RESEARCH REPORT 2012

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TABLE OF CONTENTS

MISSION AND VISION STATEMENTS ........................................................................................................2
MESSAGE FROM THE VICE-CHANCELLOR ..........................................................................................2
MESSAGE FROM THE PRO VICE-CHANCELLOR: ACADEMIC AFFAIRS & RESEARCH ..................4
MESSAGE FROM THE RESEARCH COORDINATOR ...........................................................................5

A: RESEARCH ACTIVITIES OF FACULTIES ...................................................................................7
    FACULTY OF AGRICULTURE AND NATURAL RESOURCES ......................................................7
    FACULTY OF ECONOMICS AND MANAGEMENT SCIENCES ..................................................16
    FACULTY OF EDUCATION ............................................................................................................20
    FACULTY OF ENGINEERING AND INFORMATION TECHNOLOGY .......................................29
    FACULTY OF LAW .........................................................................................................................33
    FACULTY OF HEALTH SCIENCES: SCHOOL OF NURSING & PUBLIC HEALTH ...............35
    FACULTY OF HUMANITIES AND SOCIAL SCIENCES ..............................................................39
    FACULTY OF SCIENCE ...............................................................................................................47

B: RESEARCH ACTIVITIES OF ACADEMIC CENTRES AND CAMPUSES ............................61
    CENTRE FOR EXTERNAL STUDIES .........................................................................................61
    HIFIKEPUNYE POHAMBA CAMPUS ........................................................................................63
    KATIMA MULILO CAMPUS .......................................................................................................66
    KHOMASDAL CAMPUS ..............................................................................................................69
    MULTIDISCIPLINARY RESEARCH CENTRE .........................................................................71
    SAM NUJOMA MARINE AND COASTAL RESOURCES RESEARCH CENTRE .....................80
    RUNDU CAMPUS .......................................................................................................................86
    OSHAKATI CAMPUS ....................................................................................................................90
    UNIVERSITY LIBRARY (INFORMATION & LEARNING RESOURCES CENTRE) ..................92
MISSION AND VISION STATEMENTS

Mission
To provide quality higher education through teaching, research and advisory services to our customers with the view to produce productive and competitive human resources capable of driving public and private institutions towards a knowledge-based economy, economic growth and improved quality of life.

Vision
To be a beacon of excellence and innovation in teaching, research and extension services.

MESSAGE FROM THE VICE-CHANCELLOR

This year is a very special year at UNAM, in that we celebrate its 20th anniversary. When compared to other universities much older than ours in the region, I am pleased to acknowledge that we have come a long way in such a short time of our existence. In
addition to providing an excellent education for our students and building a highly-skilled workforce that is mindful of various responsibilities of democratic citizenship, UNAM strives to push the boundaries of knowledge creation and challenge the status quo at every turn of academic enquiry. We do so in order to contribute to the development and constant transformation of our society and the betterment of the larger world in which we live. I believe that UNAM delivers to these goals at an exceptional level.

As we celebrate our 20th anniversary this year, I would like to highlight notable milestones over the last two decades. These include:

- Development of the requisite research-related policies and guidelines such as the Research Strategy of 2005, a Draft Research Policy, Research Ethics Policy, Ethical Guidelines, and several others.
- Allocation of 30% of the time for academics to engage in research activities, while the rest is for teaching, administration and community engagement.
- Allocation of a modest annual budget to fund research projects, conference attendance and publication fees for academics.
- Establishment of dedicated Research Centres to conduct research of high national priority such as the Multidisciplinary Research Centre (MRC) and Sam Nujoma Marine & Coastal Resources Research Centre (SANUMARC)
- Establishment of the Research & Publications Office, which is responsible for research coordination and management at the university.
- Establishment of various research committees at the different levels of the institutional structures.
- Establishment of the Centre for Quality Assurance & Management (CEQUAM)
- Establishment of UNAM Press, a conduit for scholarly publication for both UNAM academics and other scholars.
- The establishment of the Namibia Development Journal and few other Journals managed by the faculties.
- A robust Staff Development programme to capacitate our staff was established.
- Establishment of several post-graduate programmes in all faculties and Campuses of the University.

Finally, we remain grateful to Government of the Republic of Namibia, donors, sponsors and investors, who generously contribute to our research efforts in order to realise our objectives. We are also grateful to our national and international collaborators who partner with UNAM academics to conduct world-class research. We value these contributions and partnerships and look forward to another successful year.

Prof. Lazarus Hangula
Vice Chancellor
MESSAGE FROM THE PRO VICE-CHANCELLOR: ACADEMIC AFFAIRS & RESEARCH

The University of Namibia (UNAM) recognises and values the importance of research in the creation and dissemination of new knowledge and fostering socioeconomic development by addressing challenges faced by society. It is thus very encouraging to note that UNAM’s research performance and productivity has continued to be on an upward trend. This is mainly due to the hard work and dedication of our academics and the efforts the University puts in support of research and development activities. One of the ways to measure the output of our research activities is by analysing the volumes of scholarly publications in a number of academic disciplines. This year our publications output registered an increase of 24% from 2011, with a total of 367 scholarly publications (in addition to hundreds of other publications) produced. The proportional breakdown of the 367 scholarly outputs is shown in the pie chart below.

This is a commendable output and achievement by our academics and their post-graduate students. This has been made possible because the University continues to create a conducive environment for research, despite the challenges we face. It is expected that output will continue on this trend during 2013 and beyond.

I would like to urge all academic staff members to engage in research because it is only through creation and disseminating of new knowledge that we can realize our goal of transforming our nation into a knowledge-based society. Thus, my Office will leave no stone unturned in our quest to promote research in the University. In our country and in the region at large, we continue to face challenges that continuously require research in order to solve them. Climate change, health-related problems (including HIV & AIDS, Malaria, emerging diseases), natural disasters, food insecurity, poverty, social inequality, gender-based violence, and many others continue to affect our society. I would like, therefore, to encourage staff members to form Research Groups around identified thematic areas in order to carry out focused research and complement our government’s efforts in dealing with these and other challenges.
Congratulations to all our researchers for their achievements in 2012. The University is very grateful to all our sponsors, collaborators and partners who have contributed to the good research results produced by the University and have supported us all the way. I would like to wish all our staff members a very productive 2013.

Prof. Osmund D. Mwandemele  
PVC: Academic Affairs & Research

MESSAGE FROM THE RESEARCH COORDINATOR

This year the Research and Publications Office welcomed two staff members: Dr. Hileni M. Kapenda as Deputy Research Coordinator, who took over from Dr. Gilbert Likando, as well as Ms. Kaarina Mbulu who was appointed as the Secretary for the Research and Publications Office (RPO). Together with the Research Coordinator, Prof. Isaac Mapaure, and Ms. Pamela Claassen, the Research and Publications Officer, the staff complement of the RPO stood at 4 during the year under review. The RPO continued to conduct capacity building (professional development) workshops at various UNAM Campuses throughout the country. This year’s workshops were:

- **Oshakati Campus:** ‘Writing Research Proposals; Writing for Publication’; ‘Use of SPSS and Atlas-Ti in Data Analyses.’ The RPO was assisted by Prof. R. Zimba, Dr. C. Beukes-Amiss and Dr. H. Mitonga to deliver the training. A total of 24 staff members were trained.

- **Hipikepunye Pohamba Campus:** ‘How to Develop a Research Agenda.’ Prof. Mapaure facilitated the process of developing the Research Agenda for Hipikepunye Pohamba Campus, aided by Dr. Kapenda and Ms. Claassen. The Director of HP Campus, Dr. Sacky Iipinge and the RPC Representative at HP Campus, Dr. H. Miranda, were commended for having done a good job in developing the draft document.

The participants were very much engaged in the workshop activities and proposed for Capacity Building Workshops to be longer and at least one week long for them to internalize the materials properly. These Capacity Building Workshops kicked off during 2011, and to date a total of a 130 staff members benefitted from the training. A Workshop was also organized by the RPO (from end of May to early June) to discuss and finalise the Research Policy, Research Ethics Policy and Research Ethics Guidelines. Most participants were the Research & Publications Committee Representatives from various Faculties, Centres and Campuses. The Workshop was very successful and resulted in the mentioned Policies and Guidelines finalized for submission to the relevant Committees for approval.
The Research & Publications Office continued to participate in Induction Workshops organized by the Teaching & Learning Improvement Unit (TLIU) for new staff members. During 2012, presentations about the functions and roles of the RPO were done to new staff members at Main Campus and to old and new staff members at Rundu, Katima Mulilo, and Hifikepunye Pohamba Campuses.

The Research and Publications Office held its annual Planning Workshop at De Duine Hotel, Henties Bay on 01-04 November 2012. The main objectives were: to review the operations/activities for the year especially on issues such as budget; training workshops for RPO staff and academics; policies and guidelines as well as to plan for 2013. The year 2012 was a very busy one and staff members continued to excel in publications output, which made the institution the most prolific research institution in the country.

As part of its 20th Anniversary celebrations, the Research and Publications Office (in collaboration with the Multi-disciplinary Research Centre), organized an institutional-wide UNAM Research Day. The day was celebrated at all campuses where various staff members made academic presentations on their research activities. The highlight was held at the Main Campus where high profile dignitaries graced the occasion.

The RPO continued to manage the research budget which funds attendance at conferences by staff members, payment of page charges for journals and funding research proposals. During 2012, the University funded 22 research projects, supported 21 staff members to attend conferences and funded the payment of page charges for 28 journal papers. The publication output of the university increased by 24% from the previous year. A summary of the outputs has been presented in the Statement by the Pro-Vice Chancellor above.

Prof. Isaac Mapaure
UNAM Research Coordinator
A: RESEARCH ACTIVITIES OF FACULTIES

FACULTY OF AGRICULTURE AND NATURAL RESOURCES

DEAN’S STATEMENT

Applied scientific knowledge and technological advancement have been the spring board for development worldwide. In the past, wealth of countries was defined based on the existence of natural resources. It became imperative for countries with limited natural resources to catalyse economic growth by cultivating knowledge and innovation capabilities. Although the existence of natural resources is a supporting condition towards development, the leveraging of such resources through science and technology is a key pillar of international competitiveness. There are a number of examples of countries that are not necessarily rich in natural resources, but are rich in human resources and have used that resource to engender exponential growth, thanks to knowledge generation and application. This clearly emphasises the need for capacity building, scientific research and development and extension services which apply the results of scientific activities to benefit the grass root level.

Bearing in mind the importance of education and research in line with the Millennium Development Goals, the Faculty of Agriculture and Natural Resources is putting unwavering efforts on imparting knowledge for vision creation and self-sustainability; conducting research to feed the nation and channelling the relevant research output through extension service to beneficiaries. Teaching, research and community services are all provided in different areas of agriculture and natural resources with particular emphasis on areas of importance to economic growth in Namibia. The Faculty of Agriculture and Natural Resources is highly committed to producing graduates capable of formulating and driving strategic development for creation of wealth and consequently, reducing poverty and decreasing the levels of unemployment country wide in a sustainable manner.

In spite of limited research funds, the Faculty of Agriculture and Natural Resources is increasing technical and scientific capacity for active participation in different national programs. The quality of research output remains a focal area with improvement being targeted through capacity building of researchers and supporting staff, equipment acquisition and upgrade and increase of requisite research infrastructures. Teaching has also been improved through capacity building of lecturers and laboratory technicians.

Five supporting research staff members benefited from short course training on poultry production and management in South Africa with the objective of establishing sustainable
projects on egg and chicken production in the country. One technician running laboratory demonstrations to students benefited from a capacity building to acquire more laboratorial skills to assist veterinarian students. Ten staff members including one technician and one lecturer, benefited from a short course on artificial insemination in cattle conducted at Neudamm campus. Some lecturers have concluded their studies abroad at MSc and Ph.D. levels, beefing up the faculty research and teaching competence. The faculty continues to implement existing Memoranda of Understanding with other sister universities in order to increase research activity and boost capacity building of the staff members and so circumvent limitations imposed by inadequate funds for research and capacity building.

Two new departments were established in 2012 namely; Department of Wildlife and Ecotourism and Department of Veterinary Medicine. The latter represents a beginning towards establishment of a School of Veterinary Medicine with the curriculum development process having reached an advanced state. The establishment of these two departments will surely enhance research capacity and broaden the research spectrum of the faculty. All curricula of the on-going educational programmes were revised and approved by the University Senate for implementation while discussions for the establishment of a curriculum on animal health program are underway.

The FANR has been contributing to poverty eradication countrywide, through development of research in fields with substantial multiplier potential such as fisheries and aquatic sciences; food science and technology; animal science; crop science; agricultural economics; integrated environmental sciences. Sustainable initiatives are emerging in the areas of veterinary sciences and wildlife and ecotourism.

Further, the faculty is focused on the application of scientific knowledge for the upliftment of rural communities. To this end, extension and community services are making a difference in people’s lives. An example is farmers who benefited from training on production of various crops such as rice, vegetables; fodder and hay processing. Research on production of offspring resulting from crossing local and imported breeds of cattle aimed at improving milk and meat production and quality, is in progress. Positive reports have been received from different farmers that are project beneficiaries. Experiments on egg production are revealing satisfactory results. This initiative will be extended to rural areas countrywide through capacity building to disadvantaged people, especially the youth in attempt, to contribute to unemployment reduction.
RESEARCH STRATEGIC DIRECTION AND FOCUS AREAS

While the research agenda of the Faculty of Agriculture and Natural Resources (FANR) is broad reflecting diversity of specializations as represented by separate Departments comprising the faculty, the strategic position of the Ogongo Campus focuses on crop production, integrated natural resource management and agricultural economics, This is informed by the geographic locality of the Ogongo Campus within the most populous part of the country where crop production forms the mainstay of local livelihoods as well as the relative competitive advantage the areas has in terms of climate and weather over central and southern Namibia. To this end the strategic research direction and focus areas at Ogongo is geared towards adaptive cropping systems within the flood prone semi-arid north central Namibian rangelands taking advantage of the erratic climatic conditions characterized by both flood and drought conditions.

Neudamm Campus has departments like department of Animal Science; Food Science and Technology and Agricultural Economics. The department of Fisheries and Aquatic Sciences which is located in the Central side of Namibia, can be found at Main Campus. These departments are focused on marine Sciences, food science and animal science. This make the Neudamm Campus a multi-disciplinary research and less crop science research as compared to Ogongo Campus. This strategic choice is influenced by the climatic conditions characterizing the central part of the country favouring most research on livestock production namely pigs, goats and sheep, beef and dairy.

Ogongo has ventured into studying ‘mixed cropping or intercropping’ of drought adapted pearl millet (mahangu), maize and other crops with the flood adapted rice crops with the aim of increasing the preparedness of crop production for any extreme event (drought or flood) eventualities and thus buffer the local farmers against complete crop failures. This is a
five-year multi-disciplinary research project mainly investigating the potential introduction of rice cultivation alongside traditional cropping systems not only in north-central Namibia but covering the periodically inundated floodplains and low-lying areas of Kavango and Caprivi regions.

A major component of the ‘Project for Flood- and Drought-Adaptive Cropping Systems to Conserve Water Environments in Semi-arid Regions in the Republic of Namibia’ project (hereafter the Rice-Mahangu project) involves hydro-meteorological measurements and monitoring of both rainfall patterns and the water situation within the Cuvelai drainage combining direct measurements through instrumentation and analysis geospatial images with the aid of Geographical Information Systems (GIS) software. The aspects being investigated by the hydrology team cover precipitation amounts, occurrence and duration of individual precipitation events, evapotranspiration losses, surface water coverage, soil moisture regimes and groundwater level fluctuations. Socio-economic developmental studies aimed at establishing baseline data on demographic, social and economic conditions of targeted rice farmer, assessing the adoption of rice cultivation, promoting and popularizing rice cultivation through workshops, information field day demonstrations, maintenance of a germplasm of over 120 varieties of rice and the dissemination of rice seeds and seedlings form an integral component of the ‘Rice-Mahangu Project’ housed at Ogongo Campus. Integration of the agronomic, hydro-meteorological and socio-economic research components into a coherent and sustainable rice-mahangu (or rice-maize in the case of Caprivi) intercropping system is the ultimate goal of the project.

