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We're on the web

www.nari.org.pg



More party photos

The occasion was an opportunity for staff to discuss and plan activities and eat together



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Nius

14 Years
of Dedicated
Agricultural Research
for Sustainable
Development

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Improved rural advisory services vital

Smallholder agriculture and family farming is the core contributor to agricultural production in most developing countries, including PNG, contributing to achieving food and nutritional security. To help these smallholders improve their farming practices; a coalition of public, private and civil society actors at national, regional and international levels is needed to revitalise and strengthen agricultural extension and advisory systems. This was the challenge put forward by more than 400 participants who attended the international extension conference on *Innovations in extension and advisory services: Linking knowledge to policy and action for food and livelihoods*.



A resource centre in the Jimi District of Jiwaka Province. Such models can be tested to improve rural advisory and extension services in PNG - Photo: NARI Drought Project

The conference held in Nairobi, Kenya, from 15 to 18 November 2011, was aimed at taking stock of current policies, thinking and practice, successes and failures of ongoing and past reforms in extension and advisory services and develop a coalition to address the needs of smallholder farmers, in particular women and youth, in a sustainable and cost effective manner. The conference covered four cross-cutting themes of Policy, Capacity Development, Tools and Approaches and Learning Networks.

Farmers, extension professionals, policy-makers, researchers, academics, representa-

tives of the private sector and the media from over 70 countries participated at this event. The Pacific region was well represented with representatives from a number of key organisations to voice the concerns of Pacific Island countries and territories.

Rural advisory services are increasingly recognised by many rural development actors as an essential vehicle to ensure that research, development of farmer organisations, improved inputs, and other elements of rural development support actually meet farmers' and other rural actors' needs and demands.

cultural innovations through improved crops and farming systems, much of the developing world still faces challenges in food and nutrition security, non-sustainable agricultural practices, poor access to markets, and a falling contribution of agriculture to national GDP. Rural farming communities have not really benefited from advances in agricultural technology. The diminishing national extension and advisory services reflect reduced government investment in agriculture. Now, the global community, responding to this situation, is revisiting extension and advisory services as the critical link in the agriculture value chain, where small-

Despite past advances in agri-

Points of interest:

- Vision and Mission statement - p2
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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 organization, to conduct and foster applied and adaptive research into:

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

Besides, NARI is responsible for providing technical, analytical, diagnostic and advisory services and up-to-date information to the agriculture sector in PNG.

The Institute's purpose (strategic objective) is to accomplish enhanced productivity, efficiency, stability and sustainability of the smallholder agriculture sector in the country so as to contribute to the improved welfare of rural families and communities who depend wholly or partly on agriculture for their livelihoods. This is intended to be accomplished through NARI's mission of promoting innovative agricultural development in Papua New Guinea through scientific research, knowledge creation and information exchange.

In its vision for PNG, NARI sees "Prosperous PNG Agricultural Communities".



Empower farmers with improved advisory services

from page 1

-holder farmers are key actors of agriculture.

Director of CTA, Michael Hailu in his opening remarks said that the conference theme, *Linking knowledge to policy and action for food and livelihoods*, is very relevant and provides a new perspective to extension and advisory services. He said 75% of the poor in developing countries live in rural areas and the majority of them depend on agriculture for their livelihoods. He acknowledged smallholder farmers as the primary food producers, yet over 30 million people in Sub-Saharan Africa face food security issues. Any effort to fight poverty must start with agriculture.

Hailu pointed out that the event was no ordinary conference, where experts came to talk to each other and everyone else politely listening. He challenged participants to take the opportunity provided to create a coalition of different interest committed to improving the welfare and productivity of the world's smallholder farmers. Extension and advisory services, he explained, have a key role to play in confronting the many challenges farmers face, from climate change to low productivity and rising food prices. He expressed the hope that the conference would identify practices and policies to improve the delivery and effectiveness of extension and advisory services.

Director Hailu advocated increasing government funding to agriculture, his call supported by many other speakers. We have and will continue to make this call in PNG. We believe the state has a duty to its smallholder farmers and should invest in agriculture, which supports the livelihood of over 80% of our population.

Ensuring food and nutritional security for a growing population is a challenge. The world population is estimated to reach 9 billion by 2050 and with additional challenges posed by climate change and scarce resources such as land, water and energy will require not only technical innovations but policy action and investment.

The diminished role of extension and advisory services is a hindrance to future agricultural and rural development and hence there is an urgent need for redesigning and revitalising their role in reshaping the global food system. There is also need for coordination of development actors to articulate and advocate for investments in agricultural extension and advisory services and to ensure that they remain priorities on the national, regional and global development agenda.



Demonstrations of various technologies; yam mini sett techniques (top) and food processing



In PNG, responsible agencies should act on Ted Sitapai's recommendation to formulate a new agriculture extension policy, which promotes pluralism, market-oriented, and participatory methods that are appropriate for empowering farmers and increasing their social capital, particularly women farmers. Currently our extension system is fragmented, making it difficult for managing and resourcing extension services.

