

KNOW-HOW₃₀₀₀

Experience

IN DETAIL

„Environmental Management Capacities for Cabo Delgado“



HORIZONT₃₀₀₀

AUSTRIAN ORGANISATION
FOR DEVELOPMENT COOPERATION

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List of Abbreviations

UCM	Universidade Católica de Mozambique
FGTI	Faculdade de Gestão de Turismo e Informática

Imprint

Experience in Detail
“Environmental Management
Capacities for Cabo Delgado”

Released in

Vienna, June 2015

by

HORIZONT3000
www.horizont3000.at

Edited by

Universidade Católica de
Mozambique - Faculdade de
Gestão de Turismo e
Informática
and
HORIZONT3000

With the support of

The Austrian Development
Cooperation (ADC) and the
Member Organizations of
HORIZONT3000

Graphics by

HORIZONT3000

Contact

Nielete Amado
netyamado@gmail.com

¹ DKA Austria - Development
Cooperation Agency of the
Catholic Children's Movement of
Austria, Catholic Men's
Movement of Austria – KMBÖ,
Catholic Women's Movement of
Austria – kfbö, Caritas Austria,
Department for mission and
development of the Archdiocese
of Vienna, Welthaus Diocese
Graz-Seckau, Brother and
Sister in Need – Diocese of
Innsbruck, Brother and Sister in
Need - Catholic Action Carinthia

1. General Information

The Catholic University of Mozambique (hereafter referred to as UCM) (UCM) is a private University offering higher education courses in the center and north of the country. The faculty in Pemba offers courses in the area of tourism, informatics, law, economics, and education and since 2011 also in the area of “environmental management”.

With this document, the UCM Faculty of Tourism and Informatics (FGTI) pretends to present the experience of introducing the “environmental-management-course” in the northernmost province of Mozambique Cabo Delgado, carried out from 2010 to 2014.



Chart 1 Localization of the experience

2. Context of the Experience

Pemba is the capital of the northernmost province of Mozambique, with approximately 188.000 inhabitants experiencing an increased population growth of about 5% per year. In terms of economic, social and institutional development there exists a great south-north gradient in Mozambique, with the overall development concentrating in and around the capital Maputo in the south and significantly slower progress in the northern provinces of the country. However, first natural gas and petroleum prospection activities started in the province and recent, publicly noticeable, investment in the oil and gas sector, as well as other sectors, have been a driver of general development and generated new and higher qualified job opportunities. It also promised an increased demand for environmental specialists together with the possible future occurrence of environmental impacts associated with natural gas and petroleum prospection and extraction.

In the year 2010 the possibilities of studying a university course in the city of Pemba were very limited, as only 3 courses were offered. Therefore a general interest in expanding the range of courses offered existed. At that time, first experiences with ecotourism in the neighboring Quirimbas National Park and the occurrence of large scale deforestation of the native mangrove forests in the area as well as emerging problems concerning waste management and sanitation shifted the general interest in the direction of environmental management. The environmental-management course offered at UCM-FGTI is (apart from the Biology course at the Universidade Lúrio) the only course available covering natural sciences and the booming environmental topic.

After the identification of the local demand for a course on environmental management by the board of directors of the faculty in Pemba (FGTI) and the formal clarification and confirmation with the university management in Beira (where the headquarters of UCM are located) in August 2010, the elaboration of a curriculum was initiated. The then director of the faculty and the then pedagogic director of the faculty were responsible for this process.

The newly designed course of “Environmental Management and Management of Natural Resources” was offered for the first time during the academic year of 2011 and started in February with approximately 20 students.

Gender and/or HIV/Aids aspects were not part of the initial challenge, but are treated in all courses offered by the UCM, in the form of an obligatory module on the topic, periodic discussion meetings and the possibility of free testing and medical consultation at the faculty.

3. Main Characteristics of the Experience

The **main objective** of the practice is to introduce a new university course as a response to an actual emerging demand driven by local development in a remote city of the country. The objective of the introduction of this course is on one side to enrich the variety of courses offered in order to strengthen the position of the faculty, and on the other side to graduate specialists in an area of growing interest and need, where comparable formation

is still missing in most parts of the country. The course itself aims to qualify students to act in the various areas of environmental management, from urban and rural environmental management to the management of conservation areas, as well as the sustainable exploitation of natural resources.

