THE NARO Bulletin

A bi-monthly publication by National Agricultural Research Organisation, **Entebbe, Uganda**

President Launches NARO MTP and ARDCs



President Yoweri K. Museveni (centre with hat) makes a point after planting a tree at Bulindi ARDC, Hoima. He encouraged farmers to use NARO's technologies and promised increase of pay of NARO workers.

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His Excellency the President of Uganda, Yoweri Kaguta Museveni, 10th February 2001, launched NARO Medium Term Plan (MTP) and operationalisation of Agricultural Research and Development Centers (ARDCs) at Bulindi ARDC, Hoima. The Medium Term Plan emphasizes improving technology development and transfer, broadening participation of stakeholders, incorporating gender and environmental concerns, increasing and maintaining scientific knowledge base and strengthening the institution.

The ARDCs, located in different agro-ecological zones, will act as avenues for easy access by stakeholders to NARO technologies and serve as a feedback mechanism to researchers.

Researchers to get pay increase - President

At the occasion attended by Minister of Agriculture, Animal Industry and Fisheries, Dr Kisamba Mugerwa, The Minister of State for Fisheries, Minister of Lands Water and Environment, political leaders, scientists and farmers, the President hailed the tremendous work done by scientists, usually under hard conditions. He promised to increase remuneration of NARO staff to maintain the research base and ensure continuity of research and its good fruits.

"Science and technology is primer for development. There is no way to transform agriculture without research. I salute the researchers who have been working under these hard conditions. I am in favor of support to researchers and we shall make their working conditions better so as to make them stable on job and concentrate on their work. I want my scientists to be well paid", he said amidst thunderous applause from the scientific community. He said scientists were trying to develop many good technologies to benefit Ugandans. He mentioned, among others, coffee varieties (Arabica) that are resistant to coffee wilt disease and that can grow in lowlands. The President also said NARO's technologies that increase production per unit area would improve food security in Uganda. He urged farmers to use NARO technologies to improve their farm practices. He encouraged scientists to incorporate indigenous knowledge into their research so as to tap underutilized resources. "We can commercialize this indigenous knowledge and get incomes. Some of this knowledge is unique to Uganda and we can get market for it", he said. He also

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Stakeholders Approve NARO's Mid-term Plan

Stakeholders, 6 February 2001, approved NARO's Mid-Term Plan (MTP) at International Conference Center, Kampala. The MTP is a comprehensive plan of action of NARO activities for year 2001 - 2005.

Stakeholders who included representatives of policy makers, farmers, researchers, scientists, donors, NGOs, institutes of higher learning, resolved that NARO's MTP was an acceptable comprehensive document, which was also compliant with plan for modernization of Agriculture (PMA). They agreed that the document allowed for flexibility and consultations to be made during the annual review of the MTP. They also observed that the MTP was responsive to farmers' needs. Stakeholders said they were looking forward to its successful implementation.



Dr Kisamba-Mugerwa (centre), Minister of Agriculture, Animal Industry and Fisheries cracks a joke at the meeting with NARO stakeholders. On his left and right are Prof. F.I.B. Kayanja, NARO Board Chairman and Prof. Joseph Mukiibi, DG, NARO, respectively. NARO stakeholders are now looking towards implementation of NARO's MTP.

Research approach changes

Dr Kisamba Mugerwa, Minister of Agriculture, Animal Industry and Fisheries said that government was to continue working with donors to ensure continuation of agricultural research. He said research had changed from commodity to project mode to ensure effectiveness and efficiency and that a functional analysis would soon be done to ensure effectiveness of staff. "We need a team of researchers to work on a project and produce results. This will be cost effective", he said. He said that to increase efficiency, research management was to be competitive. He advocated for promotion of marketable

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encouraged researchers to speed up research on biotechnology and do demand driven research to increase production.

ARDCs to Improve Food Security Situation - Minister

The Minister of Agriculture, Animal Industry and Fisheries Dr W. Kisamba Mugerwa advised farmers to maximally utilize the ARDCs to acquire modern technologies in order to improve their farm practices, increase food production, incomes and ensure food security.