The meeting noted the need to enhance the use of information and communication technologies, both old and new, and engage the media in expanding the reach and impact of extension and advisory services as it will directly boost value-chain pathways.

The international conference provided a unique forum for world experts to share experiences, success stories and challenges and recommend future measures and policy reforms that will make extension and advisory services more relevant and responsive to the needs of millions of smallholder farmers so that they are better equipped to feed a growing world population.

We hope some of these recommendations will be acted upon in PNG for the benefit of our smallholder farmers.

- James Laraki

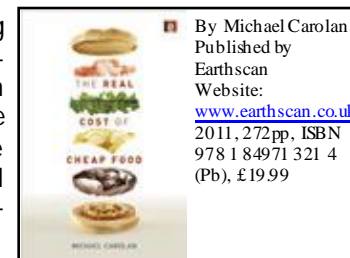
The real cost of cheap food

Food costs are escalating worldwide and the number of hungry is rising. Even well-to-do households in the industrialised countries are noticing that increasing food prices are biting into disposable incomes.

So how can anyone object to the production of cheap food? The answer lies in the definition of 'cheap'. As Michael Carolan points out explicitly, the production costs of 'cheap' food do not take account of very considerable costs to the environment and human health: "Soil erosion, deforestation, aquifer depletion, 'dead zones', pesticides leaching into underground wells, industrial livestock facilities fouling our air and water ... the price that the environment has paid in the name of 'efficiency' is quite remarkable," Carolan writes.

Driving down costs is a major aim in every industry, and many benefit from the affordability of goods that enhance their lifestyles. Indeed, the intensification of agricultural production has helped to reduce the proportion of income spent on food: in the US the percentage of disposable income spent on food dropped from 13.9% in 1970 to 9.8% in 2005; in Britain the fall was from 33% in 1957 to 15 per cent today. The author goes on, "The ideology of cheap food has helped to give shape to an industry that is undermining its (and thus, our) very existence. What we are doing in the name of food security is actually having the opposite effect. We have created a system that is inherently unsustainable. And there is nothing secure about that."

The real cost of cheap food also examines how industrialised agriculture is entirely dependent on resources that



By Michael Carolan
Published by Earthscan
Website: www.earthscan.co.uk
2011, 272pp, ISBN 978 1 84971 321 4 (Pb), £19.99

are finite and clearly becoming depleted: oil for fuel, natural gas for nitrogen fertiliser, phosphorus for plant nutrition, and water. Subsidised pumping of water has boosted yields in many countries, the US, Australia, China and India among them, but everywhere water tables are falling and rivers, lakes and reservoirs are drawn down. The mechanisation of agriculture has only been possible because of low-cost oil; perhaps a third of all food produced is from nitrogen synthesised from natural gas; phosphorus is essential for plant growth and its consumption is rising fast but

period." Overuse of fertiliser inflicts the additional damage of polluting water sources and careless irrigation results in salination.

Michael Carolan also takes a critical look at livestock production, applying the same rigour to establish how efficiently resources are used to produce meat, milk and eggs. His conclusions are equally troubling. "Animals will soon eat us out of house and home," he writes, pointing out that world grain production cannot keep pace with human and animal demand so how to meet the expected doubling of demand by mid-century? However, he does not advocate vegetarianism but reduced consumption based on livestock products produced, as far as possible, from pasture and by-products.

Overall, this is a thought-pro-



SILmarket in Aiyura

deposits of suitable phosphate rock are a declining resource.

Another telling message that emerges from this book is how extravagantly modern agriculture uses resources to produce 'cheap' food. Comparisons reveal the difference between most and least efficient uses of a number of inputs. Researchers in the US showed as long ago as 1973 "that agriculture was using the equivalent of 80 gallons of gasoline to produce 1 acre of corn. They further noted that while the production of corn per acre increased 2.4 times from 1945 to 1970, the input of fuel rose 3.1 times. In other words, yields in corn energy relative to fuel input declined 26% during this

voicing and timely book and one that also offers a range of options for changing food production and consumer eating habits to strive for a better matching of sustainable production with demand. The major change called for is one of changed mind-sets, never an easy challenge. But it is a challenge that must be met if we are not to destroy the biosphere in our ultimately vain attempt to feed ourselves 'cheaply'.

- New Agriculturist

Human resource update

Recruitment

Mr Arnold Patiken – Jnr Economist, Head Office, Lae, commence 11.11.11

Mr Johnson Limbya – Cadet (Agronomy/Crop Improvement), MRC Bubia, commence 20.09.11

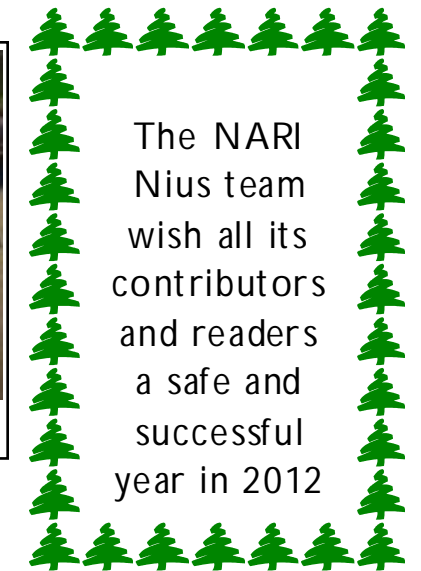
Mr Jeremy Korera – Jnr Chemist, NARI Chemisty, Kiklakila, commence 31.10.11

