



Nius

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26 YEARS
of Dedicated
Agricultural Research for
Sustainable Development

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Welcome to the 6th edition of NARI Nius for 2023. If you have any comments or contributions please drop us a line at:
naripng@nari.gov.pg for an e-copy

Christmas Message: Director General Dr Nelson Simbiken

We are approaching another Festive Season and 2023 will pass by in the next few days.

On this occasion, I wish to extend our very best wishes and appreciation to all our stakeholders, including the many farmers and farmer groups we have worked with during the course of this year.

There has been considerable progress this year and these include:

- Launch of NARI's Corporate Plan for the next 10 years
- Successful hosting of the 12th annual Agricultural Innovations Show on October 18 after a 3-year lapse.
- Preparation for the roll out plant health program in PNG in collaboration CABI in 2024
- Development of new projects including the National Cadetship programme to start in 2024
- Appointment of Director General since it became vacant in 2019

These achievements could not have been possible without the support and commitment of the Government of PNG, Australian Department of Foreign Affairs and Trade (ACIAR), stakeholders, partners, and staff across all Centres.

We highly appreciate and treasure your commitments and contributions.

We look forward to another good year in 2024 with your continued support and proactive contributions.

On behalf of the Institute Council and Executive Management, I convey my season's greetings and best wishes to all staff, your families, partners, and friends, a Merry Christmas and Happy New Year 2024!



Dr Simbiken thanks staff

Director General Dr Nelson Simbiken sincerely thanked staff during NARI's staff Christmas function saying without the hard work and commitment, NARI would not have achieved its success within the sector. Dr Simbiken also acknowledged support by other stakeholders.

He also announced that the institute will develop a business subsidiary; NARI Enterprise Limited to support and market its technologies and venture into export driven initiatives which include taro and find ways to grow and develop the SME sector.

Staff were encouraged to practice values such as leadership, communication, integrity, organisational excellence and being innovative

Senior management representative Dr Birte Komolong made this remarks saying it was up to each individual staff to take on the responsibility to make their work better.

MRC Bubia Team Leader Dr Michael Dom expressed that although he has a young team of researchers, they have performed to their best during the year.

Dr Dom says he encourages them during staff seminars and believes they can be able to deliver and improve on challenges they have experienced.

" We have a very young team that is full of energy and can do the work," expressed Dr Dom.

MRC Ancillary representative Philip Lali thanked all staff for showing their support and hopes to see the same working spirit in the new year.

Headquarter Ancillary representative Bongji Masu expressed that a lot of good work can be achieved if everyone works together.



Director General Dr Nelson Simbiken cutting the Christmas cake.



Team Leader MRC Bubia Dr Michael Dom.



MRC Ancillary representative Philip Lali



Program Director Dr Birte Komolong.



Headquarter Ancillary representative Philip Lali

NARI to revive cadetship program in 2024



Some of the first batch of cadets when the Cadetship Program started in 2000. Picture: file photo



Chesly Kobua, one of the cadets for 2016 batch.

NARI will revive the cadetship program in 2024. Since the program started in 2000, about 47 cadets have benefited from the program.

Some of the cadets have advanced in achieving their Masters and Doctoral Degree while others have moved on to other organisations.

The objective of the cadetship program is to promote and harness cadet talents and shift their paradigm toward agricultural research, develop their technical, leadership, management skills, knowledge and general competencies.

Team completes pretesting of weather information

The pretesting of the Seasonal Farm Advisory under the ACIAR supported Climate Smart Agriculture has concluded in Eastern Highlands, one of the three project sites. The other sites are East New Britain and Morobe.

The Seasonal Farm Advisory is a document which contains monthly climate-related information on drought and best management practices for the lowlands, and mid-altitude.

This information was pretested with sector agencies including the Eastern Highlands Provincial DAL, CIC, and Fresh Produce Development Agency

As part of the project's activity plan, the pretesting of the SFA ended in late November.

