

ARCH

AT A GLANCE

Title: Architecture and roadmap to manage multiple pressures on lagoons

Instrument: FP7, Small or medium-scale focused research project

Total Cost: 4.38 million euro

EC Contribution: 3.5 million euro

Duration: 48 months

Start Date: 2011-09-01

Consortium: 11 partners from 9 countries

Project Coordinator: NGI

Project Web Site: www.arch-fp7.eu

Key Words: lagoon, integrated coastal zone management, climate change, urbanisation, industrialisation, stakeholder involvement

THE CHALLENGE

LAGOONS AND ESTUARIES ARE LOCATED AT THE INTERFACE BETWEEN LAND AND SEA AND THE TRANSITION BETWEEN FRESH AND SALT WATER. THEY REPRESENT HIGHLY DYNAMIC AND PRODUCTIVE ECOSYSTEMS WITH A VERY COMPLEX STRUCTURE. THE COMPLEXITY OF MANAGING LAGOONS AND ESTUARY SYSTEMS IS INCREASED AS A RESULT OF MULTIPLE PRESSURES ORIGINATING FROM URBAN, INDUSTRIAL, AGRICULTURAL, AND RECREATIONAL ACTIVITIES. THERE ARE CONCERNS THAT CLIMATE CHANGE, INCREASING URBANISATION AND INDUSTRIALISATION WILL EXACERBATE THE EXISTING PRESSURES EVEN FURTHER.

PROJECT OBJECTIVES

THE CENTRAL OBJECTIVE OF THE PROJECT IS TO DEVELOP PARTICIPATIVE METHODOLOGIES IN COLLABORATION WITH THE INVOLVED MANAGERS, POLICY MAKERS AND STAKEHOLDERS TO MANAGE THE MULTIPLE PROBLEMS AFFECTING LAGOONS IN EUROPE. THIS WILL GENERATE REALISTIC SOLUTIONS AND PROVIDE ROADMAPS FOR THEIR IMPLEMENTATION AT THE LAGOON SCALE, TO ENSURE THEIR LEGACY.



METHODOLOGY

MANAGEMENT STRATEGIES FOR LAGOONS AND ESTUARIES SHOULD BE BASED UPON TWO SOLID PILLARS: SCIENCE AND POLICY. THE CHALLENGE FOR IMPLEMENTING EXISTING SCIENCE AND POLICY IS THE LACK OF INTEGRATION AND INTERPRETATION BETWEEN THE TWO, WHICH IS A MAJOR HINDRANCE FOR APPLICATION BY LAGOON MANAGERS, POLICY MAKERS AND STAKEHOLDERS AT THE LAGOON SCALE. A CENTRAL FEATURE OF ARCH IS TO OVERCOME THIS LIMITATION BY ACTIVELY USING EXISTING KNOWLEDGE AND POLICY TO FORM THE BASIS OF THE MANAGEMENT STRATEGY AND TO APPLY THEM AT LAGOON SYSTEMS THROUGHOUT EUROPE. THREE MAIN APPROACHES FOR THE IMPROVEMENT OF “SUSTAINABLE LAGOON MANAGEMENT” ARE ADRESSED BY ARCH:

1. FROM SEGREGATED DISCIPLINARY SCIENTIFIC RESULTS TO WELL INTEGRATED AND USABLE SCIENTIFIC KNOWLEDGE;
2. FROM “GOVERNMENT” TO “GOVERNANCE”, SECTORAL POLICIES TOWARDS SUSTAINABLE MANAGEMENT;
3. FROM AN UNAWARE AND UNINFORMED “LAGOON COMMUNITY” TOWARDS AN INVOLVED AND WELL-INFORMED COMMUNITY.

EXPECTED RESULTS

REALISTIC SOLUTIONS TO THE MULTIPLE AND COMBINED PROBLEMS AFFECTING LAGOONS IN EUROPE WILL BE ADDRESSED USING 10 LAGOON CASES THAT WILL ADOPT THE METHODOLOGY THAT IS DEVELOPED FOR EVIDENCE-BASED AND PARTICIPATORY MANAGEMENT OF THE LAGOONS. MULTIPLE AND COMBINED PROBLEMS FOR THE LAGOON ARE IDENTIFIED IN SCIENTIFIC “STATE OF-THE LAGOON” REPORTS THE. THE PARTICIPATORY WORKSHOPS WILL UTILISE THIS SCIENTIFIC “STATE-OF-THE-LAGOON” REPORT AS THE STARTING POINT FOR A JOINT PROCESS TOWARDS PROBLEM IDENTIFICATION, AND SOLUTIONS. ROADMAPS ARE THE KEY OUTCOME OF THE WORKSHOP METHODOLOGY. ALL LOCAL “LAGOON-ACTORS” (POLICYMAKERS, STAKEHOLDERS AND MANAGERS) WILL BE INVOLVED IN THE PROCESS OF DISCUSSING AND FINALISING THE ROADMAPS. THE EUROPEAN LAGOON MANAGEMENT HANDBOOK WILL CONTAIN THE WORKSHOP METHODOLOGY, THE SCENARIOS FOR THE SEPARATE WORKSHOPS, PRACTICAL EXAMPLES FROM THE “COLLECTED CASE STUDY HISTORIES”, AND EXPERIENCES WITH THE IMPLEMENTATION OF THE ROADMAPS.

PROJECT PARTNERS	
Norwegian Geotechnical Institute	Norway
TNO	The Netherlands
Hamburg University of Applied Sciences	Germany
Swedish Environmental Research Institute	Sweden
IPIMAR	Portugal
National Institute for Marine Geology and Geo-ecology	Romania
Maritime Institute in Gdańsk	Poland
Newcastle University	United Kingdom
Hellenic Centre for Marine Research	Greece
University of East Anglia	United Kingdom
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