Monday, January 02, 2012

To: Members of Staff

THE 25TH VICE-CHANCELLOR’S MONTHLY PRESS BRIEFING, HELD ON MONDAY 2ND JANUARY 2012

Introduction
The Acting Vice-Chancellor, Professor Venansius Baryamureeba welcomed all present and thanked members of the media for consistently reporting about Makerere’s research and innovations. The participating units were: The College of Natural Sciences (CoNAS), College of Veterinary Medicine, Animal Resources and Bio-Security (CoVAB) and the Department of the Academic Registrar.

In attendance were:
(i) Professor Venansius Baryamureeba – Ag. Vice Chancellor
(ii) Mr. Alfred Masikye Namoah – Academic Registrar
(iii) Professor J.Y.T Mugisha – Ag. Principal, CoNAS
(iv) Dr. S. Nyakaana – Associate Professor, CoNAS
(v) Dr. E. Barifaijo – Associate Professor, CoNAS
(vi) Dr. Maud Kamatenesi – Dean, School of Biosciences, CoNAS
(vii) Dr. Ruth Muwazi – Ag. Deputy Principal, CoVAB
(viii) Dr. Eddie Wampande – Lecturer, CoVAB
(ix) Ms. Ritah Namisango – Senior Public Relations Officer
(x) Ms Jovia Musubika Kavulu – Communication Officer, CoVAB
(xi) Ms Zaam Namuli Ssali – Communication Officer, CoNAS
PRESENTATIONS

1.0 Presentation from the Vice Chancellor

1.1 Happy New Year Wishes

On 1st November 2009, I took over office as the 14th Vice Chancellor of Makerere University. In my business plan, I prioritized the media as strategic partners. I was conscious of the tested statement that the media can build or break an institution. My major task was to work with the media to build Makerere University. I therefore take this opportunity to say that with the support and goodwill of the media, Makerere University has increasingly become relevant to the citizens and communities it exists to serve.

You have accorded us extensive coverage, enormous time to create the Makerere news angles, catchy phrases, quotations, bytes, cartoons and lasting messages in people’s minds. You have supported all the institutional efforts aimed at improving the visibility of Makerere University. Together, we have contributed to building a favourable image of this great institution and significantly witnessed the creation of positive perceptions and attitudes towards Makerere University.

At the institutional level, the Year 2011 saw the recruitment of College Communication Officers to coordinate the communication function at the Unit levels, ensure improved flow of information, but also build and create lasting synergies with the media.

Last year also saw the introduction of the Media Week, which will be an Annual Event. We remain highly indebted to the favourable coverage accorded to us during the Media Week held from 12th to 16th December 2011.
In the Year 2012, we shall focus on scaling our media relations to greater heights including activities where each one of you will actively participate.

With the 25th Vice Chancellor’s media briefing being held today 2nd January 2012 (a day after 1st January 2012), allow me, on behalf of Makerere University, to Wish you a happy, fruitful and a prosperous New Year 2012.

1.2 Who is who in Public Relations and Communications Department at Makerere University?

1.2.1 Senior Public Relations Officer of Makerere University

Ms Ritah Namisango becomes the Senior Public Relations Officer of Makerere University with effect from today 2nd January 2012, after seven (7) years of dedicated service in the Makerere University Public Relations Office.

Ms Ritah Namisango, a specialist in communication and public relations, holds a Master of Arts in International Relations and Diplomatic Studies and a Bachelor of Mass Communication from Makerere University.

In 2004, Ritah Namisango, a student intern joined the Makerere University Public Relations Office, little known to her, that this was to later on turn into her desired employer.

On completion of her internship training, the then Public Relations Officer of Makerere University, Ms Helen Kawesa who was satisfied with her dedication to duty, ability to multi-task and complete assignments on time and ability to work with minimum supervision, requested her to stay and assist her in the coordination of the communication and public relations function of Makerere University.

In 2006 I, Prof. Baryamureeba, was then the Dean at the Institute of Computer Science, but I had on several occasions interacted with her in the conduct and management of her public relations function, and I was impressed to see such a hardworking young person. I advised her, and I am sure she still remembers that: “It is not age that matters, but the quality of work.”

From 2007, Ms Ritah Namisango assisted the Senior Public Relations Officer in the coordination of the communication and public relations function of the University.
In April 2011, she was appointed Communication Officer in the University after emerging the best candidate during the interviews. She was posted to the College of Humanities and Social Sciences, but I still requested her to continue with the coordination of the communication and public relations function in the University, a duty she fully accepted.

