





REGIONE AUTÒNOMA DE SARDIGNA REGIONE AUTONOMA DELLA SARDEGNA



## MedArtSal

## Sustainable Management Model for Mediterranean Artisanal Salinas

## Operational plan and guidelines for policy development. Contributions at national and Mediterranean level

## A 3.4.2

### OT3.4

#### Guidelines for policy development contribution WP3 28/07/2023 - Málaga, Spain

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#### About the MedArtSal project

MedArtSal - sustainable management model for Mediterranean Artisanal Salinas - is funded by the European Union under the ENI CBC Med Programme. The project total budget is € 3.2 million, and the EU contribution is € 2.9 million (90%). MedArtSal is a four-year project which aims to promote the sustainable development of artisanal salinas, providing concrete support on economic, environmental and governance issues. Addressing common challenges in four Mediterranean regions (Italy, Spain, Lebanon and Tunisia), the project will promote the development of a sustainable and adaptable management model fostering the territorial valorisation of artisanal salinas. The project is led by CUEIM – University Consortium for Industrial and Managerial Economics (Italy) and the partners are Association for the Development of Rural Capacities (Lebanon), Fair Trade Lebanon (Lebanon), IUCN Centre for Mediterranean Cooperation (Spain), Mediterranean Sea and Coast Foundation (Italy), Saida Society (Tunisia), University of Cádiz (Spain) and Tuniso-Italian Chamber of Commerce and Industry (Tunisia).

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Operational plan and guidelines for policy development

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## Table of Contents

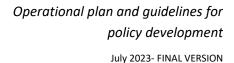
MedArtSal

Co	ntributors and Acknowledgements5
Ex	ecutive summary6
1.	Background and introduction7
(	Objectives7
2.	Identification and assessment of critical issues
2	2.1. Countries sub-operational plan
	2.1.1. Analysis for Lebanon
	Key policy recommendations for Lebanon13
	2.1.2. Analysis for Italy13
	Key policy recommendations for Italy17
	2.1.3. Analysis for Spain17
	Key policy recommendations for Spain21
	2.1.4. Analysis for Tunisia21
	Key policy recommendations for Tunisia25
3.	Conclusions and general recommendations25
Ap	pendices
/	Appendix A: SWOT matrix for the salinas in the four countries of the MedArtSal project 0
	Table A-1. Joint SWOT matrix for the salinas of the four countries of the MedArtSal project         (Spain, Italy, Lebanon and Tunisia)
ŀ	Appendix B: Lebanon - Proposed actions to increase the sustainability of salinas
	Table B-1. Proposed actions to address the main <b>threats</b> affecting Lebanese salinas, identified from the SWOT analysis, for the different components of the MedArtSal Model
	Table B-2. Proposed actions to address the main weaknesses of Lebanese salinas, identified         from the SWOT analysis, for the different components of the MedArtSal Model.         8
/	Appendix C: Italy - Proposed actions to increase the sustainability of salinas
	Table C-1. Proposed actions to address the main <b>threats</b> affecting Italian salinas, identified from the SWOT analysis, for the different components of the MedArtSal Model
	Table C-2. Proposed actions to address the main <b>weaknesses</b> of Italian salinas, identified from the SWOT analysis, for the different components of the MedArtSal Model



Apper	ndix D: Spain - Proposed actions to increase the sustainability of salinas	.23
	Table D-1. Proposed actions to address the main <b>threats</b> affecting Spanish salinas, identified from the SWOT analysis, for the different components of the MedArtSal Model.	
	Table D-2. Proposed actions to address the main <b>weaknesses</b> of Spanish salinas, identified from the SWOT analysis, for the different components of the MedArtSal Model	.29
Apper	ndix E: Tunisia - Proposed actions to increase the sustainability of salinas	.34
	Table E-1. Proposed actions to address the main <b>threats</b> affecting Tunisian salinas, identifie from the SWOT analysis, for the different components of the MedArtSal Model	
	Table E-2. Proposed actions to address the main <b>weaknesses</b> of Tunisian salinas, identified from the SWOT analysis, for the different components of the MedArtSal Model	.37







### **Contributors and Acknowledgements**

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Design of the infographic: miniestudio.es



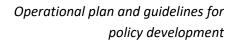
#### **Executive summary**

This document describes an Operational Plan for the development of policies for the sustainable management of Mediterranean artisanal salinas, from an Ecosystem-Based Management perspective. The purpose of the document is to develop different strategic lines that improve the sustainability of the salinas. The plan's objectives include utilising a sustainability model and identifying constraints and opportunities for implementing the model.

As initial step, a SWOT (strengths, weaknesses, opportunities, and threats) analysis was conducted to identify critical issues and main challenges. The proposed methodology consisted in analysing the SWOT matrix at national and regional levels, identifying goals for each SWOT element and defining tangible actions. Each country has developed its own SWOT to indicate how each hierarchical level of relevant stakeholders will tackle the sustainability challenges of artisanal salinas.

A specific sub-operational plan has been discussed for the four MedArtSal partner countries (Lebanon, Tunisia, Italy and Spain) highlighting the primary challenges faced by artisanal salt producers in keeping salt pans in operation in a profitable and sustainable manner, as well as the potential solutions and opportunities. The main focus of the plan is to determine who has to do what to ensure the maintenance and improvement of the traditional salt activity and the saltworks and establish different levels of assessment, planning, and management at regional, national and international levels.





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#### 1. Background and introduction

An operational plan is a strategic document that outlines the daily operations and processes required for running a successful business. It entails activities that different teams or departments such as recruitment, marketing, and finance, need to perform to achieve company goals and objectives. The purpose of this document is to develop different strategic lines that improve the sustainability of the salinas from an Ecosystem-Based Management point of view. This document is part of the toolkit developed by the MedArtSal project to support the traditional salt sector and to inform all the actors involved in its maintenance about actions to improve and promote this traditional activity and about the importance of the ecosystems of the salt pans.

#### **Objectives**

The Operational Plan (OP) aims to achieve multiple objectives by utilizing the sustainability model developed previously. This model provides inputs at various territorial and hierarchical levels, enabling different stakeholders to contribute towards salinas' environmental responsibility and social sustainability (e.g., human rights, social security, etc.). The OP is based on a diagnosis of constraints and opportunities at the regional and national level and identification of solutions and recommendations. It further establishes the conditions in which the model can be better implemented, within a regional focus, therefore the collaboration of all MedArtSal partners is crucial in order to build a more accurate OP that



benefits all stakeholders in the territory. By creating a network and implementing the model, all stakeholders will benefit from improved sustainability. The level of change needed for each territory must be assessed to implement the model and determine which aspects of the OP are needed for each specific context.



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The main idea behind this plan can be summarised as "Who has to do what to improve what", in the context of seeking the sustainability of the artisanal salinas. To answer this question we establish different levels, with the general approach of *Assessment -> Planning -> Management and focus on the general /regional national and international levels.* 

### 2. Identification and assessment of critical issues

The SWOT analysis serves as the basis for developing improvement or reinforcement tasks and identifying critical issues and main challenges. A first SWOT matrix (Appendix A) was developed as a base and was sent to MedArtSal partners in Excel format with instructions to work on it. The proposed methodology consists of two main parts:

1. Each country analyses the elements of the matrix at a local level with the help of experts in the field. Each participant of this assessment will choose five strengths, weaknesses, opportunities and threats, which then will be ranked from 1 to 5 in order of relevance. The one that has been chosen by more experts has more relevance for the diagnosis of the situation of each country.

2. Once the five main weaknesses and threats have been identified, it is time to propose tangible actions to be implemented by different key stakeholders at local, national and international level. To make it easier to propose specific actions, the experts have to define a goal for each SWOT element.





#### 2.1. Countries sub-operational plan

Based on the methodology described above, each country formulated its own SWOT to later indicate how each hierarchical level of relevant stakeholders will face the challenges of the sustainability of artisanal salinas.

#### 2.1.1. Analysis for Lebanon

Seven experts carried out Lebanese SWOT matrix analysis. Among them are salt producers as well as Fair trade Lebanon and Association for the Development of Rural Capacities (ADR) colleagues (Table 1).

Table 1. Participants in the analysis process of the Lebanese SWOT matrix.

