

Tools for the Inclusive Management of Marine Protected Areas

Understanding stakeholder perceptions, awareness and gender dimensions

Speakers: Soraya Lamochi Roozalipour, Sara Bonilla Anariba, Lydia Rose

Chair: Eira Carballo Cárdenas

October 14th, 2026



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This Webinar

- Inclusivity of (local) **MPA stakeholders** is crucial for effective and socially just MPA management
- Three speakers, covering different **tools**:
 - Perception elicitation and awareness raising tool (PEAR)
 - Gender equity self-assessment tool for MPA managers
 - Tool to elicit local perceptions on gender equity in the local tourism sector



Introducing Today's Speakers



Soraya Lamochi MSc
Local Awareness &
Perceptions of MPAs



Dr. Sara Bonilla Anariba
Gender equity self-
assessment tool for MPA
managers



Lydia Rose BSc
Local perceptions on
gender equity within
MPA tourism sector



Introducing BLUE4ALL



BLUE4ALL

€
Funded by Horizon
Europe Mission Ocean

Calendar icon
Jan 2023 to
Dec 2026

Handshake icon
+20 partners across
Europe

Our focus: Social and Governance Tools

„BLUE4ALL will develop science-based tools for achieving Marine Protected Areas that meet conservation and restoration objectives, while addressing the needs and concerns of all stakeholders“



Introducing Blue4All – Project Partners



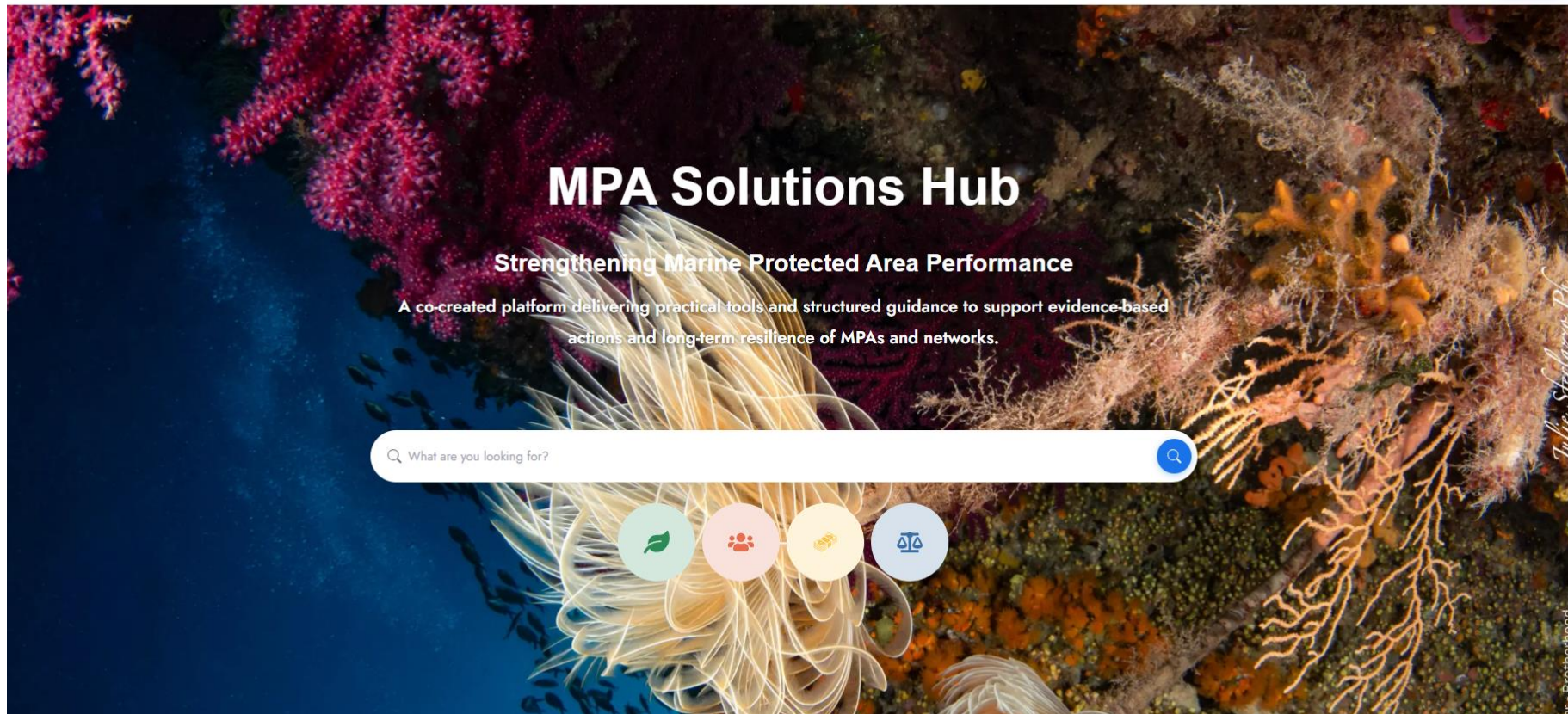
Academic researchers
International research organizations
NGOs
Government agencies (local, national)
MPA representatives