Departures

Ms Debbie Kapal, NARI Aiyura, resigned

Training

Mr Senior Anzu - Returned from studies on 24.12.11



The NARI Nius team wish all its contributors and readers a safe and successful year in 2012

NOTICE

We'd appreciate your contributions of events happening in the respective Regional Centres in the next issue of NARI Nius. This can also be about scheduled training, field days, village extension or project activities, etc. We look forward to many contributions from you in 2012.

New land deals not benefiting the poor

New research by Oxfam reveals that new land deal investments in agriculture are not benefiting the poor. *Land and Power: The growing scandal surrounding the new wave of investments in land* reports that elites, along with domestic and foreign investors, benefit from these deals at the expense of the poor. The poor lose out because they "lack the power to claim their rights effectively and to defend and advance their interests," the report states. In order to contribute to, rather than undermine food security and livelihoods of local communities, the authors urge companies and governments to take urgent steps to improve land rights for the poor and change power relations between investors and local communi-

ties. To help achieve these objectives, the report makes six recommendations. One is that the rights of communities affected by land deals must be respected and their grievances addressed. The report adds that those profiting from international deals, including financiers and companies sourcing agricultural products from the projects, must help to ensure this happens. Another key recommendation is to shift the balance of power in favour of local rights-holders and communities. Governments should therefore adopt strong, internationally applicable standards on good governance relating to land tenure and management of natural resources. In addition, host governments should respect and protect all existing land use rights. They should

ensure that, "the principle of free, prior, and informed consent is followed and that women have equal rights to access and control over land," the authors state. Investors are also advised to respect all existing land use rights. "They should make sure that the principle of free, prior, and informed consent is followed in all agreements, as well as seeking alternatives to the transfer of land rights from small-scale food producers," says the report. Finally, home country governments are urged to require full disclosure of activities by companies investing overseas. This will "ensure that standards and safeguards are implemented to protect small-scale food producers and local populations, including finance organizations," the report concludes.

Small farmers, big change: Scaling up impact in smallholder agriculture

Taking agricultural projects from the research or pilot phase to the next level, to achieve substantial gains for a large number of people, is an exciting and often complex challenge. The eight case studies in this collection, compiled through a partnership between Practical Action and Oxfam, demonstrate the central importance of bottom up processes in influencing policy and investment decisions.

For example, until five years ago, the region of Western Honduras was the most isolated and least supported in the country, with no civil society representation at national level. But a 10 year programme of building civil society institutions, as well as training and credit support to smallscale farmers, has enabled the area to develop its own Poverty Reduction Strategy, and successfully bid for millions of dollars to implement it. As a result, the contribution of women to household income has doubled, and in five years the percentage of women in the region engaged in agricultural businesses has risen from 1% to 31%. Other studies in the collection include joint action by fishing communities in India to regain control over pond resources, strengthened links between farmers and city markets in Colombia, and new systems of cooperation by cotton producer groups in Mali. Each study is concisely and clearly presented, pulling out key lessons from the scaling up activities and offering considerable food for thought for development practitioners and policymakers.

Website: www.developmentbookshop.com

EU-ARD project complete needs assessments surveys

Smallholder farmers of Vanuatu, Solomon Islands and PNG are experiencing the effects of climate change in their farming activities. These difficulties are manifested in the form of heavy rains and extended dry seasons, occasional excessive soil moisture on farm lands, disrupted rainfall patterns affecting seasonal cropping activities, seasonal shortages of water for agriculture and household use and worsening soil salinity problems associated with frequent king tides and sea water inundation of coastal communities. As a result they have become more vulnerable to seasonal shortages of food and income, problems that the Western Pacific NARI EU-ARD project has set out to address by enhancing the farmers' capacity to produce food and sustain themselves through use of more adaptive and resilient farming practices.

Following selection of project sites for developing and testing appropriate crop, livestock and water & soil management technologies, the project research team carried out extensive



Baseline survey focus group discussion at Siviri site in Vanuatu

M&E framework of the project.

Results of the baseline surveys will be reported back to the participating communities and discussed as part of the action planning process. Key service providers and other stakeholders will take part in these site level consultations to facilitate collective action.

needs assessment surveys at three sites each in Solomon Islands and Vanuatu between November 1 - 17, 2011 (Table 1). Prior to these, a similar baseline survey of five project sites was completed in PNG during September 2011. These baselines surveys involved extensive individual farmer interviews and focus group discussions in each site with the view to systematically documenting the specific food security constraints, needs, preferences and opinions of the communities. Furthermore, descriptive baseline data on the environment and agricultural practices were collected to inform decision making in selecting and developing suitable technologies and to provide input for the

Apart from NARI researchers, extension staffs from partner institutions were involved in the conduct of the baseline surveys. The focus group discussions involved 10 to 15 knowledgeable members of the communities, such as experienced farmers, village elders, ward councillors and selected men and women farmers. Staple crops and others considered critical for food security at village level were identified and their seasonal labour calendars established to determine the most appropriate time for specific interventions.

