

Agriculture Information Management and Precision Farming (AgIM)

The project will support the development and implementation of a master curriculum in Agricultural Information Management and Precision Farming (AgIM) in Cape Verde and Mozambique. The project will design, develop and evaluate the Master Curriculum and establish a common framework for quality assurance. It is foreseen to secure the accreditation of the AgIM Master Program by each of the competent authorities and deliver two editions of the AgIM Master Programme in Mozambique and Cape Verde. In addition one precision farming pilot demonstration project will be established in each partner country. A repository of practice and groundwork will be developed along with dissemination and exploitation activities.

Contract
FED/2013/320-079

Co-ordinator
Instituto Superior
de Estatística e Gestão
de Informação
da Universidade de Lisboa
(ISEGI-NOVA)

Partners
Universidade de Cabo Verde,
Universidade Católica
de Moçambique

Associate
Esri Portugal (Sistemas e
Informação Geográfica S.A.)

Project duration
42 months

EU grant
EUR 493,039.32

**ACP regions and
countries involved**
Africa – Cape Verde and
Mozambique

**Technical
Assistance Unit**

www.acp-edulink.eu
info@ACP-edulink.eu

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Challenge

Despite the growing demand for professionals with precision farming related skills, there is still no Higher Education Institution (HEI) offering an advanced master program in Precision farming in Cape Verde and Mozambique. There has been an increased recognition of the need to develop new agriculture educational programs in developing countries that reflects the major dynamics of change focusing on new crop and land management concepts, contributing to meet the growing demand of relevantly skilled professionals in agricultural and food-related jobs.

In order to be responsive to the changing needs of producers and agribusinesses, these programs should take into consideration the constraints and integrate revolutionary approaches to agro-ecosystem management.

Focus

This project aims at strengthening the academic quality and institutional capacity of the HEIs through the creation of an inter-institutional network rooted in a long-term sustainable strategy. The project will promote the capacity building and regional integration of the two partner institutions, ensuring that all relevant skills in scientific, pedagogic, technologic and administrative domains are effectively transferred to the HEIs, supporting the sustainability of the action and the creation of mechanisms necessary to multiply the impacts.

The target groups are local teachers and students in the field of Agriculture and Geographic Information Technologies, administrative, financial, ICT and external relations staff.

The final beneficiaries of the **AgIM** project will be citizens, farmers, rural communities, local authorities, trade unions and other organisations in both countries that will benefit from an increased number of qualified professionals in agriculture and food-related jobs, with a better understanding of small-scale producers' needs and in possession of knowledge and skills to significantly improve the decision making process and to enhance agricultural profitability.

Rationale

The three major skills/competence areas where improvements in precision farming can be made are: Agronomic, Computer and Information Management and Contextual and Procedural skills.

The intent of AgIM curriculum is to develop the skills necessary for students to be successful in a sector consistent with the socio-economic development priorities of these two ACP member countries. The classes are taught in blended learning, traditional classes and utilizing e-learning resources.



Interaction with local farmers (Mozambique)



Implemented by the ACP Secretariat



Financed by the European Union



AgIM students proceeding to soil sampling (Mozambique)



AgIM students in field work (Mozambique)

Programme theme(s)

Agriculture and food security

Sector

Agriculture education and training

Keywords

Post-graduated education, geographic information systems, precision farming, agriculture information management, blended learning

Contact the project

Alexandre Baptista
Tel: +351 213 828 610
E-mail: a.baptista@isegi.unl.pt
Website: <http://agim.isegi.unl.pt/en/>

Project website

<http://agim.isegi.unl.pt/en/>

It is expected to deliver two editions of the AgIM Master Programme. The 1st edition of the AgIM Master Programme will be co-ordinated and conducted by ISEGI-NOVA's teaching staff together with two trained teachers from UCM and UniCV in GIS technologies. During the 2nd edition, the capacity strengthening of the ACP HEIs will be reinforced with the direct involvement of the partners in all lecture and teaching activities. This curricular organisation is based on previous experience of ISEGI-NOVA's of co-operation activities in the field of Geographic Information Science and Technology.

Precision Farming can contribute in many ways to long-term sustainability of production agriculture, confirming the intuitive idea that precision farming should reduce environmental loading by applying fertilisers and pesticides only when and where needed. The benefits to the environment come from targeted use of inputs that reduce losses from excess applications, nutrient imbalances, weed escapes, insect damage, etc. Other benefits include a reduction in pesticide resistance development.

Method

To achieve the expected results, six major activity areas will take place.

Activity Area 1: Managing Action Activities - Transversal to the whole project, the set of activities included in this activity becomes a means towards its execution, enabling its implementation (including monitoring and reporting), evaluation and auditing.

Activity Area 2: Creating academic and management capacities in partner's faculties - The purpose of this activity is to enhance the overall academic and management/administration capacity of HEIs.

Activity Area 3: Developing the AgIM Master Curriculum - Set of activities related with the construction of the AgIM master curriculum, dealing with all aspects of curriculum design, structuring and organization.

Activity Area 4: Establishing and managing two Pilot Demonstration Projects - (one in each country) that will serve multiple educational /research purposes.

Activity Area 5: Delivering two editions of the AgIM Master Program - creation of an e-learning platform, associated with on-campus lectures, tutorial sessions, seminars, projects supervision, evaluation, etc.

Activity Area 6: Developing and promoting dissemination activities - Activities designed to mainstream and sustain good practices of precision farming education in developing countries and to increase inter-institutional networking options between HEIs in the ACP and EU HEIs.

The contribution from the Associate Member during the 42 months of the project will specifically provide GIS software licenses needed for the course teaching and for ensuring technical and scientific support to the teaching staff and the students.

Results

The main outputs and expected results of this project are the delivery of a top master curriculum in **Agriculture Information Management and Precision Farming in Cape Verde and Mozambique**.

Recognition of the AgIM Master programme in accordance with National and International Quality Assurance Standards and the upgrade of qualifications of academic staff of both partners HEIs

It is fundamental to improve the management and financial administration of HEIs and to enhance institutional frameworks to pursue academic programmes and academic excellence in the two partners HEIs.

The increase of inter-institutional networking between HEIs partners, including institutions offering teacher training activities contributing to regional solutions to teacher shortages.