PLANNING CLIMATE CHANGE LAB

IUAV

MARINE SPATIAL PLANNING
AN EXPERIENCE IN THE MALDIVES

15-23 January 2020

Planning Climate Change LAB

MaRHE Center

Magoodhoo Island, Maldives

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INTRODUCTION

Marine Spatial Planning (MSP) can be defined as a public process developed to find solutions in the use of the marine space and to spatially allocate human activities while supporting their sustainability. MSP, in fact, aims at anticipating conflicts and promoting synergies between uses, limiting the impacts that maritime activities exert on the environment.

Indeed, MSP promotes the underpinning of socio-economic development and, at the same time, the protection of the marine environment and the sustainable use of its resources.

The general objective of the training workshop is to simulate an MSP process through the creation of a co-produced knowledge related to both the critical issues and the opportunities of the Maldivian island/s by incorporating, in a planning example, socio-economic, cultural, and environmental aspects including climate change. As a matter of fact, an MSP process is based on a multi-disciplinary and holistic approach and integrates different knowledge fields and backgrounds.

This MSP training workshop will be structured in both theoretical and practical parts, and participants will be provided with general knowledge on several MSP aspects:

- **Marine Spatial Planning (MSP):** Definition of MSP and its objectives, description of the process, and case studies examples.

- **Ecosystem-based MSP (EB-MSP):** MSP as opportunity for conservation and sustainable use of marine space and resources.

- **Land-Sea Interactions (LSI):** Looking at the interface between land and sea domains, identification of land-sea processes and dynamics, and their importance within an MSP context.

Moreover, participants will be able to learn basic knowledge on the **biology of the coral reef** surrounding the Maldivian islands and its ecological role. They will build a knowledge framework through data and information collection in relation to different aspects of the area: **environmental, urban, political, socio-economic, and cultural.**

The direct perception of the islands will be fundamental for achieving a realistic understanding of the needs, issues, and potentiality of the Maldives.
The exercise will be structured following the **main phases of the MSP process:** defining the vision and main objectives of the area, initial assessment of the area, data collection and mapping, analysis of the needs and critical issues of the area (use vs use; use vs environment).

Environmental information will be mapped and assessed through the use of Unmanned Aerial Vehicles (UAV) for high-resolution photos and topographic surveys. Field and snorkelling activities will be carried out, and all the acquired information will be combined to identify criticalities, present/potential conflicts and synergies in the area, through zoning and spatialization of the acquired information.

In the end participants will propose potential spatial and management measures and solutions to boost sustainable development and environmental protection in the islands and will present their results focusing on the knowledge acquired and produced.

TRAINING WORKSHOP ORGANIZATION

The training workshop will last 8 days from the **15th to the 23rd January 2020** and will be held on the island of Magoodhoo, Faafu Atoll, Maldives. The students and all the activities will be hosted by the Marine Research and High Education Center (MaRHE Center) of the University of Milano-Bicocca (www.marhe.unimib.it). Magoodhoo and the MaRHE Center can be reached in roughly 3 hours by boat from the international airport of Malé, the capital of the Maldives.

The intensive program foresees theoretical lessons, as well as practical activities through the use of Geographic Information System software (QGIS), snorkelling, UAV surveys and boat trips. Students will be divided into groups and each group will be invited to work on a specific MSP scenario/topic.

The activities will be carried out in English and the teaching team will be composed by professionals coming from different research fields.

RESEARCH GROUP

The **Planning Climate Change** research group of the University Iuav of Venice is the organizer of the workshop. The research group works on different topics, specifically: Marine/Maritime Spatial Planning, Ecosystem-Based Management, Climate Proof Planning, Planning and Disaster, New Technologies for Planning, Circular Economy, Climate change adaptation. It is composed by young researchers with different skills, coming from diverse study fields and experiences and is coordinated by Prof. Francesco Musco. During the last years, the group has been actively working to support the implementation of the Maritime Spatial Planning (MSP) Directive in the Mediterranean, starting from one of the first transboundary MSP pilot projects in Europe (**ADRIPLAN** http://adriplan.eu.). The research group is still supporting the implementation of the directive through several MSP projects and activities (i.e. the two EU projects **SUPREME** http://www.msp-supreme.eu and **SIMWESTMED** https://simwestmed.eu).

