

Presenting the Faculty of Agriculture and Natural Resources and the Vision of the Namibia University College of Agriculture and Natural Resource (NUCA)

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1. Background about Namibia

1.1 Land and Resources

Namibia has area of 824,269 km² on the southwest coast of Africa, lying between latitude 17.5° and 28.5° South and between longitude 12° and 20° East. It shares boundaries with Angola, Zambia, Botswana and South Africa. Two major deserts bound the country, the Namib, along the west coast, and the Kalahari on the east stretching into southern and central Botswana.

Namibia is one of the most arid countries in the world, and certainly the most arid country south of the Sahara. Annual average rainfall ranges from less than 50 mm along the coast to 700 mm in the far northeast. The only perennial rivers are found on the country's borders. Water is thus a major constraint. Water availability and soil conditions limit crop cultivation to the north of the country where water and irrigated land is less scarce, while the agricultural potential of the central regions is confined to extensive livestock farming. In the more arid south, extensive sheep and goat farming is possible. Despite these constraints, 70% of the population is directly or indirectly dependent on agriculture. Namibia's landscape is highly varied with expanses of desert, sand dunes and rock formations of the south contrasting starkly with savannah and woodlands of the central regions and the forested landscape of the northeast. Namibia is thus very rich in wildlife. The upwelling of nutrients resulting from the Benguela current, which flows northwards along the west coast of Namibia creates abundant fisheries and other resources.

1.2 Demographic Aspects

Namibia's population is estimated at 1.7 million with a population density of about 2.0 per km² that makes Namibia one of Africa's three most sparsely populated countries. Almost two-thirds of Namibia live in the northern regions where population densities in certain areas exceed 100 people per km² while fewer than one-tenth live in the southern regions where population densities are as low as 0.5 per km².

1.3 Political Structure

Namibia is the youngest democracy, having attained its independence only in 1990. The constitution provides for a unitary secular republic with an executive presidency and a bicameral legislature, regular multi-party elections and an independent judiciary. The constitution includes clauses protecting human rights, guaranteeing private property rights and guarantees gender equality.

1.4 Social-Economic Factors

Namibia is one of the countries considered as a limited scope country with sound social and economic policies and political stability, but with a small domestic market. Currently and in the past, most investment flow to the exploitation export of raw materials. Since independence in 1990 the main thrust of development has been the rapid development of human resource base which has been so severely retarded as a result of colonial and apartheid policies; poverty reduction through economic growth and active intervention to achieve social relief and equity. Extreme income and asset inequalities as a result of the past apartheid policies still exist. Namibia is known to have one of the most unequal income

distributions in the world with the most affluent 10% of the society receiving 65% and the remaining 90% receiving only 35% of the national income.

Table 1. GDP by Main Activity 1997, Percentage Contribution to GDP

Activity	% Contribution to GDP
Agriculture and Forestry	7.5
Fishery	3.3
Mining	13.5
Manufacturing	14.2
Electricity, Water & Construct	6.1
Trade	8.1
Hotels & Restaurants	2.1
Transport & Communication	4.7
Financial Services & Real Estate	9.8
Government Services	27.0
Other Services	3.6

Source: NPC: National Accounts 1982-1997 (1998)

1.5 Agriculture

The agricultural sector is divided between a commercial mainly white sub-sector of farming and animal husbandry, and a largely black communal sub-sector. The overall contribution from agriculture to the GDP in 1997 was 7.5 % of which 3.2 % was attributed to subsistence agriculture and 4.3 % to commercial agriculture. The contribution from commercial agriculture has been decreasing steadily since 1980, while that of subsistence or communal agriculture has remained fairly constant. Though Namibia is one of the driest countries, in general 60-70 % of the population derive their livelihood directly or indirectly from agriculture and agriculture related activities. Agriculture thus remains as one of the most important means of supporting and sustaining human life. This has been recognized by the Government, which is trying its best to support and develop this very important sector and has called on donors and other partners to play a significant role in ensuring that these efforts are successful.

However, there are several constraints that affect agricultural production. Some of the constraints include: inadequate trained human resources, high incidence of extreme poverty and inequitable socio-economic welfare situation, environmental constraints related to Namibia's fragile ecosystems and degraded natural resources, lack of extension-research linkage, etc. These constraints may adversely affect people's livelihoods, leading to vulnerability and food insecurity.

Having realized the importance of agriculture to the economy and noting that agricultural development can only come about if there is sufficient and adequately trained human resources, the government decided to establish a Faculty of Agriculture and Natural Resources at the University of Namibia, in 1994, with the main aim of providing the much-needed human resources required for the sustainable development of agriculture and natural resources in Namibia.