Pre-trial production of Lucerne has also been initiated at Ogongo Campus with the aim of scaling it up to full production of irrigated pastures to supplement the dry season fodder supply for the animal production sections, both dairy and beef cattle at Ogongo and Neudamm campuses. After preliminary results indicated viability of growing artificial pasture crops under both rain fed conditions and under irrigation in the local climate, the fodder crop *Galega orientalis* has been selected for intensified production at Ogongo to commence towards the middle of 2013.

Additional to the rice-mahangu and irrigated pasture production Ogongo is partially hosting an on-going trail of fruit orchards in collaboration with the Ministry of Agriculture, Water and Forestry (MAWF) where mango trees are grown. This trial is being run in tandem with a similar one at Etunda irrigation project. Furthermore Ogongo has been long engaged in the production of Brown Swiss dairy cattle and their cross-breeding with indigenous Nguni breeds as a means of ensuring improved milk production for local farmers. The hardy Brown Swiss has been selected for its adaptability to the local rangeland conditions. An integrative research focus of Ogongo is investigating the possibility of utilising rice and sweet sorghum stalks as additional feed for livestock by treating them with urea.
The Rice-Mahangu project is a technical cooperation between the governments of Namibia and Japan under the Science and Technology Research Partnership for Sustainable Development (SATREPS) project jointly implemented by UNAM and Kinki University of Japan. The project is financially supported by Japan International Cooperation Agency (JICA) and Japan Science and Technology Agency (JST). The production fodder crop at Ogongo will be technically and financially backed by a Russian Biotechnology company. In the area of Fisheries and Aquatic Sciences, the focus will be in the areas of aquaculture, eco toxicology, heavy metals and management of fresh water resources.

With regard to value addition to agriculture and natural resources, work is to continue on development of an extruded fish snack that utilizes locally available cereals and low value fish (Horse Mackerel). This is an EU funded project whose broad aim is Food security through the reduction of post-harvest losses of fish. Other work will continue in the area of adding value to indigenous foods through collaboration with the Multidisciplinary Research Centre.

**SWOT ANALYSIS (Research related)**

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<tr>
<th><strong>Strengths</strong></th>
<th>** Threats**</th>
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<tr>
<td>Qualified staff members</td>
<td>Emerging competition from other institutions</td>
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<tr>
<td>Infrastructure that facilitates teaching, learning and research in agriculture</td>
<td>Erratic Rainfall Patterns</td>
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<td>Geographical presence in the country</td>
<td>Loss of animals due to poaching/predators</td>
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<td>Illegal harvesting</td>
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<th><strong>Weaknesses</strong></th>
<th><strong>Opportunities</strong></th>
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<tr>
<td>Inadequate relations with communal farmers</td>
<td>Regional and international availability of research grants</td>
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<tr>
<td>Limited Research Funding</td>
<td>Government emphasis on Food security and sustainable resource utilization.</td>
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<td>Low stakeholder participation</td>
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<td>High staff turnover</td>
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<tr>
<td>Low research output</td>
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<td>Limited community engagement</td>
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**STRATEGIC ISSUES (Research related)**

- Limited Research Funding
- Low research output
- Lack of qualified staff
- Low stakeholder interaction
- High staff turnover
- Limited community engagement
STRATEGIC OBJECTIVES

Responses to the FANR key strategic issues

<table>
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<tr>
<th>Strategic issues</th>
<th>Strategic objectives</th>
<th>strategic theme</th>
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<tr>
<td>Low research output</td>
<td>Increase research output in Agriculture and Natural</td>
<td>Research and Development</td>
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<td></td>
<td>Resources.</td>
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<td>Shortage of subject</td>
<td>Staff development</td>
<td>Teaching and learning and Research</td>
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<td>specialists</td>
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<td>and Development</td>
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<td>Inadequate stakeholder</td>
<td>Improve relevance of FANR programmes</td>
<td>Research and Development</td>
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<tr>
<td>interaction</td>
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<td>High staff turnover</td>
<td>Reduce staff turnover</td>
<td>Operational management</td>
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<td></td>
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<td>Teaching and learning</td>
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<td>Limited community engagements</td>
<td>Enhance community engagement</td>
<td>Stakeholder Relations</td>
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<tr>
<td>Limited Research Funding</td>
<td>Strengthen international liaison and collaboration in</td>
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<td>FANR</td>
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RESEARCH AND PUBLICATIONS

DEPARTMENT OF AGRICULTURAL ECONOMICS

Staff Research and Consultancy

The major project undertaken by the Department during the year 2012 was JICA RICE/MILLET PROJECT. Five staff members (Ms Hangula, Ms Jona, Ms Sheehama, Mr Angula and Mr Thomas) joined the JICA Rice Project in corroboration with the University of Namibia. Three of the Five JICA RICE/MILLET Project participated in Participatory extension training in Japan for a period of three weeks. After brief report on the training, three of the departmental staff member joined the project as well. The members of the project therefore participated in number of project activities e.g. research proposal, designing questionnaires for a Socio-economic baseline survey and also PRA (farm sketches).

Journal Articles


**DEPARTMENT OF ANIMAL SCIENCE**


**Conference presentations**


**DEPARTMENT OF FOOD SCIENCE**

The year 2012 has been a rewarding experience for the Department of Food Science and Technology (DFST). The department secured two externally funded projects. Seven publications have been produced. Two M.Sc. students studying by research have been registered. The final year research projects were applauded by the departmental external examiner; some of these are now under consideration for manuscripts preparation.

**Journal Articles**


doi: 10.5296/jbls.v3i1.1033.

- Shikongo-Nambabi, M.N.N.N., Petrus, N.P. and Schneider, M.B. (2012). The role,
isolation and identification of Vibrio species on the quality and safety of seafood.
Biotechnology and Molecular Biology Reviews, 7 (2), 16-30.
Identification of Putative Vibrio Species Isolated from Processed Marine Fish using

Chapters in books
- Shigwedha, N. and Jia L. (2012). Bifidobacterium in Human GI Tract: Screening, Isolation,
Survival and Growth Kinetics in Simulated Gastrointestinal Conditions. (InTech Open
Access Publisher.

Conference papers
- Shigwedha N., Li Jia and P.G. Bille (2012). Prospective kinetic-measures (D(acid), -D
(bile), -Z(acid) –and Z(bile) –values) for evaluating survival of probiotics in the human
UVphotocatalytic degradation of industrialized textile wastewater.19th International
Conference on Conversion and Storage of Solar Energy, Pasadena, CA, USA, July 29 – Aug
3 (Abstract and Oral presentation).

DEPARTMENT OF VETERINARY MEDICINE

The Department of Veterinary Medicine came into existence only late September 2012 and
as such there has not been any research activity for the year to report of. In line with FANR’s
Research Agenda (2011-2015) the members of the department will continue to do research
on the existing theme topics. In addition we will like to explore topics which pertain to the
establishment of baseline information on the occurrence, distribution and prevalence of
economically important animal diseases in Namibia. We are in the process of identifying
topics and exploring sources of funding for the research projects which will be formulated.
The identified topics will be in line with current focus areas. We agree that this information
is important not only for our students, partners and stakeholders but will also reflect on our
ability and capacity to engage in quality and meaningful research.

DEPARTMENT OF WILDLIFE AND ECOTOURISM

This department is also new, located at Katima Mulilo Campus. In terms of research
programs the department will not be an exception, we will continue to do research on the
existing theme topics in line with Faculty of Agriculture and Natural Resources Research
Journal Articles

Dissertations and Theses

DEPARTMENT OF CROP SCIENCE

Research and Consultancy

The major project undertaken by the Department during the year 2012 was JICA RICE/MILLET PROJECT. The Department was the main executing body of the project. Its Project Manager was Mr Simon Awala. Three other staffs participated in the crop science aspects of the project. This was the first year of the project, which mainly involved setting up a slopped field for simulation of drought and flood events in Namibia. No publications have yet emanated from this research.
Dr. Gwanama was also involved with coordination of the UNAM/SANBio Mushroom Project which was executed through the ZERI Project. Several publications arose from that project and are reported in the UNAM departments where the authors are based, such as the ZERI Project, Chemistry Department and Biology Department. However, one abstract is listed below. A seed production manual produced by one of the staff members is also listed below.


**DEPARTMENT OF FISHERIES AND AQUATIC SCIENCE**

**Journal Articles**


The new research projects started in 2012 are as follows:

(a) EU funded project: Community Conservation Fisheries in KAZA Project
(b) MCA funded project: Impalila Tourism fisheries Management of the Kasaya Channel
(c) MCA funded project: Sikunga Conservancy Tourism fisheries Management
(d) SAREP funded project: Development of a Fisheries Management Plan for the Okavango River
(e) SASSCAL funded project: Improved knowledge of aquatic ecosystems supporting fisheries, development of integrated strategies for sustainable fisheries and improved fisheries management
(f) Walvis Bay Municipality funded project: Zoobenthos Survey In The Walvis Bay Lagoon

**FACULTY OF ECONOMICS AND MANAGEMENT SCIENCES**

**DEAN’S STATEMENT**

It is worth noting that the research and knowledge generating role of a University, is inert to the extent to which the University, in delivering on its mandate of teaching and learning to its immediate and wider environment, is able to enhance its visibility, relevance and continuing service. Of course, not to talk about the extent to which the output of such research endeavors reinforces teaching and other services. Realizing these, the three cardinal principles invoked to guide research and publications in FEMS are: (i) RELEVANCE: - We strive to ensure that FEMS’s-supported research serves the priorities of the country, the
Southern African region, and the much wider international environment. Some of the research priorities are well articulated in the Faculty Research Agenda; in addition, an overarching new priority for FEMS will be to position itself as a key and recognizable Knowledge Bank in Africa. (ii) OUTPUT ORIENTATION: We lay emphasis on the need for practical solutions which ensure that research outputs are relevant to the immediate environment of the University. (iii) We ensure that issues which arise from real world constraints and opportunities in the immediate and wider environment are examined critically — KNOWLEDGE BANK in the society in which we operate, such that Namibia and Southern Africa in particular, can look up to us for knowledge and research output.

The overall idea is to be able to generate knowledge through research and provide leadership on development and Economic/Business/Governance and related Management issues in Namibia, Africa and the wider community. In what follows, the research and publications from the different Departments of the Faculty are presented.

LIST OF PUBLICATIONS

Journals and Book Chapters

DEPARTMENT OF ECONOMICS


DEPARTMENT OF ACCOUNTING, AUDITING AND INCOME TAX


DEPARTMENT OF POLITICAL AND ADMINISTRATIVE STUDIES

• Van Rooyen, Piet (2012). Rodriguez Queillerie, Cape Town.
• Van Rooyen, Piet (2012). Vaarwel, Klein Soldaat (Go Well, Little Soldier) Protea Boekhuis, Pretoria.

Conference papers/proceedings

DEPARTMENT OF ACCOUNTING, AUDITING AND INCOME TAX


RESEARCH RELATED SIGNIFICANT EVENTS, ACHIEVEMENTS AND MILESTONES

DEPARTMENT OF ACCOUNTING, AUDITING AND INCOME TAX

Conference Participation


Conference Organisation

The Department of Accounting organised the IV International Conference on Accounting & Finance at Hotel Hilton, Windhoek, Namibia on October 9 – 10, 2012. Abstracts of 50 research papers were received from participants from different countries. Out of these 30 papers were presented by participants over four technical sessions of the Conference.
DEPARTMENT OF MANAGEMENT SCIENCE


CONCLUSIONS

FEMS is focused to promote research, particularly by motivating young members and students to undertake research. Focus areas of research have been identified in the Departments and researchers are working in those areas. Members have been encouraged to participate in International conferences and present their research papers. Within limited resources this participation has been encouraging.

Two international conferences were organized under FEMS during 2012, one by the Department of Accounting, Auditing and Income Tax and the other by the Department of Management Science, where researchers from neighbouring countries also participated besides local participants. It is proposed to organize two international conferences during 2013 also.

FACULTY OF EDUCATION

DEAN’S STATEMENT

This report for the Faculty of Education covers the research activities and publications during the 2012 academic year. During the year in review the Faculty held its first Education Conference at Hifikepunye Pohamba Campus in September. At this conference, several quality papers were presented. It was especially pleasing to note the large number of papers presented by colleagues from the Satellite Campus and this in our view augurs well for the research activities in the Faculty of Education. It is our hope that these papers will be published in reputable journals after revisions, incorporating the suggestions given by the colleagues during the workshop.

It is also satisfying to note that a number of papers were published in journals, few as chapters in books and several papers presented at different conferences and workshops. The variety of topics addressed in 2012 is a reflection of the varied research interests in the Faculty and addressed problems facing our education system in the country.

Further, it should be pointed out that the Faculty was involved in research related activities with other Universities in the region and outside the region, such as Hedmark University College in Norway, University of Oulu among others. These links resulted in publications as indicated in this report.
RESEARCH STRATEGIC DIRECTION AND FOCUS AREAS

Research plays an important role in the development of knowledge and in informing our practice as lecturers. It is therefore, imperative that the Faculty develop a long term research agenda that will address issues and problems affecting the education system in our country. This research agenda spans a period of five years starting in 2013 to 2017. This Faculty Research Agenda will be used by the Faculty in obtaining funding from within and outside the University.

Research needs both funding and time off teaching activities. It is therefore our belief and hope that in the next few years, funding and time off will be given to staff to carry out research that will inform our practice. The research envisaged by the Faculty will address various aspects reflecting the expertise in the Faculty. It will include research in areas such as; teacher education, instruction (learning and teaching), teacher/class assessment strategies, child development, gender, ECD, ICTs, school management, administration, community development and lifelong learning to mention just a few. It should be borne in mind that these areas are not cast in stone and the Faculty may need to identify newer areas of research during the said period.

OBJECTIVES

1. Carry out research in areas related to education theory and practice.
2. Carry out research related to community development and empowerment.
3. Carry out joint research with colleagues within and outside the SADC region
4. Disseminate research information through publications.

SPECIFIC AREAS OF EMPHASIS BY DEPARTMENT

DEPARTMENT OF CURRICULUM INSTRUCTION ASSESSMENT STUDIES

- Instruction
- Teaching and learning
- ICT
- Teacher/learner assessment strategies

DEPARTMENT OF EDUCATION FOUNDATION AND MANAGEMENT

- Educational Management and Leadership
- Teacher Education
- Teaching Practice
- Education Reform
DEPARTMENT OF EDUCATIONAL PSYCHOLOGY AND INCLUSIVE EDUCATION

Life skills teachers’ needs and sheltered support for main guidance and counseling issues they experience in their guidance and counseling roles.

- Cognitive factors influencing simultaneous bilingual reading development in Damara/Nama-English, Oshindonga-English, Rukwangali-English, and Lozi-English school children
- The nature of reading difficulties in consistent orthographies

DEPARTMENT OF MATHEMATICS, SCIENCE AND SPORT EDUCATION

- Teaching and learning
- ICT
- Cognition
- Assessment
- Teacher education
- Gender
- Sport Education
- Nutrition/Home Ecology

Pre- and Lower Primary Education

- School case studies on the teaching of numeracy and literacy in Namibian classrooms.
- Development of indigenous languages for tertiary teaching and learning purposes.