#	Name	Institution
1	Benoit Berger	Fair Trade Lebanon
2	Nabil Chebib	Fair Trade Lebanon
3	Hiba Fawaz	ADR
4	Jessica Najjar	Salt producer
5	Georges Sleiman	Salt producer
6	Imad Malek	Salt producer
7	Maya Masri	Fair Trade Lebanon

In Lebanon, artisanal salt producers face various challenges that affect their productivity and profitability. The primary challenges relate to the legal status of the salinas, which are mainly rented from monasteries. In addition, there is a deficit in regulations due to their age, lack of adaptation to the current salt context and lack of coordination among administrative bodies.



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Furthermore, promoting local and artisanal products is difficult due to limited knowledge and the lack of cooperatives where companies work together. Likewise, many salt producers experience difficulties to maintain their facilities, many of which have been abandoned for years

Despite these challenges, Lebanon has abundant natural resources, including high-quality products and services that are currently highly demanded in various economic sectors. This presents enormous potential for diversification of products and activities in the artisanal salinas. However, developing complementary activities to the extraction of salt, such as ecotourism and gastronomic tourism, would require more public administrative and financial support. The creation of own brands and denominations of origin would be crucial for promoting the products effectively.



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Table 2. Lebanese SWOT main elements after the experts' analysis. Prepared by the authors.

S Strengths	Opportunities
• Abundance of natural resources in salinas that can be harnessed to provide economic benefits, but also for nature, tourism activity, heritage and cultural preservation, as well as food and gastronomy-related	Improving the protection of important natural sites through salt-production activities
Promoting Fleur de sel - a highly valued salt variety in haute cuisine	• Developing "salt tourism" as a business model that harnesses the beauty of the landscape and ecological value of artisanal salinas
• Diversifying products and services (macro & microalgae, tourism, outdoor activities to maximise benefits	Developing local ecotourism clusters to promote tourism in the zone concerned
Very specific and high-quality products and services that can only be obtained or developed in certain places, such as in the Mediterranean	Boom of gastronomic tourism is creating a high demand for natural, healthy, functional and organic products
Potential to create gourmet products that are becoming increasingly popular.	• Developing a single designation of origin or label, which unifies several different brands, especially to target international markets
	• Carrying out some <b>institutional promotion</b> and local direct sales actions in the municipalities could help to increase revenue





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Weaknesses	<b>Threats</b>
<ul> <li>Lack of infrastructure: better infrastructure could enable tourism to develop in salinas: signage, tourist information points, accesses, basic services, etc.</li> </ul>	<ul> <li>Uncertain legal status of salinas, for example, when land is rented from religious entities or when the timeframe remains unspecified</li> </ul>
<ul> <li>Need for direct financial public aid and credit, as well as advice to support corporate actions and brand development</li> </ul>	<ul> <li>Inconsistent regulations for this sector (laws may be very old, not adapted to current context, offering insufficient coverage, etc)</li> </ul>
<ul> <li>Limited marketing efforts: lack of promotion (both physical and online).</li> <li>Poor knowledge of market segmentation</li> </ul>	<ul> <li>Costly maintenance of the structures of the salinas for small businesses and entrepreneurs</li> </ul>
<ul> <li>Quality certification: lack of synergies between salinas and associations to develop common quality standards, for example, appellations of origin, labels, etc.</li> </ul>	Low competitiveness of local and organic products compared to the prices of industrial salt
<ul> <li>Support to entrepreneurship: business projects require initial support to assess project viability, as well as for the implementation, helping to tackle both economic and administrative challenges</li> </ul>	Lack of an adequate legal framework to protect and promote the artisanal management of saltpans
• Low levels of profitability: artisanal salt products are usually undervalued	• Lack of coordination inside public administration, high amount of bureaucracy slowing down the processes
Land and property management: salinas often lay within neglected land, where ownership is fragmented.	

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#### Key policy recommendations for Lebanon

ESTABLISH A COOPERATIVE OF OWNERS of salinas who actively participate in law and decision-making related to salinas and request infrastructure maintenance

FACILITATE THE WORK of salt workers during the maintenance season by simplifying the process to obtain permissions

PROMOTE GREATER DIVERSIFICATION OF ACTIVITIES by authorizing or removing bureaucratic hurdles to certain commercial activities such as ecotourism

PROTECT AND ENHANCE THE VALUE of artisanal salinas through new regulations, promoting their recognition as UNESCO World Heritage and developing a certification model for artisanal salt

LEGALISE THE STATUS OF SALINAS by both updating and creating regulations and policies, aiming to reduce or limit the import of salt and to facilitate the export of artisanal salt

PROMOTE USE OF NEW TECHNOLOGIES to optimize the production while respecting traditional knowledge and helping develop new salt products

Source: Prepared by the authors

#### 2.1.2. Analysis for Italy

Five experts (Table 3) from the MedSea Foundation and University Consortium for Industrial and Managerial Economics (CUEIM) met in Italy to analyse the SWOT matrix according to the methodology agreed for the operational plan.

Table 2. Participants in the analysis process of the Italian SWOT matrix.

#	Name	Institution
1	Manuela Puddu	MedSea Foundation
2	Elisa Ulazzi	MedSea Foundation
3	Francesca Etzi	MedSea Foundation
4	Tiziana Campisi	CUEIM
5	Luca Foschi	MedSea Foundation

In Italy, the main challenges faced by artisanal salt producers are related to the product vision and the economic sphere. The production of sea salt is in some ways still anchored to certain ancient traditions,





even if a certain degree of mechanization has been introduced over time, and even if it cannot be defined as zero-emission production, in general terms it has a lower environmental impact than the production of rock salt. It should be noted that the production of sea salt is not an extractive activity as well (despite the fact salinas are administratively and economically included in the extractive industry) but it is more a natural product transformation (sea water into salt through sun evaporation) more similar to an agrofood activity. To this we must add the natural value of the coastal "artisanal" salt pans which represent natural and ecosystem oases. Some products (like *fleur de sel*) can have natural iodine in their formulation even if this amount does not reach the WHO recommended level. Sea salt incorporates a vision of history, flavours, quality, nature and the environment, which differentiates it from rock salt. Unfortunately, the higher production costs mean that it is not always a competitive product.

Italian experts consider that there is a lack of recognition of artisanal salt as a high-value product, which means that it currently has little profitability in the market. A local, not internationalized and not very competitive market, in addition to the high cost of maintaining the facilities, puts salt producers in a difficult economic situation. Additionally, there is some concern about the consequences that climate change may have on the natural system of the salinas.

Like Lebanon, Italy has abundant resources and values in the salinas that can be taken as an economical advantage. The opportunities to develop new economies associated with the diversification of products and services are vast. Advocating for local and international cooperation, the market could be opened to other countries, promoting activities that allow the maintenance of the natural values of the salinas as well as economic profitability



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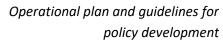
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Table 4. Italian SWOT main elements after the experts' analysis. Prepared by the authors.

S Strengths	Opportunities
• Abundance of resources in commercial salinas offers a wide array of possibilities to develop economic activities, based on natural, touristic, historical, cultural, gastronomic or heritage-related values	Expanding commercial activity to enter international markets
Artisanal treatment allows to create personalised salt varieties to fit the standards of gourmet cuisine	Developing comprehensive projects that apply the Nature-based Solutions standard to protect, sustainably manage, and ecosystems while addressing societal challenges effectively
<ul> <li>Artisanal salinas which are active play an important role in preserving nature (not only in terms of species, but also of ecosystem services)</li> </ul>	• Exploring synergies with other small business to carry out joint marketing actions
<ul> <li>There is a high potential to simultaneously develop diverse products and services, e.g. macro and microalgae cultivation, tourism</li> </ul>	The unique landscape and natural value of artisanal salinas is well-suited to develop ecotourism, especially at a moment of increasing demand for nature and outdoor experiences, as well as for tailor-made tourism, as in saliturismo
<ul> <li>Artisanal salinas can produce gourmet products which are becoming increasingly popular, such as <i>fleur de sel</i>, algae, etc.</li> </ul>	Promoting the universal value of salinas by fostering the exchange and international cooperation between researchers, businesses and others





sustaining the projects and making them more profitable

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Weaknesses	<b>Threats</b>
Maintaining the technical infrastructure of salinas entails a high economic cost	In the absence of a clear regulation or standard to certify the quality, there is a lack of differentiation between artisanal salt and industrial salt
Lack of compliance with legal obligations	• Salt flats are declining, losing their natural quality or even disappearing as a result of climate change effects
• Missing a regulatory authority which certifies the quality of <i>fleur de sel</i> and virgin salt	• Low market prices threaten the competitiveness of local and organic salt products
<ul> <li>Artisanal salt remains an undervalued product with low levels of profitability</li> </ul>	<ul> <li>Business activities in salinas struggle to become economically sustainable</li> </ul>
Marketing efforts are still limited to smaller local markets and don't target international ones	<ul> <li>Business projects are lacking financial, administrative and policy support from the public administration, which is key for implementing,</li> </ul>