2. The University of Namibia

The University of Namibia (UNAM) is among the youngest universities in the South African Development Community (SADC) region, established in 1992, two years after Namibia's independence. UNAM currently has seven Faculties, namely, Agriculture and Natural Resources, Economics and Management Science, Education, Humanities and Social Sciences, Law, Medical and Health Sciences, and Science as well as the Center for External Studies, the Computer Center, the Language Center, the Human Right and Justice Center, and the Public Service Training Center. The Faculty of Agriculture and Natural Resources (FANR) is the youngest having started admitting its first group of students only in 1996.

2.1 The Faculty of Agriculture and Natural Resources

2.1.1 Mission and Objectives

The Mission of the Faculty is to promote sustainable agricultural and natural resources development and management in Namibia through teaching, research, and extension services to communal and commercial farming communities. The Mission statement tells us: what we are supposed to do, where we are to do it, how we are supposed to do it and for whom should we do it, thus making our task very clear.

Specific objectives are:

To provide education and training aimed at producing degree level graduates in the fields of agriculture and natural resources, who will be equipped with knowledge, skills, and attitude that will help improve agricultural productivity and promote sustainable development, wise use of resources, and increase Namibia's food security.

To conduct research aimed at extending the frontiers of knowledge relevant to Namibia's environment, natural resources and agriculture.

To provide advisory, consultancy and extension services on the proper and sustainable use of Namibia's agricultural and natural resources to the communities.

To catalyze increased production and productivity of Namibia's natural resources.

To help create meaningful employment both in the public and the private sectors including self-employment.

To promote an environment that will enhance equity and access to education and training in agriculture and natural resources development and management.

2.1.2 Departments and Programs

There are five academic departments and a Faculty library, namely:

- Agricultural Economics and Extension
- Animal Science
- Crop Science
- Food Science and Technology
- Natural Resources and Conservation

Two degree programs are offered, namely, Bachelor of Science in Agriculture with 4 degree options: Agricultural Economics, Animal Science, Crop Science, and Food Science and Technology, and Bachelor of Science in Natural Resources with 4 options: Environmental Science, Fisheries, Forestry, and Wildlife Ecology and Management. Only the Fisheries option is currently being offered with starter funding having been provided by the Royal Norwegian Government through its development agency, NORAD.

2.2 Students and Staff Numbers

2.2.1 Table 2. Current student numbers (Year 2000)

Year	Male	Female	Total
1	35	22	57
2	23	9	32
3	17	16	33
4	25	15	40
Total	100	62	162

2.2.2 Table 3. Current Staffing Situation

	<u>Namibians</u>		<u>Non-Namibians</u>	
	F	M	F	M
Academic	6	7	3	14
Technical	1	4	0	0
Admin.	2	1	0	0
Total	21		+	17 = 38

NB The low student numbers are due to lack of qualified students from secondary schools with good passes in the science subjects and mathematics. This may change in five to ten years as the problems are being addressed by the government and the University.

3. Vision of NUCA

Agricultural education in Namibia, up till 1990 and prior to the launch of the Faculty of Agriculture and Natural Resources, was offered at Diploma level in three Colleges in different areas of the country on racial basis, that is, at Neudamm for whites, at Tsumis for coloreds and at Ogongo for blacks. When the Faculty of Agriculture and Natural Resources was established in 1995, it was agreed that the two colleges of Neudamm and Ogongo be integrated with the Faculty to form Namibia University College of Agriculture and Natural Resources (NUCA) for efficiency and cost effectiveness as well as for the strengthening of the diploma training and in order to bring the Faculty to work closely with the Ministry of Agriculture, Water and Rural Development. This process of integration is a great challenge for the Faculty, which is expected to take the leadership and show the way. The task is enormous especially if we consider the fact that the majority of the college staff need retraining and the colleges lack the basic laboratory and field training facilities and also considering the distances involved separating the three campuses of the new college, namely, Ogongo (800 km from Windhoek), Swakopmund for Fisheries (365 km from Windhoek) and Neudamm in Windhoek which will be the main campus. We feel we need the support of experienced institutions like yours to assist us achieve this goal.

