NGETTA ZARDI IMPROVES FARMERS' LIVELIHOODS IN THE NORTHERN REGION OF UGANDA

In a wide-ranging interview with the Director of Ngetta ZARDI, Dr. George Maiteki, the Industrial Review Magazine's Innocent Mangeni sought to get behind the problems faced by Ngetta ZARDI, the back ground information of the institute, the administrative structure and also the activities or enterprises at Ngetta ZARDI. Maiteki, his capacity, is undoubtedly one of the authorities on these aspects of Ngetta ZARDI.



Excerpts from the interview:-

Location Of NGETTA ZARDI

Ngatta ZARDI consists of two stations, the main station is located 5km (3miles) on lira-kitgum road, and a satellite station located on the out skirts of kitgum town. The main station has a total land area of about 221 hectares (550 acres), while the satellite station has a total land area of 70.8 hectares (175acres). The main campus is 1º 17'of the equator, and 32 º 56' ,the elevations is 1180 meters above sea level. The climate at the institute is tropical with mean annual temperature of 30.43º.The lowest temperature (26.14º) is usually in July and the highest (33.39º)is in February . Rain fall at the institute is bi-modal with the first rains falling during march-June, and the second rains falling august-November. Mean annual rainfall is 1035.3mm. The vegetation is savannah grass land with scattered trees and shrubs. The soils are sandy loams, and the topography is flat to gentle slopes. The topography and soil characteristics make the institute suitable for mechanized cultivation.



Administrative Block of Ngetta ZARDI

The background information

Ngetta ZARDI is an institute which started way back in 1930's but at that time it was not a research institute, It

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was a center for cotton development under serere research station. The historical information about Ngetta ZARDI is scanty but it is based on the descriptions on buildings that are found at the station. The real year of starting this research center from its historical back ground was possibly in 1937 under serere research station. then immediately after world war II in 1945, the colonial government at that time thought it fit to make it a center for rehabilitation of war veterans, those who had gone for world war II came back and they were rehabilitated in this center and mainly this was purposely to make them oriented towards doing agriculture, getting away from the war kind of environment to make them civilians who would possibly be self sustaining through agriculture. So this place became a war veteran rehabilitation center and this went on up to early 1950's when again the colonial government at that time thought it wise to make it a center for teaching farmers around Ngetta Agriculture research and development center (ARDC) on better farming practices and the area of coverage was not wide thus it was only concentrating an farmers around the institute or center and this type as activity went on up to independence.

In 1964 the independent government of Uganda thought it wise to widen it's scope of operation and coverage and made Ngetta ARDC a district farm institute (DFI) and now this time it was not only covering the area around it but the whole district of lango.

Now the work of the District farm institute (DFI) was mainly shortly related to former of teaching farmers on improved methods of farming in the district for purpose of increased food security and income enhancement and in 1999 by act as parliament the DFI's were given to National agriculture research organization(NARO) and NARO then made Ngetta an agriculture Research and Development center(ARCs) but it could not operate until 2002 and during this time the mandate of the ZAIDI's changed it was no longer just teaching farmers as it was with the DFI's but as an agriculture research and development institute, it was mandated to carry out research in the area but mainly towards disseminating improved agriculture technologies and this was the mandate of ARDCs which was to develop and disseminate Agriculture improved technologies in the mid – Northern Agri-cological Zone. The mid northern agri –cological zone comprised of two districts at that time in 2002 which included Apac and Lira district and this type of mandate continued until 2005, when by the National agriculture research systems' act made Ngetta to become one of the Zonal Agriculture Research and development institute under the National Agriculture research organization (NARO) and having changed the status from Agriculture Research Center to Agriculture research and development institute (ZARDI), The mandate changed from the former of disseminating improved Agriculture technologies to now caring out applied and adaptive research in the northern Agri-cological Zone. The northern Agri-cogical zone now is wider than what institute used to cover while it was still an ARDC, the institute now is responsible for the Lango and Acholi sub-regions. The institute now is in charge of 10 districts of northern Uganda namely:- Amolatar, Apac, Dokolo, Lira, Oyam, pader, Kitigum, Gulu, Amuru and the newly approved district of Otuke.