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#### Key policy recommendations for Italy

**DEFINE A LEGAL FRAMEWORK** of certification for artisanal salt to boost recognition as a high-value product

**IMPLEMENT ADAPTATION MEASURES** according to the National and Regional strategy for climate change adaptation

**DEVELOP NETWORKS** to transfer knowledge related to technology and management as well as to provide access to funding opportunities

CREATE A SUSTAINABLE VALUE CHAIN for saltpans through public subsidies

SIMPLIFY ADMINISTRATIVE PROCESSES and develop a specific regulatory framework for the artisanal sector

SUPPORT INTERNATIONALISATION of sector and international cooperation

DEVELOP A SECTORAL PLAN for artisanal salinas including salt production jobs in the National Catalogue of Professional Qualifications from the Ministry of Education

Source: Prepared by the authors

#### 2.1.3. Analysis for Spain

The team of Spanish experts (Table 5), who belong to the International Union for Conservation of Nature (IUCN) and the University of Cádiz, held various meetings to analyse the SWOT matrix in depth following the proposed methodology.

Table 3 Participants in the analysis process of the Spanish SWOT matrix.

#	Name	Institution
1	Helena Clavero	IUCN
2	Lourdes Lázaro	IUCN
3	Catherine Numa	IUCN
4	Macarena Castro Casas	UCA
5	Yana Korneeva	UCA
6	Andrés Alcántara	IUCN
7	Alejandro Pérez Hurtado	UCA - Central Research Service, Salina La Esperanza

In Spain, the many gaps and inconsistencies in coastal planning and local regulations pose serious







challenges to artisanal salinas. Urban pressure in favour of intensive economic activities is a major threat for small artisanal salinas. This means that artisanal products are not properly valued compared to those obtained industrially. Due to this and given the lack of political support, the salt producers experience great difficulties in establishing their companies and projects, which ultimately limits the number of active salt producers to a restricted group of elderly workers.

In light of these difficulties, it is very important that the salt producers create synergies among themselves in search of a greater recognition of the product and to promote the change of regulations at the national level. As with the other countries participating in the project, the natural and cultural potential of the Spanish salinas is crucial for the creation of opportunities based on sustainability. Again, the diversification of products and services is a key step on the way to economic profitability and environmental protection.



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Some elements of the matrix were modified to better adjust them to the characteristics of the Spanish saltworks and thus be able to rank them appropriately. The top five strengths, weaknesses, opportunities and threats are presented in the following table:





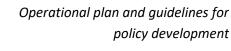
Table 6. Spanish SWOT main elements after the experts' analysis. Prepared by the authors.

S Strengths	Opportunities
• High environmental value in active artisanal salinas (biodiversity and ecosystems services)	<ul> <li>Potential of Nature-based Solutions to protect, sustainably manage, and restore natural and modified ecosystems addressing societal challenges effectively</li> </ul>
• High potential for diversification of products/services (macro & microalgae, halophytes plants, healthy activities, tourism)	Increased demand for tailor-made tourism which benefits from the landscape and ecological value of the artisanal salinas, including nature & outdoor experiences, and "salt tourism" (ecotourism)
• Potential to create gourmet products in which there is growing interest: fleur de sel, algae, etc	<ul> <li>Resurgence of the gourmet and natural market. Gourmet salt market growth both in volume (3.6% per year) and in value (4.8% per year)</li> </ul>
• Existence of abundant resources and values in the salinas that can be exploited economically: natural, tourist, heritage, historical, cultural and gastronomic	High demand for natural, healthy, functional, artisanal, organic and local products.
• Very specific and high-quality products and services that can only be obtained or developed under certain conditions	<ul> <li>Blue Carbon market as a possible source of future business</li> </ul>



allow the development of tourism in the salinas: signage, tourist information points, accesses, basic services, etc.

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Weaknesses	<b>Threats</b>
Need for synergies between salinas and	Lack of differentiation between artisanal salt
associations to foster legitimacy, e.g. through the	and industrial salt. There is no clear regulation or
development of labels or designations of origin	standard to certify artisanal salt as a product
<ul> <li>Advanced age of salinas owners/workers</li></ul>	Insufficient or deficient administration
and difficulties for generational renewal	and/or spatial planning regulations
<ul> <li>Lack of coordination in the corresponding</li></ul>	Pressures due to urban developments or
administrations, slowness and bureaucracy. <li>Complicated governance, lack of legal framework to</li>	land use changes in favour of tourism, intensive
protect artisanal management and old regulations	agricultural or aquaculture developments
<ul> <li>Artisanal salt products haven't been sufficiently</li></ul>	• Lack of public financial and policy
linked to other products and services	support for the implementation, maintenance
provided by salinas, such as aquaculture,	and viability of business projects, need for
gastronomy, tourism or environmental education	economic and administrative incentives
Significant deficit of infrastructure that would	Scarcity of local commercial links



Bahía de Cádiz salt pans. © MEET Network/Estamosgrabando



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July 2023- FINAL VERSION

#### Key policy recommendations for Spain

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**RECLASSIFY** artisanal salt production as agriculture, instead of mining, acknowledging its low environmental impact and enabling appropriate regulation

SIMPLIFY ADMINISTRATIVE PROCESSES and review the status of use concessions to promote active salinas

**PROFESSIONALISE THE SECTOR** by developing a specific training programme and a professional category for salt workers

**DEVELOP A SPECIFIC REGULATORY FRAMEWORK** for the artisanal sector and provide technical support, promoting public subsidies for salt workers & entrepreneurs

GAIN INSTITUTIONAL SUPPORT for nature conservation, natural resource management, governance and decision-making

**ESTABLISH A LOCAL NETWORK** among salt owners to develop a common label which supports their products and services to make them more competitive on a larger scale

DISSEMINATE THE INHERENT NATURAL AND CULTURAL VALUES of salinas through outreach, awareness-raising and educational campaigns (fair, public and private advertising, reaching target markets, etc)

Source: Prepared by the authors

#### 2.1.4. Analysis for Tunisia

An online anonymous survey was carried out to gather information about the SWOT elements. After this, a group of Tunisian experts analysed these elements and proposed actions to face the threats and weaknesses found.

The main findings of this analysis point to the fact that the Tunisian salt market is currently economically unprofitable due to the undervaluation of salt as a product and the confusion surrounding the terms 'organic' and 'artisanal'. Likewise, a lack of technical and digital skills makes it difficult for producers to access the online and international market. Furthermore, insufficient infrastructures limit the development of activities which could potentially be profitable for salt producers.









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Most of these difficulties can be overcome by a greater national and international cooperation between administrations, companies and research institutions. There is currently a high demand for organic and local products, which gives artisanal salinas an advantage and offers them an opportunity to create projects that pursue the diversification of products and services in the Tunisian salinas. Such projects would help them achieve economic profitability without compromising the natural values of the area.



July 2023- FINAL VERSION

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*Table 7. Tunisian SWOT main elements after the experts' analysis.* Prepared by the authors.

S Strengths	Opportunities
<ul> <li>Salinas hold significant potential as recreational sites and to carry out outdoor activities</li> </ul>	<ul> <li>Increasing profit by placing artisanal salt as a product on international markets</li> </ul>
<ul> <li>Salinas offer many opportunities for product and service diversification (from macro &amp; microalgae cultivation to tourism, etc.)</li> </ul>	<ul> <li>Bringing attention to the value of salinas by promoting national and international cooperation among businesses, research groups and other key actors</li> </ul>
• Quality of salt and food are highly suitable to create gourmet products which are becoming increasingly popular, e.g. <i>fleur de sel</i> , algae, etc.	Promoting the ecological value of artisanal salt based on the positive perception of agro-environmental products
• The abundant resources and values offered by artisanal salinas can be utilised to create economic activities based on natural, gastronomic, historical, cultural, heritage and tourism-related assets	<ul> <li>Strengthening e-commerce presence by extending marketing efforts to new commercial channels</li> </ul>
• High environmental value of active artisanal salt mines provides precious ecosystem services and contributes to preserve endemic biodiversity	<ul> <li>Suitable sites to develop projects related to Nature-based Solutions that protect, sustainably manage, and restore ecosystems while effectively addressing societal challenges</li> </ul>
	Improving the environmental protection of salinas