She has served as the Ag. Senior Public Relations Officer of Makerere University from February 2010 to December 2011.

Today, 2nd January 2012, Ms Ritah Namisango becomes the Substantive Senior Public Relations Officer of Makerere University with the following duties:

• Manage and coordinate the public relations and communication function of the University.

• Take the lead in the development of communication strategies and plans for diverse and highly complex communication campaigns of special significance to the University's image and in anticipating critical communications/public relations’ issues; contribute to the formulation of the University's public position on critical issues.

• Coordinate and oversee the public relations and communication function within the constituent colleges of Makerere University through the College Communication Officers.

• Communicate the official position of the University to the internal and external stakeholders.

• Represent the University on a broad range of complex and sensitive issues, regularly address major audiences (e.g. government officials, civil society, private sector, academia, media, etc.) on University issues and topics of interest, appear on national radio and television programs, and deal with prominent individuals of importance to the University.

• Either prepare or oversee the preparation of major communications products, including briefings and speeches for senior management, internal and external stakeholders.

• Serve as principal liaison for national and international groups, media organizations, journalists, inquirers and serve as the main link with major internal audiences such as staff associations and Students’ Guild among others.

• Participate in the coordination of the University’s events, ceremonies and corporate social responsibility programmes.

• Supervise and evaluate the staff in the Makerere University Public Relations Office.

On my own behalf and on behalf of Makerere University, I take this rare opportunity to congratulate Ms. Ritah Namisango on this important appointment.
1.2.2 Makerere Public Relations and Communication Team

a) Public Relations Office team

<table>
<thead>
<tr>
<th>Name and position</th>
<th>E-mail address</th>
<th>Telephone contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ms Ritah Namisango, Senior Public Relations Officer</td>
<td><a href="mailto:pro@admin.mak.ac.ug">pro@admin.mak.ac.ug</a></td>
<td>0702944224</td>
</tr>
<tr>
<td>Ms Marion Alina Olga, Assistant Communication Officer</td>
<td><a href="mailto:amarion@admin.mak.ac.ug">amarion@admin.mak.ac.ug</a></td>
<td>0772922777</td>
</tr>
<tr>
<td>Mr. Issa Agaba Mugabo, Brand and Marketing Manager</td>
<td><a href="mailto:iagaba@admin.mak.ac.ug">iagaba@admin.mak.ac.ug</a></td>
<td>0772920337</td>
</tr>
<tr>
<td>Mr Mark Wamai, Web Manager</td>
<td><a href="mailto:mwamai@admin.mak.ac.ug">mwamai@admin.mak.ac.ug</a></td>
<td>0772411992</td>
</tr>
<tr>
<td>Mr. Elias Tuhereze, Web Administrator</td>
<td><a href="mailto:eliast@admin.mak.ac.ug">eliast@admin.mak.ac.ug</a></td>
<td>0702473473</td>
</tr>
</tbody>
</table>

b) College Communication Officers

The College Communication Officers are responsible for the communication and public relations function in the colleges. Below are the contacts of the College Communication Officers.

<table>
<thead>
<tr>
<th>Name and College</th>
<th>E-mail Address</th>
<th>Telephone number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ms Harriet Nyakaana College of Business and Management Sciences</td>
<td><a href="mailto:pr@bams.mak.ac.ug">pr@bams.mak.ac.ug</a></td>
<td>0776-303596</td>
</tr>
<tr>
<td>Ms Hasifa Kabejja College of Humanities and Social Sciences</td>
<td><a href="mailto:pr@chuss.mak.ac.ug">pr@chuss.mak.ac.ug</a></td>
<td>0776312076</td>
</tr>
<tr>
<td>Ms. Jane Anyango College of Agricultural and Environmental Sciences</td>
<td><a href="mailto:pr@caes.mak.ac.ug">pr@caes.mak.ac.ug</a></td>
<td>0712-869143</td>
</tr>
<tr>
<td>Ms Milly Nattimba College of Health Sciences</td>
<td><a href="mailto:pr@chs.mak.ac.ug">pr@chs.mak.ac.ug</a></td>
<td>0782-549387</td>
</tr>
<tr>
<td>Ms Betty Kyakuwa College of Engineering, Design, Art and Technology</td>
<td><a href="mailto:pr@cedat.mak.ac.ug">pr@cedat.mak.ac.ug</a></td>
<td>0772-697500</td>
</tr>
<tr>
<td>Ms Jovia Musubika Kavulu College of Veterinary Medicine, Animal Resource and Bio-Security</td>
<td><a href="mailto:pr@vetmed.mak.ac.ug">pr@vetmed.mak.ac.ug</a></td>
<td>0759-986536</td>
</tr>
<tr>
<td>Ms Sheila Mwebaze College of Education and External Studies</td>
<td><a href="mailto:pr@cees.mak.ac.ug">pr@cees.mak.ac.ug</a></td>
<td>0785-854385</td>
</tr>
<tr>
<td>Ms Maria Roselyn Muzaaki College of Computing and Information Sciences</td>
<td><a href="mailto:pr@cis.mak.ac.ug">pr@cis.mak.ac.ug</a></td>
<td>0702-282421</td>
</tr>
<tr>
<td>Ms Zaam Namuli Ssali College of Natural Sciences</td>
<td><a href="mailto:pr@cns.mak.ac.ug">pr@cns.mak.ac.ug</a></td>
<td>0772-406356</td>
</tr>
<tr>
<td>Ms Harriet Musinguzi School of Law</td>
<td><a href="mailto:pr@law.mak.ac.ug">pr@law.mak.ac.ug</a></td>
<td>0772-452961</td>
</tr>
</tbody>
</table>
1.3 Makerere University honors His Excellency Mwai Kibaki