One of the Technical Members of Ngetta ZARDI



The staff capacity of Ngetta ZARDI as per now comprises of six scientist where by three of them are having masters degrees and other 3 hold bachelors degrees all in the agricultural discipline and these are the ones who are in charge of research at the institute. Then also at the institute, it has a variety of support staff, notably the finance officer, the accounts unit the Auditor, procurement officer, Human resource manager, farm manager and

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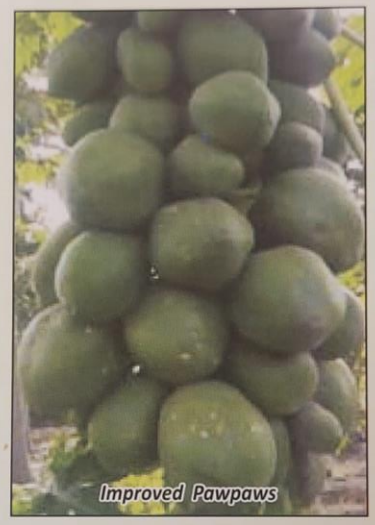
various technicians thus the total number of NARO staff is 20 at the Institute but there are also other non-NARO staff who help in doing work at the station at a wedge level more so at the farm.

The institute also has a satellite station acting as an extension for Ngetta ZARDI which used to be an ARDC for Kitigum district this was transferred to be part of Ngetta ZARDI under the new NARS since Ngetta is the agricultural research and development Institute for Northern Uganda, Stretching up to Acholi sub-region thus Kitgum District is also covered.

Enterprise and activities of Ngetta ZARDI

At Ngetta ZARDI, there are a lot of activities taking place geared at improving Agriculture in the region. One of the major activities which is of paramount importance is caring out adaptive research in agriculture as per the mandate of Ngetta ZARDI under this technologies are carried out and taken to various areas in the zone for trial and whatever technology is found suitable for the farmers according to their selection on the basis of learning by them selves, that technology chosen is distributed finally to all the stake holders of that area in particular and this is the major activity at Ngetta ZARDI and with in this there are various verities of crops which have been selected and tested for example there are various improved verities of cassava it being the major food security crop in the whole country and this include varieties like Akena, MH972961 which acts as the new technologies but before, cassava had a big problem of cassava mosaic but with the above varieties, the disease has been at least managed.



Improved Pawpaws



The Director Ngetta Zardi Dr George Maite and the Project manager Uganda oil seeds association giving motorcycles to stake holders

Also at Ngetta ZARDI there are various varieties of citrus fruits, mangoes and improved goats which have been given out to farmers to improve on there well being.

Another enterprise or activity under taken at the institute mainly is that of seed multiplication under this there is a fully pledged nursery for fruit trees were seedlings of mangoes, orange seeding, avocados, pineapples seedlings are grown and these are accessed by development partners of the institute with in the region especially the non-government organization, the district production departments under local government and Agriculture organizations like food and Agriculture organization (FAO) world food program (WFP) and others for purposes of giving them to farmers so that they can improve on their livelihoods in the region, this seed multiplication in the seedling section is vibrant. The institute also carries out cassava multiplication for the varieties like Akena and MH972961 which are very resistant to the cassava brown stick virus and these are all taken up by farmers through the uptake back method mentioned before. The Director of Ngetta ZARDI stresses further that the institute's management is in good working relationship with National Agriculture Advisory services (NAADS) more especially at the sub-county level where most of the activities of farming take place and NAADS is one of the major development partners of Ngetta ZARDI in the region.



Citrus

Further more, another activity under taken at the institute is fish farming which is a new enterprise and it has been initiated but this enterprise was

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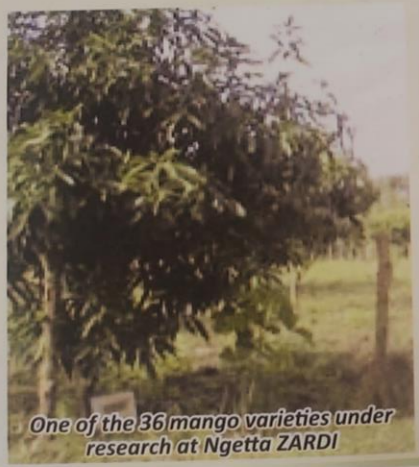
The newly established Acquaculture Centre of Ngetta ZARDI

started after realizing that fish farming in the region is a lucrative business having realized that the nearest lake to Lira for Example is about 90miles a way and when you Extended to Kitigum it's about 150 miles away from the nearest lake there fore these people in this part of the country find it difficult to get fresh fish and there fore this project in fish farming has been started and of which most of the effort is to concentrate on teaching fish farming in the region in a scientific way.

On addition to the above, the institute also carries out activities like teaching farmers who come to the institute using demonstration plots which have a variety of improved crops and one is able to see the modern methods of farming used there for example the spacing, and other Agronomic practices used mostly in modern farming in order to increase on Agriculture production.