More information on this can be obtained from: NARI, Dr. Workneh Ayalew (email: workneh.ayalew@nari.org.pg).

Table 1. List and location of selected sites of the Western Pacific NARI EU ARD project

Country	Targeted key constraint		
	Excessive soil moisture	Soil water deficit	Worsening soil salinity
Vanuatu	Middle Bush (Tana Island, Tafea province) Esema (Efate island, Shefa province)	Siviri (Efate island, Shefa province)	(Malo island was selected and surveyed but was later replaced by Esema)
Solomon Islands	Hunda & Kena (Kolombangara Is., Western province)	Aruligo (Guadalacanal province)	(Kwai Island was selected and surveyed but was later replaced by Buna on the main island in Malaita province)
Papua New Guinea	Alkena & Kerepia (Tambul, Western Highlands province) Denin (Madang province)	Kofafo village, Bena Bena, Eastern Highlands province Murukanam (lowland moisture deficit site, Madang province)	Hisu village & Yule Island (Kairuku, Central province)

Rice stakeholder's workshop

NARI hosted a two-day Rice Stakeholder workshop at the Alan Quartermain Hall in November to identify current constraints and potential for development in the country,

Rice development efforts had been described as having 'on and off attention' coupled with un-coordination in terms of information dissemination and well researched policy and strategy for rice development in PNG. It was also highlighted that different departments, institutions and organisations work in isolation of each other and lack proper and coordinated partnership and collaboration.

The stakeholder workshop engaged key players in the area of rice research, policy and development to share their experiences, achievements and understanding of their roles and responsibilities.

The participants included representatives from the National and Provincial DAL, OISCA, Christian Leaders Training College, Community Development Initiative-Kutubu, JICA, ROC Taiwan, Project Support Service, PNG Women in Agriculture Development Foundation (PNGWIADF), Territory Packaging, National Voluntary Service (NVS) – Erap, NARI and Rice farmers.

- Josephine Yaga

To fulfill NARI's mandate and meet the needs of farmers and stakeholders for information on agricultural research and development NARI produces a wide range of publications, including information bulletins, extension booklets and simple leaflets called TokToks. If you would like a copy of any of these publications or a catalogue, contact our Regional Centre information offices. Their contacts are on the back of this newsletter. Visit our website at www.nari.org.pg to get a copy of our publications catalogue.



Some of our titles

Extension Booklet Series



Technical Bulletins



Workshop Proceedings



Information Booklets



Corporate Publications



PNG must eat more home grown food

PNG's over dependence on imported cereals is a concern which authorities and people must acknowledge and address.

Between 1961 and 1998, the total cereal imports and food aid as a percent of total cereal consumption in PNG was 97% whilst domestic production was 3%. Cereal consumption is worked out at production plus imports minus exports.

PNG imports around 250,000 tonnes of rice per annum valuing at about K300 million. Also between 70-130,000 tonnes of wheat and sorghum is imported every year for animal feed. Imported wheat is also converted to flour for Papua New Guineans to consume.

Cereal production in PNG remains stagnant, however, the demand and prices of cereal products continues to increase. Such dependence on cereal and feed imports has rendered PNG vulnerable to shortages

Deputy Director General Dr Sergie Bang raised this concern while addressing the 2011 Islands Regional Centre field day, held in Kerevat on the 17th of October.

He added that PNG must reverse this trend and look seriously at developing and strengthening its own capacity. One way to do that is to work with the people to promote self sufficiency by utilizing indigenous starchy food such as tuber crops, sago and banana to satisfy internal demand in place of imported cereal products and also to consider exporting.

There is a need to increase food production and apply effective marketing skills to improve livelihoods for smallholder subsistence farmers. Four major con-

straints were identified as needing immediate intervention. They are:

1. Improving supply chains in the marketing system,
2. Having appropriate farming systems including crop diversification, rotation or use of irrigation for consistent production,
3. Deal with land tenure and ownership issues to free up land for food production, and
4. Empowering educated farmers or agriculturalists to venture into agribusiness.

With the mission to promote innovative agricultural development through scientific research and knowledge creation for smallholder farmers, NARI has identified



Women demonstrating the processing of sago

and developed a number of technologies including animal feeds and food crops that are cost efficient, high yielding and resistant to pest and diseases.

A number of released technologies including broiler chicken feeds, sweet potato silage for pigs and improved rice varieties were showcased during the field day.

Other important activities on display included the galip nut project, alternative integrated cropping system, biological control of mikania weed, fruit fly control and management, taro commercialization, drought and livestock projects.

Over 1000 people in and around East New Britain including stakeholders, women groups, farmers and school children participated and witnessed the two-day event which coincided with celebrating World Food Day as well as participating in the Regional Research and Development Advisory Council meeting for the Islands Region.

