









Fostering spatial efficiency in the marine space, through synergies and Multi-use of sustainable small-scale fisheries, tourism and MPAs

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What is Multi-Use in the marine space?

Multi-use (MU)

• joint use of resources from a single or multiple users in close geographical proximity (maritime space) representing a radical concept change, passing from the exclusive resource rights to the inclusive sharing of resources by one or more users.

Hard MU

• Combinations refer to infrastructural integration of fixed structures (e.g. MU platforms).

Soft MU

• Combinations refer to co-location or co-existence of uses when an existing infrastructure is used, without major modifications and are mostly met in the South, involving fleeting uses (e.g. small- scale fisheries, tourism and MPAs or UCH-tourism-environmental protection).

From its definition MU promotes synergies and positive coordination between different sea uses and between users and uses on the marine space. It favors win-win options in MSP, that usually follows annoying and costly trade-offs.



EC FUNDED PROJECTS ON THE MULTI-USE OF MARITIME SPACE SINCE 2010

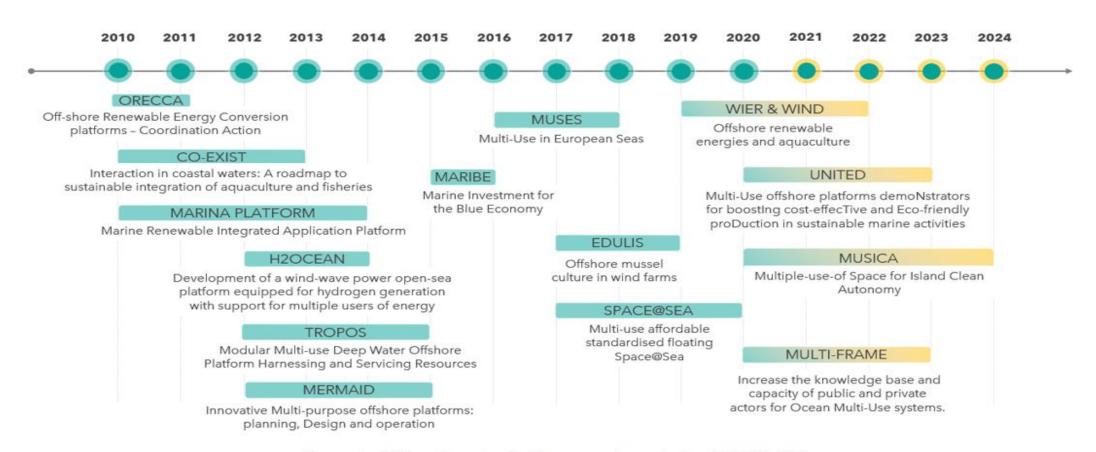


Figure 1 - MU projects by the European Commission (@MSP AM)

For increasing spatial efficiency, the European Commissionhas already funded a series of MU related projects demonstrating a strong commitment to further investigate sustainable Multi-use



6th Forum of the EU Strategy for the Adriatic and Ionian Region Along the coasts of the shared sea Izola, 11–12 May 2021



STATUS OF MULTI-USE ON NATIONAL LEVEL IN THE MEDITERRANEAN: THE EXAMPLE OF GREECE

• The MU concept is not yet included neither in maritime spatial planning (MSP) laws nor in strategic policy documents.

Dominance of terrestrial spatial plans (Eidika Chorika Sxedia) favouring exclusive rights of highly competitive and expansive maritime activities (e.g., aquaculture). For example, the sectorial Special Planning Framework for Aquaculture (2011) combined Law 2742/1999 promotes zoning of the sea allocated to aquaculture (AZA, in Greek POAY) with the aim to avoid any interference with potential conflicting activities, thus receiving a lot of criticism by various stakeholders, including SSF, the tourism industry, and the local authorities especially in highly touristic areas and areas with sensible marine and coastal ecosystems.

The existing MSP laws (L. 4546/2018 issued in compliance to the MSP European Directive and L.4759/2020 including a whole chapter amending the previous legislation on MSP and excluding the coastal space from maritime spatial plans) are completely ignoring the concept. Sectoral legislation enables the cohexistence of diving tourism with other sea uses.







Do SSF need Multi-use settings?

