

## Università di Cassino



### Expertise

University of Cassino, a public university, “pursues, in compliance with the principles of freedom, responsibility and sustainable development, the elaboration and transmission of knowledge, organically and coherently combining research, teaching and third mission, in view of scientific, cultural, civil and economic progress. (Article 1. 2 of the Statute). Students can choose among bachelor’s degree programs, master’s degree programs, specialization programs and doctoral degree programs. The international orientation of the university focuses both on research as well as teaching activity. Our university is also involved in the PhD in Sustainable Development and Climate Change (PhD\_SDCC based at IUSS Pavia). Concerning ocean sciences, Unicas has researchers with expertise in the fields of economic, social, and environmental sustainability and health.

### Proposed project

## One Healthy Ocean for One Health dimension

Studies on global warming are beginning to explore new aspects, such as the different speeds of the phenomenon’s evolution in specific geographical contexts. Among the maritime spaces, the Mediterranean is often used as an example of an environmental context showing faster warming than the average figure. This also affects the number of extreme weather events growing globally but increasing faster in some geographical spaces. Other research is identifying new impacts of global warming, such as those on health, particularly the increase in respiratory diseases and some chronic degenerative and mental disorders. This modifies the scenarios of environmental risk and health risks in ocean spaces and coastal areas. Therefore, transdisciplinary, and multi-scale approaches are required. Our project aims to use satellite images to identify scenarios of environmental and health disorders regarding developing island microstates seen as spaces of flow and connectivity and sentinel regions of global change. The project also aims to set up advanced practices for the most urgent situations to identify the privileged interlocutors and stakeholders for integrated environmental and health risk management in coastal areas and for a multilevel participatory approach for the transition to sustainability to achieve UN Agenda 2030. Climate change is responsible for intensifying this problem, which has adverse health consequences, such as a greater prevalence of hypertension and cardiovascular diseases. Furthermore, saltwater intrusion in the soil promotes coast erosion, reduces the arable lands, and pushes the populations to move away from the coasts to migrate to more livable areas. These shifts determine further changes to the socio-cultural structures of reference. After mapping the coastal regions under study, our project plans by a transdisciplinary approach to study the association between coastal erosion levels with the incidence of cardiovascular diseases in populations from these regions and identify, through system indicators, policy strategies that can allow populations to adapt and promote ocean health. The One Health approach (WHO 2017) allows you to identify the need to combine the relationship you come to create between Ecosystems, People and Animals for health as a holistic dimension that “leaves no one behind”. The proposed study is very complex because it is not determined by the absence or presence of biological disease in the populations subject to intervention but by the secondary effects that climate change can generate in the ecosystems of coastal people. A higher daily sodium consumption values than recommended limits is reported in people from some coastal regions. Our project will also aim to measure the perception of the impact of climate change on target populations through a mix-method research approach (web survey). At the end of the planning, it will be possible to make a social impact assessment on the territories subject. Our goal promotes the intervention in order to guarantee healthy Oceans and Climate Justice.

### Target countries

Maldives, Cuba, Comoros

### Contacts

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