On 23rd January 2012, Makerere University will confer an Honorary Doctor of Laws (Honoris Causa) to H.E Mwai Kibaki, the President of Kenya.

His Excellency Mwai Kibaki, the third President of the Republic of Kenya is an alumnus of Makerere University, who graduated in 1955 with a First Class Bachelor of Arts degree in Economics, History and Political Science. While a student at Makerere, he served as the Chairman of the Kenya Students Association and also the Vice Chairman of the Makerere Students’ Guild. In 1955, he secured a postgraduate scholarship to the prestigious London School of Economics (LSE) for a Bachelor of Science in Public Finance and graduated with a Distinction.

In 1958, President Kibaki returned to his alma mater-Makerere University as an Assistant Lecturer in the Department of Economics where he served until 1960. He then returned to Kenya in December 1960 and became Executive Officer for the Kenya African National Union (KANU), a political party; he had helped found earlier in March of the same year.

Makerere University-his alma mater is privileged to have formed and nurtured his leadership, skills and competences. As such, Makerere is proud of H.E President Mwai Kibaki’s distinguished track record as a Pan-African nationalist; as one of the most brilliant and successful Ministers of Finance in Africa; and as one of the most intellectually accomplished Heads of State with an outstanding legacy in Kenya, East Africa and the African Continent.

Section 47 (i) of the Universities and Other Tertiary Institutions Act 2001, stipulates that the University Senate may consider conferring an Honorary Degree upon any person who has excelled in any sector of life as it may deem fit on the recommendation of an Honorary Degrees Committee established jointly by the Senate and the University Council.

On the recommendation of the University Senate, the Makerere University Council -the supreme governing body of the University - at its 123rd meeting held on Thursday December 8, 2011, noted and unanimously adopted the proposal to honour H.E President Mwai Kibaki in recognition of his distinguished and outstanding contribution to public service at the national, regional and international levels.
The recommendation to award H.E President Mwai Kibaki an honorary Doctor of Laws of Makerere University successfully passed through all the vetting procedures. Upon consideration of his excellent academic performance and teaching service in the then Department of Economics, satisfactory economic record, and laudable gender reforms aimed at empowering women across social and political spheres, two academic units namely the College of Business and Management Sciences and the School of Women and Gender Studies vetted the proposal and highly recommended H.E President Mwai Kibaki to receive this prestigious Award.

On studying the recommendation, both the Honorary Awards Committee and the University Senate observed that H.E President Mwai Kibaki has distinguished himself as a visionary statesman who has tirelessly promoted the social welfare and freedom in Kenya and the region. He has also spearheaded economic development, gender and educational reforms and political cohesion in the Republic of Kenya.

President Kibaki has spearheaded tremendous Political, Social and Economic reforms as highlighted below:

• His government has spearheaded gender and empowerment of women by focusing on implementing affirmative action policies that facilitate the mainstreaming of the needs and concerns of women in the development process. President Kibaki, for example, directed that 30% of all recruits in the Public Service should be women.

