Fiji, we are blessed with a relatively young population, large areas of arable land, fertile soils and mostly good rainfall," he said.

"Our nation needs hardworking and creative young energy to transform this natural bounty into a mature, stable production system that

addresses immediate food security needs and strengthens our rural livelihoods, nutrition and ultimately, our economy," said Dr Kumar.

He said it was the Ministry's and stakeholders' responsibility now to support young farmers and prepare them through a favourable policy environment.

"Agriculture and productive rural livelihoods moreover can contribute significantly to mitigating the risks associated with urban migration, unemployment, criminality, substance abuse and other anti-social activities involving youths.

"Young people represent the future, the energy and dynamism of the agriculture sector, they will become the primary producers our nation needs to continue to feed Fiji," he said.



DRM Specialists Mr. Phillip Brewster presenting during the Youth in Agriculture Policy Report drafting.



Minister Reddy Opens Regional Meeting of POETCom and Organic Stakeholders



Minister for Agriculture, Waterways and Environment - Hon. Dr. Mahendra Reddy is flanked by Senior Representatives from SPC, Pacific Island Forum Secretariats, Australian Department of Foreign Affairs and Trade and MoA Officials during the regional meeting at Tanoa International Hotel.

A week-long regional meeting of the Pacific Organic and Ethical Trade Community (POETCom) and organic stakeholders was officially opened by the Minister for Agriculture Hon. Dr. Mahendra Reddy at the Tanoa International Hotel in Nadi on 4 July.

The regional meeting is one of the first gatherings on organic agriculture as post-COVID travel restrictions are lifted, creating a unique opportunity for organic-minded stakeholders to collaborate under support from the European Development Fund 11, the Kiwa initiative, the Australian Department of Foreign Affairs and Trade and the Pacific Islands Forum Secretariat.

In his address, Minister Reddy expressly stressed the need for increased support from development partners and donor agencies to advance the shift towards more organic agricultural practices undertaken in the Pacific region.

“This platform is important, because it allows us to work together and share innovative ideas and solutions that ensures achievement of sustainable and healthy food systems.

“In 2020, an organic taskforce was established to finalize the National Organic Policy for Fiji and I would like to acknowledge POETCOM (Pacific Organic & Ethical Trade Community) which has been instrumental in supporting development of Fiji’s first National Organic Policy as well as Fiji Organic brand that was launched in 2018 to guide and set standards for Fiji and the Pacific,” he said.

“Currently there are a total of 220,000 hectares of certified organic land in nine Pacific Island countries whereby 17% is located in Fiji,” Minister Reddy highlighted.

“We need support and funding to fast track and boost our efforts of distributing organic manure to our farmers bearing in mind the geographical space that we need to bridge in order to reach these farmers and create awareness to them on the need to shift towards organic and sustainable farming practices,” he said.

“I wish to seek your assistance in leveraging financial resources so that we can expand organic manure production and supply it to farmers for free so that we can wean them out from using inorganic fertilizer progressively over the next decade, it’s a dream to declare most of our islands organic and we need to dream big in order to deliver,” Hon. Reddy reiterated.

While also reflecting on the economic effect of organic farming practices, Hon. Reddy said that for small countries like Fiji and the Pacific, that operate off of small production bases, differentiating its products as organic in the export market would allow these countries to fetch premium prices as well as stake claim in the organic market for their produce.

Meanwhile, POETCom Chair and Foundation for Rural Integrated Enterprises & Development Director and Founder Sashi Kiran shared the benefits of organic approaches in the Pacific as a whole which had a positive rippling effect on the ecosystem.

“Many peer reviewed scientific research has proven the benefits of organics – from Food Safety, Biodiversity, soil health, ocean health and of course human health. Organics in the Pacific provide an opportunity for eco-tourism as many travellers choose to travel to places where there is clean food and a sustainable environment available,” said Ms. Kiran.