Moreover, specifically in the figures of Prof. Francesco Musco and Dr. Elena Gissi, the group coordinates the **Erasmus Mundus Master Course on Maritime Spatial Planning** (EMMCMSP), a two-years highly competitive MSc programme made by the consortium of the Iuav University of Venice (Venice, Italy), the Universidad de Sevilla (Seville, Spain) and the Universidade dos Açores (Ponta Delgada, Portugal) which is the only example of master course entirely dedicated to MSP.

The Planning Climate Change experts that will coordinate the workshop are:

Elisabetta Manea: Post-Doc researcher, PhD in Marine Biology and Ecology, at the Polytechnic University of Marche. From 2017 she is a researcher at the University Iuav of Venice. Her studies cover: i) ecosystem-based approach integration within Marine Spatial Planning and environmental management, ii) methods to assess marine ecosystem services to inform decision making processes for marine resources management, iii) diversity and ecological interactions between benthic communities. She is involved in different EU Projects with the aim of supporting the incorporation of ecosystem-based management and ecosystem services assessment in the context of the MSP Directive implementation in the Mediterranean.

Denis Maragno: Assistant Professor, PhD in New Technologies for the City, the Land and the Environment. Urban Planner and Geographer. From 2013 he is a research fellow and teaching assistant at the University Iuav of Venice; title research: "Remote Sensing and Urban Planning: new technologies for environmental, urban and maritime spatial planning in a scenario of climate change". His current research and work are focused on the integration of ICT in climate proof planning context, Knowledge Management and Resilient Cities. He participated in several European Projects with the themes of urban, environmental and maritime resilience.

Niccolò Bassan: Architect and Planner. MSc Maritime Spatial Planning. From 2017 he is a research and teaching assistant at the University Iuav of Venice; research title: "Planning and Design for Seascapes: tools and techniques of planning to support the European directive on Maritime Spatial Planning (MSP) in the Mediterranean". He is also currently collaborating with CORILA as a Consultant on maritime related projects. His studies and work are focused on European Projects specifically on the themes of MSP, land-sea interactions, ecosystem-based management, ocean governance, community engagement and ocean literacy.

Alberto Innocenti: Architect and Urban Planner. Double degree PhD Student at the University Iuav of Venice and University of Copenhagen, working on Land-Sea Interaction. After graduating in Science of Architecture at the Politecnico of Milan, he moved to Venice (Iuav) and Barcelona (UAB) to follow the European Master "Planning and policies for cities, environment and landscape". During the university studies, he accomplished a 10 months' internship at the Regional Planning Research Department of the Flemish Government. There he worked on the regeneration project of the northern metropolitan area of Brussels Capital Region. Since 2015 he has been collaborating as assistant researcher at the University Iuav of Venice

PARTICIPATION REQUIREMENTS

The workshop is addressed to: students, practitioners, technicians and all the persons who are interested to acquire or reinforce their knowledge on the proposed topic.
Candidates for the traning workshop can have different academic and work backgrounds as: planning (land, coastal and marine), architecture, engineering, natural and biological sciences, social and human sciences. Any previous practical experience on the topic will be an added value. In the on-line application form candidates will have to write a short presentation and motivation letter, indicating their study and work background, why they are ideal candidates for the training workshop and why they want to participate.