Belgium	Germany
Croatia	Ireland
Denmark	Italy
Estonia	Montenegro
Finland	Netherlands
France	Switzerland



Introducing Blue4All – Living Labs





MPA Solutions Hub

Strengthening Marine Protected Area Performance

A co-created platform delivering practical tools and structured guidance to support evidence-based actions and long-term resilience of MPAs and networks.

What are you looking for?



Perception Elicitation and Awareness Raising tools



Perception elicitation and awareness raising tools are methods used to understand how people view a protected or conserved area and to help them become more informed about key issues. These tools support dialogue, learning, and reflection, helping managers and communities better understand each other's perspectives and build shared awareness of challenges and opportunities.

Community Engagement

Social Equity & Justice

Livelihoods & Local Economies

Gender Equity Tool



The Gender Equity Tool assesses gendered differences in access, participation, and benefits within MPA management through surveys, interviews, and stakeholder feedback.

Social Equity & Justice

Community Engagement

Livelihoods & Local Economies

Perceptions in Practice: Implementing the PEAR Toolkit in Four Marine Protected Areas

The Perception Elicitation and Awareness Raising Toolkit

October 14th, 2026

Soraya Lamochi Roozalipour, Cédulie Chapot, Sija Brinksma, Joséphine Louwette, Eira Carballo Cárdenas
Wageningen University & Research (WUR)