Pacific Community (SPC) LRD Director and IFOAM - Organics International President Karen Mapusua at the opening of the POETCom Regional meeting shared; “This standard (Pacific Organic Standard) is unique, it reflects us as the Pacific, it is rooted in our agroecological conditions, farming practices and the reality of agriculture in the Pacific. As with all organic standards, it is a work in progress, they are not static and 10 years down the track with the POS being used in different Pacific contexts it was time to refresh elements and further develop guidance for its implementation, while importantly ensuring that its Pacific regional relevancy is maintained.”

Organic agriculture is key to Pacific Island Countries and Territories commitment towards building a pathway to sustainable development and can contribute to substantially mitigating global warming impacts. During the gathering, farmers and key stakeholders will have the opportunity to exchange experience and best practices on organic agriculture and build on the demand for reduced inputs, closed nutrient cycles and fertile soils.

The meeting aimed to address the findings of the European Union-supported EU Protégé Review of:

- a. The POETCom Governance and how the Network of organic farmers with some 57 members in 17 Pacific Island Countries and Territories – will do its work for the next 10 years;
- b. Review of the Pacific Organic Guarantee System – on how the Pacific’s own Regional Organic Standard (POS) - 3rd Global Regional Standard - is used, managed and maintains its integrity;
- c. Review of the current Guidelines for the use of the Pacific Organic Standard. “



KOICA Fiji Conducts Training on Capacity Building for Supporting Low-Emission Development Strategy and Climate Action Plan in Fiji



PS Agriculture - Mr. Vinesh Kumar (middle) is flanked by the Deputy Director of KOICA Fiji Office - Ms. Bang with reps from Ministry of Commerce, Trade, Tourism and Transport, Ministry of Agriculture, Ministry of Fisheries, Ministry of Infrastructure & Meteorological Services, and two municipal councils of Suva and Lautoka City.

The Korea International Cooperation Agency (KOICA Fiji Office) launched an online training programme on capacity building for supporting low emission development strategy and climate action plan in Fiji in collaboration with Korea Environment Institute (KEI) at the Grand Pacific Hotel in Suva on 26 July.

A total of nineteen (19) trainees participated from the respective ministries which include the Ministry of Commerce, Trade, Tourism and Transport (MCTTT), the Ministry of Agriculture, the Ministry of Fisheries, the Ministry of Infrastructure & Meteorological Services, and the two municipal councils of Suva and Lautoka City.

The 9-day online training program aimed to better understand global trends on low-carbon development and climate response plans in line with international development cooperation and also share knowledge regarding strategic planning, policy development and implementation based on the Republic of Korea's practices and experiences in low-carbon development and climate response planning.

While launching the online programme, the Deputy Director of KOICA Fiji Office (Ms. Bang) highlighted that the Korean government had been offering both short training opportunities and Master's Degree scholarships to Fijian government officials yearly. To date, almost

300 Government officials have been to Korea to attend training programmes, among which 32 are Master's Degree scholarship recipients. She further added that the Korean government was gratified to provide such training programs adding that this would ultimately contribute to the upskilling of government officials.

Ms Bang further stated that KOICA was committed to supporting the Sustainable Development Goals in the Pacific Region and across the globe.

The Permanent Secretary for Agriculture Vinesh Kumar, while delivering his remarks, congratulated the KOICA Fellowship program stewards for the insight and investment in getting senior government officials attend a contextualized capacity building program that would ensure carbon emission reduction in Fiji, provide a resilient agriculture sector adaptation plan that mitigates climate change and ensured a smart, green and safe Fiji now and into the future.

"The Capacity Building program for supporting low emission development strategy and climate action plan in Fiji is a three-year KOICA Fellowship program that aims to promote socio-economic development of partners through organizational capacity development," said Mr. Kumar

"This year, both the Fiji Government in

collaboration with KOICA have made a commitment to the provision of a proactive environment research that can contribute to national and global environment sustainability."

He said Fiji had an on-going program with KOICA to reduce carbon emissions and increase renewable energy and one of the KOICA Projects that the Ministry of Agriculture assisted with was the Ovalau Agro-Photovoltaic Project.

"The project also supports access of food and nutrition to Ovalau, increases farmer household income for sustainable livelihoods, increases adoption of sustainable resource management and climate smart agriculture, establishes improved commercial agriculture for the people of Ovalau and most of all increases renewables.