Operational plan and guidelines for policy development

July 2023- FINAL VERSION

Weaknesses	<b>Threats</b>
Undervalued product and low profitability	The online market is mainly being supplied by large distribution companies
• Need for better coordination between corresponding administrations, to speed up administrative procedures	Lack of differentiation between artisanal salt and industrial salt
• Weak digital, technical and marketing skills	<ul> <li>Market price pressure threatens competitiveness of local and organic products</li> </ul>
• Important deficit of infrastructure that would allow the development of tourism in salinas: signage, tourist information points, accesses, basic services, etc.	Large distribution requires a high volume of production
Insufficient investment in productive information and communication technologies	<ul> <li>Misguided belief among consumers that ecological, bio and natural products are synonyms</li> </ul>
High economic and technical cost of maintaining the structure of salt works	



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#### Key policy recommendations for Tunisia

By strengthening their online presence, artisanal salt producers can INCREASE THEIR VISIBILITY and position artisanal salt products in a wider international market

IMPROVE TRANSPORT SERVICES (storage, roads, ports, etc.) and export logistics

UPDATING THE LEGISLATION in force is essential to protect SMEs not only to secure adequate funding, but also to promote fair market competition

**EXPLORE SYNERGIES** and clustering opportunities between Tunisian and international salinas for better exchange of technical knowledge, aiming to improve products and services

INTEGRATE NEW SUSTAINABLE ACTIVITIES, such as ecotourism or harvesting of fish that naturally enter the basins, to increase interest in the development of artisanal salinas

UPDATE THE LEGISLATION ("Code Minier" for Tunisian salinas) so as to allow the production of other products beside salt

**PROMOTE GREATER PUBLIC INVESTMENT** to develop artisanal salinas. This includes public aid for salt producers and scientific research on the quality of salt and to increase the selling price accordingly

Source: Prepared by the authors

### **3.** Conclusions and general recommendations

- Promote and encourage the organisation of salt producers in networks, cooperatives or associations to foster collaboration, exchange of information and standardisation of processes and prices. The creation of a network or coalition of salina owners can also help to facilitate participation in legislative procedures and the defence of the sector's interests.
- Change regulations at national and international level to give artisanal coastal salinas their own legal framework, highlighting their importance and value of the products and services they can provide.
- 3. Protect the natural habitat of the salinas by including them in the catalogues of protected natural areas or other types of protection, preventing their abandonment and promoting biodiversity conservation plans.



- 4. Provide adequate technical and financial support to salt producers to help diversify their products and revive and ensure the sustainability of traditional salt farms, in order to maintain the ecosystem services and benefits to local economies provided by salina ecosystems, as well as their associated culture.
- 5. Internationalise and modernise the sector by providing salt producers with access to and training in technology, marketing and sales techniques.
- 6. Create a professional category for salt workers and apprentices.
- 7. Create thematic clusters or networks that include both salt producers and key business sectors, such as HoReCa (Hotels, Restaurants and Cafés) in the territory where the saltworks are located, in order to promote the role of salinas as drivers of local economies.



MedArtSal partners in Cádiz (Spain). © IUCN





## **Appendices**



# Appendix A: SWOT matrix for the salinas in the four countries of the MedArtSal project

Table A-1. Joint SWOT matrix for the salinas of the four countries of the MedArtSal project (Spain, Italy, Lebanon and Tunisia).

THREATS	WEAKNESSES	STRENGTHS	OPPORTUNITIES
Difficult maintenance of the structures of the salinas	Fragmented and abandoned property for many years.	Product known by society and increasingly valued.	Resurgence of the gourmet and natural market
Necessary differentiation between artisanal salt and industrial salt.	Lack of coordination in the corresponding administrations, slowness and bureaucracy	<i>Fleur de sel</i> as a « haute cuisine » product	Opening to international markets.
Need for ecological certification	Undervalued product and low profitability	Place of recreation for society	Implement new commercial channels, e- commerce.
Lack of accessible and standardized information for the consumer.	Traditional craft without professionalization	Outdoor activities	Promote tourism in the area
Insufficient or deficient sector regulations.	Complicated governance	High potential of diversification of products/services (macro & microalgae, tourism)	Improve the environmental protection of the salinas
Non-existence of the local commercial link	Old regulations	Historical and cultural values	Blue Carbon market
Age of salinas owner and worker with no interest from new generations	Weak technical information	Increased demand for tailor-made tourism and nature & outdoor experiences	Nature-based Solutions opportunities to protect, sustainably manage, and restore natural and modified ecosystems addressing societal challenges effectively
Denaturalisation (and disappearance) as a consequence of climate change effects	Lack of a legal framework to protect and promote the artisanal management of saltpans	Increased interest from the gastronomic sector in settling in saltpans and cooking their high added- value products	From farm to fork EU policy strategies
Market price pressure threatens the competitiveness of local and organic products	Non-compliance with the legal obligations	Very specific and high- quality products and services that can only be obtained or developed in certain places, such as in the Mediterranean	High demand for natural, healthy, functional and organic products. Gastronomic tourism boom.



Operational plan and guidelines for policy development

July 2023- FINAL VERSION

#### THREATS WEAKNESSES STRENGTHS **OPPORTUNITIES** Large distribution requires Industrial salinas do not Poor and underdeveloped Relevance of the ethical usually offer tourist a high volume of online marketing channels positioning of companies production services Potential to create Rise of Himalayan Salt and Little ability to generate Networking to carry out Gourmet products in false belief in its marketing strategies marketing actions with which there is growing optimized for the market. other small businesses properties interest Existence of abundant Development of a "salt Lack of promotion both resources in the salinas tourism" taking advantage physical and online. Little that can be exploited Widespread use of of the landscape and knowledge of market economically: natural, industrial salt in homes ecological value of the segmentation. tourist, heritage, cultural artisanal salinas and gastronomic Important deficit of infrastructures that allow Taking advantage of the the development of Strong position in the Possibilities of preparing a image of the agrotourism in the salinas: environmental product industrial saltworks "tailor-made" salt for signage, tourist market gourmet cuisine due to the ecological value information points, of the artisanal salinas accesses, basic services, etc. Concentration of brands Investment in productive Consumer belief that Institutional support for for the creation of a single information and ecological, bio, natural, designation of origin or the development of communication etc. they're synonyms natural products. label, especially for the technologies is low international market Lack of synergies between Health-related aspects salinas and associations to Growth in the use of (salt causes high blood create, for example, gourmet salt in exotic pressure) designations of origin, foods labels, etc. Gourmet salt market The online market is Little innovation in growth both in volume concentrating on large formats, packaging, etc. (3.6% per year) and in distribution companies value (4.8% per year)



## MedArtSal

Unfair competition between extensive and artisanal salinas in relation to the <i>fleur de sel</i> There is no clear regulation of the organic salt standard. Tis difficult to make projects in artisanal salinas economically sustainable. Certifications are not used to differentiate different types of salt. The artisanal salt product is not complemented with other typical products of salinas, such as quaculture, gastronomy, environmental education, etc. The responsibility for the protection of the traditional salt fast is under the Ministry of Mines, it must pass from the Ministry of Industry to the Ministry of Agriculture Direct financial public aid and via creating are stores in the ministry of the ministry of the ministry of Agriculture Direct financial public aid and via creating are stores in the municipalities. Direct financial public aid and via creating are stores in the municipalities. Direct financial public aid and via creating are stores in the municipalities. Direct financial public aid and via creating are stores in the municipalities. The traisand salt for the protection of the different are sequenced, advice for corporate actions and brand creation, institutional promotion and local direct sales actions in the municipalities. The traisand salt fields is under the Ministry of the implementation and viability of business projects, both economic and administrative facilities.	THREATS	WEAKNESSES	STRENGTHS	OPPORTUNITIES
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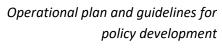


# Appendix B: Lebanon - Proposed actions to increase the sustainability of salinas

Table B-1. Proposed actions to address the main **threats** affecting Lebanese salinas, identified from the SWOT analysis, for the different components of the MedArtSal Model.