The highlight of the show were the delicious traditional meals prepared in distinctive styles from the Islands, Momase, Southern and Highlands regions by women groups affiliated to the East New Britain Women in Agriculture and dramas and choir presented by the CIS group.

Dr Bang encouraged women to continue preparing and promoting traditional meals in their families and societies and imparting the skills to the younger generation so the children can learn, adopt and maintain the culture. He challenged them to reduce consumption of imported food and eat more home-grown food.

- Josephine Yaga

Successful 2011 Morobe Show

It has been another successful outing for NARI at the Morobe Show, with our stall being voted First Place in Class 8301, Section- Service Industries including Wholesalers and Retailers by the Morobe Province Agricultural Show Society.

NARI especially the Momase Regional Centre at Bubia and Labu went out in

a big way to commemorate the Show's 50th Anniversary by being a platinum sponsor. The K5000 sponsorship ensured NARI's usual location at the show ground and Gold passes and entry tickets for the staff on duty during the duration of the show.

A huge array of information and materials were displayed and demonstrated

to the public. These displays were staged by HQ – GIS, ACP, Enabling Environment, Information & Knowledge including Library; Bubia – Crop Improvement, Post harvest, bio tech, mechanization, Rice & Grain & revenue; Labu – livestock (goat milking, rabbit, poultry, aquaculture, sheep and feeds (pig silage & broiler concentrate); HRC Tambul – late blight resis-

tant potato technology and HRC Aiyura – Pathogen Tested sweet potato, drought coping strategies.

Many show goers and farmers were very interested in the NARI technologies such as small livestock and fruits and nuts seedlings. Most sections recorded a good number of visitors who were keen to learn about NARI's research.

Long term study shows success of biocontrol of invasive weeds

Smallholder farmers in PNG continue to benefit from the introduction of a biocontrol agent of one of the world's worst weeds through a project funded by the Australian Centre for International Agricultural Research (ACIAR).



Gall fly (*Cecidochares connexa*), the biocontrol for *chromolaena odorata*

Chromolaena (Chromolaena odorata) had invaded many subsistence farms in PNG in 1998, smothering crops such as taro, cassava and pawpaw, along with plantation crops such as coconuts, oil palm and cocoa.

Today, where farms and roadsides were once choked with the weed, other useful plants are growing, and landholders, having saved countless hours of weeding, have time to grow more produce for food and sale.

Gall fly effective

From 1998 to 2007, three biocontrol agents were introduced into PNG through the ACIAR project led by Michael Day of the Queensland Department of Employment, Economic Development and Innovation in association with NARI.

The gall fly (*Cecidochares connexa*) proved to be the most successful agent introduced. It was released at over 350 sites in all provinces where *chromolaena* occurred and established at 300 sites. Following establishment, it spread naturally to a further 350 sites. "The research showed that, as the number of galls created by the flies increased, branches of *chromolaena* died, reducing biomass and flower and seed production," Mr Day said.

At the completion of the project, socioeconomic surveys

of nearly 200 landowners found over 80% of respondents thought there was much less *chromolaena* than before the gall fly was released. About 70% said they were benefitting from the control of the weed, with half saying their weeding times were reduced, and control costs had fallen 45%. Over 60% said their crop yields and income had increased as a result of the control of the weed.

Long-term benefits

Five years later, an adoption study recently published by ACIAR (<http://aci-ar.gov.au/publication/CP45>) found that the benefits of the project are continuing. "Information on *chromolaena* distribution and the status of the gall fly is still being used by NARI officers to both check whether the gall fly is present and to conduct opportunistic releases if the gall fly is not present," Mr Day said.

"Landowners report that the gall fly has made a substantial difference and some are still moving the insect to new areas. Other landowners are now reducing the level of burning or leaving patches of *chromolaena* to ensure populations of the gall fly are maintained."

- PNG Agrinews

SRC feature vegetable farming in Mini field day at Laloki

NARI Southern Regional Centre (SRC), Laloki hosted a mini field day on 23 November 2011, focusing on World Vegetable Centre open pollinated vegetables (AVRDC), in Taiwan. These varieties are being evaluated for their productivity, nutritional quality, and pest and disease resistance with the primary goal of making vegetable seeds available to farmers at affordable prices.

Farmers came from as far as Bereina, Hisiu, Rigo, Koiari, the peri-urban farmers from 8-Mile in NCD and those around the Laloki area attended the field day to see and learn about vegetable farming, which is a project funded by ACIAR.

Also present were visiting scientists from the Tasmania Institute of Agriculture Research (TIAR), a collaborative partner of the Vegetable Project along with local partners - PAU, FPDA and the Central Provincial Government. Agricultural Advisors from the Southern Region were also present to mingle with farmers and staff of SRC.

The Vegetable Team was fortunate to have industrial trainee students from UNRE's Oro and Vudal campuses who assisted in answering farmers' queries and supplying pamphlets of vegetable production and seed saving techniques from as low as 20t and show bags at K2 containing various information on vegetable production and seed saving techniques and eggplant and chilli seeds.