The Bill to establish NUCA has just been approved by an Interim Board, chaired by the Permanent Secretary in the Ministry of Agriculture, Water and Rural Development, and is now due to go to Cabinet afterward before it goes to Parliament. The Government, through the Ministry is providing the physical infrastructure for the new college; to date, Food Science, Animal Science, Library and hostel facilities have been constructed at the Neudamm site. A Crop Science Complex and staff houses are being constructed at Ogongo. When fully established NUCA will have a total of 400 degree and 200 diploma students and an academic staff complement of about 50, which will give a staff-student ratio of about 1 :12. We would like to build NUCA as an institution that will be capable of addressing the farmers' and other resource users' needs by completely changing from the traditional to more radical and modern approaches of agricultural education and training. Curriculum content needs to be sufficiently geared towards locally important problems and reflect the particular needs of the rural populations. Training needs to take into account new emphasis on agricultural diversification instead of single commodity production. This is not an easy task. We need your support.

4. Constraint Affecting the Attainment of the Set Objectives

- 1) Inadequate human resources to run the degree programs and at the same time conduct relevant research, which is much needed for the development of appropriate production technologies.

- 2) Lack of capacity to provide postgraduate training for human resource development for the Faculty, NUCA, and the country in general. In Namibia and other African countries, development is hindered by widespread weaknesses in the institutions responsible for implementing agricultural development programs. It is important to enhance the capacity of governments and public institutions through training, to be able to formulate agricultural policies and programs by building analytical and policy formulation capacity in the Ministries and institutions of Agriculture.
- 3) Inadequate student numbers qualified to join the degree programs in the Faculty, and poor performance in the science based subjects including Mathematics, during the first year.
- 4) Poor linkages with the Extension Service as well as the Research division of the Ministry of Agriculture, Water and Rural Development, and lack of capacity to provide advisory and extension services.
- 5) Lack of data collection, processing, analysis and dissemination center which could also serve as an advisory center, providing important information to farmers, academics and researchers as well as policy makers. This could provide an important means of capacity building in analytical and policy formulation capacities for the country based on reliable database.
- 6) Inadequate library resources and textbook materials, though the Faculty boasts of a very modern library building put up by financial resources provided by the government of the republic of Namibia.

5. Cooperation with Japanese Institutions and the expectations

IT IS SAID THAT IF YOU WANT TO LEARN ABOUT SUCCESS, LISTEN TO SOMEONE WHO HAS SUCCEEDED.

We come to you with a lot of hope. Your contribution to the development of third world countries has been enormous and you have successfully changed the lives of many people worldwide for the better, because the Government of Japan and its people strongly believe that human kind needs to live a better quality of life. I come to you to request your help to seed the clouds of good hope in Namibia with your technological support so that they may bring good rains, that is good quality of human life, which was denied to the majority of Namibian population due to many years of apartheid colonial practices.

Africa and Namibia in particular is endowed with enormous natural resources heritage and wonderful opportunities for agricultural development. But the people need to be trained properly to enhance their productivity. This cannot succeed without your partnership that is very much needed at this critical stage of development.

IF YOU GIVE SOMEONE A FISH YOU WOULD HAVE FED HIM FOR ONE DAY, BUT IF YOU TRAIN SOMEONE HOW TO FISH YOU WOULD HAVE FED HIM FOR HIS LIFETIME.

We are requesting your support to complement the Namibian Government efforts to educate and train our people so that they may be able to utilize in a sustainable manner the natural resources for improved agricultural production and thus ensure food security and good environment.

The Faculty views the link with the International Cooperation Center for Agricultural Education (ICCAE) as a very important one for the following reasons;

- 1) It is an important means that will facilitate staff and student exchanges, which will provide opportunities for colleagues to interact and network and exchange experiences. This is particularly important for a young developing Faculty like ours.

- 2) The Faculty currently lacks the capacity to conduct good research and contribute to agricultural development. With colleagues coming from Japan it would be possible to formulate research projects which will benefit both Namibia and the individual researchers as a result of the experiences gained in a different environment, and contribute to human resource development through postgraduate research projects.
- 3) We hope that through your kind support we shall be able to implement our staff development program through postgraduate training locally, within the region or if necessary in Japan. This capacity building for the Faculty and NUCA will determine how successful Namibia will be developing its much-needed human resources for agricultural development and sustainable natural resource utilization and the conservation of its fragile ecosystem/environment.
- 4) We strongly believe that we can benefit from your experience in assisting us set up a data collection, processing, analysis and dissemination center in the north of Namibia, which will provide the much needed information and advisory services to rural farming communities, lecturers, researchers and policy analysts and planners. This may have an enormous impact in agricultural productivity in the rural areas.
- 5) Linkages bring people of different nationalities, cultures and experiences together. Thus linkages provide opportunities for people of different nationalities and culture to know each other and appreciate and understand one another. Thus nations get to understand each other better and this contributes to world peace and harmony.

