CHANGE WE CARE Training events

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Specific objective	2.1
Work Package Number	4
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Activity Number	4.5
Activity Title	Training activities on use and treatment of observational data and numerical model fields
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Partners involved	All
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Foreward

This document has been produced in the framework of the INTERREG Italy – Croatia CHANGE WE CARE Project. CHANGE WE CARE fosters concerted and coordinated climate adaptation actions at transboundary level, tested in specific and representative pilot sites, exploring climate risks faced by coastal and transitional areas contributing to a better understanding of the impact of climate variability and change on water regimes, salt intrusion, tourism, biodiversity and agro-ecosystems affecting the cooperation area. The main goal of the Project is to deliver integrated, ecosystem-based and shared planning options for different problems related to climate change (CC), together with adaptation measures for vulnerable areas, to decision makers and coastal communities. Additional information and updates on the CHANGE WE CARE can be found at https://www.italy-croatia.eu/web/changewecare.

1 Introduction

On 7th and 8th July 2021 two training events were organized by Lead Partner CNR-ISMAR in collaboration with all Partners, aimed at providing the participants with instructions on the use of observational data and numerical fields retrieved, produced and distributed as outcomes of WP3 and WP4, as well as on state-of-the-art standards and methods for climate analysis.

Due to the COVID19 pandemic restrictions, both events were held on -line, through the use of Webex platform and in Live streaming at the project's official youtube channel (https://www.youtube.com/channel/UCZa6Pz1m6v7u6n8ZZei9ADA) and they were addressed in their respective languages to Italian and Croatian project Partner staff and stakeholders.

Both events were structured in a first session aimed at providing an overview on the objectives and the main results of the project, followed by a second session aimed at illustrating the operational techniques for using the hydrological, meteo-oceanographic, geological and ecological data made available by CHANGE WE CARE Partnership. Specific applications for the pilot sites were presented, declining them in the general context of the procedures, methodologies and international standards, which currently constitute the state of the art for these studies.

The agendas and the registration forms of the events were distributed through the project stakeholder mailing list and social media (Italian and Croatian Facebook pages and Twitter) as well as the project web site.

2 Italian training event

The Italian training event took place on-line on 07 July 2021 through the Webex platform and the attendees connected to the meeting starting at 9.30 am.

The whole event was recorded by the Webex platform and live streamed on the project YouTube channel.

On the whole, 24 people attended the meeting (i.e. 14 University & Research Institute and 10 Regional public authority representatives).

The event was mainly aimed at illustrating:

- the main dataset (hydrological, meteo-oceanographic, geological and ecological data) produced in the framework of CHANGE WE CARE project
- the data processing methodologies which were set up in specific project pilot sites but exportable in other geographical contexts as well.