The programme began with a welcome speech by Professor Udai Pal, SRC Research Program Leader and coordinator of the Vegetable Project. This was followed by remarks by Dr. Richard Doyle, from TIAR.

The farmers were then shown the vegetable varietal demonstration plots of eggplant, capsicum, yard long beans, soy-

bean, mung bean, French beans and okra whose seed lines were brought in from The World Vegetable Centre (AVRDC), in Taiwan. These varieties are being evaluated for their productivity, nutritional quality, and pest and disease resistance with the primary goal of making vegetable seeds available to farmers at affordable prices.

Another feature was comparing the benefits of three different production systems; (1) Typical low input system based on the traditional farmers practice and knowledge; (2) Best practice system, based on modified, improved technologies; and (3) High input system based on commercialized farmers practice.

At the end of this trial, the best farming practice will be recommended to farmers to use to grow their best identified variety of vegetables.

Farmers braved the scorching sun to learn about these varietal demonstrations of different vegetables with many showing interest in the drip irrigation system.

As the main focus was on seed sustainability and improved livelihood, a demonstration of 'vegetable seed extraction techniques' of open pollinated seeds of tomato, capsicum and eggplant was conducted.

It was highlighted to farmers that they do not have to keep buying hybrid seeds but extract and save their own seeds for the next planting seasons. At the same time, they can be able to improve their family diet with the nutritious home grown vegetables and sell the surplus for their daily income.

- Philmah Seta-Waken

Information an important tool for agricultural development

Information and Knowledge Management (IKM) remains a huge challenge for agricultural development in the Pacific Island countries and territories. These challenges include; small farm sizes, remote and scattered nature of farms, infrastructural limitations, increased global competitiveness, climate change, and the loss of agricultural biodiversity to name a few. The limited resources for research and innovation further add to these challenges.

Fiji's Permanent Secretary for Agriculture, Colonel Mason Smith, made these remarks when opening an information and communication workshop in Nadi, Fiji, in November, 2011. PNG was among 10 Pacific Island countries represented at the four-day workshop themed "Moving beyond strategy to improve information and knowledge management for agricultural development".

Col Mason stressed that some new information and communications technologies, especially the emerging mobile technologies, internet Wi-Fi and 3G cellular telephones, offer significant potential and new approaches to overcome some of the challenges and limitations currently faced in customising our needs and the needs of our farmers and stakeholders in information and knowledge management for agricultural development.

A number of countries in the region are exploring a number of innovative initiatives using mobile phone technologies and other emerging tools; and, as part of the workshop program, delegates were expected to share experiences and foster stronger partnership with each other in the area of information and communication.

Resource persons from Asia Pacific Association of Agricultural Research Institutes (APAARI), Food and Agriculture Organisation (FAO), Global Forum for Agriculture Research (GFAR), Secretariat of the Pacific Community (SPC) and Centre for Technical Agriculture Cooperation (CTA) shared their expertise and knowledge on the advent of new information and communications technologies and global connectivity that provides the Pacific region with a number of potential solutions to these challenges.

The expected outputs of the workshop included:



ICM workshop participants and officials at the Tanoa International Hotel in Nadi, Fiji

- improved awareness on new dimensions in information and knowledge management for agricultural research for development in the region,
- improved participation and contribution in the movement for Coherence in Information for Agricultural Research for Development (CIARD) and regional agricultural information systems, and the establishment of a Pacific CIARD Community of Practice,
- promoting the use and application of Web 2.0, social media and enhance "openness" for effective information exchange, and to facilitate strengthened information sharing and networking.

"With these four outputs, the question we need to ask ourselves is: how can we actually improve our information and knowledge management to meet current and emerging challenges to agricultural development? No doubt; whatever the way forward may be, we must, as individual nations and as a region, make effective use of all useful and relevant information and related resources that is available locally and globally for agricultural innovation. More importantly, we must, as the theme of the workshop indicates, move beyond strategy. We must implement the recommended strategies you come up with as the way forward, otherwise this would have been just another one of those workshops where a lot of strategies are discussed but there is little or no implementation by stakeholders", he said.

Col Mason urged the respective governments and stakeholders to move beyond

strategy by funding and implementing information and communication activities.

Inoke Ratukalou, Acting Director, Land Resources Division, Secretariat of the Pacific Community, said information knowledge management is an innovative concept; one that demands a clear guideline that will ensure that information is shared meaningfully amongst stakeholders for the purpose of maximising outputs and productivity. By far, this is what makes it a critical component of development in the agriculture sector in the Pacific.

He said the SPC has recognised and value the dissemination of information to keep its stakeholders and donors informed of its work. The use of modern technologies to increase the range of formats for information dissemination is becoming a norm in a rapidly changing and globalised world. He said given these changes, the Web2.0 learning opportunity can enhance our box of tools to enrich knowledge management and dissemination of information using on-line tools.