• In education, Hon. Mwai Kibaki’s government introduced the policy of free and compulsory primary education, thus making education free and accessible to all Kenyan children. The programme, which commenced in January 2003, has witnessed a tremendous increment in school enrolments especially among the girl-child. The Government is providing free primary education to over 7.6 million children. This includes 1.7 million who would not have access to school because of fees. In addition, gender parity is more or less realized with girls constituting 49% of the primary school-going children. Free Primary Education was followed up by the now successful free secondary tuition programme.

• President Kibaki has also been at the forefront in campaigning for a peaceful conclusion and implementation of agreements in both South Sudan and Somalia. As a result of the peace initiatives Kenya facilitated, a new state of South Sudan was born on July 8th, 2011.

• He has proved to be a true East African by placing regional integration as priority in his international and diplomatic engagements.
• The President has introduced and overseen the adoption of Vision 2030, which is a development plan aimed at raising GDP growth to 10% annually and transforming Kenya into a middle income country by the year 2030.
• Under his leadership, Kenya has witnessed the promulgation of the new Constitution for the Republic of Kenya on 27th August 2011.
• There has been an improvement in the provision and accessibility of health services in public hospitals. The government is now providing free drugs for malaria, Tuberculosis and HIV/AIDS in public health facilities.
• Development has also been widespread throughout the country because of the introduction of devolved funds such as the Constituency Development Fund (CDF) and Local Authority Transfer Fund (LATF).
• The country’s ICT sector has blossomed during Hon. Kibaki’s Presidency. Today, Kenya is a world leader in ICT innovations.
• With respect to observance of democratic rights and freedoms, there is now greater freedom of expression, assembly and association more than at any other time in the country’s history.

His Excellency President Mwai Kibaki is scheduled to receive this prestigious Award on 23rd January 2012 at Makerere University.

1.4 Makerere University Transforms into a Collegiate University

As of Friday 30th December 2011, Makerere University transformed into a collegiate University with 9 Colleges and one School i.e. the School of Law in accordance with the Law governing Universities.

The Uganda Gazette of Friday 30th December 2011 Vol. CIV No. 76 herewith attached contains the Statutory Instrument No. 68 -The Universities and Other Tertiary Institutions (Establishment of Constituent Colleges of Makerere University) Order, 2011. The Statutory Instrument No. 68 is hereby appended.

The Constituent Colleges that have been established by the Statutory Order No. 68 in accordance with Section 29 (1) of the Universities and Other Tertiary Institutions Act, 2001 are indicated in the Schedule as follows:
1. College of Agricultural and Environmental Sciences;
2. College of Business and Management Sciences;
3. College of Computing and Information Sciences;
4. College of Education and External Studies;
5. College of Engineering, Design, Art and Technology;
6. College of Humanities and Social Sciences;
7. College of Natural Sciences; and
9. Note that The College of Health Sciences was established on 1st December 2007 under the “Universities and Other Tertiary Institutions Act (Establishment of College of Health Sciences, Makerere University) Order, 2008.

This now ends the process of establishing the 9 colleges as Constituent Colleges of Makerere University.

Therefore as of 30th December 2011, Makerere University consists of 9 Constituent Colleges and one School i.e. the School of Law.

Plans are underway to ensure that the School of Law transforms into a constituent college of Makerere University by 31st December 2012.

Over the past 16 years, different personalities have participated in the process to transform Makerere University into a collegiate University. I would like to thank all those that contributed to this great achievement.

I would also like to thank in a special way the staff of Makerere University, the University Research, Administrative and Financial Reforms Committee, The College Statutes Committee, The University Senate, The University Council, The National Council for Higher Education, The Solicitor General’s Office, the Ministry of Education and Sports, The Office of the Prime Minister and the Office of the President among others for their contribution and support in this process that has led to the transformation of Makerere University into a Collegiate University. Last but not least I would like to thank our development partners especially Sida and NORAD for the support towards the reforms at Makerere University that have led to Makerere University to transform into a collegiate University.
3.0 Presentation from the Academic Registrar

Makerere University will hold the 62nd Graduation ceremony from 16th to 20th January 2012.