Mandatory requirements for the participation are:

- English language skills comparable to B2 level (if you don't have an IELTS, TOEFL or similar certificate, online meeting to assess English proficiency will be organized)
- QGIS skills at the level of autonomous user

CREDITS

At the end of the workshop, a certificate of participation will be given through a virtual credit known as Open Badge and released by the MaRHE Center. For more information visit **https://blog.bestr.it/en/2016/04/14/open-badge-what-it-and-what-does-it-do**

A part from all the activities carried out during the workshop, both theoretical and practical, it is foreseen the recognition of 4 ECTS for the participants. It is highly suggested to ensure the validity of such credits through the administrative offices of the belonging Universities.

PROGRAMME

DAY 1

15 Jan

- Meeting at the international airport of Malé and transfer by boat to the MaRHE Center
- Arrival in Magoodhoo island and briefing about the institute and the island
- Introduction to the Workshop and program of the lessons

DAY 2

16 Jan

Lectures will be focused on the following themes:

- Introduction to MSP, the aim, the process and examples
- Ecosystem-based MSP: an opportunity for protection and sustainable use of the marine space and resources
- Introduction to the environmental components of the area with a specific focus on coral reefs
- Field-visit by boat acquiring photographic material and perceptions of the land and sea-scape

DAY 3

17 Jan

- MSP knowledge building process and introduction to the case studies to be developed by the participants
- The importance of considering land-sea interactions (LSI) in the MSP process
- Initial data and information research and collection
- Building the data and information framework

DAY 4

18 Jan

- Introductory lecture on the habitat mapping exercise
- Use of UAV for topographic surveys and acquisition of high-resolution images of the marine habitat.
- Snorkelling experience to explore the marine environment, collect information on its status and compare the visual census with the previously obtained images.
- Wrap-up and consolidation of the theory followed by the habitat mapping exercise
- Conclusion of the data and information research and collection

DAY 5

19 Jan

- Analysis of the collected information and identification of conflicts and synergies
- Feedback session and preliminary discussion of the obtained results

DAY 6

20 Jan

- Second field-visit by boat to the atoll/s
- Initial development of the proposal of measures MSP-oriented

DAY 7

21 Jan

- Set-up of the portfolio of MSP measures and finalization of the team work

DAY 8

22 Jan

- Presentation of the final outputs to the experts and dissemination activity
- Conclusions and free time

DAY 9

23 Jan

- Preparation and departure toward the international airport of Male

IMPORTANT NOTE

The program should be considered indicative, as it may be subjected to small changes due to logistical needs or weather and sea conditions.

PRACTICAL INFORMATION

DOCUMENTS

In order to enter the Maldives is necessary to have a valid passport (expiring after 6 months from the date of entry and with at least two empty pages). If you do not have a passport, we suggest you to request it promptly; indeed, waiting times may be long. If you need to speed up the procedure, you can request a letter from the MaRHE Center by mail (marhe@unimib.it - only after registering).

CLOTHING AND EQUIPMENT

In the Maldives the average temperature is around 28-29 °C. Remember that most of the day will be occupied by field activities, seminars and exercises; we, therefore, recommend comfortable and sporty clothing. It is advisable to avoid clothing that is too succinct as the MaRHE Center is not a tourist resort and the local customs are those of an Islamic country. **Participants must bring their own snorkeling equipment** (mask, fins, snorkel, wet suit - optional)

ACCOMMODATION AND MEALS

During the workshop, accommodation is organized in the Centers' multiple rooms (4 beds with bathroom), services and meals included (breakfast, lunch and dinner). Bed linen and towels are provided. The food is prepared according to local customs, so it will consist largely of fish, chicken, rice, pasta and vegetables, and meals are served buffet style. If someone is vegetarian/vegan or has allergies, please communicate it in advance. **Accommodation in single rooms is not possible.**

HEALTH

Unless you are flying from tropical Africa there are no required vaccinations for the Maldives. In any case, it is good practice, for your own personal health, to check the coverage against the main food and water borne diseases (Hepatitis A and Typhoid) and Tetanus.