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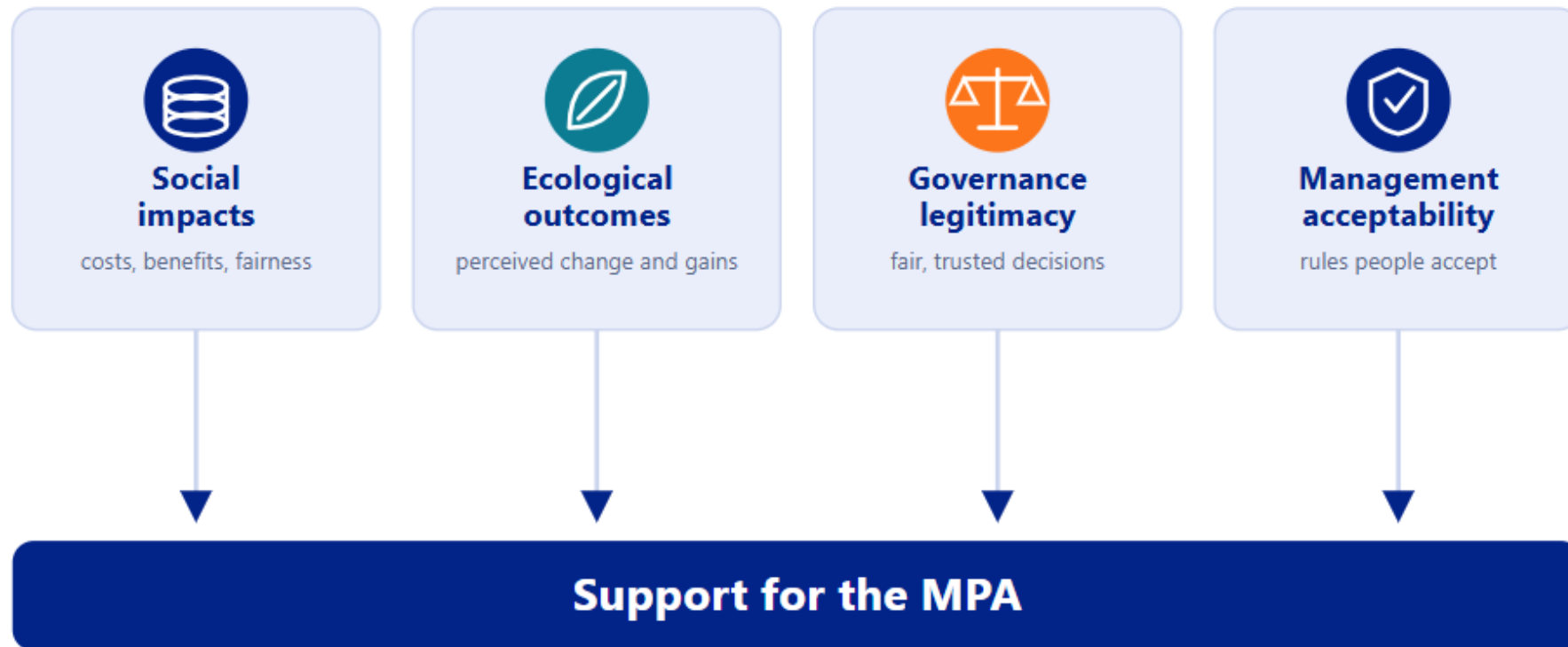
Awareness & Perceptions in MPA Management

- **Perceptions:** "the way an individual observes, understands, interprets, and evaluates a referent object, action, experience, individual, policy, or outcome" (Bennett, 2016)
- **Awareness:** precondition for perceptions
 - MPA existence
 - Environmental awareness: species, habitats, pressures
 - Self awareness: own influence on environment and MPA
- **Reciprocal relationship**
 - Stakeholder awareness shapes perceptions; perceptions influence awareness
 - Managers aware of perceptions can target communication and management



Why Awareness & Perceptions Matter for MPA Management

- MPA success depends on **local support**
- Perceptions of **four dimensions shape** that support (Bennett, 2016)



Challenges within the Living Labs

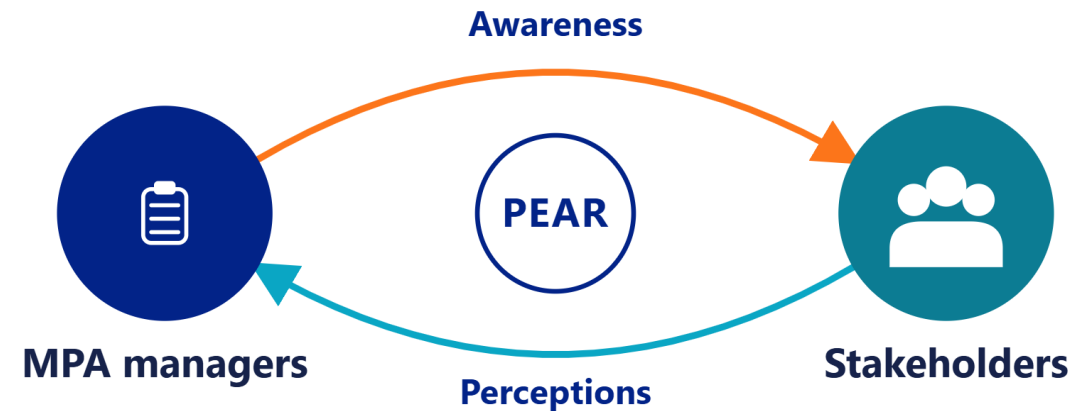
- **Needs Assessment** with MPA managers
- **Core problem:** low compliance with MPA rules by tourists, tourism operators and residents
- **Causes:**
 - Lack of experience
 - Lack of resources (staff + equipment)
 - **Lack of awareness and social acceptability**
- **Manager's Needs:** raise awareness, understand perceptions and the causes of (weak) support to improve management

But... How?