"The Government through the Ministry of Agriculture is looking forward to the outcome of this fellowship program and the development of the Low Emission Development Strategy National Plan of Action," said Mr. Kumar.

KOICA Fiji office will organize a similar online training program in September and November respectively to support capacity building for Fijian government officials allied to KOICA's three (3) fundamental areas which are; climate change, health and well-being and digitalization.

New Set of Improved Breeding Bucks Released



Minister for Agriculture, Waterways and Environment Hon. Dr Mahendra Reddy (second from left) holding the new improved breeding bucks.

Improving the genetic makeup of livestock in the country remains a priority for the Ministry of Agriculture to help ease the import bill of meat products.

As part of the long-standing efforts of the Ministry in this regard, another set of improved genetic stock (breeding bucks) was released by the Ministry's Sigatoka Research Station at its Yasiyasi Goat Farm along Nasau Road, Nacocolevu on 8 July.

While officiating at the event, Minister for Agriculture, Waterways and Environment Hon. Dr Mahendra Reddy reiterated the stance taken by the Ministry in introducing improved genetic materials to bolster the stock available amongst local livestock farms, in this instance, goat farms.

A common occurrence and issue brought up by livestock farmers around the country was the decreasing size of animals that were reared by farmers, with Minister Reddy highlighting that this issue of decreasing animal size would be addressed by introducing improved genetics.

"The issue of decreasing livestock sizes and their shrinking size is primarily because there is a lot of inbreeding occurring, we are not providing new genetic material and farmers are not able to, for different reasons, bring in new genetic material, new breeders and therefore there is a lot of in-breeding and due to this continued in-breeding among our livestock, this is what is to be expected."

"The carcass size of animals are shrinking and we've noted this and it is for this reason that we will continue to work to improve the genetics at our local goat farms and sheep

farms as well," he said. "From last year, we've been giving out breeder sheep and breeder goats, our F1 so we can deal with this issue. I want to congratulate these farmers who have been selected, there are hundreds of farmers who are asking us to provide breeders but we can only do this progressively and I've told the staff clearly that those farmers who have received breeders already won't receive any more breeders but instead we can help them to exchange breeders with each other, at our cost, the Ministry will bear the transportation cost of exchanging breeder bucks so that we can keep the genetic material intact.

In retrospect, Hon. Reddy highlighted that annually, Fiji continued to spend approximately \$48million on the importation of lamb meat and to address this trade deficit, enhancing the goat development programmes under the Ministry of Agriculture, as goat meat was a close substitute to lamb meat, this would entail we had more control over the country's protein meat requirements as opposed to continued reliance on imported meat products.

Twelve cross goat breeds were released yesterday to identified goat livestock farmers from the Western Division at a discounted price to help them develop their respective goat farms. These farmers paid 20% less than the base market rate of \$10.00, allowing farmers to pay only \$8.00(VEP) per kg for live weight based on the notion that had farmers received these improved breeder bucks at no cost to them, there would be no sense of ownership by the farmers which would lead to an abuse of public-funded assistance.

Meanwhile, goat farmer Ms Roshni Lata of Raviravi in Ba said she looked forward to

seeing the results the new breeder buck would bear on her farm. "I am thankful to have been chosen to receive the improved breeders because I have more than 100 goats, and the breeder I bought last year was not performing so I thought it may be because my current breeder cannot keep up with the does so I am thankful that I receive this boer to help increase my stock holding," said Ms Lata.

As for Mr Daniel Avinesh Nandan of Tavarau, Ba who has a total stock of close to 100 goats and sheep, the released boer goats would benefit his livestock holding in the long run.

"It is a good opportunity to get the breeder and for me to expand my goat farms, I want the breeder because my farm is very big and I want to grow my goat farm because, in the long run, I know that I will benefit from the good genetics of the goat because I sell at the market price of \$10/kg and it is going good, this will surely make a difference in my production levels," said Mr Nandan.

Additionally, the release of these genetically improved bucks will assist in improving the bloodline of existing ones on the farm thus improving the production and productivity of farms. The F1 Breed, which is a cross between Boer and Anglo Nubian breeds was released to the farmers, and after one year of mating, other identified farms will receive these breeds as an exchange programme will be implemented to counter the issue of inbreeding by transporting the pure breeders to another farm to improve the genetic material at those other farms, otherwise, the exercise of releasing these improved genetic stock via these breeder bucks would be futile.