Chronologically, the following steps were taken to implement the introduction of the new course:

- August 2010: Decision on introducing a course on “Environmental management and management of natural resources” by the university management
- August–December 2010: Elaboration of the curriculum (led by the director and pedagogic director of FGTI) in collaboration with experts from UCM and local stakeholders
- February 2011: Start of the new course
- February 2011-December 2013: Gradual introduction of the new course: Elaboration and adaptation of the programmatic contents given in the curriculum to the local situation ; Identification of lecturers needed and employment of new full-time lecturers specifically for the environmental management course and part time lecturers for subjects not covered by the former; Organization of practical lessons and excursions, etc.
- June 2012: Allocation of a foreign technical advisor for the accompaniment of the introduction and professionalization of the course: Definition and refinement of programmatic-contents of lectures, implementation of practical hours, supervision of first thesis, etc.
- February 2014: Graduation of the first students

4. Stakeholders and Partners – Roles and Responsibilities

The main beneficiaries of the experience are students mainly from Pemba, but also from other cities and the Cabo Delgado Province in general. Furthermore, civil society, public and private institutions of Cabo Delgado and the UCM-FGTI itself can be identified as beneficiaries.

The main parties, institutions and groups of people involved in the implementation of the experience are the UCM-FGTI management and the UCM-FGTI lecturers, as well as the students themselves by collaborating in the different subjects.

- The tasks and responsibilities of the UCM-FGTI management are: management/organization of the introduction of the new course, design of the curriculum, employment of lecturers, establishment of appropriate working conditions for lecturers and students, etc.
- The tasks and responsibilities of the UCM-FGTI lecturers are: elaboration of programmatic contents according to the curriculum, development of lecture materials, lecturing of the different subjects, preparation and carrying out of tests and examinations, supervision of thesis, organization of practical lessons and excursions, etc.

Reasons and motivation for students to participate in the course are: Interest in the topic of the course; Improvement of their future possibilities to get employed in the area, where a lot of investment and development is experienced at the moment; and improvement of their CV and possibilities for achieving higher salaries in general;

5. Resources

The following resources are needed to implement the experience:

Human resources: employment of new full-time lecturers (5 up to now), which are experts in the different areas covered by the new course, employment of part-time lecturers for subjects where no full-time lecturer is expert (up to 5 depending on the semester), additional administration and general staff of the faculty proportionally to the number of students;

Materials: Acquisition of books and lecture material on the new subjects, acquisition of materials needed for practical lessons, proportionally to the number of students: additional facilities like lecture rooms, library, computer work places, etc.

Time: up to six months partially for the development of the curriculum and the organization of the introduction;

Finance: salaries for mentioned human resources and materials;

Knowledge: especially during the design of the curriculum and the elaboration of the programmatic contents of the different subjects: collaboration with experts in the area;

6. Impact of the Experience/ Practice

Positive impacts on students: Gained knowledge on environmental processes, problems and solutions which in part can be applied directly by every individual student; as well as improved professional qualification with direct impacts on the social status, salary, job possibilities etc.

Positive impacts on the population of Pemba: improvement of the environmental conditions through information and activities implemented by the students of the course (World Environmental Day, Cleaning Campaigns, Environmental Education activities in schools, etc.); as well as improvement of the environmental management of the city through the offer of qualified environmental professionals and their employment in ministries or municipal institutions;

Positive impacts on UCM-FGTI: establishment of a new course, which is highly demanded by the students, contributing to the reputation of the faculty as well as the economic sustainability of the faculty location.

7. Lessons Learned and Recommendations

The successful introduction of a new course, as a response to a locally identified demand, at an existing, remote faculty-location, is possible.

Special emphasis should be put in the collaboration of specialists and local stakeholders (industry, NGOs, municipality, other public institutions) during the development of the curriculum, to guarantee the usefulness/

applicability of the knowledge transmitted in the course and the employability of graduates.

