

European Union's Horizon 2020 Programme GA N° 773782



What is COASTAL about?

COASTAL is an EU funded 4-year multi-actor Horizon 2020 research and innovation action. The goal of the COASTAL project is to formulate and evaluate business solutions and policy recommendations aimed at improving the coastalrural synergy to foster rural and coastal development while preserving the environment.

Read more | Download the project flyer



Latest news from COASTAL

COASTAL and COVID-19

The COVID-19 virus outbreak has a large impact on our daily work and the COASTAL project is not immune to the virus. Many researchers are confined to their homes, which limits them in their daily exchanges within their research teams and other project partners. By using all kinds of online platforms we ensure continued progress of project activities and day to day communication within and between the different WPs. Many COASTAL partners had already the habit of communicating through digital platforms, so the transition went relatively smoothly. Nevertheless, the lack of face-to-face meetings is clearly felt. The impact is higher at the level of exchanges with stakeholders and actor partners. Different meetings were planned during spring 2020 and all of these had to be postponed. A targeted survey of stakeholders has been distributed and can somewhat resolve this, but we will still have to reschedule stakeholder interactions to the second half of this year. Likewise, also our annual project core group meeting, with interaction with our advisory board, was planned for April 2020 and has now been rescheduled to September 2020 with the risk of further postponement.

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COASTAL HAS WON THE #EUINMYREGION PHOTO COMPETITION

COASTAL is among the projects which have won the #EUinmyregion photo competition and it has been selected to receive 300 postcards for dissemination purposes!

We are looking forward to disseminate the postcards!

COASTAL @ CORDIS_EU

We are very proud that COASTAL project has been featured on <u>CORDIS_EU's official Twitter</u> account! On EU Research Results you can find interesting up-todate news and information on EU-funded research projects & results.

COASTAL AMONG THE KEYNOTES AND SPECIAL TALKS AT THE 3RD INTERNATIONAL BALTIC EARTH CONFERENCE

The 3rd International Baltic Earth Conference was planned to be held in Poland but due to the COVID-19 pandemic, it happened online where at least 80 participants (max. at a time) contributed with 35 oral broad presentations. international research Α community discussed key scientific issues to improve Earth System understanding of the Baltic Sea region as the basis for science-based management in the face of climatic, environmental and human impact in the region. Stockholm University, the Swedish partner in COASTAL project, investigates land-sea synergies in the Norrström drainage basin and its coastal Baltic region, and represented COASTAL in this event through a keynote special presentation.

COASTAL AT EUROPEAN GEOSCIENCE UNION (EGU-**GENERAL ASSEMBLY 2020)**



Stockholm University (SU) was present with scientific presentations in different sessions at the international conference of EGU General Assembly 2020. The conference was held online due to the current pandemic situation from 4-8 May 2020. COASTAL project was presented by SU for the second time at this event and new outcomes of the project for the

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SECTORAL ANALYSIS OF COASTAL AND RURAL **DEVELOPMENT IN THE DANUBE DELTA – BLACK SEA COASTAL ZONE**



Local actors and experts from the Danube Delta and Black Sea coastal zone participated in collaborative exercises to analyse problems, the underlying causes, propose and discuss solutions, and validate and interpret the impacts of simulated business and policy decisions. Read more

Norrström drainage basin and its Baltic coastal regions (MAL3) were disseminated among scientific audiences from all over the world.

Read more

COASTAL WORKSHOPS IN ATHENS

Icre8 had the pleasure to welcome Work Package (WP) leaders and multi actor laboratory (MALs) leaders in Athens on the 18th and 19th of February, 2020. The consortium partners decided to meet in order to agree on the strategy as the project approach a critical phase: the integration of qualitative analysis and quantitative analysis from the different WPs as well as closer interactions between WPs and with the MALs.

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Generic Coastal-Rural scenarios and transition pathways

As part as WP5 activities, ICRE8 and GRBG developed generic sustainable scenarios and transition pathways for integrated coastal-rural areas. Combing European strategic visions and policy documents for a green, inclusive and prosperous Union, and international thematic transition pathways, with local stakeholders envisioned futures in the 6 coastal-rural project's case studies, 3 thematic scenarios were developed: 1) People and Nature; 2) Governance and cooperation; 3) Circular economy. Each scenario was composed of 1) a narrative description 2) a selection of quantitative descriptors with corresponding trend 3) a dedicated transition pathways for key sectors in coastal-rural areas: Agriculture; Energy; Tourism; Maritime activities. As a next step these generic scenarios and transition pathways will be applied to case study level and tested in a Land-Sea System Dynamic models.