Threats		Key Stakeholders/User Community for implementation	MedArtSal sustainability components			
	Governance		Environment	Socio- economic	Diversification	
		Regional / EU policy- makers				
maintena	ficult Ince of the s of salinas	Policy-makers (at local level)	Facilitate the work of saltworkers during maintenance season			
		National authorities	Legalize the status of the salinas through updated regulation			Grand permission for salinas owners to carry out diverse activity such as eco- tourism
		Technology engineering				
		Salinas owners	Create a coalition of salinas owners to facilitate participation in law-making consultative procedures to legalise the status of salinas and request support for maintenance Work with decision makers to legalize the status of salinas and request support for maintenance			





July 2023- FINAL VERSION

# MedArtSal

Threats	Key Stakeholders/User Community for	MedArtSal sustainability components			
	implementation	Governance	Environment	Socio- economic	Diversification
Old regulations (Insufficient or	Regional / EU policy- makers Policy-makers (at local level)				
deficient sector regulations)	National authorities	New regulations for salt production. Create a model of certification for artisanal salt	Include the salinas in the Management of the PA that will be created in the region of the salinas		
	Technology engineering				
	Salinas owners	Lobbying to have new regulation for Salt Production	Campaigning to include the salinas in the National natural heritage		
	Regional / EU policy- makers				
Market price pressure threatens	Policy-makers (at local level)				
the competitiveness of local and organic products	National authorities	New policies to limit the imported salt			
	Technology engineering			optimize the production while respecting the tradiditional know-how	
	Salinas owners	Lobying toward the Ministries in order to reduce the import of Salt			Development of new products (salt with spices)



Operational plan and guidelines for policy development

July 2023- FINAL VERSION

# MedArtSal

Threats	Key Stakeholders/User Community for	MedArtSal sustainability components			
	implementation	Governance	Environment	Socio- economic	Diversification
Lack of a legal	Regional / EU policy- makers				
framework to protect and promote the artisanal management of saltpans	Policy-makers (at local level)	Develop a legal framework for protecting artisanal salinas (special regulation)	include the salinas in the Management of the PA that will be created in the region of the salinas		
	National authorities	Have some municipal decree that leads to the protection of saltpans			
	Technology engineering				
	Salinas owners				
Legal Status of Salinas	Regional / EU policy- makers	Lobbying towards Ministries regarding the importance to sustain the artisanal salinas			
	Policy-makers (at local level)	Legalize the status of the salinas through updated regulation			
	National authorities	Create a model of certification for artisanal salt			
	Technology engineering				
	Salinas owners				Develop local tourism and activities related to salt production
Threats		MedArtSal sustainability components			







Operational plan and guidelines for policy development

July 2023- FINAL VERSION

#### Key Stakeholders/User **Community for** Socio-Environment Diversification Governance implementation economic Encourage regional or **EU-level policy** reforms that emphasize efficient coordination and decision-making processes to counteract bureaucracy Regional / EU policy-Encourage the makers development and utilization of centralized platforms to facilitate quick and efficient information sharing among various stakeholders, promoting collaboration and synchronization Tailor regional or Lack of national policies to coordination in suit local contexts, ensuring they address the specific bureaucratic corresponding challenges faced at administrations, the local level. slowness and bureaucracy Policy-makers (at local Invest in capacitylevel) building programs to enhance the administrative capabilities of local stakeholders, ensuring they can effectively navigate bureaucratic processes. **Review and streamline** bureaucratic National authorities processes within the national framework,



Operational plan and guidelines for policy development

MedArtSal

July 2023- FINAL VERSION

	making them more accessible and efficient for stakeholders involved in the MedArtSal project.		
Technology engineering			
Salinas owners	Foster partnerships with regional and national authorities, encouraging a collective effort to overcome bureaucratic hurdles		



Table B-2. Proposed actions to address the main **weaknesses** of Lebanese salinas, identified from the SWOT analysis, for the different components of the MedArtSal Model.

Weaknesses	Key Stakeholders/User Community for	MedArtSal sustainability components					
weaknesses	implementation	Governance	Environment	Socio- economic	Diversification		
	Policy-makers (at local level)						
Fragmented and abandoned property for many years	National authorities	Facilitate the process of obtaining permission for the maintenance and reactivation of salinas					
	Technology engineering						
	Salinas owners	Create a structure to unify the salt producers (cooperatives)	Gradually revive the abandoned salinas				
	Policy-makers (at local level)						
Undervalued product and low profitability	National authorities	Anfeh is the only village producing artisanal Salt in Lebanon, the Municipality can link this issue to all the Municipality plans and events to highlight the value of artisanal Salt					
	Technology engineering		Producing studies that provide evidence on the				





July 2023- FINAL VERSION

Machinesses	Key Stakeholders/User	N	1edArtSal sustaiı	nability compo	nents	
Weaknesses	Community for implementation	Governance	Environment	Socio- economic	ents Diversification Diversify activities to raise awareness on the importance of salinas, their preservation and the quality of their products	
			environmental value of saltponds			
	Salinas owners				to raise awareness on the importance of salinas, their preservation and the quality of their	
	Policy-makers (at local level)					
	National authorities					
Lack of synergies	Technology engineering					
between salinas and associations to create, for example, designations of origin, labels, etc	Salinas owners	Establish a legal body such as a cooperative or association to advocate for the interests of the sector and enhance communications with other associations and ministries				
Lack of promotion both onsite and online. Little knowledge of market segmentation	Policy-makers (at local level)	Facilitate the process of exporting artisanal salt				
	National authorities			Organise an international event to promote local salinas		





July 2023- FINAL VERSION

## S MedArtSal

Weaknesses	Key Stakeholders/User Community for	N	1edArtSal sustaiı	nability compo	nents
weaknesses	implementation	Governance	Environment	Socio- economic	Diversification
	Technology engineering				
	Salinas owners	Registration of their salinas in the corresponding list of the Ministry of Economy and Industry in order to be able to export		Create market linkages with international partners	Promote artisanal salt as part of the diversified activities of salinas such as eco- tourism, educational- tourism etc.
	Policy-makers (at local level)				
Important deficit of infrastructures that allow the development of tourism in the salinas: signage, tourist information points, accesses, basic services, etc.	National authorities	Create a national/regional branding "appellation d'origine"; improve the access to the salinas; provide information on the tourist services offered by the salinas at the tourist information points			
	Technology engineering				
	Salinas owners	Create a national/regional branding "appellation d'origine"; develop a signage system			Promote networking with travel agencies and tour operators to disseminate information about the salinas. Commercialise visits to salinas





July 2023- FINAL VERSION

## S MedArtSal

Woolmoore	Key Stakeholders/User	MedArtSal sustainability components					
Weaknesses	Community for implementation	Governance	Environment	Socio- economic	Diversification		
Direct financial public aid and via credit are	Policy-makers (at local level)	Facilitate the credit and ensure financial aid for salt ponds owner in order to revive new salinas and develop the existing ones					
via credit are required, advice for corporate actions and brand creation, institutional promotion and local direct sales	National authorities	Promote initiatives by the Municipality to present the artisanal saltpans and the salt produced					
actions in the municipalities.	Technology engineering						
	Salinas owners			Develop commercial brands for salinas			
Initial support would be necessary for	Policy-makers (at local level)	Create a Program of Support for salinas owners					
the implementation and viability of business projects, both economic and	National authorities						
	Technology engineering						
administrative facilities.	Salinas owners						

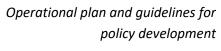


#### Appendix C: Italy - Proposed actions to increase the sustainability of salinas

Table C-1. Proposed actions to address the main **threats** affecting Italian salinas, identified from the SWOT analysis, for the different components of the MedArtSal Model.

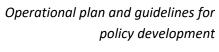
		Key Stakeholders/Us		MedArtSal sust	ainability components	
Threats	Goal	er Community for implementation	Governance	Environment	Socio-economic	Diversification
Lack of differentiati on between artisanal salt and industrial salt. /There	ıl salt	Regional / EU policy-makers	To boost recognizing of artisanal salt as an organic and artisanal product through strengthening alliances with other countries.	Advocate for salinas to be recognised as natural and cultural habitats.		
is no clear regulation of the organic salt standard (product)	rtification for artisana	National authorities	To develop guideline for setting criteria on a definition of artisanal salt versus extensive salt production.	Advocate the organic salt has an environmentally friendly (compared to the industrial one)	Incorporate salinas and their products in the promotional campaigns of national products	
	Defining a legal framework of certification for artisanal salt	Policy-makers (at local level)	To create advisory group of stakeholders to work on this differentiation (At regions level). Advocate for salt to be recognised as an artisanal product.	Advocate the organic salt has an environmentally friendly (compared to the industrial one)	Incorporate salinas and their products in the promotional campaigns of artisanal products (local, regional, nationallevels)	
	De	Technology transference from science				
		Salinas owners	Create and participate in local groups and advocacy.		Add their products to the national and regional promotional campaigns	





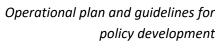
		Key Stakeholders/Us		MedArtSal sust	ainability components		
Threats	Goal	er Community for implementation	Governance	Environment	Socio-economic	Diversification	
Denaturalis ation (and disappeara nce) as a consequenc e of climate	Denaturalis ation (and disappeara nce) as a consequenc e of climate	Regional Adaptation	Regional / EU policy-makers	Define action plans and funding schemes devoted to implement actions for climate change mitigation and adaptation.	Advocate salinas to be recognized as natural and cultural habitats to be protected.		
change effects	to the National and R te change	Regional authorities	Define action plans & funding schemes devoted to implement actions for climate change mitigation and adaptation.	Advocate salinas to be recognized as natural and cultural habitats to be protected.			
	measures according to the Nat strategy to climate change	National authorities	Define action plans and funding schemes devoted to implement actions for climate change mitigation and adaptation.				
	Implementing adaptation measures according to the National and Regional Adaptation strategy to climate change	Technology engineering (Public/private research centres and universities)		Networking and sharing experience on engineering solution to increase the capability of the salina to act against climate change effects.	Networking and sharing experience on engineering solution to increase the capability of the salina to act against climate change effects.		