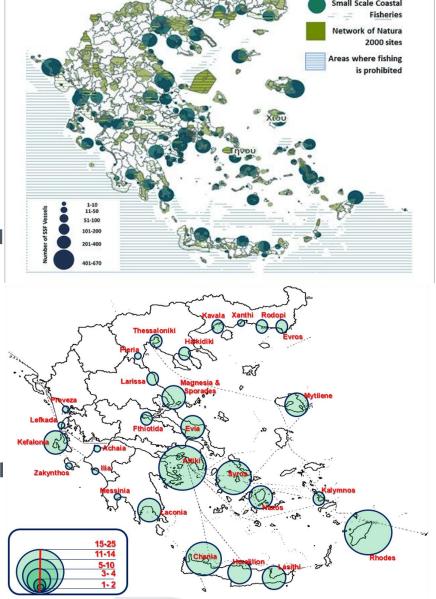
- In Greece, fishing is an important activity in ecological, economic, social and cultural terms and yields the largest share (23%) of the total European SSF.
- 35.4% of the Greek annual fish production, 4% contribution to the Greek GDP
- SSF provides 19,396 full-time jobs, highlighting Greece as the third country in the European Union (EU) in terms of employment in the
 industry. Most of these jobs are located in remote and small-island territories, with usually no alternative livelihood opportunities and
 income sources.
- SSF make up 95% of the Greekfleet, but they are only allowed for a small segment of fishing opportunities as they manage to access only 16.6% of the total consumers, thereby acquiring only a tiny fraction of the profits.
- SSF is particularly important for remote communities, where SSF activities are essential for the survival of coastal communities and their cultural identity: Small, often family-run businesses or self-employed workers, where the ship-owner is also the chief in the vessel.
- Overfishing and competition with amateur and retired fishers, reduce catches value and lead to loss of consumer purchasing powerdue also to the economic crisis and the concurrent austerity measures.
- Fishing income increasingly shrunk (exacerbated by the COVID-19 crisis). Greek fishers either abandon the activity or seek opportunities of alternative or supplementary income sources. They are gradually acknowledging that their fishing activity should be broadened by aiming on innovation and diversification.



Positive perspectives of fishing tourism development

The MU involves professional fishers (mainly SSF) hosting tourists on their fishing vessels to realize and become familiar with local fishing traditions. It is combined with some form of environmental protection including conservation, education, and sustainability measures that are applied during fishing tourism activities.

In Greece, fishing tourism is away from being fully guaranteed (<u>Kyvelou and Ierapetritis</u>, <u>2020</u>). However, positive perspectives seem to be erased in the <u>search to diversify the declining coastal</u> SSF activity. 155 formally licensed fishers exerting fishing tourism activity,





Co-development process with 40 stakeholders using the DABI method of assessment, 2019-2020 Drivers, Added-Values-Barriers-Impacts

DRIVERS are the factors promoting /supporting/facilitating strengthening MU development.

BARRIERS are the factors hindering MU, that is, preventing/negatively affecting MU.

ADDED VALUES are the positive effects/impacts of establishing or strengthening MU, that is, the pros or the benefits or the positive effects of implementing/strengthening MU.

IMPACTS are the negative effects/impacts of establishing or strengthening MU, in other words, the cons or the negative effects of implementing/strengthening MU.

MU potential is defined as the degree of opportunity the study area has to develop or strengthen MU,

MU effect is defined as the overall result or balance of pros and cons of developing MU in the study area (<u>Zaucha et al., 2016</u>).

TABLE 1 Breakdown of stakeholders that participated in the research.

Background	Number of stakeholders	% of participating stakeholders
Individual fishers	10	25.0
Fishers' unions	1	2.5
State-ministries-government agencies	4	10.0
Science-academia	4	10.0
Independent experts	5	12.5
Municipalities	1	2.5
Development agencies	5	12.5
Fisheries Local Action Groups (FLAGs)	6	15.0
Environmental NGOs	2	5.0
Tourism enterprises	2	5.0
	40	100.00