Updates on COASTAL Multi - Actor Laboratories (MALs)

SOUTH-WEST MESSINIA (MAL 2)

The COASTAL MAL 2 leaders are currently concentrating their efforts in modeling the interactions between the different sectors in SW Messinia following the outcomes of the last Multi Actor Lab (MAL) meeting with local stakeholders and sector representatives. Central to the model is the vision of the stakeholders for the future of SW Messinia which is being developed around the idea of "Join forces in creating the Brand Name of Sustainable Messinia that expands across all sectors, activities and products, under a changing climate". Based on the discussions during the MAL, and the preceding sectoral meeting which resulted in a combined mind map and Causal Loop Diagram, the team has identified three main issues that act as barriers to achieving this vision. Thus, the models



Figure 1: General overview of model interactions under development

being developed are targeting these three components: a) Fragmented and Conventional Agricultural Practices, b) Poor environmental status of Gialova wetland due to lack of water management and increased nutrient loads and c) High Seasonality of tourism based on the sea, sun and sand model. To address the above mentioned barriers, the main scenarios we are going to model are a) a transition into more collaborative and integrated farming practices, b) an improvement of the environmental status of the Gialova wetland, and c) a shift of the tourism model to alternative forms of tourism, that will include marine, coastal and inland activities. The above combined, could enhance the ecosystem services of the wetland (e.g. fish stock), increase the recognition of the area, expand the touristic period and offer experiences all year around, and lead to a new model for agriculture with benefits for the farmers and the nature, which is in agreement with the vision for a Sustainable Messinia. In addition to these, climate change scenarios are also being considered. Among others, these include less precipitation and a higher number of dry days, resulting in higher water demand by agriculture coupled with a decrease in water availability. We will also particularly look into the expected impacts of policies proposed in the EU Green Deal farm-to-fork and biodiversity strategies, as well as the effects that recent changes on national environmental and tourism policies will have on the different sectors.

System dynamics (SD) modeling for MAL3 considers some key water availability and quality problems and associated land-sea interactions of relevance for various inland and coastal sectors, as identified in collaboration with local partners and stakeholders (Figure 2). The SD modeling includes green sectors (agriculture and forestry), urbanization and its spatial planning, municipal and industrial water and wastewater handling, and natural surface and subsurface water systems. The modeling aims to evaluate the role, interactions and contributions of the different sectors for current and possible future status of coastal water quality. Climate projections show



Figure 2: Schematic representation of key land-sea interactions and change drivers for MAL₃. Norrström/Baltic Sea

precipitation increase for MAL3 by year 2100, which would affect annual renewable water availability for different inland and coastal sectors and increase freshwater flows to the sea. Inland and coastal human activities (e.g., tourism, agriculture, urbanization and industry) also contribute to waterborne nutrient loads to the coast. In addition, sea level rise is a main challenge for coastal regions, along with increased inland pressures on coastal groundwater due to economic developments. The combination implies increased risk for seawater intrusion. Model scenarios of possible forthcoming climate change, inland and coastal sectoral developments, and their combined effects will be addressed in the SD modeling for MAL3 considering the interactions shown in Figure 1. Evaluation of model scenario results, considering also national and international environmental regulations and agreements of relevance for MAL3 (e.g., WFD, MSP, and BSAP), will reveal possible transition pathways toward improving coastal water quality. To ensure a maximum potential for uptake by local partners and stakeholders, the outcomes will be shared and discussed with them in the second inter-sectoral MAL3 workshop, planned for 20 November 2020.

CHARENTE RIVER BASIN (MAL 4)

The COASTAL partners of the French Multi-Actor Lab (MAL4) are currently in the process of building scenarios and transition pathways and of translating the outcomes of the sectoral and multi-actor workshops into dynamic models. These models will be used to evaluate different scenarios and pathways for coastal-rural development and synergies around the main environmental issue, the management of water resources, and the major economic activities in the area: shellfish farming, tourism, ports and agriculture. A questionnaire has been sent to MAL4 stakeholders and partners in order to get feedback on the best practices inventory collected by the WP3.