NARO Overcame Cassava Mosaic and Water Hyacinth problems– Prof. Mukiibi

The Director General, NARO, Prof. J.K. Mukiibi, said NARO had a lot to show since its establishment. He hinted at the elimination of Cassava Mosaic Disease. He observed that this has increased incomes, eliminated famine and ensured food security in many districts of Uganda. He also mentioned the water hyacinth, which was reduced on Uganda water bodies because of the work done.

He said that NARO was determined to take technologies nearer to farmers through ARDCs and to empower farmers to articulate their needs and aspirations. He said the ARDCs would cater for needs of the various agro-ecological zones of Uganda.

Stakeholders Approve NARO's Mid-term Plan

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technologies to increase farmers' incomes and widen export base. "What we are focusing on is to generate technologies that will increase productivity and make farming a viable venture in which the private sector can be attracted to invest", the Minister emphasized.

MTP to evolve, be all inclusive

Prof. F.I.B. Kayanja, Chairman, NARO Board, said that NARO was ready to implement the MTP. He said that NARO would work closely with the private sector as a vehicle to empower the private sector, not as competitors. Prof. Kayanja said that there was need for all the components in MTP to evolve such that it could continue being relevant to the stakeholders in the changing environment. He said that it was important that links between NARO and National Agricultural Advisory Services (NAADS) be clearly spelt out to ensure complementarities and avoid duplication.

All considered during design of MTP

Prof. J.K. Mukiibi, Director General, NARO said that in designing MTP, key considerations taken into account were: technical soundness, client orientation and participation, output and private sector involvement. Other considerations included whether MTP was poverty focused, gender sensitive, environment friendly, implementable and affordable. "The MTP was the output of a collective effort of a wide variety of stakeholders. Our intention of MTP was to produce a plan that is time bound, project based, mission-oriented and output focused. Eradication of poverty was key consideration in formulation of MTP," he said. He said the MTP provided framework for: focusing donor support; co-coordinated participation of NARO partners in NARO activities and working on priority research projects.

NARO to listen to end-users

Dr C. Tizikara, Director Planning, Monitoring and Evaluation in NARO outlined priority projects, time frame and funding position. He said that NARO would always listen to and work closely with stakeholders, and that their concerns were to be incorporated into the final MTP document for implementation.

Donors happy

The donor representatives praised NARO for a job well done and appreciated the level of participation in the process. They agreed that the planning process must stop and implementation starts. They also emphasized that flexibility must be maintained to cater for changing situations during the planning period. They pledged continued support to NARO.

NARO Holds End of Year Party

Several of the NARO's institutes held end of year parties. The National Agricultural Research Organization Secretariat held theirs at Entebbe Botanic Gardens, Entebbe on 29 December 2000. All members of staff at NARO headquarters attended. A couple of members of staff got prizes in recognition for their distinguished service in NARO.

The Director General, NARO, Prof. Joseph Mukiibi congratulated staff upon successful completion of the previous year 2000 and advised them to prepare for year 2001, which according to him involved more hard work than the previous one. He wished staff a prosperous new year

The Deputy Director General in charge of Research, Dr A. Aluma said that NARO had worked hard the previous year and was prepared for implementation of the medium Term Plan in year 2001.

Merry making and dancing went on till late.



Some of NARO staff who received prizes for their exemplary service

Mbarara ARDC Doubles Production

Mbarara Agricultural Research and Development Center (ARDC) has doubled production of both milk and herd, the Manager, Dr Emily Twinamasiko reported on 12 December 2000 during a visit by NARO Secretariat Senior Officials led by Prof. J.K Mukiibi the Director General. Other officials included Dr Otim Nape, Deputy Director General in charge of Outreach and Senior Research Officers in charge of Dissemination and Adaptive Research. Mbarara ARDC, formerly called Mbarara Stock Farm, was handed over to NARO in 1996 by government for better management. It was later changed to ARDC to cater for farmers and other NARO stakeholders of western Uganda region.



