

NEWSLETTER

VOL. II

Dedicated to the island of Malta



SOCLIMPACT



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NEWSLETTER SOCLIMPACT

Our second newsletter is dedicated to the island of [Malta](#).

Malta has a typical Mediterranean climate with mild rainy winters and dry hot summers. On average, the air temperature has tended to increase over the past century (0.71°C/100 years). The warming rate has been the strongest in summer, at 1.5°C/100 years. The warming trend can be traced from the incidence and magnitude of extreme events; yearly-recorded maximum temperatures have increased by 3°C over 100 years. There is no trend in observed rainfall. However, short heavy occurrences of rainfall are increasing, while days with rainfall between 1-50mm are decreasing.

Malta as a whole is not particularly vulnerable to sea-level rise due to its favourable topography, negligible land movement and good drainage (Briguglio, 2000). However, certain low coastal areas with high concentrations of tourism structures could be severely affected. Thus, it is prudent to adopt a precautionary approach and at the most moderate level make projections based on the sea level trend in more recent years. Sea surface temperature has increased with +0.05°C/year over the last 40 years, and increasing air and seawater temperatures do have a direct effect on the biodiversity and functioning of marine ecosystems (Source: Malta Resource Authority).

Climate Change vulnerability for Malta is mainly in the tourism, education and health sectors. However, development is also expected in sectors that are not sensitive to climate change issues, e.g., manufacturing, financial services, and information and communications technology (Source: National Climate Change Adaptation Strategy).



PUBLICATIONS

Defining and pushing the boundaries for the Blue Economy

The main purpose of this material is to achieve a homogeneous and comparable treatment of Blue Economy sectors, by identifying, defining and delimiting the sectors to be studied in the next stages of the project research; Tourism, Maritime Transport, Aquaculture, and Marine Energy. In addition, this report makes an overview of the statistical data classifications and the key impacts of Climate Change that can be studied in each sector.



It is worth recognising all partners for their work that make it possible to lay the foundations and, more especially, the framework of the Soclimpact project in terms of sectoral definitions and boundaries.

[SEE FULL REPORT](#)

Climate Change: from risks to impact chains



This report holds three approaches as follows: island-based (multi-sector), sector-based (to assess all vulnerabilities and impacts within a given sector), and modelling based (transfer of data and consistency approach with climate models). Firstly, it identifies the main potential impacts of Climate Change on the four covered sectors and ranks them by the degree of importance. Secondly, it identifies the main climate parameters related to a given impact in a sector /island (exposure), and weighs the factors determining the biophysical and economic sensitivity of each island case study in relation to Climate Change. Thirdly, these components are included in conceptual and theoretical impact chains.

To summarise, this report shows 17 complex impact chains as follows: nine impact chains for maritime and coastal tourism, three for marine energy and maritime transport, respectively, and two for aquaculture.

The Impact Chains are a very user-friendly and attractive tool that help EU islands:

- To identify priority climate risks
- To test the correspondence between current risk management strategies in relation to potential CC impacts to be faced
- To identify sectorial challenges where new strategies are necessary to face Climate Change Risks.

It is worth recognising the valuable work carried out by [@Tec_Conseil](#) sector leaders and the island's focal points.

[SEE FULL REPORT](#)

PUBLICATIONS

Evaluation is impossible without indicators and objectives

In this Report (D3.3), partners propose a set of indicators and provide up-to-date information on the impacts of Climate Change, the state of the environment and the social conditions of the 12 islands under study. These indicators are based on environmental data, models, oceanographic and meteorological observations, and administrative archives.



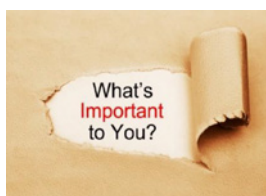
The indicators matrix allows us:

- To compare climate-related conditions among islands
- To identify critical situations
- To identify trends and evolution of conditions leading to risks
- To monitor risks
- To monitor the results of climate-related management strategies

The indicators are classified by type (Hazard, Sensitivity, Adaptive Capacity, and Exposure), and by sector of interest "Coastal and Maritime Tourism", "Aquaculture", "Maritime Transport", and "Marine Energy".