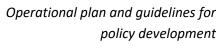
		Key Stakeholders/Us		MedArtSal sust	ainability components	;
Threats	Goal	er Community for implementation	Governance	Environment	Socio-economic	Diversification
Denaturalis ation (and disappeara nce) as a consequenc e of climate change effects		Salinas owners	Create and participate to groups and network for knowledge transfer and access to funding opportunities to foster the importance of artisanal salinas in contrasting climate change effects	Create and participate to groups and network for knowledge transfer and access to funding opportunities to foster the importance of artisanal salinas in contrasting climate change effects		
Market price pressure threatens the competitive ness of local and organic products	larket price essure eatens the petitive sal and ganic bal and ganic	Regional / EU policy-makers	To boost recognizing of artisanal salt as an organic and artisanal product through strengthening alliances with other countries			
	Creating a natio	Policy-makers (at local and regional level)	To develop guideline for setting criteria on a definition of artisanal salt versus extensive salt production.		Incorporate salinas and their products in the promotional campaigns of national products	





		Key Stakeholders/Us		MedArtSal sust	ainability components	
Threats	Goal	er Community for implementation	Governance	Environment	Socio-economic	Diversification
		National authorities	Provincial advisory group of stakeholders to work on this differentiation (At regions level). Advocate to be recognised salt as artisanal product.	Advocate the organic salt has an environment-tally friendly (compared to the industrial one)	Incorporate salinas and their products in promotional campaigns of artisanal products (local, regional, nationallevels)	
		Technology engineering (Public/private research centres and universities)				
		Salinas owners	Create and participate in local groups and advocacy.		Add their products to the national and regional promotional campaigns	To invest in potentiate or create new products and services.
It is difficult to make projects in artisanal salinas economicall y	is difficult to make projects in artisanal salinas conomicall	Regional / EU policy- makers	To create dedicated funding schemes devoted to actions to support economic sustainability of salinas.			
sustainable business visibility	Develop a business visibility of artisanal salinas	Policy-makers (at local and regional level)	To create dedicated funding schemes devoted to actions to support economic sustainability of salinas.		To support creation of associations or clusters	
	Develo	National authorities	To create dedicated funding schemes devoted			





		Key Stakeholders/Us		MedArtSal sust	cainability components	;
Threats	Goal	er Community for implementation	Governance	Environment	Socio-economic	Diversification
			to actions to support economic sustainability of salinas.			
		Technology engineering (Public/ private research centres and universities)	Networking and sharing experience on sustainable solutions in term of technology, creation of new revenues, production technologies, other management solutions.			Networking and sharing experience on sustainable solutions in term of technology, creation of new revenues, production technologies, other management solutions.
		Salinas owners	Create and participate to groups and network for knowledge transfer and access to funding opportunities.	Foster salinas environmental character, implement programme for sustainable eco- friendly tourism.	Develop crowdfunding actions as well as visibility actions	To invest in potentiate or create new products and services.
Lack of public financial and policy support for the implementa tion,	ı for artisanal salinas	Regional / EU policy-makers	Salinas recognition as a habitat in EU Habitat directive. Promote salinas as a World Intangible Cultural Heritage by UNESCO.			
maintenanc e and viability of business projects, both economic and administrati	Develop a sectoral plan for artisanal salinas	Policy-makers (at local level)	Offer a professional training for salt workers to improve capacities and anticipate and match future skills (new technologies, efficiency energy,		Promotional campaign for public to increase awareness of salinas products value.	Provide financial support for innovative products and activities (microalgae, macroalgae cosmetics, eco- tourism)



July 2023- FINAL VERSION

		Key Stakeholders/Us	MedArtSal sustainability components					
Threats	Goal	er Community for implementation	Governance	Environment	Socio-economic	Diversification		
ve facilities.			etc					
			Simplification in authorisation and bureaucracy for smaller and artisanal salt plants					
		National authorities	Professionalization of salt production sector. Develop a new professional/vocati onal qualification to be included in the National Catalogue of Professional Qualifications from the Ministry of Education. Public financial programme/plan for salt workers and entrepreneurs (subsidies, etc)					
Lack of public financial and policy support for the implementa tion, maintenanc e and		Technology engineering (Public/private research centres and universities)	(subsidies, etc)		Promote transference from research to technological private sector for innovative solutions in salt production and promotion. Create a scientific cluster for sector innovation			



July 2023- FINAL VERSION

		Key Stakeholders/Us		MedArtSal sust	ainability components	
Threats	Goal	er Community for implementation	Governance	Environment	Socio-economic	Diversification
viability of business projects, both economic and administrati ve facilities.		Salinas owners	Create a coalition of salinas owners to request grants for maintenance, new products development and professional trainings Explore cooperative entrepreneurship to reduce costs and develop joint sales and marketing strategies		Facility the access to general public (opening hours, visits, etc)	



Table C-2. Proposed actions to address the main **weaknesses** of Italian salinas, identified from the SWOT analysis, for the different components of the MedArtSal Model.

	Goal	Key Stakeholders/Us		MedArtSal sust	ainability con	nponents
Weaknesses	908	er Community for implementation	Governance	Environment	Socio- economic	Diversification
		Policy-makers (at local level)	Public subsidies for salt workers and entrepreneurs	Include salina natural area in the local General Urban Plan (i.e. scope of the salt pans)		Supporting the retraining of the facilities in the salinas as cultural heritage
	he salt pans	National authorities	Public subsidies I for salt workers			
High economic and technical cost of maintenance of salinas structures	To create a sustainable value chain for the salt pans	Technology engineering (Public/private research centres and universities)	Networking and sharing experience on sustainable solutions in term of technology, creation of new revenues, production technologies, other management solutions.			Co-design of new projects and solutions
		Salinas owners	Adopting a 3- year business strategy			Including diversification in the business strategy

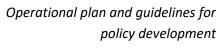




July 2023- FINAL VERSION

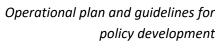
	Goal	Key Stakeholders/User	MedArtSal sustainability components				
Weaknesses	Goal	Community for implementation	Governance	Environment	Socio-economic	Diversification	
Non- compliance with the legal	cesses and l sector	Policy-makers (at local level)	Supporting the compliance process	Include salina natural area in the local General Urban Plan			
administrative proc	To reduce the burden of administrative processes and to change the regulation of the artisanal sector	National authorities	Creating a clear and simplified framework for artisanal salt producers	Definition of the environmental framework for salt pans area including a private-public cooperation.			
	ice the burden o hange the regul	Technology engineering (Public/private research centres and universities)					
	To redu to d	Salinas owners	Creating a plan for reduce the legal existing gaps				
There is not a		Policy-makers (at local level)					
regulatory council for quality	ramework	National authorities	Definition of regulatory framework				
approval for fleur de sel and virgin salt.	To define a tailored regulatory framework	Technology engineering (Public/private research centres and universities)			Supporting the technical requirements for the new framework		
	ı tailor	Business actors				Supporting the market	
	To define a	Salinas owners	Providing a sustainable management plan proportionate to the production unit		Creating a national association for the quality valorisation of artisanal salt productions		





	Goal	Key Stakeholders/User	1	MedArtSal sustaina	bility components	
Weaknesses	Guai	Community for implementation	Governance	Environment	Socio-economic	Diversification
Undervalued product and low profitability		Policy-makers (at local level)	Provide technical and financial support for diversification and innovative actions from local clusters		Incorporate salinas and their products in the promotional campaigns of artisanal products (local, regional, nationallevels)	
	٤	National authorities			Incorporate salinas and their products in the promotional campaigns of national products	
	To promote the salinas as innovation ecosystem	Technology engineering (Public/private research centres and universities)	Networking and sharing experience on sustainable solutions in term of technology, creation of new revenues, production technologies, other management solutions.		Networking and sharing experience on sustainable solutions in term of technology, creation of new revenues, production technologies, other management solutions.	Networking and sharing experience on sustainable solutions in term of technology, creation of new revenues, production technologies, other management solutions.
	To prom	Salinas owners	Create and participate to groups and network for knowledge transfer and access to funding opportunities. Explore cooperative entrepreneurship to reduce costs and develop joint sales and marketing strategies	To potentiate the environmental character of the salina and implement programme for sustainable eco- friendly tourism.	Add their products to the national and regional promotional campaigns	Invest in potentiate or create new products and services.