Other information products under the project that is being developed include fact sheets and farmer video on the use of local knowledge and improved farm management practices.

This collaboration in the project involves NARI and the University of Goroka's Centre for Social and Creative Media through the support of ACIAR and other project partners to find meaningful ways to improve resilience of communities in agricultural food production.



UoG Farm Manager Heriso Gehekave



CIC Agronomist Bartholomew Apis (*left*) in front of the CIC office in Aiyura, Eastern Highlands.

Officers thankful after training in Thailand and Fiji

Two female officers are thankful that they have attended short term training in Thailand and Fiji.

Ms Janiella Aidaboe is pleased after attending a two-day workshop on Tissue Culture Quality Seed Management System in Thailand in late 2023.

Ms Janiella Aidaboe was among 19 participants from Bangladesh, India, Sri Lanka, Taiwan, Cambodia, Thailand, Philippines, Lao, Nepal, Fiji, Samoa, Iran, Malaysia, New Caledonia, Vietnam and Federated States of Micronesia.

Tissue culture is a technology that is not fully utilized due to many challenges however; Quality Seed Management System is one way to address quality seed management to ensure there are healthy planting materials for research and commercial purposes.

Ms Aidaboe explains that the workshop in Thailand will contribute immensely towards establishing an effective TCQMS that can benefit the respective areas of NARI's Strategic Implementation Plan such as Biosecurity and Plant Genetic Resources.

Research Associate– Plant Genetic Resources Ms Cecily Walter says it was a good learning opportunity mainly for crops that are vegetatively grown and hold a lot of water unlike seeds.

Ms Walter, Lawrence Uberewa and Alex Galus was able to participate for a two-week training on mutation breeding which is recently introduced in the Pacific especially where sweetpotato is exposed to radiation. The same process will also be applied to sweetpotato in Papua New Guinea.

“ There is so much to explore and improve our genetic resources,” expressed Ms Walter.



Cecily Walters (*left*) and Lawrence Uberewa during the training.



Miss Janiella Aidaboe carrying out laboratory test at the Momase Regional Centre, Bubia in Lae, Morobe province.

Proper records is vital for sweetpotato conservation

NARI is keeping proper records of sweetpotato cultivars. Farmers received planting materials through the On-Farm Sweetpotato Conservation project supported by the International Treaty on Plant Genetic Resources for Food and Agriculture with FAO. Rigwali Village in Central province is piloting this concept after hosting field days on sweetpotato conservation work that was facilitated by the Southern Regional Centre.



The Sweetpotato Conservation concept being trialled in Central province.

This is the first of such events using the Family Farm Teams approach to promote the idea of appointing

genetic resource committees and

identified custodian farmers who attended. An open invitation was extended to interested members of

the public. About 20 cultivars were distributed through participatory research with farming households.

To strengthen the Custodian Farmer concept, a cultivar is assigned to a farmer to conserve. This concept is not new, as it has been practiced traditionally, and keeping proper records and managing huge numbers in communities is essential in research.

A billboard will be erected at Rigwali as the model village to mark the many years of work to sustain sweetpotato conservation through the Custodian Farmer concept.

For more information, you can get in touch with the Project Leader Jeffrey Waki at jeffrey.waki@nari.gov.pg or Janet Paofa at janet.paofa@nari.gov.pg.

"Science and technology coupled with improved human capital have been powerful drivers of positive change in the performance and evolution of smallholder systems."



FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

CropLife
INTERNATIONAL

Agreement signed for new information building

A multipurpose shed will be built in 2024, following the signing of the formal agreement between NARI and Sasoriap Maintenance & Building Contractors Limited on November 24.

Phase one of the multipurpose shed has started in early December.

The construction of the multipurpose shed was made possible through the Public Investment Program infrastructure grant of over K400, 000.

The multipurpose shed will include an area for preparation, dry processing, field laboratory, office spaces, a workshop and storage area.