Mr Ratukalou, however, urged the delegates to rethink the strategies on providing extension to rural farmers, and how new information tools such as Web2.0 can enhance the extension services. "In spite of these challenges we are optimistic information knowledge management will help us as much as it will strengthen you in progressing further then where we are in agriculture development in our home and the region."

NARI farewells Dr Mbabu

Dr Adiel Mbabu, the outgoing Technical Director of the Agricultural Research and Development Support Facility (ARDSF) of AusAID, was described as the man who laid the foundation for the agriculture research for development (AR4D) concept in Papua New Guinea.

In a farewell ceremony hosted to honour his contribution at the NARI headquarters in December, Director General Dr Raghunath Ghodake said the Institute and the national agricultural research system (NARS) in the country would not have made much progress to reposition themselves in line with AR4D paradigm shift without the tireless contributions of Dr Mbabu.

In expressing his gratitude and appreciation, Dr Ghodake said that under the leadership of Dr Mbabu, NARS in the country are in a much better position with AR4D, an internationally accepted concept which calls for research efforts to

have impacts at people level. "Your vast experiences on agricultural research and development have been most beneficial to NARI, NARS and PNG. Our association with you has been really gratifying and satisfying in terms of our collective accomplishments.

The support by AusAID through ARDSF, a unique arrangement for a unique purpose in a typical developing country context has been very appropriate and timely when our young NARS were going through the formative stages," Dr Ghodake said.

Dr Mbabu who is taking up a new appointment with the International Potato Centre, has been described as a very committed professional and



Sharing last few words with Dr Mbabu

is considered as the man who put NARS in a better position to develop their strategies and translate them into actions.

"As we have witnessed, the entire agricultural research with financial support from AusAID, we are making a difference. In the processes we may have avoided the typical mistakes that many NARS worldwide have been making. We are confident NARI and NARS will continue to progress along the path that you have helped us chart," Dr Ghodake added.



NARI staff join Dr Mbabu and ARDSF-AusAid staff in this group photo

Local scientists urged to write scientific papers

The notion that the English language is not our mother-tongue should not be a barrier to writing scientific papers. But as scientists, you have a duty to this noble profession to contribute to scientific knowledge by following the footsteps of the many great scientists before you who have made useful contributions.

These were the remarks of the Caretaker Director General Dr Sergie Bang, when closing a scientific paper writing workshop in October.

Dr Bang challenged the participants to take pride in writing scientific papers using the many useful skills they have learnt during the two-week training. "I encourage you to develop project proposals, do the necessary research, write

the reports and publish scientific papers", Dr Bang said. He was mindful of the fact that many local scientists have been doing the dirty job of doing research and collecting data but were not given the recognition they deserve when it comes to publishing scientific papers.

Dr Bang, who himself has written many scientific papers called on the participants to develop the skills to write scientific papers as writing comes with repeated practice. "Good writing is the result of much practice and hard work. Don't be discouraged by the thought that writing rarely comes easily to anyone. Instead, keep in mind that regular practice will make you a better writer. As you sharpen your skills, you gain confidence and enjoy writing than you did before",

he added. While congratulating the participants on their achievements, Dr Bang also warned that it would be an embarrassment to themselves and to their countries if they leave their profession without contributing to scientific knowledge.

The training conducted under NARI-EU ACP Science and Technology Programme project was aimed at equipping participants with the basic skills to organise, plan and write scientific papers from the research and data collected. The training brought together 24 scientists from eight organisations from Vanuatu, Solomon Islands and PNG.

- James Laraki

Director General's Christmas Message

This is an unedited message from Dr Raghunath Ghodake, NARI Director General, addressed to all staff, partners and stakeholders

On the eve of the forthcoming Festive Season, I wish to extend my very best wishes to all our staff, partners and stakeholders. We are proud that NARI continues to make very good progress in accomplishing its strategic objective and impacting positively on the lives of our people.

In March this year, the Institute launched the NARI-EU Agricultural Research for Development project on generation and adaptation of agricultural technologies to mitigate climate change imposed risks to food security in smallholder farming communities in Western Pacific Countries (Solomon Islands, Vanuatu and PNG). This mega project is in addition to the three projects for capacity building which are being implemented by the Institute under the EU ACP Science and Technology Programme.

We celebrated the Institute's 14th Anniversary in May this year, coinciding with the staging of the 5th Agricultural Innovations Show. We also used the opportunity to release three improved technologies; two late blight resistant potato varieties, two cold tolerant rice varieties for the highlands, and the broiler feeding system, bringing the number of key released technologies to 27.



Drs Ghodake and Bang cutting the cake to distribute to staff

The Institute continues to achieve some excellent outcomes such as quality publications, staging of and participating in important public events, working with local organizations and rural communities on technology transfer related activities, direct funding from AusAID, and wider acclaim from stakeholders and civic society for

information dissemination through the print and electronic media, field days, public shows, training sessions and demonstrations.

During year, NARI staff participated in a wide range of workshops, conferences, training programs and technical consultations both locally and internationally. They also produced an array of conference and workshop papers, corporate documents, and scientific journal publications.