[SEE FULL REPORT](#)

From global to island modelling approach



Quantifying the damage that Climate Change will cause to the global community in the coming decades makes it easier for public and private actors to recognise the need to reduce GHG emissions and to analyse which sectors and regions of a country will be particularly affected. However, the impacts of CC are often determined at the global level, limiting practical recommendations locally.

In this report, we combine modules that map macro-level economic activity, global climate (in simple, stylised form) and the impacts on the socio-economic system and the natural environment. The aim is to explore the complex relationships between the traditionally separate spheres in an integrated way and to estimate future developments and their outcomes.

On this basis, this material (D3.4) builds the project's own approach and designs a template in which every island poses their focal points, pins down the main sectorial data sources and gaps and finally map, in detail, the current situation of the blue economy on each island.

[SEE FULL REPORT](#)

Climatic database catalogue for the EU islands and archipelagos



Climate projections critically rely on the availability of large ensembles of numerical simulations that guarantee the robustness and accuracy of predicted fields. In this material (D4.1), we present a catalogue of available data resources for different climate variables. Partners started with an exhaustive compilation and inventory of sources of atmospheric and marine data (present & future) to be used for downscaled projections of the CC impacts on the island case studies. The information is organised for each of the 12 **#EU #islands #archipelagos** of the project and covers different spatial resolutions.

A big thank to our partners participating in Work Package 4 "Modelling Climate impacts in 11 islands case studies for 2030- 2100", and especially to [@ENEAOfficial](#) and [@UIBuniversitat](#).

[SEE FULL REPORT](#)