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
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<tr>
<td>1 PHD</td>
<td>28</td>
<td>14</td>
<td>42</td>
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<tr>
<td>2 Masters Degree</td>
<td>646</td>
<td>384</td>
<td>1,032</td>
</tr>
<tr>
<td>3 Postgraduate Diploma</td>
<td>15</td>
<td>03</td>
<td>18</td>
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<tr>
<td>4 Undergraduate Diploma</td>
<td>105</td>
<td>154</td>
<td>259</td>
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<tr>
<td>5 Undergraduate Programmes</td>
<td>5079</td>
<td>4592</td>
<td>9671</td>
</tr>
<tr>
<td>GRAND TOTAL</td>
<td>5873</td>
<td>5149</td>
<td>11,022</td>
</tr>
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<td></td>
<td>(53.3%)</td>
<td>(46.7%)</td>
<td>(100%)</td>
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4.0 Presentation from the College of Natural Sciences (CoNAS)

The College of Natural Sciences (CoNAS) was born out of a merger of the former Faculty of Science and the division of Engineering Mathematics which was a Department in the former Faculty of Technology. The College is composed of 2 schools, the School of Physical Sciences and the School of Biosciences. The Schools are broken down further into departments.

CoNAS is mandated to carry out teaching, research and extension services in the basic sciences, namely biochemistry, botany, chemistry, geology, mathematics, physics, zoology and sports science, which are foundations for the applied sciences. The College of Natural Sciences is positioning itself to become a leading centre of excellence for innovations and capacity building to support the development of Uganda.

Staff and students at CoNAS undertake initiatives for research and innovations that are geared towards capacity development, improved livelihoods and national development. Some of the initiatives at CoNAS include:
Building Human Resource Capacity for the Oil and Gas Sector in Uganda

The College of Natural Sciences is taking initiative to build human resource capacity for the oil and gas sector in Uganda. A multidisciplinary Bachelor of Science programme in Petroleum Geosciences and Production was started during the 2009/2010 academic year. The 45 pioneer students are now in year III. A graduate programme, MSc. Petroleum Geosciences is planned to start next academic year 2011/2012. The MSc. is in collaboration with the University of Bergen in Norway with funding from NORAD. It should be noted that both the undergraduate and master’s programmes will greatly improve capacity building in the country. The two state-of-the-art laboratories set-up in the department will produce graduates that will serve the needs of the oil companies and other stakeholders. They will be able to compete favourably with their counterparts from other countries.

Biotechnology Programme introduced at the College of Natural Sciences

CoNAS has introduced a new programme of Bachelor of Science in Biotechnology. Biotechnology can be defined as “any technological application that uses biological systems, living organisms, or derivatives thereof, to make or modify products or processes for specific use”. It is derived from two words: Bio-the use of biological processes; and Technology-to solve problems or make useful products. The main objective of this programme is to produce a cadre of scientists with sufficient knowledge and skills in the field of modern Biotechnology necessary for enhancing agricultural and industrial production, biodiversity and environmental conservation. The products of this programme will contribute to Uganda’s attainment of a critical mass of scientists that help to integrate these new technologies in the various sectors in Uganda which is an inevitable prerequisite for improving the national economy and wellbeing of the population through increasing agricultural and industrial production, improved human health and addressing environmental degradation and biodiversity loss. This is funded under the Millennium Science Initiative (MSI) through World Bank support to the Uganda National Council for Science and Technology.

4.1 Building Human Resource Capacity for the Oil and Gas Sector in Uganda

The College of Natural Sciences is taking initiative to build human resource capacity for the oil and gas sector in Uganda. A multidisciplinary Bachelor of Science (BSc.) programme in Petroleum Geosciences and Production was started during the 2009/2010 academic year. The 45 pioneer students are now in year III. A graduate programme, Master of Science (MSc.) in Petroleum Geosciences is planned to start next academic year 2011/2012. The MSc. is in collaboration with the University of Bergen in Norway with funding from NORAD.
The above developments can be traced from 2006 when viable economic reserves of oil and gas to the tune of 300 million barrels of crude oil were discovered in the Albertine Graben. This happened with a handful of trained Petroleum Geologists in the country. All of them were and are still working in the Ministry of Energy and Mineral Development (MEMD). During the debate of the Oil and Gas Policy for Uganda in November, 2007, institutions of higher learning were urged to start courses in Petroleum Geosciences and Engineering immediately. Makerere University was best suited in the country to start teaching and learning in the Petroleum Sector because both Geology and Engineering disciplines were already taught at the University.

The programmes offered aim at providing practical skills to the students. In this regard, an Exploration and Production Technology laboratory was donated by Schlumberger Oil field Eastern Ltd (a leading supplier of technology, project management and information solutions in the oil and gas industry). The laboratory is the only one of its kind in the East and Central African region. It is equipped with five (5) state of the art work stations with software (Petrel and Techlog) used in interpretation of oil exploration data. It was launched on 18th October, 2011 and is worth USD 3.5 million. This was in partnership with MEMD.