Staff of Mbarara Stock Farm. The Centre Manager, Dr E. Twinamatsiko is fifth from right. Mbarara ARDC has doubled milk production and size of herd, thanks to good management practices.

"We started off with a herd of 170 but we have now more than doubled. We now have about 375 cows, 206 of them Friesian. The cows were in 1996 yielding 6 litres of milk and now we get an average of 12 litres", said Dr Twinamasiko. Dr Twinamasiko said that Mbarara ARDC now has 60 milking cows, and 167 crossbreeds. The achievement has been due to good management. "Everything we do here at the farm is done to the book and to professional guidelines. We record the milk yield daily and follow strict accountability procedures", added Dr Twinamasiko.

Death of calves greatly reduced

Mbarara ARDC has also reduced the number of deaths of calves from an alarming figure of 10 calves per year to almost nil. "Our calves are now doing well," said Prof. Mukiibi. He encouraged Mbarara ARDC staff to use the center as a base where farmers can get improved seed of beans, potatoes, coffee, banana, etc. He also encouraged staff to empower farmers to produce their seed. The Director General thanked Mbarara ARDC staff for their hard work.

Mr. Makuru, the Farm Manager, said that in 1996, the farm had U Shs 1500 (less than 1 $) on bank account, but had made profits and could meet some of the running costs.

Bright future

The farm is to play key role in modernization of dairy industry in Uganda and NARO plans to make the ARDC run as a self-supporting business. This will be done through: availing improved technologies, increasing production and availability of foundation seed, planting materials, livestock and fish to increase income base. Mbarara ARDC will also be transformed into a model modern farm. Fifty more heifers will be bought to increase the herd. It was predicted that within 4 years, the farm would not need external funding.

Mbarara ARDC was established in 1926, by Department of Veterinary services and Animal Industry with major objective of exotic dairy stock multiplication. The farm was later handed over to NARO by government for better management.

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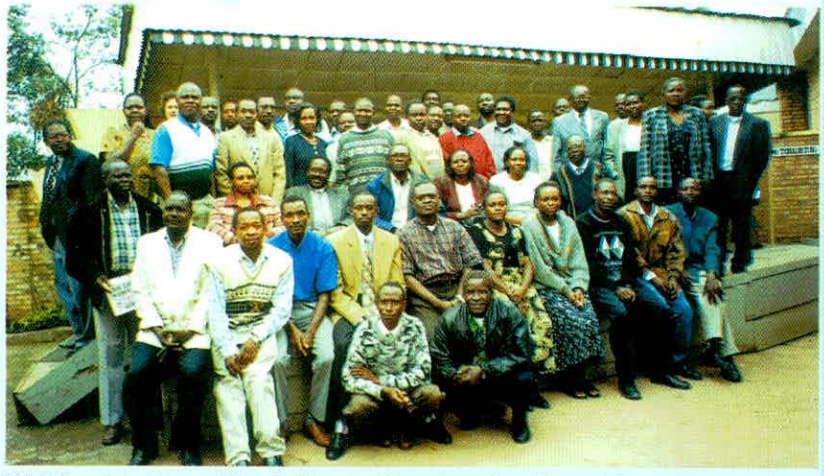
Priorities for South-western Uganda Out

At a participatory planning workshop held, 24-25 January 2001 at Kacwekano Agricultural Research and Development Centre (ARDC) in Kabale District, NARO stakeholders hailing from South Western Uganda worked out and prioritized commodities and constraints for NARO's intervention. Crops were in order of priority: beans, Irish potato, banana, sweet potato, coffee, horticulture and sorghum. In the Forestry Sector, agro forestry, plantation and natural forests came out as priorities. Dual-purpose cattle, poultry, goats and bee keeping were priorities for livestock. Fish farming and capture fisheries were selected in the fisheries sector. South Western Uganda includes districts of Kabale, Rukungiri, Kanungu and Kisoro.