		Key Stakeholders/User	MedArtSal sustainability components				
Weaknesses	Goal	Community for implementation	Governance	Environment	Socio-economic	Diversification	
Marketing in	on of the sector	Policy-makers (at local level)	Support local initiatives with an international attractiveness Support cluster creation for internationalisation				
	To support international cooperation or internationalisation of the sector	National authorities			Incorporate salinas and their products in the promotional campaigns of national products		
very local markets, lack of internationali zation.		Technology engineering (Public/private research centres and universities)					
	rt international co	Business actors	Participating in cluster actions		Participate to international initiatives	Supporting new ideas and projects as well as the international market	
	To suppor	Salinas owners	Explore cooperative entrepreneurship to develop joint sales and marketing strategies, even internationalization		Participate to international initiatives	Creating new value chains with other sectors (tourism, gastronomic, wellness)	



#### Appendix D: Spain - Proposed actions to increase the sustainability of salinas

Table D-1. Proposed actions to address the main **threats** affecting Spanish salinas, identified from the SWOT analysis, for the different components of the MedArtSal Model.

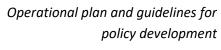
		Key Stakeholders/User	MedArtSal sustainability components					
Threats	Goal	Community for implementation	Governance	Environ- ment	Socio- economic	Diversificatio n		
Lack of differentiation between artisanal salt and industrial salt There is no	isanal salt	Regional / EU policy- makers	To boost recognizing of artisanal salt as an organic and artisanal product through strengthening alliances with other countries. Advocate for the recognition of salinas as natural and cultural habitats.					
clear regulation of the organic salt standard (product)	Define a legal framework of certification for artisanal salt	National authorities	To develop guideline for setting criteria on a definition of artisanal salt versus extensive salt production. Explore whether the "Consejo Regulador de Productos Ecológicos" (Regulatory Board for Organic Products) can certify artisanal salt as organic.		Incorporate salinas and their products in the promotional campaigns of national products			
	Define a legal frar	Policy-makers (at local level)	Provincial advisory group of stakeholders to work on this differentiation (at the level of 'diputaciones' - provincial councils-).		Incorporate salinas and their products in the promotional campaigns of artisanal			
Lack of differentiation between			Advocate for the salt to be recognised as an artisanal product.		products (local, regional, nationallevels)			
artisanal salt and industrial		Technology transference from science						



July 2023- FINAL VERSION

		Key Stakeholders/User	MedArtSal s	sustainability	y components	
Threats	Goal	Community for implementation	Governance	Environ- ment	Socio- economic	Diversificatio n
salt. There is no clear regulation of the organic salt standard (product)		Salinas owners	Create and participate in local groups and advocacy		Add their products to the national and regional promotional campaigns	
		Regional / EU policy- makers				
Insufficient or deficient administration and/or spatial planning regulations	Reduce and simplify administrative burdens and procedures	Regional authorities	Increase control of real activities in concessions Update the database with real active salinas Land use planning and regulation (eg.: <i>Plan de</i> <i>Ordenación del Territorio de</i> <i>Andalucía</i> , (POTA) - the Andalusian Spatial Planning Plan-) Single and simplified administrative process (one- stop administrative window)			
	nd sim	National authorities				
	Reduce a	Technology engineering (Public/ private research centres and universities) Salinas owners				





		Key Stakeholders/Us		MedArtSal sustaina	ability components	5
Threats	Goal	er Community for implementation	Governance	Environment	Socio- economic	Diversification
Pressures due to urban		Regional / EU policy- makers				
due to urban development s or land use changes in favour of intensive agri/ aquacultural development s	Policy-makers (at loca and regional level)	Mainstreaming biodiversity and climate change into l spatial planning. To favour environmentall y sustainable activities	Identify key areas for environmental protection and restoration. Include salinas as a key element of green/blue infrastructure. Develop natural capital accountability for salinas. Promote ecological coastal corridors	Support dialogues for disseminating lessons and best practices on integrated planning.	Promote activities diversification in salinas to increase sustainability	
	alt activity an	National authorities				Promote activities diversification in salinas to increase sustainability
	to traditional se	Technology engineering (Public/private research centres and universities)				
	Spatial planning favourable	Salinas owners		Develop natural capital accountability for salinas		Diversify products and activities to increase profitability
Lack of public financial and policy support for	Develop a sectoral	Regional / EU policy- makers	Salinas recognit a habitat in EU H directive.			



**MedArtSal** 



Operational plan and guidelines for policy development

July 2023- FINAL VERSION

#### Key MedArtSal sustainability components Stakeholders/Us Threats Goal er Community Sociofor Diversification Governance Environment economic implementation the Promote Salinas as a implementati World Intangible Cultural Heritage by on. UNESCO. maintenance and viability Offer a professional Provide financial of business Promotional training for salt support for projects, campaign for workers to improve both innovative products general public to Policy-makers (at local capacities and and activities economic increase and and regional level) anticipate and match (microalgae, awareness of future skills (new macroalgae administrativ Salinas products cosmetics, ecoe facilities. technologies, value. efficiency energy, etc) tourism...) 1. Professionalization of salt production sector. Develop a new professional/vocation al qualification to be included in the National Catalogue of Professional National authorities Qualifications from the Ministry of Education. 2. Public financial programme/plan for salt workers and entrepreneurs (subsidies, etc) Technology Promote engineering transference (Public/private from research to research centres and technological universities) private sector for innovative solutions in salt Lack of public production and financial and promotion. policy support for Create a

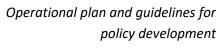




July 2023- FINAL VERSION

		Key Stakeholders/Us		Med/	ArtSal sustainal	bility components	
Threats	Goal	er Community for implementation	Governance	En	vironment	Socio- economic	Diversification
the implementati on, maintenance and viability of business projects, both economic and administrativ						scientific cluster for sector innovation	
		Salinas owners	salinas owner request grants maintenance, products development professional tra Explore cooper entrepreneursh reduce costs develop joint s	development and professional trainings Explore cooperative entrepreneurship to reduce costs and develop joint sales and marketing		Facility the access to general public (opening hours, visits, etc.)	
Scarcity of local commercial links	clusters	Regional / EU policy- makers					
	Create and reinforce c	Policy-makers (at loca level)	Guidelines t strengthen lin between prim artisanal sa I producers and food industry se (increase understandin different parts o supply chain	nks hary It other ectors g of of the		Information campaign to general public to increase local artisanal salt demand	





Threats		Key Stakeholders/Us er Community for implementation	MedArtSal sustainability components					
Threats	Goal		Governance	Governance Environment		Socio- economic	Diversification	
Scarcity of local commercial links		National authorities Technology engineering (Public/private research centres and universities)				Information campaign to general public to increase local artisanal salt demand		
		Salinas owners	Promote local cl to enhance t visibility of sal products, deve eco-tourism acti organise fair tr market.	he inas elop ivities,			Support development e- commerce platform for artisanal products	

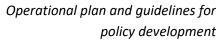


Operational plan and guidelines for policy development July 2023- FINAL VERSION

Table D-2. Proposed actions to address the main **weaknesses** of Spanish salinas, identified from the SWOT analysis, for the different components of the MedArtSal Model.