Drivers	Barriers	
Policy/Regulations	Policy/Regulations	
 Subsidies for further diversification of the fishing activity and the decrease of fishing effort. Amending the regulatory framework to enable recreational and cultural tourism activities. 	 Weakness of public authorities to support local entrepreneurship in coastal/insular areas. EU compensations to fishers for destructing traditional vessels and quitting fishing activity. Equal taxation of traditional boats with modern, higher speed yachts of similar length. Delays in the physical and economic completion of C.L.L.D. and the relevant OP measures on fishery for 2014-2020. Regulatory framework shortages for developing fishing tourism in inland waters where fisheries is the main income source. 	
Socio-economic Networking with other tourist destinations to foster this alternative tourism product Events on fishing tradition/intangible heritage. Enabling fishers to benefit from EMFF funds incl. cultural fisheries and tourism-based projects Enabling the assemblage of fisheries, tourism and conservation targets (through MPAs) Fishers' participation in planning and decision-making processes incl.MSP.	 Socio-Economic Lack of training programmes for fishing and traditional shipbuilding Low attraction of special groups of tourists (e.g vegetarian/vegan or other similar groups) High seasonality of fishing tourism activities Lack of entrepreneurial culture in SSF 	
Technological	Technological	
 Familiarizing fishermen with digital services (fishing tourism platforms,etc.) Incorporation of innovation in fishing activities. Retail sales infrastructure in ports and fishing shelters in touristic areas. 	Ageing of the Greek small-scale fishing vessels.	
Envir on mental Envir on mental		
 Decrease of fishing effort as a means to cope with overfishing. Environmental education/awareness raising within or close to MF 	PAs.	

Kyvelou, S.S.I.; lerapetritis, D.G. Fostering spatial efficiency in the marine space, in a socially sustainable way: lessons learnt from a soft multi-use (MU) assessment in the

Added Values	Impacts
 Socio-economic Diversification of traditional fishing activities and increase of fishers' income. Increase of employment and social coherence in coastal and insular communities depending on fisheries. Attracting and maintaining young people in the fisher's profession. Attraction of visitors seeking authentic experiences - development of niche tourism markets. Promotion of branded local agricultural products. Major role of fishers in safeguarding and promoting their cultural identity. 	 Socio-economic Risk for fishers to lose compensation related to missed opportunities of fishing activities. Potentially increased competition by other professional groups (e.g. other local coastal tourism enterprises) Risk of low tourist satisfaction due to the ageing and low educational level of fishers and the lack of specialization of other workers.
 Environmental Opportunity for the limited fish stocks to recover, by reducing fishing effort and by supporting MPAs. Raising awareness of tourists on issues related to the negative environmental impact of fishing (e.g. ghost fishing) 	Environmental Environmental pollution/marine rubbish created by tourism activities (by non-informed tourists, etc.)
	Policy/Regulations Additional taxation for tourism activities, which makes the coexistence of fishing and tourism activities a non-viable business activity
	Technological ■ High investment cost for adapting the existing small-scale vessels to tourism activities (existing legal provisions).

Source: Kyvelou, S.S.I.; Ierapetritis, D.G. Fostering spatial efficiency in the marine space, in a socially sustainable way: lessons learnt from a soft multi-use (MU) assessment in the Mediterranean, Frontiers in Marine Science, 2021, DOI: 10.3389/fmars.2021.613721

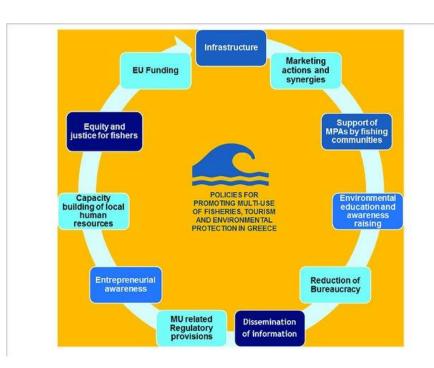


Concluding remarks (1)

- Assessment of MU potentials in progress all over the European sea basins.
- Soft MU "fisheries-tourism-nature conservation" seems to be an option in the Adratic-Ionian sea where diversification of fishing activity becomes a "sine qua non" condition especially for the survival and the non-marginalization of SSF
- Policies and individual initiatives to be taken in order to ensure its viability touch upon **EXTERNAL and INTERNAL to the fishing communities, priority axes.**
- **EXTERNAL** regulatory measures, capacity building including information on business opportunities/marketing actions, networking and synergies, reduction of bureaucracy, fostering funding opportunities, as well as improving relevant infrastructure.
- INTERNAL willing involvement of the main actors that is the fishers themselves in the conservation, planning, and development processes (incl.MSP), and this raises justice and equity issues.