In addition, a Seismic laboratory will be launched later this month. This follows a formal request to the Royal Norwegian Government to support capacity building at Makerere University during an official visit to Oslo in 2008 by the Honourable Minister of Energy and Mineral Development. Thereafter, visits by officials from the Royal Norwegian Embassy in Kampala and a delegation from the University of Bergen were undertaken on fact finding missions in November, 2009. In October 2010, a proposal for funding was submitted to NORAD and at the end of November, 2011 the proposal was approved and awarded 6,000,000 NOK (~ USD 1,000,000).

In addition to the laboratory, the project will sponsor:

- 5 Ugandan students per year for tuition, monthly stipend, fieldwork and thesis production.
- Norwegian expatriate staff to teach at Makerere University
- Makerere University academic and technical staff for short Petroleum Geosciences courses in Norway
- Workshop and laboratory equipment
- Field vehicle
- Advanced MSc Seismic Laboratory to include refurbishment, hardware and software
- Textbooks and Journals
- Other collaborative support services such as workshops, conferences, staff fieldwork etc.
It should be noted that both the BSc. and MSc. programmes will greatly improve capacity building in the country. The two state-of-the-art laboratories will produce graduates that will serve the needs of the oil companies and other stakeholders. They will be able to compete favourably with their counterparts from other countries. The collaboration with the University of Bergen will help tremendously to re-orient the members of academic staff in petroleum disciplines. Some of the MSc. students will have opportunity to do their research work in Norway. Some Norwegian students will come to Uganda and network with our students. Joint supervision of the students’ research projects with Norwegian Professors will be of immense benefit to the students. Some of the laboratory work will be done in Norway. Our academic staff and students will learn a lot from the experience of Norwegian Professors during the joint fieldwork. At the end of the project, Ugandans will be able to efficiently handle all the courses in Petroleum disciplines and also do independent research.

The College is engaged in partnerships with both government departments and private companies to further enhance the quality of students and staff. Joint fieldwork is undertaken with the Petroleum Exploration and Production Department (PEPD) in MEMD. Furthermore, their laboratories and subsurface data are available for use by our staff and students. Our students are also attached for internship at the PEPD.

Other Oil Companies are working closely with us to nurture the undergraduate programme. Tullow Oil Uganda has for the last three (3) years been attaching our students for internship. The Company also has to date sponsored five (5) of our students for MSc. in Petroleum Geosciences at the University of Manchester, U.K. Tullow Oil PLC is already willing to sponsor a partnership with the University of Aberdeen in Scotland. A number of our former students have also been employed by Tullow Oil. As mentioned earlier Schlumberger Oil field Eastern Ltd. donated the Exploration and Production Technology laboratory. Recently Schlumberger employed one of our students and three others are on their waiting list. Neptune Petroleum Uganda employed three of our students. Dominion Petroleum Uganda sponsored one of our MSc. students for fieldwork and their Chief Geologist hired from Trinity College, Dublin, in Ireland is one of the internal supervisors of the student at the University. The student has also been taken on as a Teaching Assistant in the Department at the University. Total E & P Uganda recently took on two of our former students as company employees.

Historically, geology was first taught at Makerere University in 1967/68 academic under the Department of Geography. A full-fledged Department of Geology was established in 1969. The pioneer students graduated in 1970. Geoscientists find ready employment at the Geological Survey and Mines Department, Directorate of Water Resources Management, Mining Companies and Groundwater Drilling Companies and now Petroleum Exploration and Production Department.
4.2  Biotechnology Programme introduced at the College of Natural Sciences

The College of Natural Sciences (CoNAS) has introduced a programme of Bachelor of Science in Biotechnology. The first students were admitted this academic year (2011/2012).

Biotechnology can be defined as “any technological application that uses biological systems, living organisms, or derivatives thereof, to make or modify products or processes for specific use”. It is derived from two words: Bio - the use of biological processes; and Technology - to solve problems or make useful products. It can also be defined as any technique that uses living organisms or substances from those organisms to make or modify a product to improve plants or animals, or to make microorganisms for specific uses. Biotechnology has applications in four major industrial areas, including health care (medical), crop production and agriculture (production of new and improved crops/foods, livestock improvement (for dairy and beef production) food processing – (cheese, beer, non food (industrial) uses of crops and other products (e.g. biodegradable plastics, vegetable oil, biofuels), and environmental uses. For example, one application of biotechnology is the directed use of organisms for the manufacture of organic products (examples include beer and milk products). Biotechnology is also used to recycle, treat waste, cleanup sites contaminated by industrial activities (bioremediation).