NARO stakeholders of South Western Uganda and staff posed for a group photograph in Kabale. They came up with commodity priorities for the area.

Farmers impressed

A farmers' representative from Rukungiri District hailed the NARO initiative of introducing ARDCs to take technologies closer to farmers and encouraged fellow farmers to use the chance to better their farm practices. He pledged farmers' determination to work closely with NARO in its effort to improve livelihoods of farmers.

While officiating at the closure of the workshop, Resident District Commissioner for Rukungiri, Mary Allen Kimerwa advised agricultural scientists in the country to involve farmers in planning of agricultural activities since farmers are the final implementers. Kimerwa urged participants to use technologies that would contribute to food security, income generation and environmental protection for sustainable development.

The Deputy Director General NARO in charge of Research, Dr John Aluma said that NARO was committed to ensuring that research activities were participatory, demand driven and problem solving. He said that ARDCs were intended to cater for needs of various agro-ecological zones and to take research services nearer to the farming community.

Farmers' needs are priority

The Deputy Director, Outreach, Dr Otim Nape, said that NARO was determined to deliver technologies relevant to the needs of farmers by carrying out participatory needs assessment with all stakeholders.

New Approach with NAADS

The Commissioner for Agricultural Production, Mr. Lenny Kulabako Yiga said that Government of Uganda launched plan to modernize agriculture to increase farmers' access to information, knowledge, skills and technology and empower farmers to become important participants in the development process. He said that The National Agricultural Advisory Services (NAADS), established by government, was to ensure direct flow of funds to farmers. Farmers were also to participate in contracting services themselves. He said farmers would, through NAADS, access the "basket" funds to pay for services.

Research decentralized

Dr I. Kashaija, Manager, Kacwekano ARDC, said that NARO had decentralized research activities to make work easier for farmers. "We have come here to stay. Farmers can now come any time for technologies or advise and do not need to walk long distances to research institutes", said Dr I. Kashaija.

The meeting, which was attended by farmers, researchers, policy makers, local leaders, extension staff and NGOs, was intended to forge closer linkages and partnership among stakeholders and plan way forward for farmers of South-western Uganda.

Vvumba Farmers and NAARI to Intensify Cooperation

Vvumba farmers and staff of Namulonge Agricultural and Animal Production Research Institute (NAARI), resolved on 7 December 2000, to intensify co-operation among themselves to increase production in Vvumba, Busukuma, a neighbourhood of NAARI. This was after a two days meeting between Vvumba farmers and researchers, which was carried out at Namulonge to find ways of increasing adoption of NAARI technologies by farmers. This would in turn lead to increased food production, incomes and improved food security in the area.

It was also resolved that: more sensitization should continue, especially among the youth, dissemination of improved technologies be increased, markets be attained and researchers pay regular visits to farmers. Participants of the meeting also resolved to increase exchange visits among farmers of Busukuma and those outside Busukuma. It was agreed to have farmers competing among themselves to improve farming practices. It was also resolved that local leaders visit farmers in their areas of operation to improve agricultural productivity and ensure food security. Visits to agricultural shows and demonstration centres to acquire knowledge would be intensified and communication would be improved.

They selected among themselves leaders to ensure application of their resolutions.

Dr Fina Opio, Director, NAARI pledged the institution's determination to ensure that improved technologies reach farmers. "What we do is show you all the technologies NAARI has such that you can select those you prefer. We then make follow up on the technologies selected", Dr Fina Opio told farmers at the meeting.

Ms Jolly Kabirizi, researcher at NAARI said that the aim of the meeting was to find ways of improving crop and animal production in areas around Namulonge. She said that NAARI was determined to see that areas around NAARI act as examples to others in utilizing the many high yielding and disease resistant technologies at NAARI. She said that in an effort to improve crop and animal production in Busukuma areas, NARO distributed improved seeds for multiplication and arranged exchange visits with other farmers elsewhere. She said that NAARI shows farmers the technologies it has and learns from farmers that they would like NAARI to do for them.