Thus with these facts in mind the Faculty would like to present collaborative project proposal for your consideration and support. It is in a form of an outline (Annex 1), which will be expanded and written in detail after receiving your comments and inputs.

The main goal of the support project is **TO IMPROVE AGRICULTURAL PRODUCTION AND RESOURCES UTILIZATION IN NAMIBIA, PARTICULARLY AMONG SMALL SCALE FARMERS AND OTHER RESOURCE USERS.**

Specific objectives of the project would be:

- Development of human resources.
- Provision of community services through participatory approaches, advisory and extension services.
- Development of appropriate technologies and demonstration units.
- Establishment of a center for data collection, processing, analysis, processing and dissemination.
- Provision of material resources.
- Mount the Environmental Science degree option of the B.Sc. Natural Resources programs.

May I conclude by asking you to kindly remember this, **THE ONLY WEALTH WHICH YOU WILL KEEP FOR EVER IS THE WEALTH WHICH YOU GIVE AWAY FOR A GOOD CAUSE.** We need your kind support.

THANK YOU.

March 2000

Annex 1

**University of Namibia
Faculty of Agriculture and Natural Resources in
Conjunction with Neudamm and Ogongo
Agricultural Colleges**

Draft Submission of the Perceived JICA
Supported Project Proposal

	Objectives	Outputs	Activities	Indicators	Players
To improve agricultural production and resources utilization in Namibia particularly among small scale farmers and other resource users	1. Development of human resources	1a. Adequate numbers of trained staff at both technical and professional levels, with capacity to offer post graduate training	1a1. Training of staff at MSc, PhD and technical level	1a1. At least 5PhD fellowships, 12M fellowships and 10 technician training opportunities by end of project. At least 3 staff/year from Japan and 1 staff/year from Namibia	UNAM JICA MAWRD
			1a2. Establish links with Japanese and regional universities for staff and student exchange	1a2. At least 2 students per year in both directions	UNAM JICA
		1b. Teaching and learning improves	1b1. Development and conducting of inservice training courses in the following areas: i. Teaching and learning methodologies ii. Upgrading ICT skills for staff iii. Developing modules for distance education of agricultural teachers	i. At least 1 per year ii. 1 per year for 3 years iii. At least one module per year	UNAM JICA UNAM JICA CES NIED UNAM JICA
			1c. Sufficient numbers of teachers of agriculture at primary and secondary levels trained	1c. Develop and conduct upgrading courses agricultural teachers	1c. At least 3 courses conducted
		1d. Sufficient numbers of natural resources assessors trained		1d. At least 1 per year for 15 participants each	UNAM MET JICA

Goal	Objectives	Outputs	Activities	Indicators	Players
	<p>2. Provision of community services through participatory approaches, advisory and extension services</p>	<p>2a. Linkages with farming communities, government, institutions, NGOs, and International organization established and strengthened</p> <p>2b. Effective extension message developed and disseminated</p> <p>2c. Gender and equity issues addressed</p>	<p>2a1. Provide information and training to small scale farmers through the NUCA newsletter, and mass media in order to strengthen small farmers in the utilization of available resources in sustainable ways, e.g. processing mahangu, water harvesting, leadership training</p> <p>2a2. Initiate and establish contacts with farmers, NGOs, etc. through open days at NUCA</p> <p>2b. Hold workshop on curriculum development and participatory methods in extension</p> <p>2c. Develop materials and conduct training of grass root extension staff in gender and equity issues as well as faculty staff</p>	<p>2a1-1. Quarterly newsletter</p> <p>2a1-2. One training workshop per year on mahangu, processing water harvesting and leadership training</p> <p>2a2. One open day per year each of Neudamm campus, Ogongo campus and the Coast</p> <p>2b. One workshop in two different regions per year</p> <p>2c1. One development workshop and one training workshop per year per region</p> <p>2c2. Two surveys conducted at the beginning and end of the project</p>	<p>UNAM MAWRD JICA</p> <p>UNAM MAWRD JICA</p> <p>UNAM Farmers JICA</p> <p>UNAM Farmers JICA</p> <p>NUCA UNAM MAWRD JICA</p> <p>UNAM JICA</p>