The main objective of the new programme is to produce a cadre of scientists with sufficient knowledge and skills in the field of modern Biotechnology necessary for enhancing agricultural and industrial production, biodiversity and environmental conservation. This is necessary for enhancing national development. The products of this programme will contribute to Uganda’s attainment of a critical mass of scientists that help to integrate these new technologies into the various processes within Uganda which is an inevitable prerequisite for improving the national economy and wellbeing of the population through increasing agricultural and industrial production, improved human health and addressing environmental degradation and biodiversity loss. The graduates from this programme will contribute human resource to work in the various fields to contribute to improved food security, health for national and social development.

CoNAS under Makerere University as a premier public university is aware that science and technology are important components of socio-economic development. It is therefore pertinent that it takes the lead in developing capacity in new scientific areas. Initially, the programme is funded under the Millennium Science Initiative (MSI) through World Bank support to the Uganda National
Council for Science and Technology. Next academic year (2012/2013), the programme will be open to both private and government sponsored students.

In a global view, Uganda, like most other developing economies in Africa, has agricultural production forming the backbone of its economy whereby it contributes more than half of the gross domestic product (GDP). Uganda is also faced with an escalating human population growth rate; with an annual population growth rate of 3%, the total population is expected to be 50 million by 2015. The sustainability of such an economy is however curtailed by poor soils, unreliable climatic conditions, poor agricultural practices, and a host of pest and disease constraints. This has an inevitable consequence of the poor people to be faced with food insecurity characterized by hunger, malnutrition and poverty. Biotechnology will be useful in helping Uganda solve the aforementioned problems and attain the MDGs when applied in the medical, agricultural, industrial and other sectors.

Some of the applications of the knowledge from the biotechnology programme vis a vis the problems it can help solve are summarized below:

<table>
<thead>
<tr>
<th>Problem</th>
<th>Technology</th>
<th>Advantage</th>
</tr>
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<tbody>
<tr>
<td>Combat infectious diseases</td>
<td>Molecular diagnostics</td>
<td>Early disease detection, timely intervention, helps prevent spread of infection, avoids wastage of resources on inappropriate treatments</td>
</tr>
<tr>
<td>Reduce child Mortality</td>
<td>Recombinant vaccines</td>
<td>Reduced risk compared with attenuated vaccines, rational vaccine design</td>
</tr>
<tr>
<td>Improve maternal Health</td>
<td>Sequencing of the genomes of pathogens and their vectors</td>
<td>Boosts search for novel drugs and vaccine, improves understanding of disease mechanisms</td>
</tr>
<tr>
<td>Problem</td>
<td>Technology</td>
<td>Advantage</td>
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<td>Improving children’s nutrition</td>
<td>Nutritionally enhanced genetically modified crops</td>
<td>Many households in developing countries can get essential micronutrients from GMOs</td>
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<tr>
<td>Ensuring environmental sustainability</td>
<td>Bioremediation</td>
<td>Engineer microbes and plants to detect and degrade environmental pollutants in low cost and sustainable manner</td>
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5.0 Presentation from College of Veterinary Medicine, Animal Resources and Bio-Security

The College of Veterinary Medicine, Animal Resources and Bio security (CoVAB) is one of the 9 constituent colleges of Makerere University. It comprises two schools i.e. School of Bio security, Biotechnical and Laboratory Sciences (SBLS) and the School of Veterinary Medicine and Animal Resources (SVAR).

CoVAB is the newest of the University colleges, having been approved by senate on 19th July 2011 and endorsed later in the same year by the National Council for Higher Education (NCHE).

Prior to the transformation of Makerere into a collegiate system, CoVAB was known as Faculty of Veterinary Medicine. It was then elevated to a level of a School (School of Veterinary Medicine) when Makerere became a Collegiate University, before its recent elevation to college status.

5.1 Elevating the importance of Bio-security at CoVAB, Makerere University

Introduction

In line with the 2008/18 University strategic plan and the council resolution of December 2010, the School of Veterinary Medicine (SVM) deliberately transformed into a Constituent College of Makerere University – the College of Veterinary Medicine, Animal Resources and Bio security (CoVAB), whose primary focus is to foster sustainable community development and economic

<table>
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<th>Problem</th>
<th>Technology</th>
<th>Advantage</th>
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growth through the driving of transformative research, knowledge, teaching & learning, skills, technology, innovations, SMEs and community engagement services into society.