Signing of the contract agreement between NARI and Sasoriap Maintenance & Building Contractors Limited to build a multipurpose shed took place at the NARI Headquarters.

The multipurpose shed project is set to be completed by April this year.



Signing of the contract agreement by Director General Dr Nelson Simbiken (left) and Managing Director Naka Songake and Richard Songake of Sasoriap Maintenance & Building Contractors Limited.



Phase 1 construction of the multipurpose shed.

Students undergo industrial training

Ten students from the University of Papua New Guinea and Technology will undergo eight to ten weeks of training as part of NARI's support towards capacity building at the Kilakila Chemistry Laboratory in Port Moresby.

Most of the students are taking up year three chemistry and applied chemistry except one final year student from UPNG. Out of the ten students, eight are from UPNG and two from UNITECH.

Two students taking up year three in sustainable tropical agriculture-rural technology from UNRE's Oro Campus are also undergoing training at the Momase Regional Centre in Lae.

Silister Kuniata and Kurttey Niali started their training in mid December with the crops and livestock program.

Ms Kuniata and Mr Niali expressed that being involved in the practical activities is an eye-opener with so much learning apart from theory. They will spend three months of training with the aid of the technical staff of MRC before they return to complete their final year of study.



One of the training students doing the Phosphorus Test on the Upward Vertical Velocity (UVV) instrument.



Ms Cecily Walter and Lawrence Uberewa

MRC Bubia hosts seminar to end 2023

The Momase Regional Centre in Lae hosted a day's seminar to reflect on its performance for this year with presentations by its scientific, and administration team.

This is the first of such seminars where other regional centres in Tambul, Aiyura and Kerevat joined in via zoom to listen, learn and provide constructive feedback on projects, challenges, finding possible solutions and paving a way forward to improve and deliver on the institute's aspirations and objectives.

Presentations ranged from building agri-food systems that are resilient to climate change; science involved in producing food and feed using husbandry practices to postharvest; technologies for adaptation and adoption and administrative process that supports research and development activities.

MRC Bubia Team Leader Dr Michael Dom acknowledged effort shown by a very young team of researchers involved in crops and livestock saying more can be achieved through reading, researching and writing.

A few members of the ACIAR Alumni were also invited to listen in to presentations and interacted during the presentations.

The Taiwan Technical Mission team also made presentations on rice work done in Rigo, Central and in Morobe, mainly with a farmer group from Ziampir in Markham district.

The MRC Bubia team plans on conducting similar seminars in the new working year to share information, ideas and provide constructive feedback to improve.



Research Associate-Crop Improvement Lawrence Uberewa presenting on progressive work on screen house drought study for sweetpotato.



Staff and invited guests listening to seminar presentations.



Administration Officer Miriam Tama making a presentation on following proper financial procedures.



Seminar participants attentively listening to a presentation on poultry breeding stock and hatchery.



MRC Centre Manager James Maima stressing on some challenges and highlights of 2023.

Staff share their experience after study/training

Building the capacity of staff through overseas study and training is a key area where NARI is able to strengthen and contribute meaningfully to the development of the agriculture sector through research in Papua New Guinea.

Two officers recently returned after completing overseas studies.

Maima Sine completed his Master of Science from the University of Melbourne, Australia in mid December, 2023.

Mr Maima expressed that his study has brought a new set of skills and knowledge that will greatly improve and enhance his work as a livestock scientist.

Yapo Jeffrey completed his Master of Science program at the National Pintung University in Taiwan.

Mr Jeffrey's study was on soil nutrient management which expanded to diverse agricultural practices and soil management techniques.

"This international exposure will enable me to understand a global perspective on sustainable agriculture and implement innovative approaches with NARI. The exchange of ideas with experts and students from other countries enriched my knowledge and contribute to effective soil management strategies," explained Mr Jeffrey.

Cecily Walter, Lawrence Uberewa and Alex Galus also attending a training on mutation breeding Fiji.

