



NEWSLETTER

Enhance ISPM's Institutional Capacity to provide
quality education in Agriculture (NICHE/MOZ/151).



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Introduction



Carel Jaspers,
Director
Q-Point BV

The project "Enhance ISPM's Institutional Capacity to provide quality education in Agriculture (NICHE/MOZ/151) is funded by the Nuffic/NICHE program and will cover a four-years period. The project will focus on capacity building in the field of Biotechnology and on Agro processing and Food Technology, responding to the needs in the market in Mozambique and with a gender perspective. In this newsletter you find information about the project, the state of affairs, but also backgrounds, stories and experiences of students and teachers. I hope you enjoy reading.

Carel Jaspers, director Q-Point

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Project introduction



Dr. Rafael Massinga
General Director
ISPM

The Manica Province, where the Instituto Superior Politécnico de ManicaI (ISPM) is located, has the privilege of being in the centre of the country, in a region with great agricultural potential due to its agro ecological conditions and its localization, being part of the so called Beira Corridor. Huge investments are foreseen in the Beira corridor development plans, among others, for the agricultural sector, in order to increase agricultural production and food security. The government promotes actively initiatives to increase the productivity level and food security for all.

One of the reasons for the low productivity in Mozambique is that farmers and small holders (including communities) lack access and knowledge to use new technologies. Farmers also lack a sustainable and reliable provision of technical support and laboratory services which results in increased expenses and less economic gains.

This project will play a role in solving the above mentioned shortcomings, while preparing ISPM to respond to actual and future challenges. The specific objective of this project is therefore, to consolidate the institutional capacity of ISPM as a higher polytechnic institute, promoting sustainable agriculture and food production, in order to enhance food security, with gender equality and »

according to the demands of the labour market. Expected outputs are the setup of a Reference Centre to improve practical skills of lecturers and researchers and to offer Integrated Technical Assistance to farmers and community, with emphasis on

women. And to open two new courses, at Bachelor and Master level; one in Biotechnology and one in Food Technology, fully responding to market needs and with a gender perspective. •

Visit Dairy and Food Science Technology Department of Egerton University



Sarrok Talhada
Lecturer
ISPM

On November 1, Rafael Massinga, Carel Jaspers and Sarrok Talhada, visited the Dairy and Food Science Technology Department of Egerton University. After a warm welcome by Prof. Alexander Kahi, Dr. Faraj, introduced us to the department.



Rafael Massinga, Sarrok Talhada, Carel Jaspers

The department is committed to developing and disseminating scientific knowledge and providing the society with quality personal for tackling production research and extension who can contribute to sustainable agro industrial development of Kenya with emphasis on food and milk processing. The department offers several academic programmes on PhD, MSc, and BSc and diploma level.

The Department of Dairy and Food Science Technology has very nice lab facilities, in which students are trained in the basic principles of food technology. For practical training, there is a professional Dairy Pilot plant with new equipment. The dairy plant is certified on ISO 22000. Students from all parts of East and Southern Africa are trained in the department.



Dairy food processing plant Egerton

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In 2014, some staff of ISPM will be involved in MSc or PhD courses in the field

of food technology. •

A qualitative frog leap in Chimoio

Enhancement of teaching quality and management capabilities



Dr. Olaf McDaniel
Managing partner
CBE Group

It does not happen often, that a polytechnic has the opportunity to invest in the improvement of nearly all aspects that are responsible for quality of education. With the help of NUFFIC investment, the Polytechnic ISPM in Chimoio (Mozambique), a consortium of parties is assisting the polytechnic to improve in teacher skills and management skills in the time frame of 2013-2016. Furthermore with another foreign investment (Qatar) a new campus is under construction. This allows the polytechnic to make a giant quality frog leap in the coming years.

The assistance to improve teacher quality and effectiveness contains a number of actions.

- First of all a substantial number of the teachers is trained in their specific field of expertise; many of them to a Master level and some even to PhD level. This will enhance the quality, actuality and relevance of the subjects that are taught.
- Secondly, the teaching skills will be improved by offering the teachers specific and tailor made courses on the basis of a self-assessment scan.
- Thirdly, the level of ICT use will be strengthened though the introduction of a electronic learning environment and teachers will be facilitated with a Wifi network and modern equipment to be able to optimize the use for students and teachers.

In other words: a modern and high quality approach. And this is all carried out with

specific gender attention and consideration of the requirements of graduates for the labor market.

The managers of ISPM were open, hardworking and studious and have taken another step towards a more effective management approach in their daily practice.

Management of educational institutions is a complex task. And during the first visit and management class in Chimoio in September 2013, it became clear that these complexities do not differ much from those elsewhere in the world of education. In Chimoio many of the teachers have also a management task, most often in the field of curriculum design and planning as well as directing a number of teachers to do the right thing.