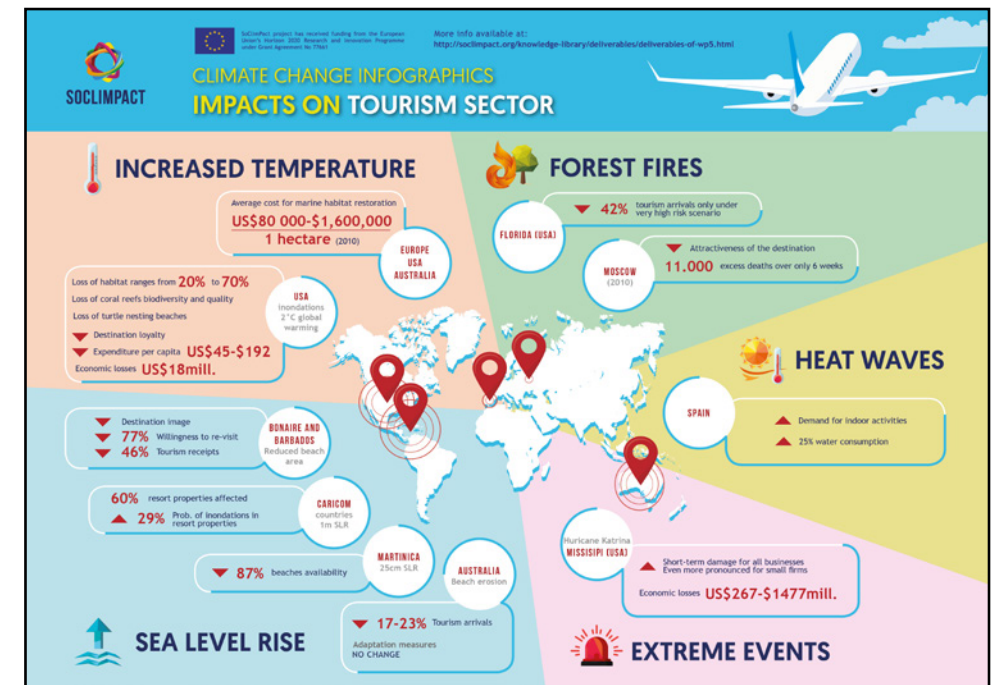
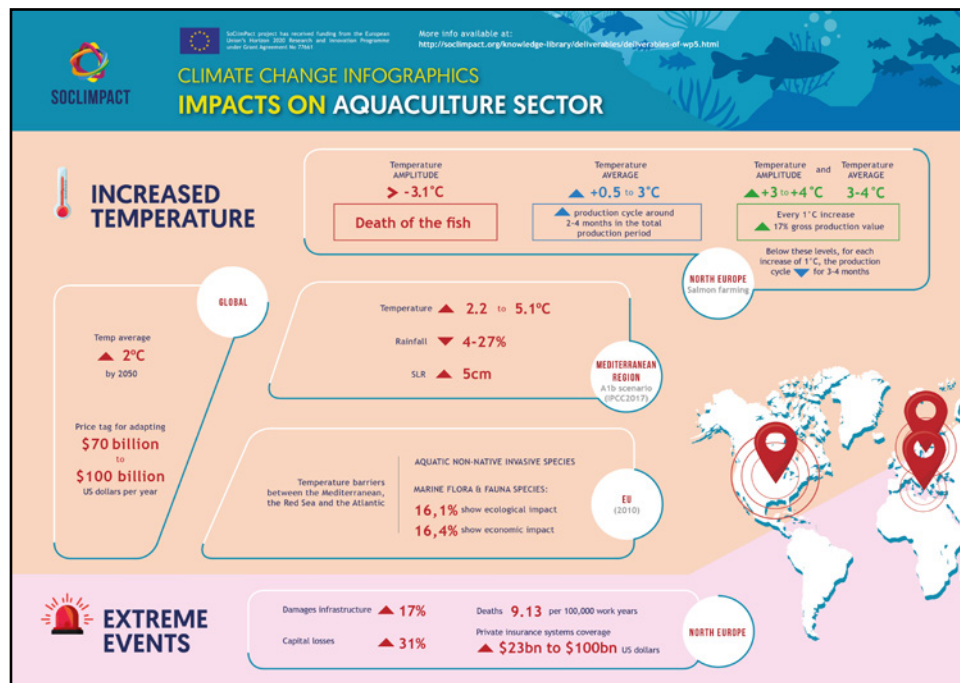
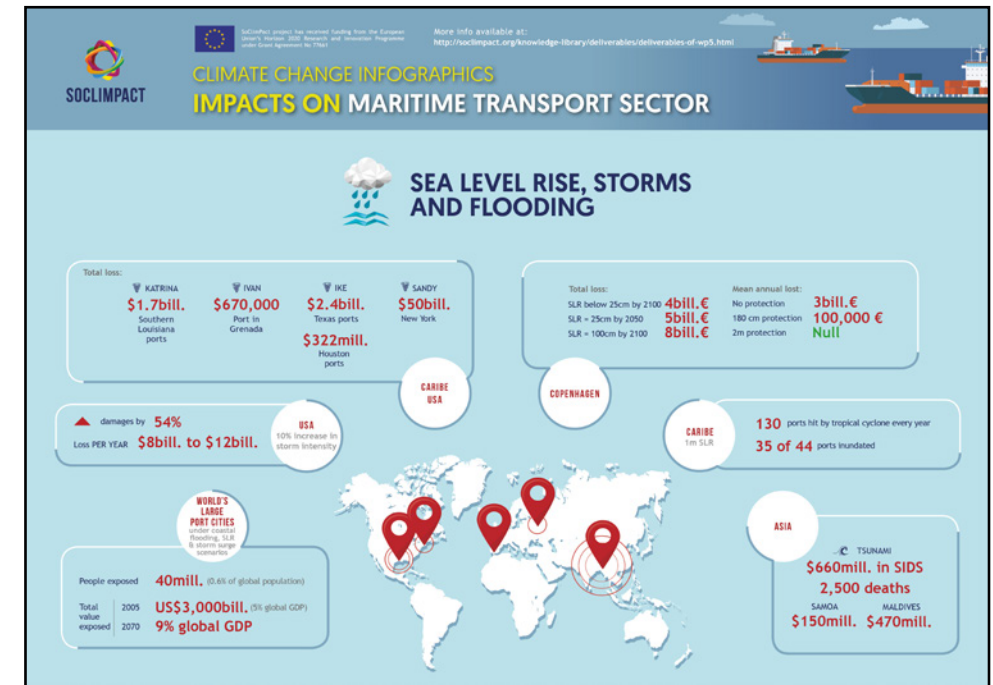
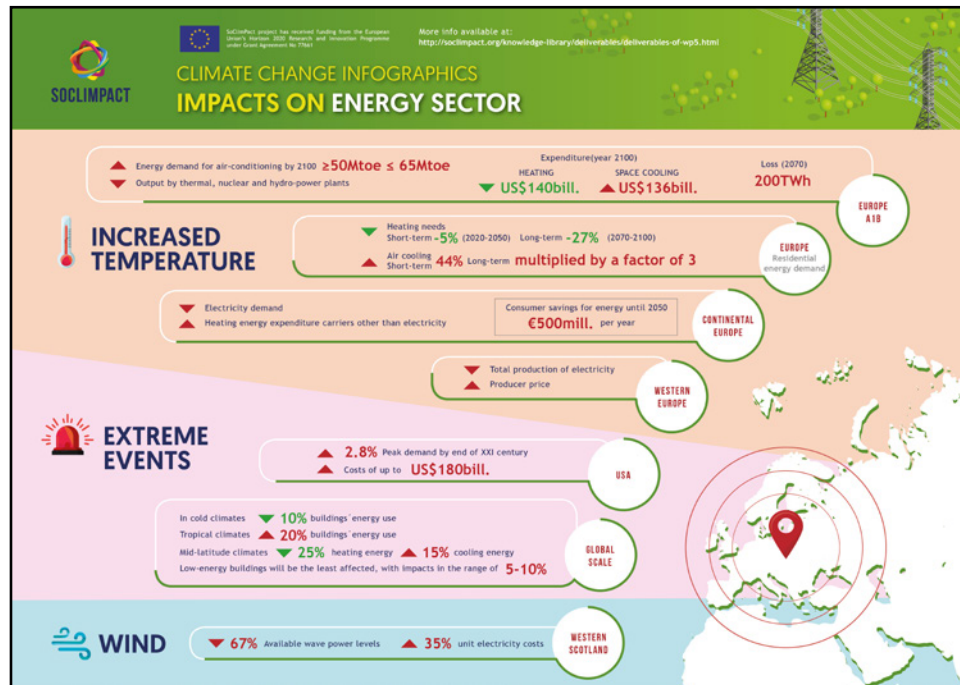
What is known about the socio-economic and non-market costs of Climate Change for the Blue Economy?