Ms Walter expressed that it was a great learning experience for the team saying mutation breeding is a very new concept in the Pacific where crops are grown vegetatively.

The PNG sweetpotato is going through a similar process. There is so much to explore, and improve our plant genetic resources. Ms Walter was accompanied by a colleagues Lawrence Uberewa, and Alex Galus.

"Two weeks of training provided an opportunity additional skills in mutation breeding through 15 lectures and about 20 practical sessions," expressed Ms Walter. Ms Walter, Mr Uberewa and Mr Galus are looking forward to sharing the skills and knowledge gained from the training in Fiji.



Maima Sine. Photo by Maima Sine



Yapo Jeffrey, study advisor and committee members at the National Pintung University, Taiwan, after his oral defence for his thesis.

Parts of Eastern Highlands experiencing dry period

Bena and parts of Asaro Valley in Eastern Highlands are currently experiencing early dry conditions.

This was made known by farmers in a recent meeting with project staff from NARI and Goroka University's Centre for Social and Creative Media under the ACIAR supported Climate Smart Agriculture project working on video documenting indigenous knowledge and how they are able to mitigate climate change.

Some bulb onion farmers of Bena have resorted to planting cassava and Chinese Taro because water sources are drying up and carrying water to their bulb onion farms is very challenging.

Terry Conny who is managing Daulo Fresh Produce Limited in Asaro expressed that they are experiencing dry conditions.

Mr Conny is thankful to the project staff for visiting his farm and shared some challenges they are going through mainly with weather related conditions.

He expressed that they have natural water sources like creeks and rivers but needs some technical support to set up an irrigation system to their farms and other useful skills or technical support during natural disasters such as drought and frost.

A formal request for planting materials has been made on behalf of the farmers in Asaro to seek support from the Highlands Regional Centre in Aiyura.

Mr Conny says Asaro is experiencing early signs of dry period and will seek assistance like planting materials for crops such as cassava and Chinese Taro that can survive dry conditions and for food security.



Part of the Asaro Valley in Eastern Highlands.



Terry Conny (second from right) with members of the Mando Community in Asaro, Daulo District standing in front of the community training centre which was supported by Goroka Agribusiness Training Institute.

**Agriculture is a
fundamental source of
national prosperity.
- J. J. MAPES**

Laboratory Service Enquiries

The Professor John Kola Chemistry Laboratory is a national chemical testing laboratory that has been operating for over 30 years.

The laboratory offers a wide range of analytical and diagnostic testing services.

The laboratory is accredited to ISO/IEC 17025 which is a general requirement set by the International Organisation for Standardization (ISO) and International Electrotechnical Commission (IEC) for the competence in testing laboratories.

It certifies a laboratory as an Accredited Chemical Testing Laboratory under the ISO/IEC 17025:2005 Guidelines.

Prof John Kola Chemistry can perform chemical testing and all methods used are recommended by American Public Health Association (water), Australasia Soil and Plant Analysis Council (soil and plant), Association of Official Analytical Chemist (food and natural products).

Contact details

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Carrying out nitrogen test.