During the two days, farmers learnt about the many technologies NAARI had and visited demonstration plots at NAARI.



Farmers in the neighbourhood of Namulonge show visitors their Cassava gardens . Namulonge is to strengthen cooperation with farmers.

New Namulonge address

The new e-mail address for Namulonge is **naari@afsat.com**

Danes to Give More Support to NARO Livestock Project

The Danish Government is to continue giving support to Livestock Services Research Programme (LSRP) under NARO, to boost animal production in Uganda. This was revealed by the Director of the Danish Institute of Agricultural Sciences (DIAS), Dr Soren Mikkelson, who visited NARO, 15 January 2001, at Headquarters in Entebbe. Dr Mikkelson stressed the importance Danish Government attached to research for Development. He hailed research work conducted at NARO institutes. He advised NARO staff at the institutes to involve farmers in planning, monitoring and evaluation of the project to attain intended goals. He pledged continued support to NARO activities, especially through LSRP.



Dr Soren Mikkelson, Director, DIAS, Denmark (right) chats with Mr Baguma Yona, researcher on Cassava diseases at Namulonge. More support is to be given to NARO LSRP project.

The two parties agreed to increase co-operation in areas of capacity building, geographical information systems, biotechnology, electronic communication and support to library services in NARO.

The Director General, NARO Professor Joseph Mukiibi thanked the Danish Government for the continued support to Agriculture sector in Uganda. He said that NARO had established Agricultural Research and Development Centres (ARDCs) to take NARO services nearer to the people. He said that exchanging ideas and experience among agricultural development partners had a significant contribution to production and growth of the country. He revealed that soon NARO would embark on improving piggery management through research and sharing experience with countries such as South Africa. This he said, would increase meat production and benefit those involved in the sector.

The Deputy Director General in-charge of Research, Dr Aluma assured the visitors that NARO was to revise its medium term plan to incorporate areas that were agreed upon by the two parties.

Dr Cyprian Ebong, Co-ordinator of LSRP said a lot had been done under the project and that this was due to ways in which the project carried out its activities, viz. involving farmers and other end users in project design, implementation, monitoring and evaluation. He also urged the Danish Government to provide institutional support so as to enable them handle research activities.

The meeting was attended by NARO senior staff, representatives from higher institutions of learning, scientists and proect staff.

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Ibanda Farmers Impress Mukono Counterparts

Farmers of Mukono were, 8 December 2000, impressed with good farming practices of Ibanda farmers that enabled the latter produce big bunches of bananas. Mukono farmers had gone to Ibanda for an exchange visit to learn good farming practices and how formation of groups could be used to foster development. The exchange visit was organized by NARO Mukono Agricultural Research and Development Centre (ARDC). In addition to Mukono, NARO also supports Ibanda farmers. Ibanda farmers are organised in small groups which are collectively led by Hon. Deo Rwabiita, the MP for the area.



A farmer from Ibanda shows Mukono farmers soil and water conservation practices. NARO carries out exchange visits for farmers to learn from each other and improve on their farm practices.

At Ibanda, the Director General NARO, Prof. Mukiibi, reminded Mukono farmers that earlier, Matooke was doing better in Buganda than Ibanda and that there was no excuse to perform poorly after learning the good farming practices of their counterparts in Ibanda.

Future is good

The Manager of Mukono ARDC, Mr Lusembo said he saw a bright future for farmers in exchange visits. "This is but the beginning of a series of outreach activities of the center. We shall intensify exchange visits to ensure farmers learn from each other to improve farming methods, increase production and livelihoods", said Mr Lusembo, Manager, Mukono ARDC.

Farmers' Groups good for rural development

Mukono farmers learnt that Ibanda farmers succeeded because they were working as a group. This made it easier for extension agents to approach them. Also, many difficult problems affecting the community were solved as a group, which made it cheaper. "Since problems affecting a particular community are similar, it is easier for these to be solved together rather than individually. It is also easier to learn from each other as a group", said a farmer from Ibanda when asked by *NARO Bulletin* about the benefits of group formation.