At sectoral level, Climate Change can affect the market either from the supply side (the costs of providing the service or the activity) or from the demand side (changes in the quantities demanded), or both. In this publication, partners make an exhaustive review of the existing publications aimed at measuring the socio-economic costs of Climate Change on the four specified sectors of study (Coastal and Maritime Tourism, Fisheries, Maritime Transport, Marine Energy).

However, the impact of Climate Change could be also reflected in non-market goods, namely, those that are not traded on the market and do not have observable monetary values. For example, one might talk about social valuation of Environmental Services, tourist preferences and opinions about destinations, and/or the social value of the environment on human health and wellbeing, etc. It is worth stating that this document also reviews previous publications on this matter.

Four infographics summarise the findings

PUBLICATIONS



September, 2018

SOCLIMPACT in the European Commission's Maritime Spatial Planning Workshop

The meeting served for local community groups, planning authorities and blue growth sectors from EU islands that are facing particular challenges in practising Maritime Spatial Planning MSP to debate and learn from good practices, and develop ideas to support the development of MSP in their contexts.

The @ULPGC hosted the #MSP4Islands Workshop, organised by the @EU_Commission @EU_MARE @EU_MSP_Platform.



SEE FULL REPORT

September, 2018

SOCLIMPACT in the EU Atlantic Action Plan consultation Workshop

SOCLIMPACT partners from the Canary Islands participated in the Consultation workshop in Spain for the definition of the Action Plan for Marine Renewable Energies #MRES in the Atlantic, organised by the DG Mare of the European Commission @ComisionEuropea, and the Maritime Cluster of the Canary Islands @CMaritimoC.



December, 2018

SOCLIMPACT @OTIE07

In partnership with the @EU_EESC and the Network of the Insular Chambers of Commerce and Industry of the EU (#INSULEUR), our partner @OTIE07 organised the Public Hearing "EUROPEAN POLICIES TO SUPPORT EUROPEAN ISLANDS AS SUSTAINABLE TOURIST DESTINATIONS".