Education in Languages, Humanities and Commerce

- Entrepreneurship instructional practices at secondary schools
- Language teaching in schools

In addition, the Faculty’s research direction will involve the areas of interest:

- **Research 1:** Gender and education. Specifically, Gender parity in education. Research Team: Prof. R.F. Zimba (Team Leader); Prof. C. D. Kasanda, Dr. C. Haihambo and Dr. H. Kapenda
- **Research 2:** Assessment. UNAM students’ perceptions of assessment. Research Team: Prof. C. D. Kasanda (Team Leader), Dr. H. K. Mitonga, Prof. R. F. Zimba and Dr. K. Veii
- **Research 3:** Tracer study of UNAM education students. Research Team: Prof. C. D. Kasanda (Team Leader), Dr. C. Villet, Ms. P. February.
- **Research 4:** Sustainable development. Specifically Sustainable development Education. Dr. A. Kanyimba (Team Leader), Dr. M. Hamunyela and Prof. C. D. Kasanda
• **Research 5:** IKS in science teaching. Dr. H. Kapenda (Team Leader-Namibia) and Prof. C. D. Kasanda

• **Research 6:**
  - (1) Factors that make hostel students susceptible to HIV and AIDS infection. (Case of UNAM main & Khomasdal campus, WHK). Mr. Louis
  - (2) Impact of Johanna Benson's Olympic success on the sport attitude of learners with “diffebilities”. (Case of learners at Dagbreek schools). Mr. Louis
  - (3) The process of co-ordination of subjects between the different campuses in the faculty of education. Mr. Louis

• **Research 7:** Dr. C. K. Haihambo (Team Leader), Mr. J. U. Hengari, Ms. P. J. February, and Prof. M. L. Mostert
  - Issues related to sexual orientation at the Main Campus of the University of Namibia. Action research.
  - Learning Difficulties patterns and programmes in Kenya, Namibia and Zambia: An outcome of the Edulink Programme
  - Inclusion and Democracy Programmes in Teacher-Education in Botswana, Namibia, South Africa and Sweden.
  - Needs, challenges and best practices of life skills teachers in Namibia

• **Research 8:** Assoc. Prof. A. Mӧwes and Assoc. Prof. L. M. Mostert: Autism Namibia Research/Survey

• **Research 9:** Mr. Michael Sehani: Challenges and opportunities in guidance and counseling: The case of the Mayuni circuit; Caprivi Region

• **Research 10:** Mrs. Cecilia Sibuku: An Investigation into how Lower Primary teachers in the Caprivi Region promote learning with understanding.

• **Research 11:** Mrs. L. Mbodo (Team Leader), Ms. E. I. Tobias, Ms. I. Patoko, Dr. S. G. Taukeni: A tracer study of the challenges and needs experienced by teachers with visual impairment in the Northern Education Regions of Namibia.

**LIST OF PUBLICATIONS**

**Journal Articles**

Book Chapters


Conference Papers

- Iipinge, S. M. (2012). Teachers’ Perception of their English Language Proficiency in the Light of their English Test Results: A Namibian Case Study. Paper presented to Regional Conference on Research and Publication: University of Namibia, Rundu Campus, 12-13 July 2012.
- Kaapanda, L. An evaluation of factors determining the selection of mobile telecommunications service providers in the northern region of Namibia. 3rd International Conference on Business and Economic Research Proceedings Page Numbers?).
Knowledge Systems Conference on the 24th and 25th of April 2012 at the Gaborone Sun Hotel, Gaborone in Botswana.


- Mostert, M. L. (2012). Examination of thesis and dissertations. A paper presented at the University of Namibia, School of Postgraduate Supervisors Capacity Building Workshop that was held in Windhoek, Namibia from 15 to 16 October 2012.

- Mostert, M. L. (2012). The Namibia Vocational Interest Inventory (NAMVII). Presentation and training for Educational Psychologists at the Continuous Professional Development (CPD) workshop that was held at MyWellness Centre in Windhoek in July 2012.


Education Learning and Teaching Association of Southern Africa (HELTASA)
Conference, Stellenbosch University, RSAS


- Taukeni, S. G. (2012). Defining the role of stakeholders in the provision of basic needs to orphaned learners at school and home. In H. Miranda & S. M. Iipinge (Eds.), The First UNAM Annual Educational Conference Proceedings, pp. 120-225. Ongwediva: HP Campus.


Monograph

- Shalyefu, R. K. (2012). Youth and Adult Learning and Education (YALE) in Namibia, OSISA, RSA. A commissioned research booklet printed by the Open Society Initiative for Southern Africa (OSISA)

Research Reports


Theses and Dissertations


OTHER SIGNIFICANT RESEARCH RELATED ACTIVITIES

Several projects are being taken in the Faculty whose realization will be to the benefit of both the UNAM community and the Namibian society.

Norway Masters Programme (NOMA)

Norway Masters (NOMA) Programme Comprising Hedmark, UNAM and UNZA. The NOMA Workshop on Literacy and Learning was held from 22 to 28 March 2012 at the Fairmount Hotel in Livingstone. Four M Ed students form UNAM presented their research findings at this workshop. In addition to this the findings from a research project conducted by lecturers on the project were also presented and the research results were also
disseminated as a research report (all three countries) and an article (Namibian Results only). See publications.

The comparative research results from the three countries participating in the NOMA project were also disseminated via a comprehensive research report (see publications). The students presented their research under the following titles:

- Constraints encountered by Grade 10 teachers in teaching ESL – a case study of the Oshana Region, Namibia. Simon Lumbu, UNAM student.
- Challenges faced by English teachers in integrating information and communication technology (ICT) in the teaching of reading and writing in selected schools in Namibia. Esther Nuuyona, UNAM student.
- A case study of the factors which inhibit grade 12 learners' comprehension in English as a Second Language at Ongha Senior Secondary School in the Ohangwena region. Leader Ilongwa, UNAM student.

Research Tool on HIV Vulnerabilities

In 2012, the Faculty of Education HIV Focal person, in collaboration with Mr. Maurice Mkusi of the Polytechnic of Namibia and Mr. Tutaleni Asino of the Pennstate University Developed a Research Tool for Assessing HIV vulnerabilities on Higher Education Institutions. This tool is available online and students from UNAM and the Polytechnic of Namibia are ready for implementation in April 2013. Data will be analysed through a computer programme with the help of Tutaleni Asino, dual PHD candidate at Pennstate University who is donating his time and mobilizing resources to make the analyses of the data for this project. It is expected that the findings of this research will assist University Management on improvement of HIV programmes.
HIV Vulnerabilities on Main Campus

At Main Campus, NTERA – Namibia used the initial tool of the HIV Vulnerabilities to do what was intended to be the pilot study, to collect data with the support of four students. The data turned out to be very exciting. The four students presented the paper at a Conference for Education and Democracy and received applause for it. This paper is attached. The students are in the process of preparing their paper for review before it is submitted for publication.

Philip Wetu Teachers’ Guide

Ministry of Health and Social Services, with the support of GIZ, developed a Movie and Comics titled; The Three Lives of Philip Wetu. This is material developed for adolescents and young adults to raise their awareness regarding risky behaviours that could aid HIV-infection. NTERA-Namibia (Network for Teacher-Educators Responding to AIDS) participated in two workshops: One in which Bachelor of Education Students and HIV coordinators of some of our campuses (Main Campus, HP and Rundu) were trained in using the Philip Wetu Movie and Comics as teaching tools and the other aimed at developing a Teachers’ Guide to the Movie and Comics. GIZ has appointed a Consultant who is reviewing the The Teachers’ Guide and getting it ready for publication.

Grapholearn Project

The GraphoLearn Project is an initiative organised by Niilo Mäki Institute and the University of Jyväskylä, Finland with the support of the Ministry for Foreign Affairs of Finland. This particular project aims at establishing a pool of specialists on reading rehabilitation. This is done through training which will result in a Diploma recognized by the Niilo Mäki Institute and the University of Jyväskylä. It also aims at creating opportunities to contribute to international publications. Collaborating partners in the project are tertiary institutions from Kenya, Namibia, Tanzania and Zambia. The main objectives of the Diploma programme are:

- To give the trainees the basic knowledge of learning difficulties that is needed in clinical.
- practice for helping children who struggle with learning, especially in learning to read
- To give the trainees a high level expertise in using and training Graphogame technology for remediation of basic skills in reading and mathematics.
- To provide specialized reading rehabilitation services in a sustainable manner.

Trainees and trainers are required to do specific case studies between seminars, whereby learners with reading and mathematics difficulties are identified through various assessment tests and remediated using the Graphogame technology, which generates data with regard to the learners. The results are reported on at each seminar. The aim is to build a researched profile of learners and their specific learning needs within each of the participating countries, which in turn will inform institutions regarding innovative teaching and learning practices to be carried over to student teachers.
SIDA-MIET Project On Inclusive Education

This project aims at the promotion of inclusive education in each of the participating countries, namely Botswana, Namibia and South Africa with its partner, Sweden. The focus is on promoting inclusive education practices, rather than just disabilities. Action research forms an integral part of this project and teachers are involved in carrying out the action research in their classrooms. Dr. Haihambo is representing the University of Namibia on this project and was in Botswana in the beginning of March 2013 for this project.

Joint Project with the University of OULU

The Faculty of Education had a joint project with the University of Oulu during 2011 and 2012: *Capacity Building in Pre-primary and Lower Primary Teacher Education*. One of the outcomes of the project was to prepare an electronic publication based on the topics of the seminars, workshops and visits that took place during the project. The publication will serve as a way of disseminating the results of the project. The publication will also be used as learning material for UNAM students and teachers.

- Kronqvist, E., Möller, J., & Ketonen, L.(2012). *Capacity Building in Pre-primary and Lower Primary teacher Education – Cooperation between University of Oulu and University of Namibia*. Electronic publication of the University of Oulu and the University of Namibia.

FACULTY OF ENGINEERING AND INFORMATION TECHNOLOGY

DEAN’S STATEMENT

The Faculty of Engineering & Information Technology (FEIT) continued to engage in research activity, amidst the hectic teaching duties and community services. During the course of the year (2012), a notable step was taken to strengthen research activity in the faculty. The Faculty of Engineering & Information Technology Research Centre (FERC) was formally established on July 1, 2012 with Prof. IE Davidson nominated to serve as the Coordinator of the FERC. The FERC is a multi-disciplinary unit across the broad spectrum of engineering disciplines in the faculty, namely: Civil and Environmental Engineering, Electrical Engineering, Electronic and Computer Engineering, Mechanical and Industrial Engineering, Mining and Metallurgical Engineering; focused on applied scientific research and technology development in support of the National Development Plan (NDP) of Namibia, and to improve on the living standards of people in the Namibian society and to contribute towards nation building. The purpose of the FERC is to contribute to the Namibian engineering and scientific expertise through its own fundamental and applied research, and through collaborative work with others. The multidisciplinary nature of our research is reflected in the current and future activities of the Centre’s research and community-based development projects, a number of which are highlighted in this report. The Centre engages in inter-disciplinary approaches to the resolution of real-world engineering problems. The first FERC brochure was published / distributed to the university community and our stakeholders during the research day celebration in September 2012.
The FERC derives its mandate from UNAM’s research vision, which is to become a research institution of international repute in various key areas of research excellence which create and share knowledge needed for the upliftment of the quality of life of the Namibian people. The University of Namibia’s Research Mission is to develop a conducive infrastructure that will ensure that the institution undertakes high quality internationally competitive research, and publishes such work as appropriate to allow its exploitation for the good of mankind, deriving benefits in areas such as economic growth, educational development, cultural integration, health care delivery and social benefits for the prosperity and well-being of Namibia, and other countries beyond the borders. The FERC with its team of dedicated academics and students engaged intellectually and professionally in fundamental and applied research efforts in an inter-disciplinary manner to expand knowledge and resolve real-world engineering problems that strengthen the position and influence of our communities in the world arena.

STRATEGIC RESEARCH DIRECTION AND FOCUS AREAS

FERC engages in value-adding interdisciplinary research investigations which are community-based and focused on:

- Solving basic local engineering problems;
- Critical environmental problems and t
- Develop cost-effective solutions to energy supplies for rural schools and communities in Namibia.

The following are focused research projects being investigated or earmarked for implementation, namely:

**Ongwediva Waste Management System / Bio-gas Production Plant for Community School.**

*Researcher:* Anna Lenhart, *Fulbright Scholar.* Supervised by Prof. FPL Kavishe and Dr. AA Ogunmokun.

**Sustainable Power and Energy Systems**

This is focused on research and development in sustainable energy technologies/systems: generation, transmission, distribution and delivery; including the design, fabrication, construction, installation, applications, operation and management of sustainable electric power and energy systems (alongside conventional sources) for the safe, reliable, and economic delivery of electrical energy for general industrial, commercial, public / domestic consumption. Activities here emphasize environmental issues, engineering sustainability, greenhouse gas (GHG) emissions reduction and carbon neutrality. The following are research activities and community-based projects:

**Grid Interoperation**

Integration of Renewable Energy in Modern Electric Power Systems. Develop methodologies/standards for the integration of renewables and distributed resources into
the SADC electric power pool, beginning with collaboration for Namibian national grid and South African power grid. *Researchers*: Prof. IE Davidson, Mr. MM Bello (Eskom).

**BENGUELA Community-UNAM Wind-Power Project in Luderitz**

This is a joint initiative / collaboration between the MRC, UNAM and the Benguela Community, sponsored by the European Union (EU) for a field implementation of a Wind-power Demonstration system to supply power to the Benguela community in Luderitz, Namibia.

- **Completed Tasks:**
  - Feasibility Studies
  - Site Location/Acquisition
  - Equipment Specification/Tender Process (In Progress)
- **On-going Tasks:**
  - Equipment Supply Tendering Process
  - Equipment verification to match specifications
  - Installation work quality assurance
  - Preparation of the turbine installation drawings
  - Preparation of the training manual of the community technicians
  - Preparation of the guide for training and technology transfer by the supplier, and approval for the compliance of the training with such guide
  - Train the technicians in the recording and collection of key energy supply performance data of the turbines and energy system
  - Supervise and train UNAM engineering students who may use the project as a study site now and in the future.

This project is modular and expandable as more funds become available for increased generation capacity. It will also serve as an experimental research facility. *Researchers*: Prof. IE Davidson (Project Leader), Dr. H. Mu-Ashekele (MRC), Mr. A. Ngoshe, Mr. K Amaambo

**Technical and Economic Evaluation of the Concentrated Solar-Power (CSP) for Namibia**

Namibia faces potential power shortages as early as 2014, when some existing electricity purchase-contracts and agreements will expire. One of the bulk power generation options the government of Namibia is considering is a CSP Plant in Namibia. A final stake-holders consultative workshop was conducted by the Ministry of Mines & Energy, Namibia to evaluate the “Prefeasibility Study for the Establishment of a Pre-Commercial Concentrated Solar-Power Plant in Namibia (CSP NAM Project)”, Namibian Ministry of Mines & Energy, MME Auditorium, 1 Aviation Road, Windhoek, 25th July 2012. *Researchers*: Prof. IE Davidson, Mr. N. Mbaimbai

Compiled a Proposal for **Flood Water Management for the Northern Regions of Namibia**. *Researchers*: Prof. Kavishe, Prof. F.-M. Adam, Prof. Juepner
LIST OF PUBLICATIONS

Refereed journal papers


Conference papers


Other publications

The Faculty of Law of the University of Namibia has since its establishment in the early 1990’s served as the only law faculty in the country. The Faculty has three academic departments namely, the Departments of Commercial Law, Private and Procedural Law and Public Law & Jurisprudence. The Faculty is staffed by 11 full-time teaching staff members and a number of part-time lecturers. It currently has about 880 students who are registered for the following qualifications:

- the 3 year B Juris degree;
- the 2 year LL. B degree (in addition to the B.Juris); and
- the 4 year undergraduate LL. B degree

The Faculty also offers 2 undergraduate diploma qualifications, namely:

- the Diploma in Arbitration and Dispute Resolution; and
- the Diploma in Para-legal Studies

The B Juris and the 2 year LL. B qualifications are being phased out while the 4 year undergraduate LL. B degree is being phased-in with effect from the 2012 academic year. During the year under review, the Faculty registered 14 postgraduate students who are pursuing either masters or doctoral qualifications. The Faculty also hosts two centres, namely the Human Rights and Documentation Centre (HRDC) which focuses on human rights issues in the country and also regionally. The other centre is the Justice Training Centre (JTC), whose main remit is the co-ordination of the professional training of legal practitioners in the Republic of Namibia.

The 2012 academic year has been a very challenging one for the Faculty of Law in as far as research productivity is concerned. In this area, it is very clear that the research profile of the Faculty has decreased somewhat due to a number of factors such as staff resignations, resulting in an extremely heavy workload in the Faculty. Nonetheless, despite these challenges, colleagues in the Faculty were able to research, prepare and present conferences papers. Other colleagues were able to write journal articles and book chapters for publication during the year under review.