Carrying out food testing on fat extractor equipment

Guesthouse Enquiries



Hill Top Guesthouse

Aiyura, Eastern Highlands

Phone: 7969 5466 between 8am to 5pm

Contact person: Tamo Tarra

Email: tamo.tarra@nari.gov.pg

Gadi Ling Guesthouse

Kerevat, Rabaul, East New Britain

Contact person: Daisy Besari

Phone: 983 9145 or 983 9200

Email: daisy.besari@nari.gov.pg

Western Pacific Guesthouse

Contact persons

Jill Kavi

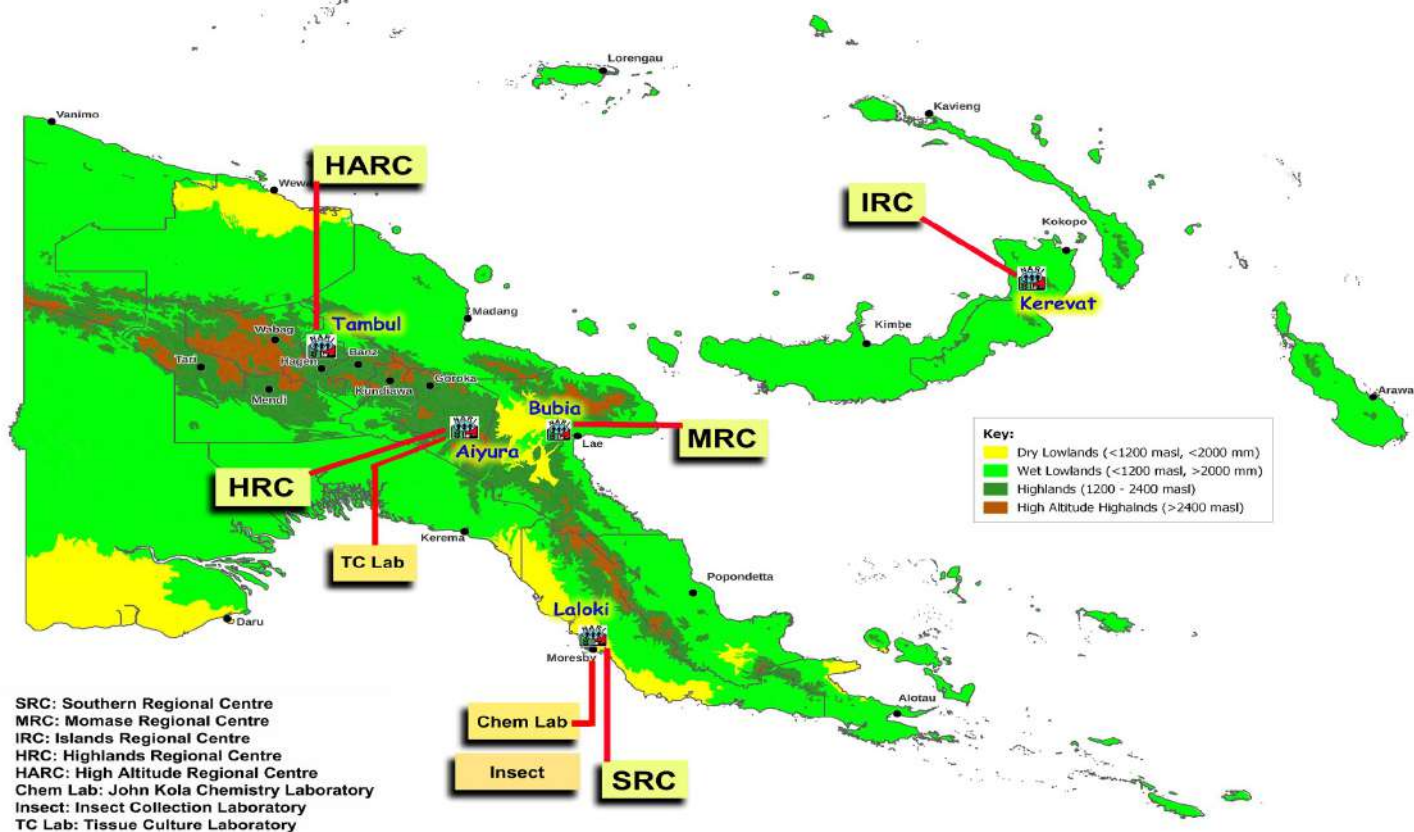
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The National Agricultural Research Institute (NARI) was established by an Act of National Parliament of Papua New Guinea (PNG) in July 1996 as a public funded, statutory research organisation, to conduct and foster applied and adaptive research into:

- any branch of biological, physical and natural sciences related to agriculture;
- cultural and socioeconomic aspects of the agricultural sector, especially of the smallholder agriculture; and
- matters relating to rural development. and of relevance to Papua New Guinea.