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Izola, 11-12 May 2021



An increase of fishing-driven tourism and recreational activities is observed close or within the MPAs. However, the volume of research on their impacts is still limited.



Concluding remarks (2)

- Monitoring of the marine environment in MPAs as a participatory process involving the fishers, so as for them to be also convinced that the decrease in the intensity of fishing effort and the delimitation of MPAs where fishing is prohibited or restricted is definitely contributing to the recovery of local fish populations in the long-term.
- MPAs, on their turn, become a precious fisheries management tool in addition to their conservation purposes.
 This will hopefully be a non-antagonistic relationship, a reconnection of nature and culture in the marine space to promote synergies instead of conflicts between humans and nature.
- Redefining the role of fishers that <u>under equitable conditions</u> may become not only fishing tourism entrepreneurs but also <u>defenders</u> of the marine ecosystems and key actors for the sustainable management of fish stocks and ecosystems in the protected areas.
- The mechanics of compensating, stimulating and rewarding fishers who participate in conservation efforts is another issue for further policy research.



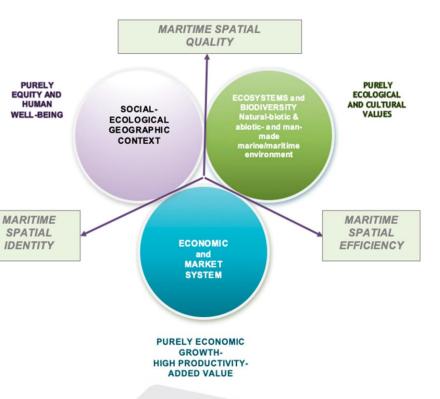




Towards a maritime cohesion?

- Our ambition is to organically integrate MU in MSP followed by a (mandatory?) Sustainability Assessment (SA)
- We are working on the concept of "Maritime cohesion" based on the triple-model of interdependent components such as "maritime spatial efficiency", "maritime spatial quality" and "maritime spatial identity"
- Scientific dialogue and practice show that Environmental and Social
 Sustainability, equity, blue justice and cultural values are mostly important for an eficient implementation of MSPlans.

Reference: Kyvelou, S.S.; Ierapetritis, D. Discussing and Analyzing "Maritime Cohesion" in MSP, to Achieve Sustainability in the Marine Realm. *Sustainability* **2019**, *11*, 3444. https://doi.org/10.3390/su11123444





Key messages from the recent MU MED event (European MSP Platform, MSP MED Project)

- Experiences from Italy and Greece demonstrate that MU in the MED can work: it is essential to spread results from good cases in order to make MU more popular.
- Development of MU can provide opportunities for restoration and valorisation of coastal areas at large.
- Case studies in the Ionian sea have demonstrated that after 5 years the income from fishing tourism increases and becomes the main source of income (livelihood) for fishers.



Key messages from the recent MU MED event (European MSP Platform, MSP MED Project)

- MU should be promoted (also) through national strategies and policies, making explicit reference to it in the different sectorial policies (examples from GR: Integrated maritime policy in islands, National Plan for Energy and climate, Operational program for Fisheries and Sea 2014-2020, National Strategy for the Marine Space).
 Harmonization and coherence among different policies and legislations with reference to MU must be ensured.
- Actions to facilitate MU should be undertaken also at regional and sub-regional level: e.g. the EUSAIR Macro-regional strategy should be used as a dialogue space and a funding opportunity to develop MU common practices: common regulations, licencing procedures, safety provisions, training opportunities, etc.



Concluding remark

Fisheries local Action Groups (FLAGS) can play a key and decisive role in promoting synergies and Multi-use in the marine space.

They are the vehicle to integrate features of Regional Policy to Fisheries policies and promote Smart Specialization Strategies.

Commissioner Ferreira quotes that if you want to go fast you go alone, if you want to go far you go together #6thEUSAIRforum @eusair_fp_GR, @EUSAIR



Thank you for your attention!

For more info on MU research: Panteion University of Social and Political Sciences, Dpt of Economic and Regional Development, Strategic and Maritime Spatial Planning Laboratory, GR

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