The Faculty is fully aware of the need to urgently reverse its current situation and is addressing it through a number of strategies such as the development of a five year Faculty research plan. Its purpose is to identify niche areas of research, taking into account the existing expertise of its current staff cohort. It has also instituted a bi-monthly seminar series entitled “Namibian Law Update” and annual Bench Bar Faculty conference. These are platforms for law academics to meet and present their research findings which, it is hoped will lead to an increased research output in the Faculty. It is also hoped that with the appointment of four new staff members, the current heavy teaching workload on the existing staff will be reduced somewhat to allow colleagues to focus on their research activities. During the year under review, in order to boost its future research output the
Faculty has made a budgetary allocation of N$20 000.00 to each member of staff to attend a conference.

It is against this brief introductory background that I present to you the list of research outputs of the Faculty of Law of the University of Namibia for the 2012 academic year.

LIST OF PUBLICATIONS

Chapters in books


Conference papers /proceedings


CONCLUSION

The Faculty of Law is among the smallest faculties in the university. It has a proud record in research and publications. However, in recent years, due to an extremely heavy teaching load and a relatively high staff turnover, its research outputs have tended to decrease. It is however hoped that the measures being put into place will reverse this trend.
ASSOCIATE DEAN’S STATEMENT

The report for the School of Nursing and Public Health reflects on all the research activities and publications during 2012 academic year. The research output shows a satisfactory increase since 2011 although much still needs to be done. Staff members produced some publications, while others presented either a paper or a poster at international conferences. Some few also produced books.

RESEARCH STRATEGIC DIRECTION AND FOCUS AREAS

Nursing research focuses on generating knowledge of health promotion, aiming to maintain and improve health, alleviate suffering and create conditions for a peaceful death. Although there is no strategic plan for research developed for the school currently, the school will develop such plans as a matter of urgency. The school has identified some contemporary issues such as:

- Effective teaching and learning approaches (*The School is in the process of adopting and adapting Problem-Based Learning (PBL) approach. We have exchange teaching programme with the University of Linkoping (Sweden) where lecturers and students are participating in PBL approach)*;
- Best practices to accelerate Millennium Development Goals related to health;
- Contemporary infectious diseases and
- Professional conduct of nurses.

Some *ad hoc* research is already carried out by individual lecturers on above issues. However, it is essential that the School needs to have a five strategic research plan and also source of funding for implementation thereof.

OBJECTIVES

1. Conduct research in areas related to teaching and learning approaches
2. Conduct research on best practices for acceleration of Millennium Development Goals 4, 5, & 6
3. Conduct research in areas related to contemporary infectious diseases
4. Conduct action research to support nurses to change negative attitudes towards clients/patients

SPECIFIC AREAS OF EMPHASIS BY THE SCHOOL

- **Teaching and learning approaches**
  Problem-based Learning
- **Millennium Development Goals**
  Best practices to reduce maternal and peri/neonatal deaths
  Best practices to reduce HIV prevalence
• Contemporary infectious diseases
  STIs
  Malaria
  Tuberculosis
• Professional conduct
  Professional ethics
  Participatory Action and Reflection approaches

In addition, the school’s direction will involve the following areas of interest (Projects will be conducted by different departments).

DEPARTMENT OF GENERAL NURSING & SCIENTIFIC FOUNDATIONS

• Research 1: Experiences of problem-based Learning by 2\textsuperscript{nd} year nursing students at University of Namibia. Dr K. Amakali.
• Research 2: Perceptions of Nursing Education at University of Namibia: Implications for curriculum review. Prof. L. Small, Prof S.N. Iipinge, Dr P. Angula, Dr L. Pretorius, Ms L. Nelumbu, Ms W. Wilkinson, Ms E. de Villiers, Ms L. van der Westhuizen.
• Research 3: Assessment of nurses’ knowledge perception and practices on tuberculosis (TB) infection control at health care facilities, in Oshikoto and Khomas regions. (Team Leader Dr S. Kuugondgelwa and Ms H. Niikonda)

DEPARTMENT OF MIDWIFERY SCIENCE

• Research 1: Partnership with low-income communities of Sewende Laan and Babylon in Windhoek for reducing maternal mortality rates: An action research. Dr K. Hofnie-/Hoebes
• Research 2: Assessment of training needs of practicing midwives for development of training manual. (Team Leaders: Dr K. Hofnie-/Hoebes and Ms E. Mulenga)

DEPARTMENT OF PUBLIC HEALTH

• Research 1: Needs assessment of Public Health related programmes at University of Namibia (UNAM)
• Research 2: Impact evaluation of Integrated Management of Childhood Illnesses (IMCI) training on the nursing practice

DEPARTMENT ALLIED HEALTH

• Research 1: Assessment of patient education provided by radiographers and students regarding radiographic procedures. (Ms L. Kalondo and C. Nabasenja)
• Research 2: Investigating factors affecting capacity and quality of clinical supervision in imaging department. (Ms L. Kalondo and C. Nabasenja)
**CLINICAL EDUCATION COORDINATION UNIT AND INTERNATIONAL AFFAIRS**

- **Research 1:** A comparative study on perceptions of student nurses and Registered nurses regarding the newly implemented Block system and the Integrated practical allocations. Dr. L. Pretorius and Ms A. Walters
- **Research 2:** Utilisation of scenarios in the facilitation of simulation teaching. Dr. L. Pretorius and Ms A. Walters
- **Research 3:** Assessment of teacher exchange programme at School of Nursing and Public Health. Dr. L. Pretorius and Ms A. Walters.

**LIST OF PUBLICATIONS**

**Journal articles**

- Iipinge, SN. & Pretorius, L. (2012). *The Delivery and Quality of Sexually Transmitted Infections Treatment by Private General Practitioners in Windhoek Namibia.* Global Journal of Health Science; Vol. 4, No. 5; 2012. ISSN 1916-9736 E-ISSN 1916-9744; Published by Canadian Center of Science and Education.
- Ojulong, J., Mitonga, KH. & Iipinge, SN. (2012). *Knowledge and Attitudes of Infection Prevention and Control among Health Sciences Students at University of Namibia.* ScholarOne, 375 Greenbrier Drive, Charlottesville, VA, 22901.
Books and monographs

- Pretorius, L and Small, LF. Book Title: The State of Nursing and Nursing Education in Africa. A country-by-country review. To be launched the first week of August at the STTI conference in Australia.

Conference papers/proceedings


Research reports


CONCLUSION

It is worth noting that the Postgraduate students (Masters and PhD) produced quality research reports on the contemporary public health and nursing issues during 2012 academic year. This rich data need only to be converted into publications with the encouragement and guidance of their supervisors.
The research profile of the Faculty of Humanities and Social Science (FHSS) continues to be impressive. The faculty witnessed overwhelmingly influx of research activities in 2012. These were expressed in a broad range of staff publications, research collaborations, conference attendance, as well as through external collaborations with local and international research bodies.

In line with the University’s new requirements, each department identified research focus areas at the beginning of the year within the framework of its strategic plan (2012-2015) developed in 2012. At its last re-treat in October 2012 all staff members had provided input on their achievements in line with a plan. In most instances, staff members scored very well on their individual plans and some members even exceeded their projected research output for 2012, some in spite of relatively heavy teaching loads. The faculty published 39 refereed articles in scientific journals. Staff members published five Academic books or chapters in books and presented 37 papers at local, national and international academic gatherings.

Despite the high workload, Faculty members also contributed to research by being editor of national/international journals, doing peer review for accredited journals. They also presented a large number of papers at academic conferences by facilitating and conducting workshops and by participating at exhibitions.

Another important milestone is the hosting of the 5th Annual Faculty Research Conference and the launch of the Faculty Journal (Journal for Studies in Humanities and Social Sciences). The Journal establishment was a success as a first printed publication of the Faculty and University at large.

The table below provides main research areas by Department. Even though there has been progress in conducting research, research in the Faculty was hampered by the lack of funding and heavy workload. Therefore urgent steps have to be taken by the Faculty to increase the research output.
Table 1: The main thematic areas of research were as follows in respective Departments:

<table>
<thead>
<tr>
<th>Department</th>
<th>Main area of research</th>
</tr>
</thead>
<tbody>
<tr>
<td>DGHES</td>
<td>Liberation Strangle, Archeology, Climate change and Adaptation, wind patterns in the dunes, Economic impact of Tourism on SME, Determinant and consequences of Urbanization</td>
</tr>
<tr>
<td>DICS</td>
<td>Backlog in Land Allocation, Role of School in Libraries in promoting reading culture, Scholarly communication practices,</td>
</tr>
<tr>
<td>DLLS</td>
<td>Effect of English on Namibia National Languages, preference on implementation of the Language Policy in primary school in Namibia, Inter-cultural perceptions of UNAM students,</td>
</tr>
<tr>
<td>DS</td>
<td>Women and gender rights in Namibia and southern Africa, social media and youth identity shifts, architecture and culture, cultural and linguistic transformations in Windhoek, mortality and health trends in Namibia, trade unions rights and poverty, issues of unemployment, education and democracy, and migration, mobility and electronic communication.</td>
</tr>
<tr>
<td>DVPS</td>
<td>Rituals of Indigenous people,</td>
</tr>
</tbody>
</table>

The following list of research activities / projects should not be regarded as a comprehensive overview, but gives a scope of the variety of research projects conducted by Faculty members.

- Liberal tradition in Colonial Namibia conducted by Prof C Botha.
- Shifting culture, language and identity in Windhoek in collaboration with colleagues Freiberg Institute, Germany.
- Mobile margins: mobile communication and the reconfiguration of the family in post-independence Namibia.
- Sexual and Reproductive Health (SRH), at the phase dealing with adolescents and youth studies.
- Equitable access to health care.
- CoBasys - research project on Community Based systems for HIV treatment.
- Equitable access to health care and the CoBasys - research project on Community Based systems for HIV treatment.
- Reconciliation and violence in the aftermath of large-scale violence: the cases of Angola and Namibia.
- ICTs, labour migration and the reconfiguration of family structures in post-independence Namibia.
- Mobile margins: mobile communication and the reconfiguration of the family in post-independence Namibia.
- Identification of Potential Intervention Mechanisms for Improving Small-Scale Farmers’ Livelihood and Reducing Land Degradation with the Support of PES in the Communal Areas of Northern Namibia.
- Soil and vegetation conservation as tools to earn Carbon credits and the methods used to estimate the carbon credits.
- Impact of bush encroachment on ground water resources.
- Knowledge Management in Namibia.
Within the scope of exchange programmes with existing cooperation agreements between partner institutions in Finland, Sweden, Germany, Spain, Switzerland, USA, and South Africa, the Faculty welcomed colleagues from our partner universities at UNAM, while FHSS colleagues paid visits to these universities or supported them as external examiners. These collaboration strengthen research activities between institutions.

CHALLENGES

The Faculty is convinced that Namibia’s development can only be consolidated through the availability of a pool of well-trained professionals. Unfortunately, some students admitted to the University, despite fierce competition for places, are not adequately trained for embarking on tertiary studies. A lot of time is taken up in raising these students’ analytical skills/capacities. This eats into time, which would otherwise be spent by colleagues conducting research. Despite the fact that the academics of the Faculty have been actively involved in assisting students in their academic endeavors and in spite of the fact that they are under severe teaching pressures because of increasing student numbers and decreasing numbers of staff, the Faculty still managed to produce a significant, but not satisfactory, number of academic publications of reputed standard as is shown in the following table.

Table 2: Research output

<table>
<thead>
<tr>
<th>Academic Books</th>
<th>Chapters in Books</th>
<th>Articles in Refereed Journals</th>
<th>Academic Papers Presented at Conferences</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>2</td>
<td>38</td>
<td>37</td>
</tr>
</tbody>
</table>

LISTS OF PUBLICATIONS BY DEPARTMENT

**DEPARTMENT OF GEOGRAPHY, HISTORY AND ENVIRONMENTAL SCIENCES (DGHES)**

Journal articles


**DEPARTMENT OF INFORMATION AND COMMUNICATION STUDIES (DICS)**

**Journal articles**

Chapters in books


Books and monographs


Conference papers proceedings


SIGNIFICANT EVENTS, ACHIEVEMENTS AND MILESTONES

Two members of staff (Prof K. Mchombu and Dr C. Nengomasha) were involved in the development of a Knowledge Management Framework for the Electricity Control Board (ECB) and produced a research report. Two members of staff (Prof K. Mchombu and Mr W. Uutoni) participated in a Faculty-wide research as part of a study on scholarly communication practices at the University of Namibia: A case study of the Faculty of Humanities and Social Sciences (FHSS) and produced a research report. A member of staff (Dr C.M. Beukes-Amiss) received the UNAM meritorious award for the Faculty of Humanities and Social Sciences. A member of staff (Dr C.M. Beukes-Amiss) was appointed and seconded on a part-time basis by the Vice Chancellor as the chairperson of the Local Organising Committee on behalf of the Ministry of Education and ICT, for the upcoming eLearning Africa (eLA) conference in Namibia, 29-31 May 2013.
Journal articles

- Zappen-Thomson conducted a small research project with her students in the course Intercultural communication (LGT 3800) to obtain more clarity about the way that UNAM students perceive culture.

Books and monographs


Conference papers

• Augart, J. (2012). Intercultural investigations German Crime Fiction in Africa. Faculty of Humanities and Social Sciences 4th Annual Research Conference, September 2012, University of Namibia.
• Presented at the 3rd Annual FHSS Conference at the University of Namibia.
**DEPARTMENT OF SOCIOLOGY**

**Journal articles**


**DEPARTMENT OF VISUAL AND PERFORMING ARTS**

The Visual and Performing Arts department has been involved in a massive research in Ethnomusicology together with experts from the Cibelius Academy in Finland. The project is about researching information and data collection on various rituals of the indigenous people of Namibia. The purpose of this research is to store this information in the museum of Ethnomusicology at the University of Namibia. The programme is sponsored by the Government of Finland through its Ministry of Foreign Affairs. The department is also involved in arts programme exchange called “Linnaus-Palme Exchange” in collaboration with Sida under the University of Umeå -Sweden. Various lecturers published in our Faculty journal and also outside Unam in our individual field of specialization. As artists we are, various performances and exhibitions were staged both inside and outside Namibia in the name of UNAM, and many awards were won in various categories. This makes our department vibrant and famous and our stakeholders satisfied. The department has assisted the college of the Arts and other institutions in terms of curricula for NQF submission and also our lecturers supervised their exam papers for better standard.
DEAN’S STATEMENT

Despite the heavy teaching loads, the Faculty has managed to produce a good number of refereed and conference papers. There were many outstanding research projects going on among others, Marama Bean research, Nuclear Physics, Astrophysics under the HESS project, ecology and conservation, animal and plant breeding research, rural wires network, namibianizing internet, cloud computing technologies, mining and environmental impact and restoration research, ground water, demography, category theory, financial mathematics and dynamical systems, phytochemistry of biologically active plant chemicals against malaria and the synthetic metal complexes with biological activities against malaria parasites and projects on other diseases. Emanating from some of this work, 7 patent letters were locally granted in Namibia and since then and citing the UNAM website the “work was further submitted to the World Intellectual Patent Organization, a United Nations organization with 184 member states, through the Patent Cooperation Treaty (PCT). WIPO through its International Search Authority has granted Novelty and Industrial Applicability to all the applications presented to them”. This is great news for the Faculty and UNAM as it is probably the first time UNAM got some of its research work patented. Furthermore, our Departments have tremendously improved their research capacities, resulting in a higher publication output compared to previous years. The total number of refereed journal articles published during the year was 53, 1 book chapter, in addition to 21 conference papers. This has brought a total of 77 publications plus 7 patents providing a glowing international visibility for our University. The Faculty of Science is still striving to specialize in applied research which has potential to enhance development.

RESEARCH STRATEGIC DIRECTION AND FOCUS AREAS

The Faculty of Science encourages collaborative research and research teams focus their research around specific key themes that are in line with Vision 2030 of the country. Most of the research projects are funded from external funding that was sourced by members of the Faculty. Faculty members were very active and successful in sourcing funding for research projects. Funding agencies and collaborative partners outside UNAM include the Joint Namibian (Ministry of Education)-NRF (South Africa) fund; the National Science Foundation (NSF) USA; Government of the Republic of Namibia (NDP III) fund; CPP/UNEP/GEF fund; Kirkhouse Trust; SIDA-Sweden; BMBF (Germany); NEPAD; SANBio; German-Africa Cooperation Projects in Infectology; African Regional Co-operation Agreement (AFRA); IAEA; WHO, among others. This illustrates the high involvement of members of the Faculty in proposal writing to search funding.