We have made good progress on the refocused Institute planning and alignment of the organizational structure and management systems so as to contribute effectively to improving the outputs and impacts. We have developed NARI Strategy and Results Framework (a corporate document), a key milestone and

the basis for further focusing and planning at the programme and projects levels.

We will continue to develop further the Institute and build on relevant capacities to create a congenial environment for AR4D and to further improve in service delivery efforts for our primary clients, the smallholder farmers of PNG, while at the same time continue to deliver on currently implemented projects and on-going activities.

We are pleased with the confirmation in March by the Parliamentary Committee on Public Accounts of our prudence in financial management and accountability. We will continue to undertake the Institute's financial management within the established financial guidelines and procedures. NARI will continue to be pro-active in providing good corporate governance from our very able Council and equally good leadership at the executive level.

These achievements could not have been possible without the dedication and commitment by all our staff, the Government of PNG, AusAID, EU, stakeholders, donors and partners. We highly appreciate and treasure your and their commitments and contributions.

We look forward to a good year in 2012 with your continued and pro-active contributions.

On behalf of the Institute Council and Executive Management, I would like to wish all our staff, partners, and stakeholders and their families, and friends, a Merry Christmas and very Happy 2012.

**Raghunath Ghodake, OL
Director General**



Programme staff sharing the meal

Project join NGOs to drive drought awareness in Southern Region

The Drought Project at SRC-Laloki is working with Non-Government Organizations (NGOs) to create greater stakeholder and community awareness on drought in the Southern Region.

In August, Project staff, Louis Kurika and Paul Osilis, joined Partners with Melanesian Inc. in conducting a one day drought awareness workshop at Afore sub-station in the Managalas Conservation Project area in Oro Province.

During the workshop, the drought team made a PowerPoint presentation on climate change, the negative effects of drought and coping strategies for communities. After the presentation, a 'question and answer' session allowed workshop participants to discuss any queries they may have had. The workshop also featured displays of A3 and A4 size posters, pamphlets and small quantities of crop planting materials for distribution.

The team reported that the workshop was successful as it provided an avenue to educate community leaders who in turn would disseminate the informa-

tion to people in their communities.

Towards the end of August, the drought project staff accompanied Andrew Opu, the representative of Caritas PNG of the Bereina Catholic Diocese, on a tour of local villages around Bereina, Apanaipei, Kivori-poe and Kubuna, in the Kairuku District, Central Province. This collaboration was initiated to carry out a survey on crop diversity and vigor in village gardens, availability of



Exchange market in Iesubaibua village, inland Mekeo Area, Kairuku District. Fish exchanged for banana and/or betel nut

water sources, and issues such as salinity. They then participated with Mr Opu on a radio-talk-show, which was aired on the Catholic Radio Channel, "Radio Peter ToRot," discussing their observations on the vulnerability of the communities visited to drought.

- Louis Kurika & Paul Osilis



Workshop participants at Managalas Drought Awareness Workshop in Oro Province

Email Etiquette

Continued from last issue

13. Read the email before you send it

A lot of people don't bother to read an email before they send it out, as can be seen from the many spelling and grammar mistakes contained in emails. Apart from this, reading your email through the eyes of the recipient will help you send a more effective message and avoid misunderstandings and inappropriate comments.

14. Do not overuse Reply to All

Only use Reply to All if you really need your message to be seen by each person who received the original message.

15. Mailings > use the Bcc: field or do a mail merge

When sending an email mailing, some people place all the email addresses in the To: field. There are two drawbacks to this practice: (1) the recipient knows that you have sent the same message to a large number of recipients, and (2) you are publicizing someone else's email address without their permission. One way to get round this is to place all addresses in the Bcc: field. However, the recipient will only see the address from the To: field in their email, so if this was empty, the To: field will be blank and this might look like spamming. You could include the mailing list email address in the To: field, or even better, if you have Microsoft Outlook and Word you can do a mail merge and create one message for each recipient. A mail merge also allows you to use fields in the message so that you can for instance address each recipient personally. For more information on how to do a Word mail merge, consult the Help in Word.

16. Take care with abbreviations and emoticons

In business emails, try not to use abbreviations such as BTW (by the way) and LOL (laugh out loud). The recipient might not be aware of the meanings of the abbreviations and in business emails these are generally not appropriate. The same goes for emoticons, such as the smiley :-). If you are not sure whether your recipient knows what it means, it is better not to use it.

17. Be careful with formatting

Remember that when you use formatting in your emails, the sender might not be able to view formatting, or might see different fonts than you had intended. When using colors, use a color that is easy to read on the background.

18. Take care with rich text and HTML messages

Be aware that when you send an email in rich text or HTML format, the sender might only be able to receive plain text emails. If this is the case, the recipient will receive your message as a .txt attachment. Most email clients however, including Microsoft Outlook, are able to receive HTML and rich text messages.

19. Do not forward chain letters

Do not forward chain letters. We can safely say that all of them are hoaxes. Just delete the letters as soon as you receive them.

See next issue for further discussion on email etiquette.

IT News