This survey is available on the new website for the MAL4 territory, Charente and Pertuis sea (SW France).

We are indeed pleased to announce the launch of website for the French Multi-Actor Lab (https://www6.inrae.fr/ projet-coastal/). The ambition of these web pages, connected to the EU site of the project (https://h2020coastal.eu/), is to present the achievements of the COASTAL project -applied to MAL4- in French to local stakeholders, to facilitate exchanges with them and the public. Questions and contributions are welcome on all aspects of the project. Local news and events are highlighted, for instance currently, the survey on best practices which is accessible on the local website and the next General Assembly of the project in Rochefort (September 2020).





The COASTAL MAL 6 leaders are currently modelling the interactions between the different sectors in the Mar Menor and Campo de Cartagena area following the outcomes of the Multi Actor Lab with last meeting representatives of all sectors involved. The main components of the model are the development of tourism and ecotourism, the development of agriculture, the development of photovoltaic installations, the implementation of sustainable agricultural management practices, the assessment of indicators of social wellbeing and of the degradation status of the Mar Menor

lagoon. Figure 3 shows the model sectors and their interactions. Initially, we have focused on the development of the agricultural sector together with the hydrological balance, runoff and nutrients. Now we are looking at the development of other sectors, such as tourism, in relation to the degradation of the Mar Menor lagoon. The main scenarios that are intended to be modelled based on the suggestions provided during the sectorial and Multi Actor stakeholder workshops are: water pumping from the aquifer to extract pollutants; implementation of nature based solutions related to agricultural areas, such as vegetation buffers; promotion of ecotourism activities/businesses; promotion of environmental education among local populations; government control on sectorial growth (participatory governance); government control in the application of fertilizers; implementation of brine denitrification technologies; decrease in hectares of illegal irrigated land areas; implementation of photovoltaic facilities (eventually coupled to sea water desalination technologies); climate change scenarios, such as decreased water availability from the Tagus-Segura transfer, higher number of extreme events, higher water demand by croplands, more frequent cropland pests; crop diversification and the creation of green corridors. We will also particularly look into the expected impacts of policies proposed in the EU Green Deal farm-to-fork and biodiversity strategies on the different sectors.

Did you know you can read the EIP-Agri Practice Abstracts of the COASTAL project?

COASTAL being a multi-actor H2020 project contributes to the EIP-AGRI repository of practical



knowledge across the EU in the form of short and concise practical information, so called 'practice abstracts'. Practice abstracts are being developed throughout the course of the project, currently being 40.

Follow up the COASTAL EIP AGRI practice abstracts

DOWNLOADS

3rd International Baltic Earth Conference proceedings

Understanding the coupled land-sea system dynamics in coastal regions through a participatory approach: A **Baltic case study**

Multiple drivers of change in coastal water quality and ecosystem status: From participatory mental mapping to systems modelling

Land-Sea Interactions in the Coastal Marine System of the Baltic Sea Under Hydro-Climatic Variability

Understanding interactions between urban development policies and GHG emissions: A case study in **Stockholm Region**

COASTAL cooperation with fellow project ROBUST



ROBUST- COASTAL: Looking for synergies

Through several exchanges the ROBUST and COASTAL consortium members examined the mutual potential of the approaches used and relevance of practices in the field. As an example, the COASTAL coordinator presented a system-dynamics model of the impact of ageing on the housing market in rural core towns to demonstrate the potential of quantified analysis during the General Assembly of the ROBUST project (Helsinki, May 2019).

ROBUST Fellow project highlights



Our fellow project ROBUST invites you to join discussions on how the COVID-19 pandemic affects rural -urban linkages and food systems. Check out their publications:

Discussion Post: Rural Re-advantages?

Online now: the webinar with Carolyn Steel "Sitopia: Rethinking Our Lives Through Food" and a follow-up Happy Hour session to answer >40 audience questions

Rural-Urban Relations in Times of COVID-19: How Are They Changing?

For more information visit the <u>ROBUST project</u> website

Watch the latest videos of COASTAL



JOIN US

FECOAM

Your active engagement is important to ensure that the innovative tools, approaches and policy recommendations we develop reflect the views of those who are directly concerned with improving the coastal-rural synergy to foster rural and coastal development while preserving the environment.

GET INVOLVED IN COASTAL

- * Participate in national workshops;
- Take part in the Multi Actor Labs;

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