A number of projects are also funded by the UNAM Research and Publication Committee (RPC) funding. Although individual departments have members with different skills and areas of specialization collaborative researches between departments also take place. Collaborative projects between various departments include: Traditional knowledge
systems; Mushroom research; Nutritional and medicinal value of indigenous plant extracts; Water quality research; Research on Climate Change, among others. The focus areas and research activities within individual departments are given below.

DEPARTMENT OF BIOLOGICAL SCIENCES

Ecology and Conservation

- Assessing the effect of herding on livestock performance in semi-arid communal rangelands in South Africa and Namibia.
- Population dynamics *Moringa ovalifolia* Dinter & Berger: Population structure, recruitment and reproductive vigor in different habitats.
- Flora of Namibia Project: This is a collaborative research project with the national Herbarium of Namibia and is focused towards the production of a comprehensive and descriptive English Flora of Namibian Plants. It involves collating and analysing data, existing and new, on the indigenous and naturalised plants of the country in order to promote knowledge and sustainable utilisation of this resource.
- Population dynamics of an endemic tree species, *Moringa ovalifolia*: Funded through the University of Namibia Research and Publication Office, in this collaborative research between UNAM, Etosha Ecological Institute, and the National Botanic Research Institute, we address questions around population structure, population dynamics, genetic diversity and reproductive Ecology of populations occupying different habitats in the country.
- Assessment of the effects of variation in vegetation structure due to bush encroachment on the species composition and diversity of small mammals and ground dwelling invertebrates at selected sites in the Omaheke Region.
- Seasonal changes in dietary preferences of the oryx and springbok in Damaraland. This study will be undertaken in collaboration with conservancies e.g. Torra conservancy.
- Human Wildlife Conflict along the Boundaries of the Park.
- Carbon turnover and nutrient cycling in shelf sediments off the Namibian coast
- Dynamics of intertidal zone communities on the coast of Namibia
- Limnology of lentic freshwater systems in Namibia
- Landscape processes and biodiversity change along the Kwanu River in Caprivi, Namibia.
- Profiling, monitoring and conserving the rich microbial diversity along the Namibian coast.
- Isolation of actinomycetes from Namibian soils.
- The impact of different management practices on the range condition of Savanna ecosystems.

Disturbance and Restoration Ecology

- Understanding the dynamics of arid savanna ecosystems experiencing various disturbance regimes in highland biomes of central Namibia: Implications for local management for economics and conservation objectives.
- Restoration of Sendelingsdrif mining site.

Pollution
• Evaluation of water quality in drinking water of Namibia
• Endocrine disrupting chemicals in water sources of Namibia
• Microcystin toxicity in eutrophic aquatic systems
• Bacteriological quality of water sources (mostly open and ground water) in the vicinity of informal settlements in the City of Windhoek for the presence and prevalence of *Mycobacterium avium*.

*Host-plant interactions (Parasitology)*
• Plant-microorganism interaction with a focus on Plant Growth Promotion by Rhizospheric
• Endophytic microorganisms associated with plant occurring in the Namibian Deserts

*Host-animal interactions (Parasitology)*
• Rainfall and herbivory: characterizing the transmission route for anthrax in grazing wildlife, Etosha National Park.
• Parasites of rodents in South Africa and Namibia with a focus on emerging infectious diseases.
• Emerging viruses in West and Southern Africa: Molecular identification and characterization of rodent- and shrew-borne hantaviruses and assessment of their public health potential.
• Monitoring the effects of anthropogenic and environmental change on parasite diversity and communities and infectious disease on small mammal communities along a climate gradient in Southern Africa.

*Climate Change*
• The combined use of groundwater, honey bees and soil in the assessment of climate change and adaptation strategies among communities of the Omusati, Ohangwena, Okavango and Caprivi Regions of Namibia.

*Medical Microbiology*
• HIV-1 biological activity and toxicity prospecting of ethnobotanicals of Namibia.
• Malaria prevalence study in the Oshikango region.
• The impact of nutritional status on clinical outcomes of malaria following ACT treatment in children under the age of 5.
• The evaluation of medicinal plants for potential use as herbal supplements for cancer, diabetes and hypertension.
• The evaluation of indigenous plant species as potential sources of antimalaria products.
• The molecular surveillance for drug resistant *Plasmodium falciparum* malaria in Namibia (collaboration with the Directorate of Special Programmes, MoHSS, Namibia).
• Malaria Research Group at the University of Namibia. Research interest include: Antimalarial drug discovery (Evaluate the antimalarial activity of novel synthetic metal compounds as well as natural products; establish the mode of action). Epidemiology, Diagnostics, Pathogenesis and Vector Biology
• Isolation of novel antibiotics for use against Tuberculosis
Traditional Knowledge systems

- Access to and use of research results: increasing community awareness and utilization of indigenous grains to improve nutrition security and livelihoods in Botswana and Namibia.
- The evaluation of medicinal plants used by traditional healers for potential use as complementary medicine for treatment malaria.

Animal and Plant breeding research

- Development of Marama bean cultivars with desirable agronomic traits using mutation breeding.
- Domestication of Marama bean: Agronomy and molecular genetic characterization for its improvement.
- Analysis of starch synthesis in Marama bean to identify industrial uses for it.
- Cultivation of *Tylosemia esculentum* (Marama bean) Trials
- Development of Marama bean cultivars with desirable agronomic traits using Mutation Breeding (DOMBATUMB)
- Analysis of microbial nutrient cycling, GHG production, BNF and plant growth promotion for sustainable land use management” under the project The Future Okavango (TFO)

DEPARTMENT OF COMPUTER SCIENCE

In the Computer Science Department there are three research groups that focus on: (a) Rural Wireless Networking utilising the Long Term Evolution and Cloud Computing Technologies; (b) “Namibianizing the Internet” looking at innovative ways to expose the Namibian cultural norms and practices to the world. This research group is looking at various aspects including indigenous knowledge systems and social networks that are applicable to the Namibian environment; (3) on Cloud Computing looking at billing and security aspects of applications in the cloud environment. The computer Science Department also houses the Centre of excellence in Telecommunication that run and implements research activities and publish research results.

DEPARTMENT OF PHYSICS

The Physics Department has a small staff component, but still manage to be active in sourcing funding, conducting research and publish in high quality Journals. Focal areas of research include:

Radioactivity Measurements

Nuclear techniques are being used to determine the distribution of naturally occurring gamma-emitting radionuclides in the soils of Namibia. Such radionuclides are uranium-238 and potassium-40 which decay spontaneously releasing ionizing radiation which is a major hazard to human beings. Namibia is known to have a lot of uranium and mineral deposits and therefore the concentration of these radionuclides in the soils may be high in certain regions or locations thus leading to over-exposure of the inhabitants to hazardous radiation. The radioactivity concentrations of $^{238}\text{U}$, $^{232}\text{Th}$ and $^{40}\text{K}$ in soil samples collected from selected
towns are determined using an HPGe detector. Suitable computer software and statistical techniques are being used to analyse the resulting huge data to obtain the exposure attributable to the isotopes. The project will help identify towns or regions having high radioactivity and provide very useful information on natural radioactivity levels in Namibia.

**Fluorescence studies on vegetation**
The growth of similar plants in Namibia is different in different regions mainly due to the influence of ultra violet (UV) radiation and that the local environmental conditions always differ from place to place. Various techniques are available to study the growth parameters of plants. We use fluorescence techniques because the fluorescence spectrum of plants is so specific and gives detail information about the plants. Therefore, the fluorescence studies on vegetation in order to understand the mechanism of environmental stresses on local plants and the effects on their growth will continue in the physics department.

**Applications of lasers**
In this area, innovative techniques have been developed to find physical and optical constants in the laser laboratory of the Physics department.

**High-energy astrophysics**
The Department’s involvement in the phenomenally successful H.E.S.S. Project (High Energy Stereoscopic System) continues with the above mentioned two members forming the UNAM H.E.S.S. Group with R. Steenkamp as group leader. The year 2012 will see the inauguration of the 30 metre H.E.S.S. II Telescope which will be the largest Cherenkov telescope ever built. In addition to H.E.S.S., the above two members are also heavily involved in the Namibian bid/proposal to host the next generation Cherenkov Telescope Array (CTA) in Namibia. Both members have been and will be involved with the site survey and evaluation and proposals to attract this prestigious 100 million Euro project to Namibia. Personal research will be undertaken in the fields of cosmic ray transport in astrophysical systems, like cosmic ray production in supernova remnants and rich galactic clusters. A theoretical study of charged particle transport in magnetic fields to revisit the issue of cross-field diffusion is being planned. Another field of research will be in Gamma-ray Astronomy, particularly on the TeV gamma-rays from Galactic X-ray binary stellar systems. H.E.S.S. array can probe the already well-established X-ray binaries (well-studied in X-ray Astronomy) for possible gamma-ray emission in order to correlate the observed X-ray features to the gamma-ray features. These studies are in the interest of Multi-wavelength Astronomy – an approach which combines the wealth of the information accessible to various astronomy groups for enhancing the deeper discovery of the Universe.

**DEPARTMENT OF GEOLOGY**

The Geology Department is a small department with only a few academics who are actively involved in research, despite high workloads shared among them. They are involved in the following projects:
The Matchless project
The project is partially sponsored by the Swedish geological survey and University of Uppsala and Weatherly Mining Plc

Naukluft  Groundwater and Aquifer geometry Project (structural, groundwater and Isotopic project), active since 2008, for which we had got funding of N$300 000 from the NRF of South Africa; being a collaborative project between us University of Stellenbosch, University of Cape town and Lausane University in Switzerland. This project is

Omusati-Ohangwena-Kavango climate change Project
This project is in collaboration with the Department of Biological sciences at UNAM and the Geography Department.

Mining and Environment project (IGCP 594)
This project is funded by UNESCO partly, but mainly by the Czech geological Survey.

DEPARTMENT OF STATISTICS

Research focus in the Statistics department include:

Social aspects
• Women and Food Insecurity in Urban area in Namibia. This is a case study within the informal settlements of Windhoek
• A comparative study of the socio-economic determinants of infant mortality in Namibia. A case study of 200 and 2006 DHS.
• Explaining marriage patterns and trends in Namibia. This research is undertaken toward the fulfilment of a PhD degree.
• Model Fitting to Home language in Windhoek Primary Schools
• Completion of the second and final part of the Phase II UNESCO Culture for Development Indicator Suit project

Health aspects
• An evaluation of the effect of maternal smoking on the health of infants in Namibia. Small area estimation of health status/conditions and interventions. The main focus currently is in malaria, but easily expandable to other public health problems. With collaborators in Kenya, Kenya Medical Research Institute and University of Oxford, we are using cross-sectional Demographic and Health Survey (DHS) data obtained in various African countries to estimate i) health interventions coverage (long lasting nets) ii) health status and conditions (malaria prevalence), iii) health promotion and disease prevention issues (prompt use of appropriate care).

Demography
• Statistical methods in demography- this project essentially is using advanced regression methods to analyze and explain demographic processes. Census and DHS data are being used. Two book chapters currently under review have emanated from this research project.
DEPARTMENT OF MATHEMATICS

The Research Agenda for the Department of Mathematics centers on creation of theoretical knowledge, realizing that the country needs pure mathematicians to provide the driving force behind innovation, and the application of mathematics to the financial sector and industry. Focus areas of research are:

**Pure Mathematics**
The Department has been carrying out research in *Categorical Topology*. In this research structured frames called nearness frames are utilized. The work involves applying category theory to topology.

**Applied Mathematics**
Research has been going on in the following areas:

1) *Financial Mathematics*. Semi martingales are applied to finance. The focus is on the modelling of exchange rates, optimal harvest and default able securities. This work has played a part in strengthening the modelling of risk management in the banking industry. Stochastic dynamic models for banking items were developed enabling one to analyse the interplay between the bank exposures and its regulatory capital to mitigate these.

2) *Dynamical Systems*. This involves the study of the dynamics of Biological groups. The dynamics of Biological groups is represented by a system of nonlinear Partial Differential Equations. The study focus on the well-posedness and regularity properties of the solutions to such systems of equations.

3) *Perturbation Theory*. This research in perturbation theory has wide applications in chemical reactors, lubrication, bending problems of thin plates and shells, DC motor analysis, quantum and fluid mechanics, elasticity, and other similar areas. It is clear that these applications are quite relevant to the development programs of Namibia, especially in the industrial sector.

4) *Differential Equations and Numerical Methods*. This work involves modelling of the spread of diseases.

DEPARTMENT OF CHEMISTRY AND BIOCHEMISTRY

The Department of Chemistry and Biochemistry is involved in the following research areas:

**Biomedical Research and Development (Medicinal Chemistry, Drug Design and Development)**
The department formalised this research platform as the main focused area, with the view to improve human health and nutrition. The current focus is on HIV/AIDS and nutrition, malaria and Cancer research. Some of the current research topics are:-

- Synthesis of coordination complexes containing thio-based ligands
- Synthesis of coordination complexes containing nitroxy ligands
- Screening for biologically active products in medicinal plants and subsequent chemical, biochemical and pharmacological studies on plant secondary metabolites
• Establishment of seasonal occurrence of algal marine biotoxins along the central Namibian coast. Design and synthesis of potential anti-infective agents modeled on natural products.

Advancement (IKST) in collaboration with Ministry of Education and MRC. Research and Development in this programme is focused on:

- Biochemical and Chemical characterization and molecular, environmental and nutritional evaluation of local plant and crop species
- Screening, isolation, purification and characterisation of novel enzymes from microorganisms and/or plants
- Studying the fermentation/cultivation conditions for the production of enzymes and other functional compounds produced by microorganisms, in particular fungi
- Plant Resources
- Plant Environment Interactions and adaptation strategies, enhancing coping strategies of communities to climate change variability
- Value addition and improvement of local plant/crop species

Build Environment: Environmental Chemistry, Sustainable Energy, Climate Change Adaptation and Mitigation

Application of green chemistry to synthetic organic chemistry, specifically in alternative reaction media (including solvent-free synthesis) and alternative activation (e.g. microwave, ultrasound, etc.)

- Wastewater treatment
- Resource efficiency measurements and Carbon footprinting
- Climate Change technologies
- Carbon Management
- Environmental Management Systems and ISO standardization of Organization
- Environmental Policy
- Sustainable Energy • Renewable energy sources
- Environmental Radiochemical Analysis

Cyber Technology: Computational Chemistry, Bioinformatics, Systems Biochemistry

- Electronic structure of semiconductor clusters
- Computational modeling of the interaction of ozone with thio-phenol, seleno-phenol and DNA bases
- Bioinformatics for small scale genome project for local species, AKA X-species hybridization
- Gene Ontologies for Namibia Fauna and Flora
- Systems biology for biochemist

Industrial Application: New Materials (Nanotechnology), Biotechnology, Polymer Science research and Petroleum Chemistry.

The latest venture in the department is identification of new materials for medical and industrial application. Notable project is a joint research venture with School of Engineering, African Material Science and Engineering Network and SANUMARC on Bio-plastic production.

- Nanomaterials, Polymer Research, Applied Chemistry and Chemical Engineering
LIST OF PUBLICATIONS

Journals papers


Le Heron, D.P., Busfield, M.E., Kamona, F. (2012). An interglacial on snowball Earth? Dynamic ice behaviour revealed in the Chos Formation, Namibia. *Sedimentology – Wiley Online Library*

Le Heron, D.P., Busfield, M.E., Kamona, F. (2012). Neoproterozoic ice sheet dynamics: a case study from the Omutirapo Palaeovalley of northern Namibia. *Sedimentology. Manuscript ID SED-2012-OM-040*


**Chapters in books and Monographs**


**Conference papers/proceedings**


- Mapaure, I. and Mwandemele, O.D. (2012) The need to conduct research that addresses Namibia’s socio-economic development goals: The role of Higher


**CONCLUSIONS**

The Faculty of Science has been highly productive in research activities and output during 2012. Challenges faced by academic members of the faculty are the high teaching loads; limited laboratory space to conduct research, since all the laboratories are currently used for teaching; limited equipment; no budget for research activities, except the limited amount of funding from the Research and Publication Office. We are continuously striving to conduct quality research within these limitations.
B: RESEARCH ACTIVITIES OF ACADEMIC CENTRES AND CAMPUSES

CENTRE FOR EXTERNAL STUDIES

DIRECTOR’S STATEMENT

The Centre for External Studies (CES) at the University of Namibia is one of the leading service providers in Open and Distance Education in Namibia. CES is committed to Vision 2030 to ensure that Education for All is indeed accessible to all to reach their full potential and take their place in Namibia. As an Open and Distance Learning (ODL) Centre, we are committed to quality education that would contribute to the optimal development of individuals and the socio-economic growth of Namibia. Through the research unit within CES our aim is to ensure best practice in the areas of study materials, academic support and technologies that would meet the individual needs of students.