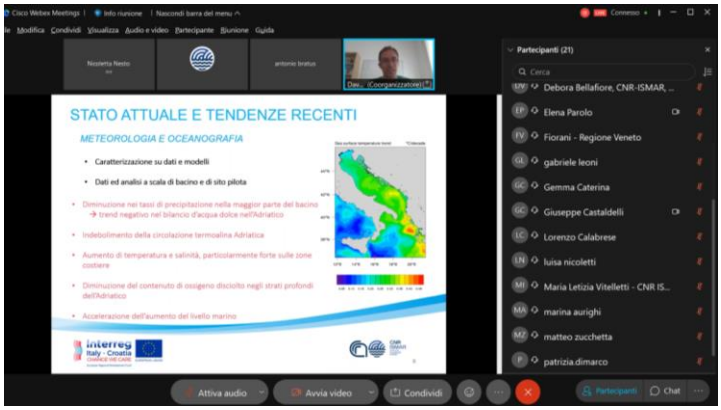


Fig. 1 – Screenshot of the meeting broadcast on the Webex platform

Fig. 2 – Italian meeting agenda

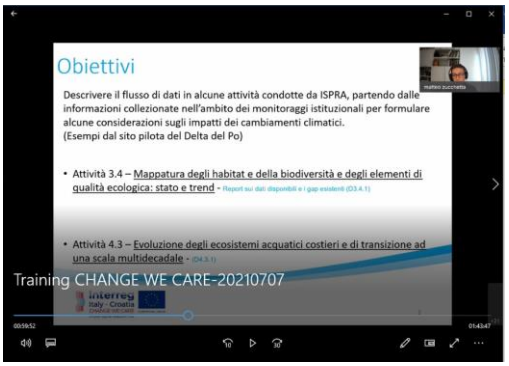
The meeting was opened with a welcome greeting and a brief introduction to the agenda by Mr. Davide Bonaldo (CNR-ISMAR), coordinator of CHANGE WE CARE project, who moderated the event. Mr. Bonaldo presented an overview of the project and provided the current state and the recent trends of the meteorological, oceanographic, geological and ecological data, which were determined for the Adriatic basin during the project in five pilot sites, in order to predict future scenarios related to the ongoing climate changes affecting the marine coastal areas.

Fig. 3 – Mr Davide Bonaldo (CNR-ISMAR) during his presentation "Introduzione a CHANGE WE CARE"

Mrs Maria Letizia Vitelletti (CNR-ISMAR) gave a presentation on the data formats used in CHANGE WE CARE project and on the tools for their management. In particular, she illustrated how:

- to manage NetCDF file containing hydrological, thermohaline physical and meteo-marine data,
- to visualize the data with Panoply and produce geo-referenced maps,
- to analyze data with the open-source QGIS system.

Fig. 4 – Mrs Maria Letizia Viteletti during her presentation "I dati di CHANGE WE CARE: formati e strumenti per la loro gestione"

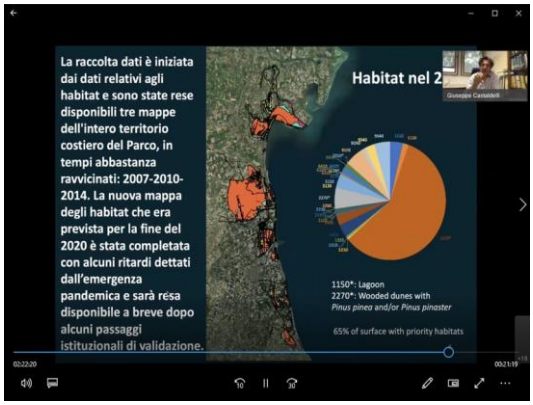


Mr Matteo Zucchetta (ISPRA) presented two activities carried out within the project for the Po Delta pilot site, i.e "Mapping of habitats and biodiversity and ecological quality elements: status and trend; Evolution of coastal and transitional aquatic ecosystems at a multidecadal scale. The aim was to Illustrate the methodologies to follow the data flow (from gathering information through monitoring to their integration within numerical models) in order to formulate some considerations on the impacts of climate change in the marine coastal areas.

Fig. 5 - Mr Matteo Zucchetta (ISPRA) during his presentation "Dai monitoraggi alle proiezioni degli scenari climatici: i flussi di dati nelle analisi ecologiche in CHANGE WE CARE"

Mr Antonio Bratus (Regione Autonoma Friuli Venezia Giulia) presented the methodological procedure describing the geomorphological changes occurred in the pilot site of the Banco della Mula di Muggia starting from the analysis of historical cartography and proceeding with the use of GIS technology and the analysis of satellite data, up to the development of a morphodynamic model that will be able to predict the geomorphological changes of the site in different climate change scenarios.

Fig. 6 – Mr Antonio Bratus (Regione Autonoma Friuli Venezia Giulia) during his presentation "Banco della Mula di Muggia: dalla geomorfologia del passato alla modellazione del futuro"



Mr Giuseppe Castaldelli (University of Ferrara) gave a presentation aimed at stressing the need of biological data coupled with chemical/physical parameters to carry out an ecological study in a given area. Starting from the difficulties encountered in retrieving the ecological data for Po Delta area, which are necessary for the implementation of the modeling approaches, the methodology followed for selecting the most appropriate ecological indicators and for the recovery of time series data have been presented.

Fig. 7 – Mr Giuseppe Castaldelli (University of Ferrara) during his presentation "Delta del Po –biologia ed ecologia: dati esistenti, sfide di approvvigionamento e armonizzazione, modellistica per la proiezione di scenari ecologici futuri"

3 Croatian training event

The Croatian training event took place on-line on 08 July 2021 through the Webex platform and the attendees connected to the meeting starting at 9.30 am.