Excellent Banana Management Practices at Ibanda

The success of Ibanda farmers was due to good banana management practices. These include: soil and water conservation ("fanya juus" with setaria grass planted on the bands); keeping plant population and spacing under check, trapping of weevils; using manure to improve soil fertility and practicing plantation hygiene such as weeding and prunning.

About the exchange visit

Mukono ARDC is among the ARDCs established by NARO in various parts of the country to take NARO services nearer to farmers. The National Agricultural Research Organisation, which Mukono ARDC is part, carries out exchange visits for farmers to learn from each other. Mukono farmers visited Ibanda to appraise themselves on good banana management practices of their fellow farmers and to learn farmers groups formation and their advantages.

After the visit, Mukono farmers went back to their homes with zeal to practice whatever they had learnt from their fellow farmers of Ibanda.

For more information, please contact: Mr P. Lusembo, Manager, Mukono ARDC, Tel: 077423448

Aquaculture Information Dissemination to be Improved

Stakeholders of the Fisheries Sector resolved, 16 February 2001, to improve dissemination of information on aquaculture. This would encourage more people to recognize aquaculture as an income-generating venture to invest and improve livelihoods of people in the country. The National workshop on Aquaculture information that took place at Imperial Hotel, Kampala, was attended by 146 stakeholders, including representatives of donors national institutions, districts, sub-counties, NGOs, commercial and small-scale fish farmers. NARO was represented by Deputy Director in charge of Research, Dr Aluma; Deputy Director in charge of Outreach, Dr Otim Nape and other Senior scientists.



Mr Dick Nyeko, Commissioner, Fisheries delivers speech at the Aquaculture Information workshop. Right is Dr Ogutu Ohwayo, Director, FIRRI and centre is a donor reresentative.

Stakeholders also resolved to train staff and farmers' skills on fish farming. They also resolved to promote local feeds to supplement the expensive exotic type. Local knowledge would be used to reduce predators in ponds. Stakeholders also suggested having fry centers in each district to reduce problem of fry. Local communities and policy makers were urged to be involved in aquaculture programmes. Women would be empowered to articulate their needs and aspirations and technologies would be developed to suit women needs.

People's attitude towards aquaculture need to change

The Commissioner for Fisheries in Ministry of Agriculture, Animal Industry and Fisheries, Mr. Dick Nyeko, revealed at the closing ceremony that a fisheries project would soon be launched to ensure training of farmers and extensionists. The project would also support fish farming and promote cooperation with grass-roots people for the promotion of aquaculture in Uganda. He urged participants to increase awareness of fish farming in their respective areas of operation so as to change attitudes of the people for the better.

Aquaculture is priority in NARO

Dr R. Ogutu-Ohwayo, Director, Fisheries Resources Research Institute (FIRRI) said NARO puts emphasis on aquaculture and that FIRRI had done a lot in the field of aquaculture. He however said a lot also remained to be done to improve the situation and pledged his institute's readiness to work closely with development partners to ensure promotion of aquaculture in Uganda.

NARO's achievements

Mr. A. Owori Wadunde, Head, Aquaculture Programme at Kajjansi, said achievements since the center was handed to NARO in 1994 include development of fish food and feeds, breeding technologies and aquaculture farming systems. He said a number of technology packages had been released and that facilities were available on station for training farmers and extension staff.

Objectives of the workshop were to present current information available on the status of aquaculture development in Uganda to a wide audience of stakeholders, and to prioritize main issues constraining aquaculture development in Uganda. The workshop also provided an appropriate forum for examining and guiding the way forward for the aquaculture project under the NARO Medium Term Plan 2000 –2004, which was launched by H.E. the president of Uganda on 10 February 2001. The workshop was organized by NARO and Ministry of Agriculture, Animal Industry and Fisheries and sponsored by Department For International Development (DFID).