Although CES mainly conduct research in the area of open and distance education, it also has research links with the various faculties within the University of Namibia. The vast majority of staff has expertise in diverse areas for example education, nursing, psychology, HIV and AIDS, communication and science amongst others. Hence CES has established research links with UNESCO, Ministry of Health and Social Services, Working Group of Indigenous Minorities in Southern Africa (WIMSA) and many more Governmental and non-Governmental Organisations. Staff members belong to various research bodies for example, Distance Education Association of Southern Africa (DEASA), Namibian Educational Research Association (NERA) and Namibia Open Learning Network (NOLNET). CES participates in collaborative activities with other national and international Open and Distance Learning (ODL) institutions through NOLNET and other organisations within the Southern African Development Community (SADC) region, through its participation in DEASA, Namibia Educational Research Association Executive Committee; Southern African Association of Research in Mathematics, Science and Technology Education, Distance Learning Task Force (I-TECH) and Commonwealth Institution of Open Learning. An Open and Distance Learning conference was hosted in Swakopmund, Namibia by DEASA in 2012 and many research papers on ODL issues and challenges were presented by local and international researchers.

CES is sharing various platforms and participate in collective activities with national and international ODL institutions. The Centre for External Studies was very active with research activities during the year under review and many research activities were not completed and will be completed 2013.

RESEARCH STRATEGIC DIRECTION AND FOCUS AREAS

Apart from striving to produce quality research and publications, CES staff members also have research activities as one of their major role and responsibilities as University academics.
The Centre derives its research mandate from the UNAM strategic objective which reads: *Increase and broaden research output in ODL* and the following research objectives and areas were conducted in 2012:

1. Improve quality service to Open and Distance Learning (ODL) students through research;
2. Explore how technology could be used to improve student support in an ODL institution;
3. Collect Empirical evidence to strengthen policy and practice in Open and Distance Learning (ODL);
4. Establish inter-research activities with other faculties within the University and ODL institutions in the region and beyond, and to
5. Develop research activities with the purpose to grow as academics.

**LIST OF PUBLICATIONS**

**Journal articles**

- Nekongo-Nielsen submitted an article to the International Review of Research in Open and Distance Learning (IRRODL) entitled “The applicability of My UNAM Portal to the learning of distance students”. The International Review of Research in Open and Distance Learning URL: [http://www.irrodl.org/index.php/irrodl](http://www.irrodl.org/index.php/irrodl). (Acknowledgment communication received).

**Conference papers / proceedings**


HIFIKEPUNYE POHAMBA CAMPUS

DIRECTOR’S STATEMENT

The Hifikepunye Pohamba Campus of the University of Namibia recognizes the value of applied research to education and development related issues in Namibia and beyond. Despite lack of educational research experiences, particularly at the new campus like ours, we manage to publish and present papers at various journals and conferences. This, in our opinion, is our humble contribution.

RESEARCH STRATEGIC DIRECTION AND FOCUS AREA

In its Management Strategic Plan for 2012, HP Campus puts an emphasis on motivating staff and students to engage in research activities for effective knowledge creation and application. As a result, the campus set its strategic objective of increasing and broadening research output to directly respond to the current low level of research output. The following are themes as they appeared in the Research Agenda.

THEME 1: Promoting the Enhancement and Improvement of the Teaching and Learning of Mathematics and Science for Sustainable Development in Namibia

The world economy has been fluctuating yet rapid advances in science and technology create opportunities for Namibia, as recognized with the introduction of Vision 2030. This document spells out the country’s development programs and strategies to achieve the national objectives and goal for Namibia to become an industrialized, competitive and high-performing economy by 2030, offering high living standards to its citizens. In response to the goals and objectives of Vision 2030, the HP Campus is committed to addressing the various issues and challenges pertaining to the teaching and learning of Mathematics and Science.
THEME 2: Putting Theory into Practice for the Enhancement of Quality Teacher Education in Namibia

This theme seeks to investigate the relationships between practice and the theory. Theory informs the practices that ought to take place. The question of theory and practice is evident and can be detected in how learning content is exposed to learners in the first project, how a school's management team contributes to school performance, how an advisory teacher service unit assists teachers in schools to improve their teaching and how graduates feel they have been equipped with national professional standards to meet competencies expected of any professional teacher. In all projects the focus is thus more on how the practices that individual educators partake in are informed by theoretical frameworks, and determining whether there is a deviation from the theoretical models.

THEME 3: Providing Quality Education Through Improved Instruction and Assessment for Sustainable Development

Projects under this theme will investigate the challenges that education stakeholders in Namibia face in implementing the curriculum and seeks to inform the policymakers and curriculum developers to address those challenges.

THEME 4: Enhancing and Promoting the Teaching and Learning of Arts, Languages and Social Sciences at all Levels of Education

This theme focuses on issues pertaining to the teaching and learning of arts, languages and social sciences.

THEME 5: Enhancing Teaching and Learning at the Pre–Lower Primary Phase

The Pre-Lower Primary Phase is the foundation for later learning. As such it is important to have ongoing research on the different aspects of the Pre-Lower Phase such as curriculum development and implementation and practical aspects in the schools and community, in order to enhance teaching and learning in this phase of education.

THEME 6: Providing Psycho-Social Support to Ensure Effective Inclusive Education

This theme aims to address the challenges related to discriminatory practices and attitudes that hinder the creation of welcoming environments, welcoming communities and inclusive societies, and achieving education for all. It also focuses on ascertaining the most effective means of embracing people with diverse needs.

LIST OF PUBLICATIONS

Journal articles

Chapters in books


Conference papers/proceedings

- Kaapanda, L. An evaluation of factors determining the selection of mobile telecommunications service providers in the northern region of Namibia. 3rd International Conference on Business and Economic Research Proceedings Page Numbers?).
- Taukeni, S. G. (2012). Defining the role of stakeholders in the provision of basic needs to orphaned learners at school and home. In H. Miranda & S. M. Iipinge (Eds.), The First UNAM Annual Educational Conference Proceedings, pp. 120-225. Ongwediva: HP Campus.
SIGNIFICANT EVENTS, MILESTONES AND ACHIEVEMENTS

The Campus launched the first UNAM Annual Educational Conference from 10-12 September 2013 which brought together close to 200 delegates to discuss issues and problems concerned with the quality of education in Namibia and beyond. In addition, the Campus in consultation with the Research and Publication Unit was able to develop and launch its Research Agenda 2012-2016.

CONCLUSION

It is our hope that we will be able to maintain the current momentum in matters related to research. With the research agenda developed, we will remain focus on those themes in order to create knowledge and suggest practical solutions to educational problems. Overall, this will contribute to the research output at the University.

KATIMA MULILO CAMPUS

DIRECTOR’S STATEMENT

The Katima Mulilo Campus is one of the former colleges of education campuses which were merged into the Faculty of Education of the University of Namibia. One of the major reasons for merging the colleges to the university was to address the issue of quality, in terms of curriculum (strengthening content as well as pedagogy), output (quality of graduates) and quality of processes. In addition, the quality of staff members managing these processes needed to be strengthened or upgraded to be at the required level of education to be able to ensure all-round quality of services.

The majority of academic staff members in these campuses are those inherited from the former colleges. It goes without saying therefore that the transition or transformation from college to university practice is still on-going and has a determinant effect on the research output and its quality at these campuses. The major junk of research activities on-going at these campuses is related to individuals’ programmes of study. Colleagues are given a deadline of 2015 to obtain their Master degrees and thus all efforts are concentrated on their studies. While we encourage them to present papers emanating from their studies as work in progress, most of their work is not at the level where it would easily be published. They are too engrossed in their studies which they do while teaching which leaves them with little time to polish their work for publication as required by peer reviewed academic journals. We continue to encourage senior faculty members to consider co-authorship or collaborative research with junior faculty members to give them exposure to research and the nitty-gritties of academic writing for publishing.

Nonetheless, we are pleased to report that in 2012 our campus can boast with ten (10) research papers, one of which is already published in a scientific journal, and the remaining

nine (9) are due to be published in a SACHES Conference book in July 2013 which will significantly be launched at the Katima Mulilo Campus. SACHES is the Southern Africa Comparative and History of Education Society. About five (5) of these research papers are co-authored. Almost all these research papers are in the field of education because that is the only degree which was running on a full-time basis at this campus in 2012. The 2012 research activities of the colleagues in the newly created Department of Wildlife Management and Eco-tourism in the Faculty of Agriculture and Natural Resources Management are reported as part of the Department of Integrated Environmental Science at Ongongo Campus, presumably so. They will reflect as part of our campus in the 2013 research report.

**RESEARCH STRATEGIC DIRECTION AND FOCUS AREAS**

We are now in the final stages of compiling a five (5) year Research framework for the campus. When the draft document is done, we will enlist the expertise of the Research and Publications Office (RPO) to workshop it with us so that it speaks to and conforms to the research strategic ideals of the University of Namibia. It is this document which will clearly articulate the strategic direction and spell out the focus areas in terms of research for the campus.

More broadly, the expertise which we have at this campus is in the areas of education and wildlife management, conforming to the two Faculties existing here, that of Education and that of Wildlife Management and Eco-tourism in the Faculty of Agriculture and Natural Resources Management. Our research agenda therefore is driven by those two main or broad focus areas. In terms of education, a wide range of interest exist in areas of pedagogy and content: school leadership, teaching strategies, indigenous knowledge in teaching physical science concepts, counseling in schools, mother-tongue instruction in schools and its implications, etc. In the Department of Wildlife Management and Eco-Tourism, interests exist in the following areas:

- Population dynamics, parasites and diet composition of selected fish species in Lake Lyambezi.
- Aspects of breeding ecology of the Schalow’s Lourie, Batelieur and Mayer’s Parrot.
- Quantitative studies on ungulates in selected areas in the Caprivi Region.
- Comparative studies on avian communities in all vegetation types in KAZA.
- Biodiversity studies on some flowering plant and invertebrate families.
- Human-wildlife conflicts in Eastern Caprivi.
- Inventory of flora and fauna of the Salambala Conservancy.

**LIST OF PUBLICATIONS**

**Journal papers**

Conference papers/ proceedings


SIGNIFICANT EVENTS, ACHIEVEMENTS AND MILESTONES

In the year under review, a sizable number of our staff members participated and/or presented papers at the SACHES Regional Conference successfully hosted by the Rundu Campus of the University of Namibia. For junior faculty members, these maiden presentations went a long way in instilling that sense of confidence in them that research,
and sharing of research results, can be as easy as ABCs, and that yes, they can do it, that anybody can do it. That it is not only the preserve of ‘seasoned’ researchers and that they are in actual fact doing it on a daily basis. They now look forward to more opportunities to present papers. To get at that level, we organized campus based presentations where those who submitted abstracts for presentations in Rundu rehearsed their presentations and in the process received useful feedback from their peers on campus. This was a worthy morale building exercise. Because of this successful participation at the Rundu Conference, SACHES has decided that our campus will host the 2013 Regional Conference slated for 10-12 July 2013.

In the last quarter of 2012, our campus, particularly the Campus Director, started to work on a joint research project on Oral History with colleagues from the University of Eastern Finland. This project is on-going and will be reported in detail in the 2013 annual research report. Two of the colleagues from the University of Eastern Finland visited our campus in early May 2013 to work on the project. They are Prof. Maria Lahteenmaki and Prof. Alfred Colpaert, both from the Department of Geography and Historical Studies. It is significant to mention that two of our senior students are involved in this project, as research assistants, to collect oral testimonies and to translate/transcribe such. The project is paying them a stipend, but the major benefit for them really is exposure to research in social sciences. They received training in this regard.

CONCLUSION

Kace-kace unfuzu a va luti lyambezi’, is a Subia proverb which translates that ‘slowly but sure the tortoise managed to cross Lake Lyambezi.’ While there is a variety of English equivalents, the most common is the ‘Rome was not built in one day’, or ‘Slowly but surely’, or ‘One step at a time’, etc. Similarly, as former colleges, we believe we will get there in terms of research output, and most importantly, we believe that we are on the right track. With patience and especially with requisite support from the RPO, we believe our 2013 Annual Research Report will carry more activities and will be better than the 2012 one.

KHOMASDAL CAMPUS

DIRECTOR’S STATEMENT

The main mandate of Khomasdal campus is to train teachers in Primary Education. Therefore this is also the main area of research. The campus has only two PhD holders as part of the academic staff. Therefore the research output is low. 9 lecturers were enrolled for Masters Studies of which 2 obtained Masters degrees during 2012. The HOD for Early Childhood Development and Lower Primary is housed on Khomasdal campus and many of the activities on campus revolve around the development of this department. Because of proximity, Khomasdal campus cooperates closely with the lecturers and management of the Faculty of Education on Main campus on various levels. Staff members are therefore involved in projects across campuses.
Currently the campus is involved in the following research projects:

- **The reading habits/behavior and preferences of African children: the Namibian chapter in collaboration with UNISA (URPC/2011/37).** This research is conducted in collaboration with the Namibian Children’s Book Forum and the University of South Africa. All data collection was concluded in 2012. Researchers: Alexander. A.S. and E. Kirchner.

- CIAS department: **Assessment Practices in Namibian Primary Schools.**

- Department of Early Childhood development and Lower Primary Education (Primary researcher: Moller, J.). **Factors influencing low Pre-and Lower Primary student intake.** All data were collected and interpreted in 2012.

- Department of Early Childhood development and Lower Primary Education (Researchers: Nghikembua, T., Poulton-Busler, R., Frindt, T., and Feris, L.). Early Grade **Reading Assessment of Pre- and Lower Primary students at the University of Namibia.** The pilot study was concluded in 2012.

**RESEARCH DIRECTION AND FOCUS AREAS**

Research Direction: Teacher Education and Training

Focus Areas:

- *Education for the Lower Primary Phase*
- Teaching and learning in Literacy and numeracy *Education for the Upper Primary Phase*
- Teaching and learning in Arts and Humanities
- Reading and reading preferences *Factors influencing quality (teacher) education in Namibia*
- Student enrolment in teacher education
- Assessment of reading in student teachers
- Assessment practices in schools

**LIST OF PUBLICATIONS**

**Journal articles**


Conference papers/proceedings


MULTIDISCIPLINARY RESEARCH CENTRE

DIRECTOR’S STATEMENT

Research is the core business at MRC. In 2012, researchers at MRC have been very actively involved in research activities of diverse nature as outlined in the MRC Management Action Plan. The 2012 MRC activities were well aligned to the UNAM strategic objectives and were planned to positively contribute to the achievements of the UNAM strategic objectives. MRC contributed to three main strategic objectives which are all research related.

- Increase and Broaden research output
- Strengthen international liaison and collaboration
- Strengthen community engagement

In terms of increasing research output, MRC achieved 74% of their 2012 target (20 peer reviewed papers). During the 2012 academic year, MRC hosted the INSAKA Symposium from 5-7 June 2012. INSAKA is a consortium of five (5) universities, namely, University of KwaZulu Natal (South Africa), Copperbelt University (Zambia), University of Monash (South Africa) and the University of Montana (USA). The symposium was the second international symposium hosted by the consortium. The symposium was attended by a diverse range of participants from across the world and the southern African region. The participants included academics, practitioners, government officials, civil society, research students, private sector and media fraternity. A total of 68 participants, of which 46% were women, attended the symposium. The academics leaders (Pro Vice Chancellors), attend a site meeting to review INSAKA progress towards the 5 Year Strategic Plan. Copies of official proceedings of the INSAKA Symposium are available at MRC Resource Centre.

