

# CIDMA – Climate Change Induced Disaster Management in Africa

## Summary

The main goal of the CIDMA project is to build education capacity to improve disaster management using geospatial information technology. In the scope of CIDMA, three modular courses focusing on spatial data and methods, using digital maps, satellite data, and spatial modelling, are developed. Context issues and spatial data acquisition and processing methodologies are included as course topics, to foresee and prepare for risks related to possible disasters linked to a changing climate.

As of specific objectives, CIDMA looks for:

- Developing up-to-date courses in disaster management: these courses will be developed in "distance" and "blended" mode, making it possible for the course participants to do parts of the course work from another location than the university.
- Training trainers: faculty members at the partner universities were trained on how to develop and teach the courses.
- Implementing the developed courses at the partner universities in Mozambique: all the three Mozambican partner universities will offer these courses at the end of the project.
- Improving quality in education and teaching through the equipment of all Mozambique partners with e-learning and Open Network Learning (ONL) tools.
- Improving infrastructure at the partner universities in Mozambique: a specific aim is to build physical capacity at the four partner institutions in Mozambique, in the form of well equipped laboratories.
- Developing and implementing a Disaster Management Tool (DMT): a system to capture, store, analyse, and disseminate data and information related to disaster management is crucial within the developed courses, as well as for public use.
- Disseminating outputs and outcomes: course participants, the general public, as well as environmental management authorities, organisations, and companies, working with policymaking, planning, and operational interventions, will become aware of the applications and advantages of the use of spatial modelling and public web-based systems to increase resilience and decrease the impact of climate induced disasters.
- Developing Higher Educational Institutions (HEIs) within society: one aim is to strengthen these links, making stakeholders

aware of the skills and technologies needed, as well as the educated group of graduates that can be employed to support these needs.

Researchers from European universities have developed the courses in collaboration with Mozambican universities. CERIS researchers have collaborated with Zambeze University in the development and content production of a course named "Disaster Risk and Climate Change". The course aims to provide in-depth knowledge and understanding about different disasters that can be expected to occur in a coastal region of southern Africa in relation to more erratic and extreme climate events. It also provides the student with the fundamental concepts used in risk assessment studies. A particular class of risks, related to hydrological phenomena - floods and droughts, is addressed in theory and in practice using Geographic Information Systems/Remote Sensing tools (GIS/RS). A synthesizing project related to these topics, enables the students to summarize the knowledge acquired in the course with appropriate GIS/RS tools in a local study area through the risk assessment for an identified hazard or disaster type. At the end of the course, the student will be able to prepare and manipulate spatial data to analyse disaster risks, improving land use planning.

CERIS researchers have also collaboratively developed a core module providing a common background on GIS/RS tools and data sources used in disaster risk assessment.



## Project Reference

610153-EPP-1-2019-1-SE-EPPKA2-CBHE-JP

## Leading Institution

LU – Lund University (Sweden)

## Partners

UL – University of Lisbon (Portugal), Politecnico di Milano (Italy), KTH Royal Institute of Technology (Sweden), Eduardo Mondlane University (Mozambique), Lurio University (Mozambique), Zambeze University (Mozambique), Academy of Science of Mozambique (Mozambique)

## CERIS Principal Investigator

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## CERIS Research Team

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## Funding

Erasmus+ Programme of the European Union

## Period

2019-2023

## Total

999 185.00€

## CERIS

(IST: 61 772.00€)

## Project Website

[cidma.eu](http://cidma.eu)

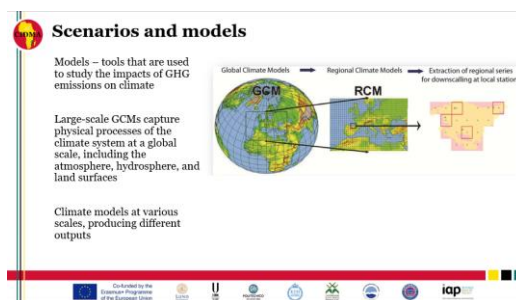


Figure 1. Snapshot of e-learning course material: video lesson on climate models.

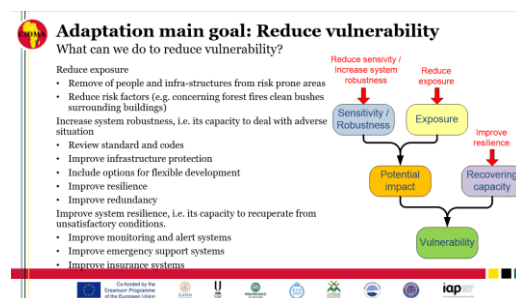


Figure 2. Snapshot of e-learning course material: video lesson on climate change and climate action.