What you did not know About Bananas

Ask anybody in Uganda about benefits of banana and most will give you food and beverage. Indigenous knowledge, however, shows that although banana is known for being used mostly for the above, it has more value. Banana can for instance be used as medicine for various diseases such as asthma, coughs, wounds, T.B., obesity, diarrhea, loss of appetite, etc. NARO plans to incorporate indigenous knowledge into research and promotion of technologies. This will enable end-users to exploit the full potential of plants. Farmers will also be more willing to adapt the technologies if they know the many other uses of plants.

Medicinal and other uses of banana

Banana stem fiber and peelings can be collected together with other plant materials such as *Jetrophas* ssp. (Enjungula in Ateso) to make local salt. This is used to improve food taste and preservation.

Liquid from pounded Banana stem dropped into the nose treats strong flue/cold. Ashes from the fibers cure cough. Ash from banana fibers can also be licked regularly, mixed in drinking water or mixed in sauce daily to treat obesity. This ash can also be applied on fresh wounds for quick healing.

The sap "amasanda" from the banana "embidde enganda" mixed with "Enkuulukuku entono" are used to heal asthma.

Dried and pounded banana is also used as antidote for poisoned individuals.

Smoke from banana peelings is used for expelling mosquitoes from places where animals and human beings stay-acts as insect repellant.

Roots of this crop are used to heal "Ettalo". Here you pound the fresh root, squeeze and the juice is taken by a person with this problem and also rubbed onto the diseased part for quick cure.

The banana stem paste is used to clean and strengthen baby skin when used for bathing a baby.

The paste can also be used to preserve dead bodies so that they do not get rotten that quickly.

The ripe bananas are used in healing external burns and "Ensundo". This is done by squeezing and rubbing ripe bananas at the problem area.

The ripe bananas are squeezed and smeared to a person with skin allergy – *Urticaria* "Ekirogologo" to cure it. The peelings of ripe bananas are dried, burnt to ashes and taken regularly to cure T.B.

The banana itself is used as food for human beings, the peelings are used as food for livestock and the banana leaves are used for mulching to provide protection to the soil and retain water.

Liquid from pounded and squeezed banana roots and stem eliminates stomach worms and cures stomach pains.

Ash from burnt dried banana fibers can heal burns.

Ash from various plant parts like the fiber, stem and peelings can be mixed with Vaseline and applied to the skin for the treatment and cure of skin rushes.



Mr Male, Herbalist with NARO examines banana. Banana can be used for medicinal purposes. NARO intends to incorporate indigenous knowledge into its research activities.

The fresh banana peelings are chopped and used as chicken feeds especially for egg-laying birds.

The paste from banana roots, stem and fresh fiber is taken by a person with measles "Olukusense" to cure the disease.

Ash from banana stem and fiber is taken to stimulate the appetite.

The ash from various plant parts is mixed with Vaseline and applied on the skin to cure skin cancer.

For more information, please contact Mr. Moses Male, Herbalist,
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NARO Intensifies Cassava Multiplication in West Nile

The National Agricultural Research Organization (NARO), through Abi Agricultural Research and Development Center (ARDC), has intensified cassava multiplication activities in Districts of West Nile. This is intended to address the constraints put forward by stakeholders, 14-16 January 2001, during the planning workshop for Abi ARDC in Arua. At the meeting, farmers pointed out lack of high yielding and disease resistant cassava planting material and expertise on cassava growing as a major constraint to betterment of their farming practices and livelihoods. Cassava is the crop grown by most farmers in the Districts of West Nile where Abi ARDC operates, viz. Arua, Yumbe, Moyo, Adjumani and Nebbi. NARO introduced ARDCs to take technologies nearer to end users and to work more closely with farmers in technology development, transfer and adaptation.

Farmers' involvement crucial

Multiplication of cassava varieties is done on farm with farmers. It is from these farms that other farmers collect the planting materials.

"Demand for the cassava technologies by farmers has doubled over the last one month. What we in NARO do is not only to give them high yielding and disease resistant cassava varieties but also tell them when and how to grow the cassava", said Mr. Gard Turyamureeba, Manager of Abi ARDC. Most planted cassava varieties are SS4 and Migyera.