The MRC also saw the launching of the newsletter, “Research Matters” which was developed in order for MRC to reach out to a wider community as well as to share research activities and outputs with researchers within and outside Namibia. MRC has also strengthened its network through various research collaboration and partnerships.
A new memorandum of understanding (worth US$86 000) was signed between UNAM and University of California, San Francisco and Global Health Group and various research funded activities have been carried out under the Epidemiology and active case detection of malaria in the Ohangwena region, in collaboration with the Ministry of Health and Social Services and researchers from UCSF, London School of Hygienic and Tropical medicine (LSHTM). In addition, the collaboration between the University of Eastern Finland and MRC continues to be active under the research project on Demographic change and resilience of the social and ecological system in north-central Namibia. Active collaboration with Rutgers University, New York and Global Institute of Bio exploration continued on the Millennium Challenge Account Namibia (MCA-N) Indigenous Natural Products Project.

The university-wide Research Day was successfully held in 2012 and included all UNAM campuses under the leadership of MRC and Research and Publications Office (RPO).

A number of researchers from MRC visited various research institutions in Kenya, including the University of Nairobi to identify research collaboration, partnership and networks as well as for best practices especially in identifying and reaching out to potential funders.

A number of workshops were also successfully held at MRC, while others were organized in collaboration with faculties at the University. The Indigenous Knowledge Systems (IKS) workshop attracted 27 presentations of which 16 were selected to be included as book chapters in the IKS book to be developed in collaboration with the Faculty of Science. A refresher training workshop for MRC researchers on data analysis was also conducted.

In an effort to increase research outputs, MRC also organized a 4 days writing workshop for all researchers at the Centre. A number of research papers were developed and sent to various journals for review. Some of these are already published.

**RESEARCH STRATEGIC DIRECTION AND FOCUS AREAS**

MRC’s focus is to strengthen research collaboration with UNAM faculties and stakeholder ministries and partners. MRC recognizes the expertise within faculties and strives to ensure
that research teams are formed for every research programme and research activities address the nation’s research needs and are aligned to the national development plans (NDP4, Vision 2030, Malaria Elimination Strategic Plan, Climate Change Plan), among others.

MRC’s research strategy is to provide relevant and accurate research information in various areas ranging from health, education, biodiversity, climate change, socio ecological systems, gender, IKS, etc. for policy decision making and programme interventions. The Centre also strives to reach out to communities at grassroots level by presenting research findings through media, community meetings, and disseminating research reports.

In 2012, a new management team was appointed and consisted of the Director, Dr Nelago Indongo; Deputy Director and Head of the Science, Technology and Innovation Division (ST&ID), Dr Davis Mumbengegwi; Dr Alfons Mosimane, Head of the Life Sciences Division (LSD); and Mr Gert Van Rooy, Head of the Social Sciences Division (SSD).

Three internal committees were established and have been very active:

i) The MRC Resource Centre Committee which is responsible for management of the resource Centre and MRC webpage;

ii) MRC Research and Training Committee which is responsible for organizing academic workshops and seminars, networking and resource mobilization; and

iii) MRC Research Dissemination and Promotion Committee responsible for promoting the image and activities of the MRC.

MRC is made up of three Research Divisions, namely the SSD, LSD and ST&ID. Under the SSD the following research programmes were active in 2012:

- Urbanization and well-being
- Gender Training and Research
- Health
- Education

Research teams have been formed under a number of these programmes, which included experts from relevant University faculties.

A successful stakeholder’s workshop for the Gender Programme was held on 23 October 2012 in Windhoek. The main purpose was to:

- Identify and formulate a responsive research agenda;
- Establish and foster closer links with stakeholders nationally and internationally;
- Solicit funding for research
- Reduce duplication of research activities

Approximately 23 people from various stakeholder institutions attended the workshop. A number of resolutions were taken, including:

- Developing research proposals with input from stakeholders
- Strengthening partnership with stakeholders through engagement on an annual basis.
- Spearhead the implementation of a Master’s Degree course in Gender Studies.
The following research programmes were active in 2012 under the LSD:

- Socio ecological systems
- Climate change
- Biodiversity

The Social Ecological Systems Programme focused on three projects. First, the Common pool resources governance hosted the INSAKA symposium 5-7 June 2012 with focus on managing benefit sharing in changing social ecological system. In addition, three (3) peer reviewed journal papers were published under the INSAKA collaboration. Second, the Community Based Natural Resources Management (CBNRM) focused on the completion of data analysis of the Ehirovipuka Socio economic study and a technical report was completed. In addition, a peer reviewed journal article was produced focusing on the participation of women in conservancies. Another activity was the Nature Based Tourism study, in collaboration with the University of Maryland, Professor Julie Silva, and analysing data collected in 2009 and 2011 which resulted in another peer reviewed journal. Third, the Human wildlife conflict (HWC) analysed the human wildlife conflict data collected along the borders of the Etosha National Park. A technical report was produced and a book chapter focusing on the use of traditional knowledge in the management of Human wildlife conflict was drafted.

The Climate Change and Disaster Risk Management Programme focused on indigenous knowledge and adaptation strategies, and disaster and risk assessment. The activities we engaged in under the indigenous knowledge and adaptation strategies included the drafting of a Book chapter for the Indigenous Scientific Knowledge book. Further activities were drafting a Grant proposal in collaboration with Lund University Center for Sustainability Studies (LUCSUS) Climate and Development Research in Sweden and the completion of the Gender and climate change project funded by United Nations Development Programme (UNDP). A technical report and several sector specific briefs were developed after presenting the report at a stakeholders workshop hosted in Windhoek. The activities under the disaster risk management involved the completion of data collection and draft reports on the Views from the Frontline project that focused on Community Perception on Disaster Management in the Caprivi Region, Omusati and Oshana Regions of Namibia. In addition to a technical report a conference paper was drafted and presented at a Disaster Risk conference hosted in South Africa, Northwest University.

The Biodiversity and Ecology Programme only came into operation in 2012 after the appointment of Dr Ndafuda Shiponeni in September. The first objectives were to define the project focus and the objectives of each project under the programme. The biodiversity and ecology programme focus its activities on two projects. First, the population biology of indigenous plans of conservation priority focused on the expansion of data collection on the Moringa specie to other tree species. The Welwitschia excavations study involved the collection of soil sample for analyses, and the preliminary data analyses. Second, restoration ecology had an emphasis on the rehabilitation of degraded land through mining. A master’s student, registered at the University of Namibia, completed data collection on the restoration of minded land at the Navachab Gold mine.
Under the ST&ID, the following research programmes were active:

- Pharmaceuticals
- IKS
- Renewable Energy

A Global Institute of Bio exploration training workshop on biological properties of indigenous plants was conducted for stakeholders from UNAM faculties, the National Botanical Research Institute (NBRI), the Ministry of Environment and Tourism (MET). Screen-to-nature kits were used to train individuals to identify biological activity of indigenous plants for pharmaceutical or cosmetic use. Approximately 53 samples were analysed during the workshop for properties such as antibacterial, antifungal, antioxidant, and protease and protease inhibitor activities.

A survey of indigenous medicinal knowledge was conducted in the Kavango region in collaboration with the Directorate of Research, Science and Technology (DRST), Ministry of Education. A total of 126 traditional healers and/or knowledge holders were interviewed and 174 plant samples were collected for scientific identification.

A collaborative research project with Ministry of Health and Social Services (MoHSS), the University of California, San Francisco (UCSF) and the London School of Hygiene & Tropical Medicine (LSHTM) was initiated on epidemiology and active case detection of malaria in the Engela district, Ohangwena region. All cases of malaria reported at the 18 clinics in Engela were followed up to the household level and all members of the household and neighbours were tested for malaria.

For an RET Programme, the Benguela Windpower Demonstration project in Luderitz the MRC received a technical visit by renewable experts from India. They came to assist in determining the specifications for the wind mill turbines.

A field trip was conducted to collect indigenous beverages, namely Oshikundu, Omashukwa and Mavisu in the Oshana, Ohangwena, Oshikoto and Omusati regions. The nutritional profile of Oshikundu was determined.

**LIST OF PUBLICATIONS**

In 2012, MRC has seen a significant increase in the number of peer reviewed published papers across all the three divisions. The publications are as follows:

**Journal papers/articles**


Conference papers/proceedings


- Mogotsi-Sechogele, E. (2012). Current ratio of girls and boys in the education sector; the existing legal frameworks that protect girls and boys; possible sexual exploitation/trafficking of women and boys and girls at the boarders. Paper presented at the Parliamentary Committee on Gender and Family Affairs, 8 October 2012, Windhoek, Namibia


SAM NUJOMA MARINE AND COASTAL RESOURCES RESEARCH CENTRE

DIRECTOR’S STATEMENT

The Sam Nujoma Marine and Coastal Resources Research Centre (SANUMARC) is a research unit of the University of Namibia with focus of the marine and coastal environment. The Centre which was inaugurated in 1999 has come a long way in meeting the objectives for which it was set up. The Centre’s vision is to become a centre of excellence in Science and Technology research in marine and coastal resources, in order to contribute to global efforts in promoting food security and eradicate poverty. With this vision in mind and guided by its mission, the Centre strengthen its international collaborations in 2012 with the view of enhancing its research capabilities for the years ahead.

In accordance with the University strategic planning, efforts were geared up in 2012 to ensure the relocation of the third and fourth year students of the Department of Fisheries and Aquatic Sciences from the Main Campus to the Centre. A new hostel block to house male students and an administration block were completed. The relocation is expected from the second semester of 2013 academic year. At the beginning of 2012 academic year, the Centre through the Namsov/SANUMARC Trust instituted the Namsov Postgraduate Fellowship scheme, under which two MSc students were awarded scholarship at the University of Namibia and their research theme focused on the research strategy of the Centre. A third student registered for a PhD degree at Rhodes University is also being supported through this Fellowship.

During 2012, the Centre’s collaboration in the SPACES (Science Partnerships for the Assessment of Complex Earth System Processes) programme continued with two proposals in which the Centre is involved were accepted for funding by the German Federal Ministry of Education and Research. Also during 2012, the Centre became a member of the AERONET group. AERONET (AErosol ROBotic NETwork) is a network of ground-based sun photometers which measure atmospheric aerosol properties. The measurement system is a solar-powered CIMEL Electronique 318A spectral radiometer that measures Sun and sky radiances at a number of fixed wavelengths within the visible and near-infra red spectrum.

RESEARCH STRATEGIC DIRECTION AND FOCUS AREAS

SANUMARC research activities are guided by use of Development Plans (Five Year Development Plans) and annual work plans to implement output-oriented and inter-related research programmes, each of them focused on a few carefully selected thrusts or objectives. For 2012, the following research areas received attention at the Centre:
1. Seaweed cultivation
2. Induced spawning of Oyster under laboratory conditions
3. Fish parasitology
4. Desert and Coastal Agriculture
5. Mushroom research and development
6. Bio-gas production from different biomass

SEAWEED CULTIVATION

1. Cultivating *Laminaria pallida* and *Gracilariopsis funicularis*

This research forms part of SANUMARC partnership with the Kuiseb Fishing Enterprise (KFE). The objectives of this research include the development of a seaweed hatchery and on-growing methodologies for *Laminaria pallida* as well as growing of vegetative materials of *Gracilariopsis funicularis*.

*Laminaria* products are used for industrial purposes (iodine, algin and mannitol), medical purposes, human consumption, cosmetics, livestock fodder and fertilizer. Algin, a polysaccharide extracted from *Laminaria* is widely used as a binding agent in textile, printing, medical and food manufacturing industries. Moreover, *Gracilariopsis funicularis* is a source of agar which is the basis of the scientific laboratory media used for growing bacteria, fungi, and other organisms. It’s also used for making gel capsules and many other applications.

The success of this research project has a potential to provide a platform for transferring the technology to create new business opportunities in seaweed aquaculture.

![](image1)

Collection of fertile materials of *Laminaria pallida* at sea

The life cycle of *Laminaria pallida* was successfully completed in laboratory culture.

![](image2)

Preparation of spore release experiments
3. Herbarium seaweed specimen collection

This collection focuses on the diverse seaweed flora of Namibian coast. The collection is critical to the identification, monitoring and conservation of seaweed diversity in Namibia and it will be an important resource for education and scientific research. So far the Centre has collected seaweed specimens along the Henties Bay shore. Green, brown and red seaweed are well represented in the collection and displayed in the herbarium.

INDUCED SPawning OF THE PACIFIC OYSTER UNDER LABORATORY CONDITIONS

Pacific oysters (*Crassostrea gigas*) are one of the major species farmed in Namibian coastal waters, they are a marine delicacy. Oysters are reared easily in running seawater but there has always been a flaw on successfully spawning these marine organisms and therefore SANUMARC decided on establishing a protocol for successfully inducing the Pacific Oyster under the optimal laboratory conditions for spawning. The project setup was successfully completed and adult oysters were collected and placed for conditioning. Since oysters are filter feeding on microalgae the Centre acquired several microalgae species isolated from natural environment and bloomed in semi-controlled environment.

FISH PARASITOLOGY

Occurrence and distribution of fish parasites of potential threat to the aquaculture sector along the Kavango River, Namibia: This research forms part of the collaboration between the Ministry of Fisheries & Marine Resources and the University of Namibia, with focus of contributing to the Government’s effort in Aquaculture Development for the country as entrenched in vision 2030. Parasites are common among fish species and affect them negatively in several ways, which poses potential threat to the sustainability of fisheries and aquaculture. Parasitological investigation of three species of tilapia: the Three-spot tilapia (*Oreochromis andersonii*), Red-breast tilapia (*Tilapia rendalli*) and ‘Nembwe’ (*Serranochromis robustus*) in this study indicated that of the 205 target fish species examined for endo and ecto parasites over a twelve months period, 102 were infested with a variety of parasites representing 49.7% prevalence level. Protozoan, helminths and parasitic crustaceans were reported, with *Trichodina spp.* being the highest in abundance followed by *Dactylogyrus spp.* with 0.18 and 0.17, respectively.
DESER T AND COASTAL AGRICULTURE

1. Domestication of *Salicornia*

The main focus of research activities here was to device techniques for the cultivation of bio-saline food crops and fodder. The planned activities during the year were to obtain plant materials for testing and investigate their growth under the green house and in the field. SANUMARC identify and obtain two *Salicornia* species (*Salicornia bigelovii* and *Salicornia perennis*) for experimental trials during the year. The collected *Salicornia* specimens were sent to the National Botanical Research Institute (NBRI) for verification.

*Salicornia perennis* growing in the wild at Walvis Bay lagoon (left), *Salicornia bigelovii* transplanted hydroponically at SANUMARC (right)

The 2 halophytes species are potential fodder for animals. The coastal area being in abundance of saline water, there is a potential for production and commercialization of *Salicornia*. *Salicornia bigelovii* is also known to have biofuel attribution making it a much interesting species to domesticate.

SANUMARC attempted transplanting the 2 species into a controlled environment in a greenhouse where they were grown both hydroponically and on soil. *Salicornia perennis* adapted and all transplanted plants performed well, whereas, *Salicornia bigelovii* totally died-out when transplanted on soil. *Salicornia bigelovii* however, had varied results when grown hydroponically under different treatments (effluent seawater from Oyster farm, filtered seawater with supplementary nutrients and filtered seawater).

2. Assessment of organic manure in desert and coastal environment

The main focus of this research was to assess the best manure to use in a desert environment for various vegetables. The planned and carried-out activities were to compare vegetable germination and growth using goat and cow manure. Vegetables sowed included tomatoes, spinach, beetroot, garden peas and pepper. The results showed that for goat manure treatment, only garden peas that germinated whilst all sown vegetables germinated using cow manure treatment. Furthermore, vegetables were also experimented using organic manure in hydroponic tables and yielded good results.
MUSHROOM RESEARCH AND DEVELOPMENT

1. Determination of optimum ratio of seaweed *Laminaria pallida* to grass in cultivation of oyster mushroom, *Pleurotus ostreatus*

This work was initiated to ascertain the possibility of using a combination of beach cast *Laminaria pallida* (a brown seaweed) and grass as a substrate for producing mushrooms. The abundant veld grass in Namibia is generally not utilized for various uses besides animal feed, so is the seaweed, which is casted along the beach is underutilized. The objectives of this study were twofold: firstly, to determine whether seaweed *L. pallida*, can enhance the yield of oyster mushrooms *Pleurotus ostreatus*, secondly, to determine the optimum ratio of seaweed to grass that can produce maximum yield of oyster mushrooms *P. ostreatus*. In this study different ratios of seaweed, *L. pallida* and veld grass were used as substrate to grow oyster mushrooms *P. ostreatus*. The optimum ratio was found to be 10% seaweed and 90% grass respectively. The research findings were presented at the 3rd African Conference on Edible and Medicinal Mushrooms (ACEMM) dated 24-28 June 2012, in Windhoek. The audience commended the work and advised for publication.