The whole event was registered by the Webex platform and live streamed on the project YouTube channel.

On the whole, 18 people attended the meeting (i.e. 7 University & Research Institute, 4 Regional and Local Development Agencies, 3 Public institution for nature protection, 2 Local, Regional and National Public Authority , 1 NGO and 1 consulting organization representatives).

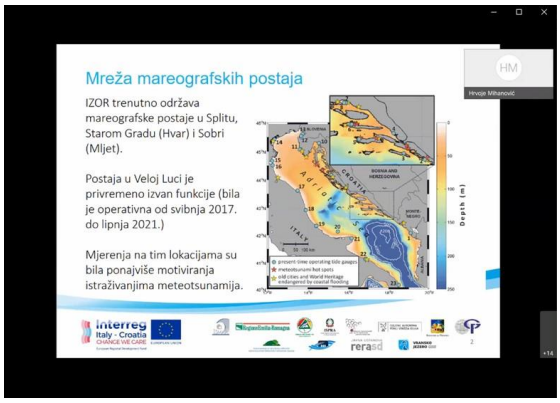
Similarly to its Italian counterpart, the event was mainly aimed at illustrating:

- the main results and the data made available by CHANGE WE CARE
- the data sources and processing methodologies set up in the framework of the Project acitvities, with particular reference to the pilot sites.

Fig. 8 – Croatian meeting agenda

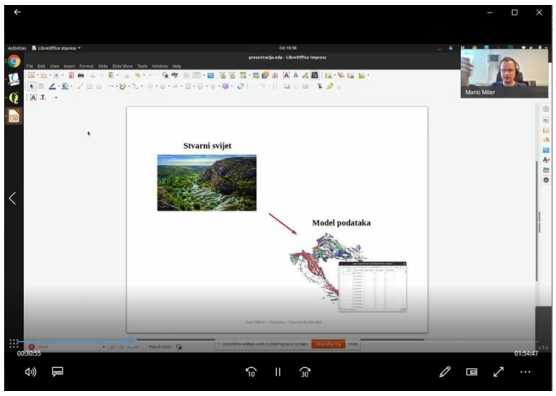
Mr Mili Novak (RERA), responsible for Communication activities for CHANGE WE CARE project, moderated the event and after giving a welcome greeting to the participants and a brief introduction to the agenda, he gave a general overview of the project, highlighting the main objectives and results and briefly describing the pilot sites on which the project activities are underway. He also stressed the importance of a Joint Action Plan for interested Interreg Italy - Croatia partners, launched during the CHANGE WE CARE Mid term conference, aimed at improving efficiency and efficacy of projects outputs.

Fig. 9 – Mr Mili Novak (RERA) during his presentation "Uvodno o projektu CHANGE WE CARE"



Mr Hrvoje Mihanović (IOF) presented the data portal put in place by its Institution, and presently being expanded as an achievement of CHANGE WE CARE and other Interreg Italy-Croatia Projects. The data portal, accessible online, includes several sections providing data and metadata on key physical oceanographical quantities from different observing stations maintained by IOF in the Adriatic Sea. In its presentation, Mr. Mihanović introduced the main features and the data made available from the different observing stations.

Fig. 10 – Mr Hrvoje Mihanović (IOF) during his presentation "IZOR podatkovni portal –vizualizacija i korištenje"

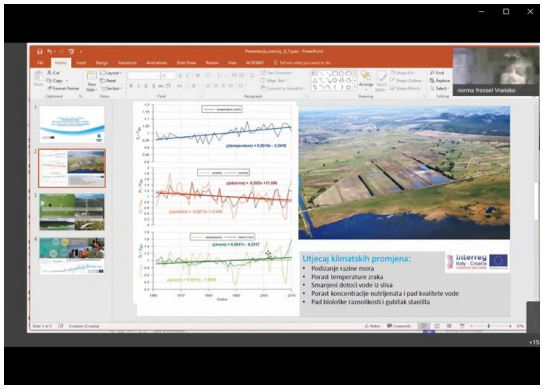


Mr Mario Miler (University of Zagreb) presented the WebGIS system set up by the UNIZAG staff for browsing and visualizing the data made available within the Project. Alongside with an introduction of the main concepts underlying the implementation of a WebGIS Mr. Miler showed how data are organized in the CHANGE WE CARE WebGIS. Emphasis was put on the main advantages and limitations associated with this kind of architecture, also in comparison with more traditional "Desktop" GIS systems.