Central Division Awards Hardworking Staff



PS Agriculture - Mr. Vinesh Kumar is flanked by Regional Manager Central - Mr. Mohammed Kadir Khan and staff of the Central Division that serve under the Crop Extension Services

After a lapse of 14 years, staff of the Crop Extension Central Division were recognized for their hard work, dedication and perseverance for their services to the farmers of the Central Division.

The Permanent Secretary for Agriculture while officiating at the awards ceremony, acknowledged the immense contribution by staff in the operation and assistance provided to farmers in the highest agriculture producing areas of Fiji (Naitasiri, Tailevu, Rewa, Serua and Namosi) and being instrumental during the height of the COVID-19 lock-down with the untiring services provided to farmers.

The PSA encouraged staff to keep giving their best in the different respective areas of their work in the uplifting of the agriculture sector in the central division.

Mr. Kumar further emphasized on the need to maintain good governance in the division and also to take ownership of government resources that are issued to staff to foster quality service delivery and produce the expected output.

“We are here as a family and all of your contribution is paramount in achieving the Ministry’s Vision and Goals,” said Mr. Kumar.

This awards day rolled in after the two days 4th quarter meeting of the division.

There were 13 awards on offer and were structured based on certain criteria set out by the Management. Below were the list of awards and awardees:

1. Best Technical Staff (Rewa Province)
Luisa Marama

2. Best Technical Staff (Tailevu Province)
Walosi Naiduki
3. Best Technical Staff (Naitasiri Province)
Jotame Naureure
4. Best Technical Staff (Serua/Namosi Province)
Salesh Vikash
5. Best Performing Province - **Rewa**
6. Most Progressive Staff in the Rewa Province - **Mereoni Kunatuba**
7. Most Progressive Staff in the Tailevu Province - **Safiya Raqoli**
8. Most Progressive Staff in the Naitasiri Province - **Ilaisa Gonebure**
9. Most Progressive Staff in the Serua/Namosi Province - **Asenaca Tivitivi**
10. Best Admin/Accounts Staff - **Lavenia Radovu**
11. Most Progressive Staff in the Rewa Province - **Ateca Waqanidrola**
12. Best Administrator - **Esava Tuimoala**
13. Overall Best - **Yogesh Raj**



Clicks from the Central Division Awards Day at Lakena

July Appointment



Ana Daumeke Ratuva
Messenger/Cleaner
(Registry) Headquarters,
HRD&S



Sowinden Tekairaba
Agricultural Assistant
(Vutia/Rewa) Lakena,
Crop Extension



Yogeeta Ram
Agricultural Assistant
(Mid Valley - Dubalevu) Western,
Extension



Areka Vakaravia Salabogi
Agricultural Assistant
(Rakiraki - Nanukuloa) Ra,
Crop Extension



Ane Moua Mataitoga
Research Officer (Plant Pathology - Entomology) Koronivia Research Station,
Crop Research



Shilvendra Shavnit Ram
Senior Technical Assistant
(Plant Pathology-Entomology) KRS,
Crop Research



Mereani Daimani
Clerical Officer (Lawaqa) Western,
Crop Extension



Shymal Saved Raj
Agricultural Assistant (Keyasi)
Western,
Crop Extension



Cakaudrove staff conducts 4th quarter meeting



PHOTO GALLERY



Bua Agriculture Staff during their 4th qtr meeting in Nabouwalu



A group photo of Central Extension Staff with Regional Manager Central after their day 1 4th quarter meeting in Dada Station



RM Central - Mr Mohammed Kadir with Mechanization team from Lakena Station during the Lakena field operation



Research staff during a group photo in Koronivia



MoA staff during a Health Screening at Raiwaqa HQ.



Biosecurity NZ, DAFF Australia and ACDP visit to vet lab.



Animal Health and Production staff during a meeting in Vatuwaqa



Ra Agriculture Staff during a group photo in Rakiraki Office