Goal	Objectives	Outputs	Activities	Indicators	Players
	<p>3. Development of appropriate technologies and demonstration units</p>	<p>3a. Functional demonstration units developed in at least two regions</p> <p>3b. Needs-based environment friendly and affordable technologies developed and disseminated</p>	<p>3a. Set up at least three demonstration facilities for e.g. field trials, food processing, animal traction and environmental monitoring</p> <p>3b1. Carry out analytical work on needs based, environment friendly and affordable technologies including quality control of milk and fish products</p> <p>3b2. Replicate proven technologies</p> <p>3b3. Carry out a survey if indigenous technologies in agriculture, natural resources and related field and use in selected three regions in Namibia</p>	<p>3a. Three demonstration facilities established</p> <p>3b1. One report produced each year for each technology per region</p> <p>3b2. Technology replicated in three regions</p> <p>3b3. Three surveys carried out at the rate of one per year</p>	<p>MAWRD UNAM JICA</p> <p>MAWRD UNAM JICA</p> <p>MAWRD UNAM JICA</p> <p>MAWRD UNAM JICA</p>

Goal	Objectives	Outputs	Activities	Indicators	Players
	<p>4. Establishment of a center for data collection, processing, analysis and dissemination</p>	<p>4a. Functional center established</p> <p>4b. Databases established including those using GIS methodologies</p> <p>4c. Connectivity and networks in place</p> <p>4d. Good agricultural policies and development programmers being developed</p>	<p>4a1. Establish a functional center at Ogongo</p> <p>4a2. Identify and recruit relevant personnel e.g. IT manager, data processing personnel including GIS personnel</p> <p>4a3. Creation of capacity for needs assessment, e.g. training of trainers, training of enumerators, data collection and processing</p> <p>4b. Creation of databases</p> <p>4c. Provide connectivity and establish linkages with farmers, local and international organization, e.g. establishment of journal, newsletter, etc.</p> <p>4d. Strengthening of policy analysis at NUCA</p>	<p>4a1. Functional center in place at Ogongo</p> <p>4a2. Sufficient personnel in place</p> <p>4a3. 2 trainers of trainers per region and 10 enumerators trained per region</p> <p>4b. Databases in place at Ogongo</p> <p>4c. Linkages internet connected journal and newsletter in place</p> <p>4d. Policy analysis courses at FANR reviewed</p>	<p>NUCA JICA</p> <p>NUCA JICA</p> <p>NUCA JICA</p> <p>NUCA JICA</p> <p>NUCA JICA</p> <p>NUCA</p>

Goal	Objectives	Outputs	Activities	Indicators	Players
	5. Provision of material resources	<p>5a. Adequate lab and field equipment available</p> <p>5b. Adequate transport</p> <p>5c. Excellent library and information support available</p> <p>5d. Teaching materials available</p> <p>5e. Excellent connectivity</p>	<p>5a. Purchased laboratory and field equipment for all departments as per departmental needs e.g. animal traction equipment, food processing equipment, GIS equipment, pilot plant in food processing, small tractors, etc.</p> <p>5c1. Purchase books and other library material</p> <p>5c2. Support to subscriptions to journals and periodicals</p> <p>5d. Purchase of appropriate educational material e.g. OHP, slide</p>	<p>5a. Sufficient equipment for teaching and field work available</p> <p>5b. Field work vehicles purchases for project use in place</p> <p>5c. Books, journals, periodicals, Monographs in place</p> <p>5d. Teaching and appropriate educational materials in place</p> <p>5e. Equipment for connectivity and software in place</p>	<p>UNAM JICA</p> <p>UNAM JICA</p> <p>UNAM JICA</p> <p>NUCA JICA</p> <p>NUCA JICA</p>

Goal	Objectives	Outputs	Activities	Indicators	Players
	<p>6. Mount the environmental degree option</p>	<p>6a. Trained human resources at degree level capable of proving leadership in environmental and resources management</p> <p>6b. Reliable research information on environmental and resources management available</p>	<p>6a1. Review and environmental science curriculum</p> <p>6a2. Develop and offer short courses on community resource utilization and environment management</p> <p>6a3. Facilitate establishment of resource management committee in at least 3 selected regions</p> <p>6a4. Collaborate with Japanese scientist in relevant research activities for improved teaching and resources use</p>	<p>6a1. BSc. Natural resources (environmental science) graduates</p> <p>6a2. Regular short courses offer</p> <p>6a3. Committees established at community level responsible for common property resources utilization and management</p> <p>6a4. Appropriate recommendations available arising from research on better environment management and sustainable resource utilization</p>	<p>Ministry of environment and tourism (Met), UNAM, MAWRD, JICA</p>