Teachers and managers in work sessions at ISPM

The method of the course was bottom up: what are the key issues that make it complex? In an inventory of the first day, a list was constructed that will sound »

familiar in many educational institutions all over the world.

Most difficult issues at ISPM are (selection):

- Lack of commitment of teachers;
- Insufficient budget;
- To get people of the organization to understand and accept to implement the government rules;
- To build teamwork to make people follow the same direction to reach the mission, vision, and organizational goals;
- Lack of coordination of activity between different departments;
- Improving the communication system
- Participation of all;
- Manage performance of teachers and staff.

Sounds familiar?

Through a combination of analysis of the present situation (diagnose), a selection of (educational) management literature and much discussion about the possibilities to

introduce other management schemes and modes, we did a number of role-plays to experience various positive and negative management styles from various perspectives.



Teachers and managers in worksessions at ISPM

The managers of ISPM were open, hardworking and studious and have taken another step towards a more effective management approach in their daily practice. •

Labour market need assessment



Olivia Ansenk
Trainer
Q-Point BV

From 27th till 29th of May 2013 I had the pleasure to work closely together with ISPM staff in Chimoio on the Labour market Need Assessment (LNA) approach. The LNA is one of the activities within the Nuffic NICHE/MOZ/151 project.

ISPM together with the consortium will develop and implement new curricula for BSc, MSc and short courses in agro food processing. Since Instituto Superior Politécnico de Gaza (ISPG) is similarly developing new curricula for courses in agro food processing, a collective approach to assess the labor market

needs was chosen. ISPG focusing on sector stakeholders in Chockwe & Maputo and ISPM focusing on stakeholders in Chimoio & Beira.

The aim of the labour market need assessment is first of all to determine the competences and subjects that future employees need to master in order to be successful in the Food Technology / Agro-processing sector. Secondly the aim is to explore significant and meaningful employer engagement in program design and implementation (incl. research). Thirdly the assessment functions as a pilot (first step towards) the implementation of a system for regular review on labour market needs, involving relevant sector stakeholders. »

Carrying out interviews, going into the field, building personal relationships is very relevant for further course developments activities.

During my visit we took our time to develop a questionnaire using input from previous experiences and similar labour market assessments, we practiced the interview process and questionnaire through a simulation, followed by several visits to industry players in the surrounding of Chimoio to test and improve the developed questionnaire and to reflect on the interview process together.



Simulation of questionnaire and interview process at ISPM

We visited a dairy processing, meat processing and vegetable production / processing company. The stakeholders we visited were very open and informative.



MozDan – Dairy products processing



MozDan – Dairy products processing

The participants expressed that they felt well prepared and confident to perform the interviews using the tools developed collectively in the training. Positive feelings were expressed towards the interactive methodology used, the field visits and corresponding reflection sessions. The active participation of ISPM staff in the training led to fruitful results. Afterwards a reporting format was developed to compile results and ease analysis.

Positive feelings were expressed towards the interactive methodology used, the field visits and corresponding reflection sessions.



MozDan – Dairy products processing

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MozDan – Dairy products processing

All interviews (in total 25) scheduled with the industry have recently been completed. In January 2014 a session will be organized, wherein ISPG and ISPM share experiences and present their findings and determine follow up actions. •

Enhancing the capacity of ISPM, Mozambique to provide quality education



Prof. James du Preez,
Head of the Department of
Microbial, Biochemical &
Food Biotechnology,
University of the Free
State Bloemfontein,
South Africa

As was explained to me by Carel Jaspers, the Instituto Superior Politécnico de Manica (ISPM) is a brand new institution and eager to establish training and research in biotechnology. Thus it came about that in February this year I visited Chimoio in Mozambique with the remit of giving a presentation to the academic staff on biotechnology.



Visit food technology laboratory Free State

It was apparent that the staff had a very hazy concept of what biotechnology really was; fortunately I had pitched my lecture

at the right level with the aim of giving the staff an orientation of the multidisciplinary nature of biotechnology and its various facets, starting with the origins of biotechnology (think bread, wine and beer) and continuing with an overview of the current so-called green, red and white biotechnologies. Because many of the staff had difficulty in following a lecture in English, my talk had to be translated into Portuguese, which proved to be a bit of a challenge in delivering the presentation.

James du Preez: "I was impressed by the enthusiasm of the staff and their eagerness to learn".