Fig. 11 – Mr Mario Miler (University of Zagreb) during his presentation "Kako organizirati prostorne podatke? (CHANGE WE CARE WebGIS)"

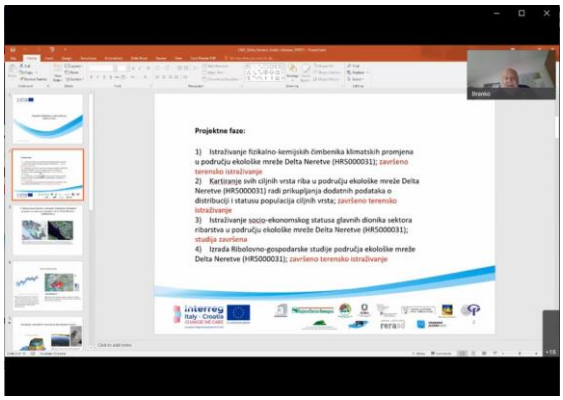
Mrs Martina Baucić and Mr. Frane Gilić (University of Split) presented the progress in the definition of climate change adaptation options for the area of the Jadro river and Kastela Bay. Emphasis was put on the hydrological pressures and on the GIS analysis of the flood hazard in the Jadro basin, highlighting the most exposed areas and some possible technical solutions for adapting the water drainage system and reducing the flood risk in the area.

Fig. 12 – Mrs Martina Baucic (University of Split) during her presentation "Plan prilagodbe na klimatske promjene za područje rijeke Jadro)"



Mrs Norma Fressel (Javna ustanova park prirode Vransko Jezero) presented the results of the analyses carried out in the framework of the CHANGE WE CARE Project with reference to the Vran Lake Pilot Site, alongside with the progress of the activities with the stakeholders aimed at the identification of climate change adaptation policies. Alongside with this information, the Vran Lake water quality monitoring interface was presented, showing how relevant environmental parameters from the lake can be accessed in real time from a dedicated app embedded in the Vran Lake Nature Park website.

Fig. 13 – Mrs Norma Fressel (Javna ustanova park prirode Vransko Jezero) during her presentation "Park prirode Vransko jezero –podaci o kvaliteti vode -otvorena baza, analiza i pregled podataka"



Mr Branko Glamuzina (University of Dubrovnik) presented the main results of the analysis carried out in the Neretva river delta, which addressed the assessment of climate change effects in the area with a focus on the ecological and socio-economic implications. The analysis included the updated mapping of target fish species in the ecological network of the deltaic system, the identification of the main stakeholders in the fisheries sectors, as well as the preparation of a Fisheries Economic Study in the ecological network of the Neretva Delta area.

Fig. 14 – Mr Mr Branko Glamuzina (University of Dubrovnik) during his presentation "Rezultati istraživanja u pilot područjuDelta Neretve"

4 Conclusions

Both events provided an extensive overview of the data produced and the methodologies used during the CHANGE WE CARE project, stressing the difficulties and methodological criticalities faced during the operational activities. The events were tuned to address a large audience, ranging from the technical operators on the pilot sites and on transitional systems to a more general public. In this direction, the choice of referring to state-of-the-art formats, standards and methodologies, as well as mentioning International sources for publicly available data, was meant to maximize the outreach of the training events. We hope that the obtained results along with the implemented methodology could represent a wealth of experiences useful for those who will face similar issues also in other geographical contexts.

All the materials presented during the two training events as well as the video recordings are available and freely downloadable at the following link: https://owncloud.ve.ismar.cnr.it/.../s/b6Jsyqu3RJC3nnD

The videos of the two events can also be viewed on the project's YouTube channel at the following link: https://www.youtube.com/channel/UCZa6Pz1m6v7u6n8ZZei9ADA.