		Key Stakeholders	Med	dArtSal sustaina	bility components	
Weaknesses	Goal	/User Community for implementati on	Governance	Environment	Socio-economic	Diversification
Age of Salinas owners/ workers and difficulties for generational renewal sector generational	the	Policy-makers (at local level)			Incentives for young/women job position for salt makers	
	ns sector to increase beople	National authorities	Acknowledge the metier of salt makers: new niche of young employment		Campaign for the valorisation of a traditional profession (IES, universities) and modernise the sector.	
	and modernise the salt productions sect attractiveness as a job for young people	Technology engineering (Public/private research centres and universities)	Participate in a working group to develop innovative approaches/ technologies			
	To revive, valorise and modernise the salt productions sector to increase the attractiveness as a job for young people	Salinas owners	Creation a working group (with salina owners, <i>Grupos de</i> <i>Desarrollo Rural</i> - Rural Development Groups-, universities, education authorities) to define a roadmap for the development of a curricular educational plan for training as salt maker			





Weaknesses	Goal	Key Stakeholders /User Community for	MedArtSal sustainability components					
		implementati on	Governance	Environment	Socio-economic	Diversification		
Lack of coordination in the corresponding administrations , slowness and bureaucracy. Complicated governance, old regulations	burden of administrative processes and to change the regulation of the sector from mining legislation to agricultural legislation.	Policy-makers (at local level) National authorities Technology engineering (Public/private research centres and universities)	Single and simplified administrative process (one-stop administrative window) Recognise local concession holders as potential beneficiary for grants Facilitate the transfer of the Administrative competences from the mine legislation to agriculture regulation. Reconogise local concession holders as potential beneficiary for grants Advocate for salt-					
	To reduce the bur	Salinas owners	producing to be considered under the agricultural regulation					





MedArtSal

July 2023- FINAL VERSION

	Goal	Key Stakeholders/ User	Mec	lArtSal sustaina	bility compo	nents
Weaknesses		Community for implementatio n	Governance	Environment	Socio- economic	Diversification
Lack of synergies between salinas and associations to create, for example,	network of salina ts and services as itiveness	Policy-makers (at local level)	Provide technical and financial support for local salinas association and label creation			
designations of origin, labels, etc.	i loca	National				
	To promote the creation of local network of salina owners for common label products and services as way to increase competitiveness	authorities Technology engineering (Public/private research centres and universities)				
		Salinas owners	Boost local associationism among salina owners			
The artisanal salt product is not complemented with other typical products of salinas, such as aquaculture, gastronomy, environmental education, etc. or have difficult conditions for tourism	To promote local clusters with complementary local entrepreneurs	Policy-makers (at local level)	Provide technical and financial support for diversification and innovative actions from local clusters			
		National authorities	Promote financial support specifically for salinas innovation			
		Technology engineering (Public/private research centres and universities)			Promote knowledge transfer from academy to salt owners. Know-how	





July 2023- FINAL VERSION

#### S MedArtSal

	Goal	Key Stakeholders/ User	Мес	ArtSal sustaina	bility compo	nents
Weaknesses	Cour	Community for implementatio n	Governance	Environment	Socio- economic	Diversification
					on innovative products: micro & macro algae	
		Salinas owners	Create a cluster to unify products labels (Eg: ecotourism package)	Create partnership with environ- mental organisations to develop joint projects for sustainability (biodiversity/bl ue carbon/ circular economy)		Create partner- ship with Universities, NGOS and regional administrations to prepare joint proposals for funding
Little ability to generate marketing strategies optimized for the market.	building on marketing strategies	Policy-makers (at local level)	Promote financial support specifically for salinas innovation including marketing Digital and marketing training			
	To develop capacity building	National authorities	Promote financial support specifically for salinas innovation including marketing			





July 2023- FINAL VERSION

MedArtSal

Weaknesses

G

ioal	Key Stakeholders/ User	MedArtSal sustainability components					
	Community for implementatio n	Governance	Environment	Socio- economic	Diversification		
	Technology engineering (Public/private research centres and universities)						
		Participate in					

Develop joint strategies marketing

training courses (e.g.: natural capital/ ecommerce, marketing,

etc.)

(ecommerce, etc)

Salinas owners



# Appendix E: Tunisia - Proposed actions to increase the sustainability of salinas

Table E-1. Proposed actions to address the main **threats** affecting Tunisian salinas, identified from the SWOT analysis, for the different components of the MedArtSal Model.

	Кеу	MedArtSal sustainability components				
Threats	Stakeholders/User Community for implementation	Governance	Environment	Socio- economic	Governance	
The online market is	Regional / EU policy- makers Policy-makers (at local level) National authorities					
concentrating on large	Technology engineering					
distribution companies	Salinas owners			More visibility and support for a better positioning of artisanal salt mines and their products The use by artisanal salt works of online marketing to reach new markets	Product diversification to better access the international market and to better exploit the local and sectoral market	
Necessary differentiation between artisanal salt and industrial salt.	Regional / EU policy- makers	Updating legislation in force to protect SMEs				
	Policy-makers (at local level)	Updating legislation in force to				





July 2023- FINAL VERSION

	Key Stakeholders/User Community for implementation	MedArtSal sustainability components				
Threats		Governance	Environment	Socio- economic	Governance	
		protect SMEs				
	National authorities					
	Technology engineering					
	Salinas owners			Better promote the artisanal product and make it known to customers		
	Regional / EU policy- makers					
	Policy-makers (at local level)					
Market price pressure threatens the competitiveness of local and	National authorities	Invest in the sustainable development of artisanal salinas				
organic products	Technology engineering					
	Salinas owners					
	Regional / EU policy- makers					
Large distribution requires a	Policy-makers (at local level)					
high volume of production	National authorities					
	Technology engineering					





July 2023- FINAL VERSION

	Кеу	MedArtSal sustainability components				
Threats	Stakeholders/User Community for implementation	Governance	Environment	Socio- economic	Governance	
	Salinas owners			Clustering and search for synergies between different artisanal salinas and between Tunisian and international salinas		
	Regional / EU policy- makers					
Consumer belief that	Policy-makers (at local level)					
ecological, bio, natural, etc. they're synonyms	National authorities					
	Technology engineering					
	Salinas owners					



Table E-2. Proposed actions to address the main **weaknesses** of Tunisian salinas, identified from the SWOT analysis, for the different components of the MedArtSal Model.

Westware	Key Stakeholders/User Community for implementation	MedArtSal sustainability components					
Weaknesses		Governance	Environment	Socio- economic	Diversification		
Undervalued product and low profitability	Regional / EU policy-makers Policy-makers (at local level) National authorities Technology engineering Salinas owners	Invest in scientific research to improve the quality of salt and increase the selling price accordingly.					
Lack of coordination in the corresponding administrations, slowness and bureaucracy	Regional / EU policy-makers Policy-makers (at local level) National authorities Technology engineering Salinas owners	Unify the sector into a union structure					
Weak technical information	Regional / EU policy-makers Policy-makers (at local level) National authorities						





July 2023- FINAL VERSION

Markenson	Key Stakeholders/User	MedArtSal sustainability components					
Weaknesses	Community for implementation	Governance	Environment	Socio- economic	Diversification		
	Technology engineering						
	Salinas owners			Strategic clustering and share of information and know- how among artisanal salinas Promoting transmission of technical knowledge from the old to the new	Establishment of partnerships with experienced foreign producers useful to improve the existing products and services and start producing new ones.		
Important	Regional / EU			generations			
deficit of	policy-makers Policy-makers (at						
infrastructures	local level)						
that allow the development of tourism in the	National authorities						
Salinas: signage, tourist	Technology engineering						
information points, accesses, basic services, etc.	Salinas owners	Urge regions to work to value artisanal salt pans					
	Regional / EU						
Investment in	policy-makers						
productive information and	Policy-makers (at local level)						
communication	National						
technologies is	authorities						
low	Technology						
	engineering						





July 2023- FINAL VERSION

Weeknesses	Key Stakeholders/User Community for implementation	MedArtSal sustainability components				
Weaknesses		Governance	Environment	Socio- economic	Diversification	
	Salinas owners					
	Regional / EU policy-makers					
	Policy-makers (at local level)					
High economic and technical cost of maintaining salt works	National authorities	Encourage SMEs through adequate funding with payment facilities and provide the necessary support				
structures	Technology engineering					
	Salinas owners				The integration of new sustainable activities such as ecotourism or the development of fish resources that naturally enter the basins could be an asset for artisanal salinas	



MedArtSal aims to promote the sustainable development of artisanal salinas, providing concrete support on economic, environmental and governance issues.

The MedArtSal project is funded by the European Union under the ENI CBC Med Programme and promoted in four Med regions (Spain, Italy, Tunisia and Lebanon). The project total budget is  $\leq 3.2$  million and the EU contribution is  $\leq 2.9$  million (90%).