Last but not least, the institute also organizes work shops which are related to identify the major priority areas that are of interest to the zone in terms of Agriculture research and development. Finally it is needless to say that the institute has a collection of mango germ plasm of all the mangoes in Uganda which activity was started by Ngetta in collaboration with Kawanda horticulture unit at that time but as per now this unit is based at Namulonge because of new arrangements in the National agriculture research system.



One of the 36 mango varieties under research at Ngetta ZARDI

This Germ plasm was started containing all 36 varieties of mangoes found in Uganda as these are used to improve on farming especially on mangoe growing in the region. The institute also has an agro-forestry unit where different species of tree seedlings are grown f[illegible] example Eucalyptus, pines and others like caliandra, sesbaria and these are used to give a system to farmers to sort of adopt the tree growing system on farm and this has just started but it is an activity seeing how to domesticate our sheer nut butter tree so that farmers can use It as a way of generating incomes. Not to forget the institute under the live stock enterprise, there is an improved goat program consisting of improved goat types like mubende and other local goats and soon the hatchery unit for local chicken is about to start up since the local chicken is on high demand in this zone but the only fore seen problem is getting the chicks never the less, this activity will kick off soon so that the farmers in the region can have access to chicks for poultry production hence improve on their liveli hoods.

NGETTA ZARDI IMPROVES FARMERS' LIVELIHOODS IN THE NORTHERN REGION OF UGANDA



Improved goats under Livestock Enterprise

Challenges faced by Ngetta ZARDI

Ngetta ZARDI as a research institute geared towards development and promotion of Agriculture technologies, it's faced by the problem of long drought period (dry season) which usually sets in around November up to March and usually affects the demonstration plots and other research activities which are crop based.

Another challenge is that the institute covers a wide area that is to say the whole of northern Uganda region with about 10 districts but the facilities available for the staff to implement their work can not make them cover the whole area comfortably. Some of the facilities include one sound vehicle which some time is un available for every one who might want to use it which thus limits the efficiency and effectiveness in delivering services with in the region by the research assistants.

Next is the financial constrain which is always a common challenge to any organization that is to say the institute faces a financial constraints as from the director, the finances that the institute gets usually are not adequate enough for their research activities and there fore the institute is looking for other alternative ways of funding in order to be able to carry out it's research activities effectively so that it does not only rely on government funds but also looks at donor funds from different sources through project proposal writing .

Further more the institute is also under staffed compared to the area of coverage which is too wide and as said before the institute is still young having started its work effectively in July 2007.so the number of staffs that the institute has especially the research scientist who do the real research work is too small.

On addition to the above the institute also faces a challenge of meeting the demand for the seedlings the stake holders and other development partners like NAADS from the seed multiplication unit. As mentioned earlier Ngettas' seed multiplication unit has the best quality seedlings which every body likes because people are fed up of getting mediocre seeds and planting materials which are not of quality hence the demand factor being a major challenge on addition to the wide coverage of the



Nursery bed of Sheer nut Butter Tree



One of the newly acquired tractor planter and a pick-up for Ngetta ZARDI

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Northern Uganda zone. In order to fight this challenge the institute is trying to raise individuals who can stand in as out growers, they grow this type of seedlings but under close supervision of Ngetta ZARDIs' research scientists so that the seedlings that come out from there farms are almost acceptable by the end user.

Finally, the above are the basic challenges faced by Ngetta ZARDI but other challenges include infrastructure being inadequate and requires refurnishing or repair. This shows that, since the institute was still an ARDC and DFI no structure has been added on what was found there before Ngetta became an Institute but the director confirms that they are yet to get infrastructure like laboratory, library and these are important for the research institute to do its research work effectively. Also the available offices are very minimal if the number of staff members is to increase to 41 for the scientist as for the 5th year of NARS. He further stresses that the challenges are there but where there is a will there is always a way and therefore he hopes that the government has a plan of making Ngetta ZARDI a real research institute and he stresses further that in 4-5 years to come everything will be better.

Income generating activities of Ngetta ZARDI

The institute receives money mainly from the government of Uganda but in the past the institute received money form other development partners like the European Union especially when it was still an ARDC and also from the world bank through a project called agriculture research and training program (ARTP) but this funding is not enough because the institute carries out a great number of activities as mentioned earlier thus the farm being large covering about 550 acres of land that must be put into use therefore the institute generates its own income through the seed multiplication program to add on the funding got from the government and other development partners in order to carry out the farming research activities sustainably for a better Ngetta ZARDI and improve on the livelihoods of the stake holders of the Northern Uganda region served by the institute.





Cassava multiplication



Bananas under multiplication



Seedling multiplication for eucalyptus trees



Nursery bed for afro-forestry



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