I was impressed by the enthusiasm of the staff and their eagerness to learn. My presentation was followed by discussions with the group. At the end of the discussions, considering that biotechnology was such a wide field and requiring expensive equipment, my suggestion was that they focus on developing facilities and expertise in molecular biology; the rationale being that molecular biology pervades many fields of modern biotechnology. »



Visit food technology laboratory Free State

A follow-up visit to the University of the Free State (UFS) was undertaken on 28 and 29 October by a small delegation from ISPM with Carel Jaspers. This group visited my department (comprising the division of microbiology & biochemistry

and the division of food science) as well as the Institute for Ground Water studies and the Centre for Environmental

Management, as their mission plan included not only biotechnology, but also the areas of agro-food processing/food technology, hydraulics and water supply engineering. During these visits the possibilities regarding ISPM staff and students enrolling for MSc and PhD studies at UFS were explored. Detailed information on laboratory equipment and suppliers were also provided. This initiative is still in its early stage and it is hoped that it will make a meaningful contribution to the development of expertise and infrastructure at ISPM in the above areas of science. •

Curriculum development



Sebastiaan Hetterschijt
Trainer
Q-Point BV

In august 2013 there was a mission about curriculum development. To get a clear picture about current situation at ISPM we started our work with questions about stakeholders and Labour Market Needs Assessment, this before starting the development of the curriculum. We talked about the agricultural strategy of the government of Mozambique, also to use this information in the curriculum.

The internal Quality Control committee at ISPM was also taken into account. An important part of the curriculum are the Agrobizz developments in Mozambique. Next to the Labour Market Needs Assessment it gives a good picture of the situation student dealing with when they leave ISPM. It is important to incorporate this developments in to the lesson material and lessons.

Sources for information about agrobizz are National Statistics Agency, banks, Cepagri, CPI, USAID, Billa foundation, institute INOC, Van Duzi etc.



New building ISPM campus

Use the information out of your Labor Market Needs Assessment (LMNA) to stay connected with the market and the agrobizz developments. ISPM will be more connected with the agro business and will offer student more practical lesson so that they are more useful for companies. »

Important technology's for Agro-Food education: Meat (including: egg's, poultry, beef, aquaculture, pig, leather production) / dairy / fruit & vegetables (like corn, beans) / seed production.

Discussion about LMNA, important issues are: Knowledge of usage of machines, marketing, selling products, certification of products etc. It is important to listen good to your stakeholders, it will be the bases for the course. We talked about the professional domains:

1. Research and development
2. Commerce, service and support
3. Application and production laboratories
4. Laboratory Diagnostics
5. Engineering
6. Manufacturing / production
7. Quality Assurance.



Biotechnology laboratory

Important element in education: Business Industry Centre / commercial kitchen / pilot plant, to encourage emerging farmers, to work-out business cases for farmers, to promote linkage in the agro-food chain, mechanization, supply chain, value chain management. •

ISPM is taking commitment towards gender equality and equal opportunities for men and women.



Christine Verheijden
Expert gender & water
Diversity4Change

Angela Manjichi, recent elected Chair of the Gender Task Force (GTF), is satisfied about the process taking place at ISPM: 'I see now more opening for gender equality issues. Although we are not there yet', she expresses. 'We need to invest still much more in order to reach a more integrated approach of gender mainstreaming'. Gender equality is not an issue to address separately or in isolation. It is not a pilot activity, i.e. only at the level of courses by including a gender module within the current course curriculums. But it should be also integrated at institutional level.

Empowerment of women for development of leadership skills will need attention.

Looking back from the start of the project with the gender assessment, interest on gender equality is slowly awakened among the different target groups belonging to ISPM community. This process should be continued, and each target group has different needs regarding strategies and process. Taking the students, for Angela it was an eye-opener last.

May that they expresses to be interested in more gender courses as they want to know more about practical applications of gender equality within the different fields. Currently the gender module focuses more on theoretic content. »

At the level of staff there is also a lot of work to do, but in a different way. At management and direction level certain knowledge on gender equality issues and its importance is present. However among lecturers, and even more at level of CTA, much more work needs to be done, as cultural values are influencing very strongly within this group. Empowerment of women for development of leadership skills will need attention.

The bottle-necks, weaknesses and gender gaps identified during the gender assessment as also the lesson learned during that following period have given the skeleton for building the road to follow.



Angela Manjichi explaining the dream and road to move forward to management and direction of ISPM

The 2nd gender mission has given the GTF satisfaction, as Angela explains: 'I am happy, because it is more clear and precise what we need to do. Before the workshop I was still confused about how to continue, but by drawing our dream of a gender-sensitive ISPM, helped us to define and prioritize (small) steps we need to take.'



Members of management and direction putting attention to the presentation during the wrapping-up session.

Now we know the way forward, it is more tangible. Besides, management and direction showed much more opening, by showing their commitment for the developed Gender Action Plan and the awarding of the Gender Office.' •

Partners



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CBE International
The Netherlands



Egerton University
Kenya



University of the Free State
South Africa

Requesting organisation



ISPM- Higher Polytechnic
Institute of Manica
Mozambique

Donor



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