**College Structure**
CoVAB, the ‘youngest’ College of Makerere constitutes two schools; **School of Bio security, Biotechnical and Laboratory Sciences (SBLS)** and the **School of Veterinary Medicine and Animal Resources (SVAR)**. The two schools each have 3 departments.

**Emphasis on Bio-security**
Having diversified from offering a mono degree program (Bachelor of Veterinary Medicine) to a multi-degree and multi-functional institution offering diverse demand-driven courses in veterinary and allied sciences, CoVAB is now affirmatively elevating the function of Bio-Security in the University and the region.

Bio security involves the science, art and practice of self-defense against lethal and malicious biological agents harmful to the integrity, sustainability and sovereignty of economies, livelihoods, health, and security systems at national, regional and global scale. Bio security therefore embraces sustainability of systems e.g. a single Ebola outbreak for example may kill only 2 people, but its impact on the economic system is far paralyzing.

The world of animal resources is the natural hub and primary reservoir / hideout for most of the dangerous microbes rocking the planet, threatening global economies, health, security and livelihood systems. This makes veterinary institutions the primary candidates and front liners for taking the lead in promoting capacity building, research, detection, surveillance, prediction, prevention, control, management and governance of these enemies.

**Implementation**
Facilities have been developed including the Walter Reed National Avian Influenza lab, the JICA-MAAIF National Animal Diseases Diagnostic Lab, the Ruth Keesling Centre for Wildlife & Tourism Biosecurity, and USAID-HED Centre for Integrated management of Transboundary Animal Diseases and Zoonoses to deal with the bio security agenda.
CoVAB will collaborate with other colleges such as CHS, CAES and CONAS to enhance the growth of this domain. CoVAB will research, train, develop technologies, and provide outreach in industrial and applied biotechnology, to develop and adapt products such as vaccines and drugs suitable for mitigating bio-threats. Thus, by upgrading infrastructure, human resources and services, Makerere will become a regional centre of excellence in Bio-security.

5.2 Establishment of a Joint National Animal Disease Diagnostic and Epidemiology Centre

Introduction
Makerere University and the Ministry of Agriculture Animal Industries and Fisheries (MAAIF) signed an MOU in September 2009 to collaborate comprehensively in all aspects. One of the activities to put into practice this MOU was to improve the Diagnostic Extension system of the country, a move that has led to the establishment of the Joint National Animal Disease Diagnostic and Epidemiology Centre.

The establishment of this centre was supported by the Japan International Cooperation Agency (JICA) which is committed to improving diagnostic infrastructure in Uganda. The centre has 2 nodes, with one at the Ministry and the other at the College of Veterinary Medicine, Animal Resources and Bio security (CoVAB), Makerere University. The node at Makerere University was inaugurated on 15th-December-2011 at an event officiated by the Minister of State for Animal Resources, Hon. Bright Rwamirama.

The centre is a joint effort by the Government and the University to improve the diagnostic system of farmers across Uganda. Currently, this joint system of operation is being developed in the pilot areas of Mpigi, Mbale, Mbarara and Kiboga in what is referred to as an Academic-Community-Private-Public-Partnership.

This partnership provides a pool of Human Resource (Lecturers and students) that compliments the gaps in the Ministry. The University in return has an opportunity to build skills of academia and students. The academia can also use this partnership to identify relevant research questions that can provide solutions to the challenges faced by communities. Basically the partnership helps to bridge gaps in Human Resource and allow government to infuse policy in university processes.
How it shall work

The pilot districts have regional/satellite labs that pick information from farmers and District Veterinary Officers in those regions. In cases where the labs have failed to diagnose the diseases, the Central Laboratory at CoVAB and the MAAIF laboratory in Entebbe shall act as referral laboratories to receive those samples, diagnose them and deliver quality services that meet international standard operating procedures. So far, 7 Academic staff from CoVAB have undergone skills training to effectively operate the diagnostic laboratory.

Farmers have been spending a lot on treating wrongly diagnosed diseases. This laboratory therefore shall help to save them money by providing them with accurate diagnosis and providing them with information on the action to take so as to save their animals.

There will be a joint National Data Base whereby diseases diagnosed in the Entebbe MAAIF lab can be accessed from the Central Laboratory at CoVAB thus helping with disease surveillance in the livestock sector of the country.

JICA will initially take care of running costs of the laboratory. So far, JICA has invested 3.5million dollars in the project. At a later stage, farmers and the government will be expected to meet the running costs.

Sincerely: Ritah Namisango, Senior Public Relations Officer, Makerere University