Another important issue consist in ensuring a sufficient number of specialists (ideally with experience), willing to live and teach in the remote location.

8. Challenges

One of the main challenges encountered is that the general education level and the value of education in the society is very low in Mozambique and even more so in the most northern province of Cabo Delgado. Therefore students enter the course with a very low level of basic education (Portuguese, Mathematics, Sciences, and Informatics) which makes it often very difficult to teach the specialized subjects. Finding the right combination of repeating the basics without compromising the specialization desired for the course remains a challenge. This applies even more at a private university, which is directly dependent on the number of students entering the courses and therefore has limited possibilities of introducing a preparation year or access examinations, without losing students, which are important for the economic sustainability of the course.

Another challenge was to find and sustain specialized lecturers in the remote location. Specialists, who have studied in other Mozambican cities (Maputo or Beira) or even abroad, often have difficulties adapting to the relatively rural conditions in Pemba. The cost of living is very high in comparison to other cities, but the salaries are the same for all UCM employees regardless of the location. The workload is generally very high, especially during the first implementation of the courses. These factors among others lead to a high fluctuation of lecturers which results in the loss of continuity, quality, time and finally also a loss in financial terms for the faculty. Materials are not handed over completely are rarely revised and adapted, knowledge and vital experiences are not passed on or documented and new lecturers have to start from the beginning.

Because there are so little specialists available in the country (and the ones who are, are working in the capital-city, in ministries or industry), general lecturers (Biology,

Agriculture, etc.) are contracted to give lessons in specific areas of environmental management, compromising the quality of teaching (and overloading lecturers).

Another difficult challenge is corruption in the education system. On one hand corruption in the school system has a great influence on the level of education and the attitude of students when entering university. On the other hand also universities are not immune to corrupt practices, compromising the reputation of the faculty, the quality of the course and knowledge of graduates.

Finally, there is to mention the challenge of linking the contents of the course to practical applications in industry, NGO projects and the collaboration with the municipality. As the course started only with evening classes and students are full-time working during the day, it is very difficult to include practical lessons, excursions and internships in industry, NGOs or the municipality, which would be very important.

These challenges have been addressed by some central measures:

- The first course year covers almost only general subjects to ensure, that students are able to assimilate the specific contents of the following course years.
- New (and more specialized) lecturers are taken under contract every year; there is a limited number of houses available in the faculties' condominium, offering affordable housing for lecturers who are not originally from Pemba.
- Corruption at faculty level is not tolerated by the directorate and if discovered disciplinary measures are taken.
- With the introduction of a day-time course and the increasing awareness of the existence of the course in the city, collaboration with other institutions, NGOs and industry is expected to increase.

Nevertheless, all the main challenges have not been totally resolved or overcome by the measures taken so far.

9. Sustainability

To assure that the practice is institutionally, socially, economically and environmentally sustainable, some aspects have to be taken into consideration.

Firstly, it is necessary to contract more specialists in the different areas of environmental management in order to rise and maintain the quality of the course, to keep students interested and to satisfy expectations. Lecturers are able to enhance the collaboration with industry, NGOs and the municipality and engage in the ongoing procurement of specialized books and teaching materials.

Secondly, the economically sustainability depends directly on the number of students registered for the course, as the UCM is a private university. Therefore it is necessary to guarantee a good reputation which is best achieved by professional and good educated graduates which experience great job opportunities and success in the implementation of their acquired knowledge.

Thirdly and from an environmental point of view it also should be assured, that the principles taught in the course are also applied at the faculty as good practice examples of implementation (for example concerning waste management of the faculty, re-use of paper, etc.).

10. Experience Sharing/ Up-scaling

There could be interest in replicating the experience if similar conditions prevail, such as the existence of an university faculty at a remote location; the demand for graduates / specialists in a specific area which is emerging from an actual local development (for example oil and gas discoveries, precious metal deposit discoveries, the development of specialized industries, etc.); and the lack of formation possibilities in this specific area at the location.

Therefore any university having opened or thinking in opening faculties at a remote area with a vital development going on in a specific area could be interested in this experience.

11. Bibliography

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