During the meeting, insular businesses and citizens presented their positions regarding new trends in the tourism sector (low-cost carriers, sharing economy –Airbnb–, over tourism, etc.) and request help and support from the European Institutions for the islands, through different European Policies – transport, energy, tourism, environment, circular economy – to preserve the sustainability of their tourism product.



DISSEMINATION - CONGRESSES

During 2018, our partners participated in 21 international events and conferences to present the **@soclimpact** project and its challenges to the international scientific community, exchange ideas and identify synergies with other similar H2020 projects. Please see below the detailed information about these events.

Annual Meeting of the Community for the Climate Change Adaptation

Mar, 1 2018 Portugal (Madeira)

EGU European Geosciences Union General Assembly 2018

April 8-13, 2018 Vienna (Austria)

SIWC- Smart Island World Congress 2018

April 23-24, 2018 Mallorca (Spain)

Climate Change in the Mediterranean and the Middle East: Challenges and Solutions

May 18-19, 2018 Nicosia (Cyprus)

XXV Ulvön Conference on Environmental Economics 2018

June 19-21, 2018 Umea (Sweden)

CCTR 2018 - V International Conference on Climate, Tourism, and Recreation

June 25-27, 2018 Umeå (Sweden)

WCERE - World Congress of Environmental and Resource Economists

June 25-29, 2018 Gothenburg (Sweden)

Ce3c 4th Annual Meeting 2018

July 9-10, 2018 Lisbon (Portugal)

AQUA 2018

August 25-29, 2018 Montpellier (France)

VIII Conference AERNA Spanish-Portuguese Association of Natural and Environmental Resource Economics

September 3-5, 2018 Madrid (Spain)



EMS Annual Meeting: European Conference for Applied Meteorology and Climatology 2018

September 3-7, 2018 Budapest (Hungary)

OTIE - ICIT 10th International Conference on Island Tourism 2018

September 7-8, 2018 Palermo (Italy)

CLM2018 - Community Assembly

September 18-21, 2018 Karlsruhe (Germany)

Alterações climáticas nos Açores: águas e riscos para o nosso futuro comum

October 9, 2018 Angra do Heroísmo (Açores)

11 Congreso Internacional Asociación Española de Climatología

October, 17-19, 2018 Cartagena (Spain)

Sixth Annual Conference Società Italiana per le Scienze del Clima

October 17-19, 2018 Venice (Italy)

6th International Conference on Renewable Energy Sources

November 1-2, 2018 Nicosia (Cyprus)

First smart and sustainable development convention

November 9, 2018 Nicosia (Cyprus)

ReglKlim - Regional Information on Climate Change 2018

November 13, 2018 Bonn (Germany)

CLIMA2018 - V Congresso Nacional sobre Alteracoes Climáticas

November, 22-23, 2018 Faro (Portugal)

ESA-MED 2018

December 11-12, 2018 Rome (Italy)



INTERESTING ARTICLES

Land Transport and CO₂ Emissions in Cyprus: Smart Decarbonisation Strategies for Climate Change Mitigation” - Conference Paper published in February 2019 - read it here



A regional atmosphere-ocean climate system model (CCLMv5.0clm7-NEMOv3.3-NEMOv3.6) over Europe including three marginal seas: on its stability and performance. Geosci. Model Dev. Discuss.,1-33



INTERESTING H2020 PROJECTS

@PRIMAVERA_H2020

@TRANSrisk_EU

@COACCH_EU

@Clisel_H2020

INTERESTING VIDEO

Interview with the honourable Gonzalo Piernavieja Izquierdo ViceCounselor for Economy, Industry, Commerce and Knowledge, Canary Islands Government



The vice counsellor of the Canary Islands Government talks about the main challenges that the Canary Islands are facing as regards the massive penetration of Marine Renewable Energy Systems into their grids. He was willing to express his opinion by giving credit to weather forecasting, energy storage and demand management in such a fragile territory as these overseas islands.

Would you like to suggest any content for our next newsletter?

Contact us at pot@soclimpact.org!



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