Mr Gard Turyamureeba (right), Manager, Abi ARDC with farmers in Arua. Abi ARDC has intensified Cassava multiplication in the area, which is benefiting farmers

Farmers hail NARO cassava varieties

The varieties introduced are a "hot cake" in West Nile District. "We so much like the cassava varieties because they are early maturing and very resistant to the cassava mosaic disease", said Florence Adrebu, farmer in Biliafe sub-county, Terego County, Arua District. Farmers said when all of them plant cassava; it was hard for any family to go hungry because it was the main food crop.

About the participatory planning workshop at Abi

A stakeholder's workshop, involving representatives from NGOs, extension agencies, politicians, farmers, policy makers, heads of departments, took place on 14-16 January 2001 at Arua. The DDG in charge of outreach, Dr G.W. Otim-Nape, Senior Research Officers in charge of adaptive research and dissemination, Manager, Abi ARDC, Gard Turyamureeba and other scientists, represented NARO.

The major objective was to, with farmers, identify major constraints and enterprises in the zone, and NARO interventions. Priority enterprises were identified and work plans were drawn out. Enterprises included, in order of priority: Cassava, maize, sweet potato, groundnuts, simsim and beans. The priority livestock were dual-purpose cattle, goats and poultry. Capture fisheries ranked higher compared to fish farming because most of the fishing is in R. Nile and L. Albert. In the forestry production system, plantation and natural forests followed agro-forestry.

NARO has therefore intervened with improved technologies basing on identified priority needs. Priority is now on cassava because it was ranked highest and is the main food crop of the area.

For more information, please contact: Mr. Gard Turyamureeba,
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Rockefeller President Hails NARO Technologies, Strategy

Dr Gordon Cornway, Rockfeller President, was impressed by NARO technologies and her outreach strategy when he visited NARO, 28th November 2000, at NARO headquarters, Entebbe, to acquaint himself with activities done by Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) and NARO. Present at this occasion were the Minister of Agriculture, Animal Industry and Fisheries, Dr W. Kisamba Mugerwa, DG NARO, Prof. J.K. Mukiibi, Deputy Directors of Research and Outreach and other NARO senior staff. Cornway pledged continued support to the agriculture sector.



From left: Dr Gordon Cornway, President of Rockefeller Foundation, Dr Kisamba-Mugerwa, Minister of Agriculture, Animal Industry and Fisheries and Prof. Joseph Mukiibi, DG, NARO as they set out to look at field activities. Dr Cornway pledged continued support to NARO.

Dr Cornway advised that scientists who were to deal with farmers on outreach programme needed training in special skills such as problem solving, communication and social organization.

NARO needs more support

Dr Kisamba Mugerwa said that NARO needed more support from donors to carry out the big task of generating and disseminating technologies "NARO has generated technologies that we have celebrated but we have more research challenges that need support," he told Cornway. "Whatever Rockfeller wants to give MAAIF should go to technology generation," he added. He pledged that MAAIF would provide enabling environment such as policy formulation and technical back-up to realize the plan for modernization of agriculture.

ARDCs good for farmers

The Rockfeller Foundation President visited several NARO research institutes where he appreciated the role of Agricultural Research and Development Centres (ARDCs) in improving communication of technologies to farmers. The Manager, Mukono ARDC, Mr Lusembo said that introduction of ARDCs had taken services nearer to farmers. He said that Mukono ADRC was busy working with farmers and several activities were being carried out together with farmers and other stakeholders. He said that many farmers were going to the ARDC for technologies and that farmer exchange visists would soon be intensified.

Dr Cornway also visited banana research field activities in Masaka where he met with farmers and the latter told him their problems. He appreciated NARO's effort to improve bananas through banana pests and diseases control and other banana management practices.



Mr Peter Lusembo (left), Manager, Mukono ARDC assured Dr Cornway (right) that NARO was working with farmers and that several activities were being carried out together to improve farmers' farm practices.

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