CURRENCY EXCHANGE

The Maldivian currency is the Maldivian rufiyaa. Euro and Dollar are accepted in any bank and exchange office.

1 euro = 17 rufiyaa; 1 dollar = 15 rufiyaa.

TIME ZONE

Between Europe (CET) and the Maldives, there are 3 or 4 hours of difference depending on the summer time-zone.

COMMUNICATION

In the center, there is a wireless network that can be used with your laptop for educational purposes and to communicate at home in the evening. It can be possible (depending on the logistics) to purchase a local SIM with data traffic.

COSTS AND REGISTRATION

The registration fee for the workshop is of **€ 1300.00**

The flight is at student's expense and therefore excluded from the price. The fee may be paid in a single payment of 1300 euros or in two of 650 euros for which we will notify you the deadline. The registration deadline is the 1st of October 2019.

Registration form: https://forms.gle/D7312DnSD5SeYrai9

The fee ***INCLUDES:***

- Speedboat transfer to/from Malè airport
- Transportation for all activities and excursions planned by the program
- Board and lodging at the MaRHE Center with full board and multiple room accommodation
- Lessons and activities foreseen by the program

The fee ***DOES NOT*** include:

- Round-trip airfare to Maldives (Male International Airport)
- Possible renewal fees for the passport
- Possible entry visa (detailed information will follow)
- Anything else not specified above

To proceed with the registration, visit http://www.marhe.unimib.it/activities/education/marine-spatial-planning/. After completing the registration form, we kindly ask you to send an email to the following addresses: marhe@unimib.it, emanea@iuav.it and nbassan@iuav.it - specifying in the object: "Name Surname - Registration workshop".

We also ask you to send us a good quality colour scan of your passport.

You will have to wait for our confirmation before proceeding with the payment of the fee and the purchase of the flight. The workshop will be performed once a minimum number of participants has been reached, therefore we will give you the green light to purchase the flights once this threshold has been reached. Any errors (wrong flight dates or other) cannot be refunded. The minimum limit of participants is 15, while the maximum is 20.

FLIGHT TICKET

The purchase of the flight will be your responsibility. The choice of the airline is at your discretion, provided you will be at Malè airport on January 15th morning on time for the speedboat (**detailed instruction will be given once registered**).

INSURANCE COVERAGE

The Business Visa includes the Compulsory Maldivian Health Insurance. The MaRHE Center/University Milano-Bicocca extends Third-party Liability Insurance (RCT Allianz) coverage to all participants. Any other insurance coverage (accidents, baggage, etc) is optional and at your discretion.

For more info please contact:

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Università Iuav di Venezia

Marine Research and High Education Center MaRHE

MSP Major Goals

BLUE GROWTH

MSP should support sustainable growth in the marine and maritime sectors as a whole. Seas and oceans are drivers for the economic growth and have great potential for innovation.

SUSTAINABILITY

MSP main objective is to seek secure economic prosperity, social well-being and a healthy and resilient ecosystem at the same time.

RESEARCH & INNOVATION

MSP should orient decisions on the base of the best available scientific knowledge and boost research and development of innovative technologies to find new solutions limiting conflicts.

CAPACITY BUILDING

MSP is a learning-by-doing process in which individuals, organizations and institutions obtain, improve, and retain skills, knowledge and tools in a capacity building approach.

BUILDING MUTUAL TRUST

At all stages of the MSP process planners should base their decisions on commonly agreed objectives which are built on mutual trust, shared information and coordinated efforts.

ECOSYSTEM-BASED APPROACH

MSP should focus on preserving/restoring marine ecosystems and maintaining ecosystem services to support human needs providing spatial solutions for the management of uses and activities without compromising the capacity of marine ecosystems to respond to human-induced changes.

PARTICIPATIVE PROCESS

MSP initiatives should adopt collaborative forms of stakeholder and rightholder participation. This process should involve all the interested parts in a task oriented approach.


Magoodhoo
Island