2. Identification of indigenous edible mushroom from the Kavango region and domestication of selected species.

Specimens of indigenous edible mushrooms were collected from Kavango Region in February 2012, for domestication purpose. The collected specimens all belong to the Genus *Termitomyces* but their specific identity are yet to be established. Tissue cultures were developed from the collected specimens and trials on domestication is in progress. A species known in the local language as *Kakarahambo* has been responding well to laboratory culture techniques. Thus far, cultures are preserved and spawn development is in progress.
Members of National Youth Scheme (NYS) with mushroom produced during their training

BIO-GAS PRODUCTION FROM DIFFERENT BIOMASS

1. Biogas digester design

The most adopted of bio-digester’s model is as Deenbandu Model. This represents a fixed dome digester with spherical shaped wall built of bricks and buried underground. Apart from its reliability, it has some minor disadvantages like the drainage of sludge. To help ease some of these problems, SANUMARC came up with the design that will make sludge disposal easier and done simultaneously with gas production and supply. This comprise of a 1000-liter tank, which was modified and adopted as bio-digester, with inlet for feeding, gas outlet and the sludge release valve at the bottom.

2. Biogas production

After assembling the bio-digester, cattle and goat manure were collected and the digester was started, with co-digestion of manure and garden waste from the Centre. Firstly, the aim was to have environment suitable for methanogenic microorganisms to grow, these are microorganisms responsible for biomass conversion to biogas; they occur naturally in the cattle stomachs. Thus co-digestion of garden waste and cattle manure will speed up biogas production. It took three weeks for noticeable gas production and it was possible to have flame on it.

AEROSOL ROBOTIC NETWORK (AERONET)

SANUMARC is now part of the Aerosol Robotic Network (AERONET) through the collaboration between the Sam Nujoma Marine and Coastal Resources Research Centre (SANUMARC) and School of Geo- and Spatial Science of North-West University in South Africa. AERONET is an optical ground based aerosol monitoring network and data archive supported by NASA’s Earth Observing System. The network hardware consists of identical automatic sun-sky scanning spectral radiometers. Data from this collaboration provides globally distributed near real time observations of aerosol spectral optical depths, aerosol size distributions, and perceptible water in diverse aerosol regimes. The data undergo preliminary processing (real time data), reprocessing (final calibration about 6 mo. after data collection), quality assurance, archiving and distribution from NASA’s Goddard Space Flight Centre master archive and several identical data bases maintained globally. The data
provides algorithm validation of satellite aerosol retrievals and characterization of aerosol properties that are unavailable from satellite sensors.

The Cimel Sunphotometer at SANUMARC

LIST OF PUBLICATIONS

Journal articles


RUNDU CAMPUS

DIRECTOR’S STATEMENT

Introduction

Research is a major critical component in informing teaching and learning as well as addressing priority and strategic areas as outlined in the National Development Plan (National Planning Commission - NDP 4, Executive Summary, p. 26-27). In this context the University of Namibia has prioritized research as one of its core-functions in addition to teaching and learning and community engagement. In line with the University core-functions the Rundu campus initiated a number of research activities to address the low research output among academic staff as highlighted in the campus management for 2012. The following activities are worth mentioning:
Research and related activities

Research conferences and workshops

In an attempt to positively respond to one of UNAM’s core functions (Research), the campus organized a conference in July 2013 in collaboration with the Southern Africa History and Comparative Education (SACHES). The conference was preceded by a public lecture presented by Prof. Charl Wolhuter who was the guest speaker. The theme for the conference was: “Education in Africa for the 21st Century”. This conference was attended by scholars from Kenya, South Africa and the University of Namibia. About 11 members from Rundu campus presented their research papers, which will be part of the conference proceeding to be published in South Africa and launched at Katima Mulilo conference in July 2013. This exercise boosted the moral of academic staff since some of them have never presented a paper at any conference let alone publishing a research paper.

Furthermore, one of the staff from Rundu campus core-presented a research paper at the HP Conference held in September 2012. Important to note also in that given the encouragement and moral support provided to academic staff members three of the staff members presented papers during the UNAM Research Day held in September 2012. Furthermore, the following research workshops were hosted by the Campus:

The National Council for Higher Education (NCHE) in their mandate to enhance the research skills of researchers both in academic institutions and other sectors organized a research workshop hosted by the Rundu Campus on 2nd October 2012. This workshop was conducted and facilitated by Prof. R. Zimba from the University of Namibia. This workshop came as another benefit for our staff to gain skills that will enhance their knowledge in research since the majority of them are studying for their postgraduate degrees.

Research Day

This activity was organized by the Research and Publication committee of Rundu Campus. The theme of the event was: “Celebrating 20 years of Excellence in Research and Innovation towards Development”. It was a one-day activity which was held on the 18th of September 2012. The activity was organized in three sessions: In the morning session, was the official Opening Ceremony and Professor C. Kasanda presented a keynote speech. Presentations on research papers and poster presentation took place in the afternoon. The final session took place in the evening, where Professor Nico Schutte presented a public lecture on the theme “The role of research in addressing socio-economic development issues”.

Opportunities and challenges

The Campus’ initiative to introduce an annual conference rotated between the three former Colleges of Education (out-of-Windhoek) has provided academic staff with an opportunity to undertake research, present research papers and also an opportunity to publish. Furthermore, the RPO’s initiative to introduce Annual Research Day has also created a platform for academic staff to showcase their research results. However, the challenge that
still confronts our campus is make academic staff understand the value of conducting research as one of the core-functions of the University. Training is still needed on research proposal writing and writing for publication.

**RESEARCH STRATEGIC DIRECTION AND FOCUS AREAS**

The academic staff members for Rundu Campus during the year under review were all Faculty of Education staff. Although the campus had diversified its programmes, no staff members in the fields of commerce participated in the research activities during 2012 at the Rundu Campus. The following are research strategic direction and focus areas as outlined in the campus draft Research Agenda.

*Educational management and leadership issues*

- Educational Policies and planning
- Issues of school management and leadership

*Curriculum, Instructions and Assessment Issues*

- Numeracy skills
- Student perception towards basic Mathematics
- Investigation of Ethno mathematics
- Environmental regarding Crop production in the region

*Issues on inclusive education*

- Childrearing practices
- The household roles of school going orphan and vulnerable children
- Discipline in inclusive schools

**LIST OF PUBLICATIONS**

The following publications were produced in 2012.

*Journal article(s)*


*Chapters in books*

Conference papers


OSHAKATI CAMPUS
DIRECTOR’S STATEMENT

At Oshakati we refer to ourselves by choice as a “host campus”. Much of the teaching and research activities that takes place are done by staff who also belongs to other Faculties due to dual reporting system. Thus some of the publications and activities that will be reported in this reported might featured in other reports for Faculties and Centers already. For example, our Nursing Department’s academic staff who is the majority of staff on Campus might have already reported their research related activities as a contribution to the School Research and Publication Report Nevertheless. The Director of Oshakati Campus encouraged all staff on Campus and equally support research and publication activities as one of the major functions of the University. Research thus form part of our Strategic and Management plan during the year under review.

STRATEGIC RESEARCH DIRECTION

The major strategic issues regarding research in 2012 was to build capacity of research on campus currently very low and need improvement. As a result some workshops were held with the assistance of the Research and Publication Unit from Main Campus to help build the capacity on specific issues such as proposal writing. Although the capacity on Campus is still very low leading to lecturers lacking confidence in getting started in conducting research, some research activities and publication took place in 2012. One of the strategy was to invite University Research and Publications Office to conduct a capacity building workshop which took place between 23-25 July 2012. The workshop focused on:

1. How to write research Proposals
2. How to write for publication

LIST OF PUBLICATIONS

The following publications and conference papers were achieved by individual academics and members of staff. Particularly, the Campus Director commends Mr. Joseph Ndinoshiho, the Deputy University Librarian for the great effort he put in publication as could be seen in this report. As a Director I therefore add my warm thanks to all those academics and units who assisted to this achievement in the form of publication and in building capacity on research at Oshakati campus. My special thanks goes to the Research and Publication unit for the support they rendered to Campus during the year under review. Below is the list of the publications.

Books and monographs

Chapters in books


Conference papers and proceedings


- Uugwanga, P. (2012). Emergent findings on the perceptions of the Namibian teacher educators involved in merger between former colleges of education and the University of Namibia, Faculty of Education. Paper presented a paper at the SACHES Conference on “Education for the 21st Century” held on 12-13 July 2012, at Rundu UNAM Campus.

CONCLUSION

As can be seen, research output for Oshakati Campus is very low and needs serious support. Our suggestion is to engage the Campus into more research capacity and mentoring programmes.
UNIVERSITY LIBRARY (INFORMATION & LEARNING RESOURCES CENTRE)

UNIVERSITY LIBRARIAN’S STATEMENT

The Library aligns its priorities with those of the University, as outlined in the 2011-2015 UNAM Strategic Plan. The strategic vision of the Library is to anticipate and respond to research needs and provide an information infrastructure that supports ground-breaking research and innovation. This objective was addressed through the effective use of library expertise in knowledge management and information and communication technology to deliver current, relevant and appropriate information resources to researchers. The Library has been gradually concluding licensing agreements with publishers of electronic journals, databases and eBooks in order to provide our researchers with access to a great amount of full-text e-journal articles, eBooks and databases with distinct, current, high impact factor, peer reviewed global information. Currently these subscriptions include six electronic databases: Ebscohost, Emerald, ScienceDirect, SA E-publications, Springerlink and Oxford journals. This deliberate move to add e-resources into the library collections was intended to provide 24/7 library service, reaching out to UNAM staff and students wherever they are—in the offices, in the field, at home, in the library, anytime, anywhere. Moreover, Library continued to subscribe to 297 print journal titles based on the usage and demands from the user community. Similarly, a total of 23 686 new book titles were added to the library collections in 2012, in order to ensure full support to UNAM research programs. The Library developed a draft Information Literacy Instruction Programme, aimed at providing information literacy skills to researchers and students to become self-directed researchers who would put the library resources to optimal use.

The Library addressed the findings of two research reports namely Zimba (2008) and Matengu & Shapi (2008)¹ which were very critical about limited library resources and facilities to support research and post graduate programs at UNAM. These findings were addressed by submitting a proposal to the Ministry of Education to extend and renovate the current UNAM Library space and to bring it at par with academic library standards. An amount of N$50 million was made available under the MTEF 2012/13-2014/15², to extend the Library and add amongst other facilities, a Research Common that would cater for the needs of researchers and post-graduate students. Project description of the renovation and extension project was completed and submitted to the architect through the Office of the Director of Estates Services.


In line with the University’s strategic objective of increasing and broadening research output, the Library Management made concerted efforts to encourage librarians to engage in scholarly discourse through research and publication. This was carried out with due recognition that research is a key driver in providing improved, innovative and client-focused information services and resources. Consequently, the Library organized a professional development workshop and a seminar aimed at improving research and academic writing skills amongst library staff members. The academic writing skills workshop was sponsored by the International Training and Education Center (I-TECH), while the seminar was facilitated under the human resource capacity building cooperation project between the UNAM Library, University of Helsinki Libraries and University of Tampere Library. The cooperation with the two Finnish University libraries took a multidimensional approach to human resource development, such as, seminars, staff attachments and collaborative research. Research and scholarly publishing was given the highest priority and yielded positive results. Most of the UNAM librarians were able to put into practice the research skills gained by actually conducting research and publishing peer-reviewed papers.

The year 2012 saw the Library producing its highest number of research outputs. This was a great achievement in our quest to conduct evidence-based research which would inform Library decision making and future planning for better services to researchers and students. These achievements are indicative of the Library’s strategic direction geared towards improving research services to library clientele and to plan for research centred infrastructure. It is our strong believe that in order to provide research focused services the library staff must be able to understand the research processes.

This report presents the Library’s research strategic direction and focus areas, the list of publications, and the significant events that occurred during 2012.

**UNAM LIBRARY RESEARCH STRATEGIC DIRECTION AND FOCUS AREAS**

As outlined in the UNAM strategic plan the overall Library Strategic Objective for 2011-2015 is to “Improve Quality of Library Services”. The library’s facilities, services and resources are aligned to the university strategic direction, and hence are geared towards supporting the academic and research goals of the University. In order to achieve this strategic objective, the Library shall pursue the following strategic directions: Position the Library at the core of teaching and learning, research and study; Enable the discovery, curation, and use of rich research collections; Leverage information and communication technologies to engage with changing modes of teaching, learning, and research; Create and maintain functional, attractive spaces that meet users’ evolving educational and research needs; Build, extend, and sustain relationships with key stakeholders; and Prepare the Library to succeed in an environment of continuous change.

As an academic key support service of the university, the Library carries out research or engages consultants to facilitate research in the following library related focus areas: User needs and customer satisfaction surveys; Evidence-based librarianship; Process analysis; Digital libraries and scholarly communication(s); Information Literacy instruction and pedagogical knowledge; Records Management and Archives Services; Human resources
development strategy of the UNAM Library; Analysis of library statistics; Library buildings; Benchmarking library standards for performance measurements; Collection assessment (evaluation) studies.

During the 2012 academic year, the Library participated in research activities that focused on four research themes from those outlined above, they are: Human resources development of library staff; User needs and customer satisfaction surveys; Library renovation and extension; Scholarly communication and scientific publishing and information literacy instruction. The research results of most works by UNAM librarians and archivists were disseminated or communicated to the public in the form of chapter contributions to a book published and printed at the University of Tampere, Finland. The book itself is the outcome of collaboration among three university libraries, the University of Namibia, the University of Tampere and the University of Helsinki libraries. The collaboration was started and developed under the research theme: Human Resource Development of the University of Namibia Library staff and was financed by the Higher Education Institutions Institutional Cooperation (HEI ICI) programme of the Ministry of Foreign Affairs, Finland.

LIST OF PUBLICATIONS

Books & monographs


Chapters in books


Conference papers/proceedings


SIGNIFICANT EVENTS, ACHIEVEMENTS AND MILESTONES

During the year under review, a key milestone was the publication of the book entitled “Empowering People: Collaboration between Finnish and Namibian University Libraries”. This book represents an important outcome of the human resources capacity building cooperation, which the UNAM Library implemented with two Finnish Libraries of the University of Helsinki and the University of Tampere. In this book, a total of 15 UNAM Library staff members co-authored peer-reviewed chapters with their Finnish counterparts. Most of the chapters published were evidence-based research about the information needs of researchers and students as well as of library practice in the UNAM Library.

Library implemented its first ever LibQUAL+ survey, an international research instrument that libraries use to solicit, track, understand, and act upon users' opinions of service quality. The results from this survey will provide further insights into the service areas that need improvement, and will help the Library to benchmark the quality of its services against other University Libraries in the world that use this particular instrument.

CONCLUSION

In fulfillment of the University strategic objectives, the Library will continue to prioritize research support services to its users, and to create and maintain enabling environment that will promote cutting-edge research. Equally the Library will capitalize on the current research gains amongst its staff and continue to encourage research and publication as a key function of librarians. In doing so, our librarians will gain a better understanding of research processes that will be translated into better internal processes and eventually into improved services for the University community. UNAM Library research activities will influence national development goals pertaining to the development of the library and information sector in the country. The year under review marked an important step in stimulating the Library staff to make a contribution to the University scholarly communication and research output. The Management of the Library will strive to afford its staff members opportunities to sharpen their research skills. In turn this will not only put
them in a better position to provide innovative research support services but also to become reputable researchers in their own right.