From *Why* to *How*: The Perception Elicitation and Awareness Raising toolkit

- *How* can MPA managers actually capture **awareness** and **perceptions** on the ground?
- BLUE4ALL's development of the PEAR toolkit
- Elicits stakeholder perceptions and raises awareness of the MPA



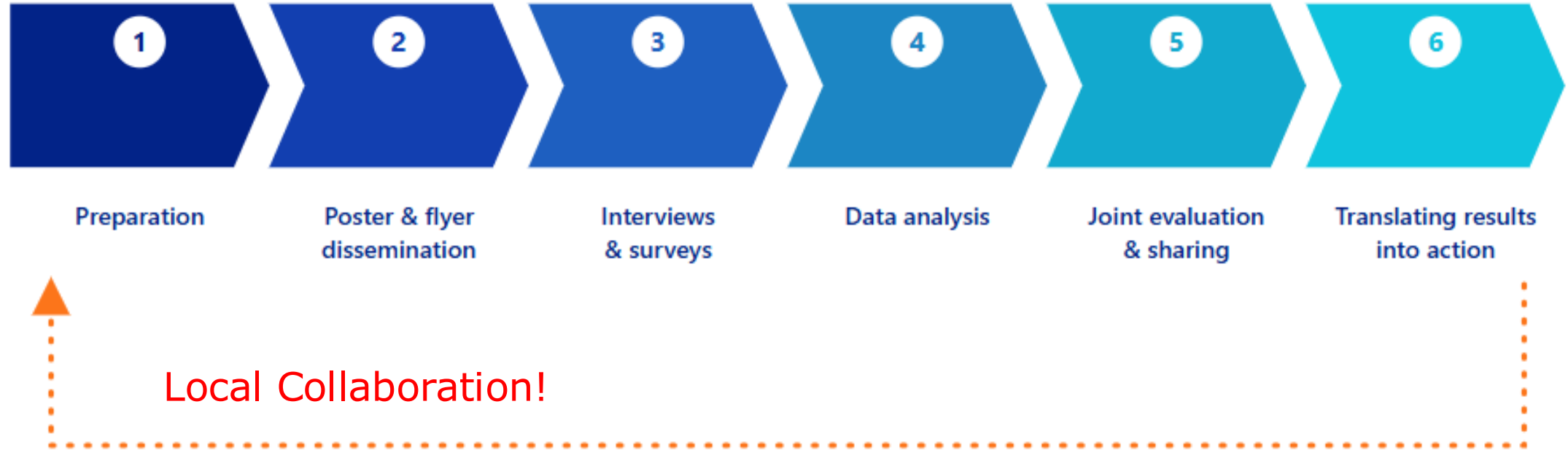
What is the PEAR Toolkit? - Aims

‘What are the levels of **awareness** and the **perceptions** of local (tourism) stakeholders of the MPA and its regulations?’

- 1 To explore the **awareness and perceptions** of local (tourism) stakeholders regarding the MPAs and regulations
- 2 To support **mutual awareness raising**, informing both local stakeholders about the MPA and MPA managers about stakeholders’ perceptions
- 3 To assess the **methodological effectiveness** of the toolkit



The PEAR Process



1. Littoral Seino-Marin MPA
| FR

2. Katič MPA | MNE

3. Otranto-Leuca MPA | IT

4. Capo Gallo-Isola delle
Femmine MPA | IT



Joséphine Louwette



Soraya Lamochi

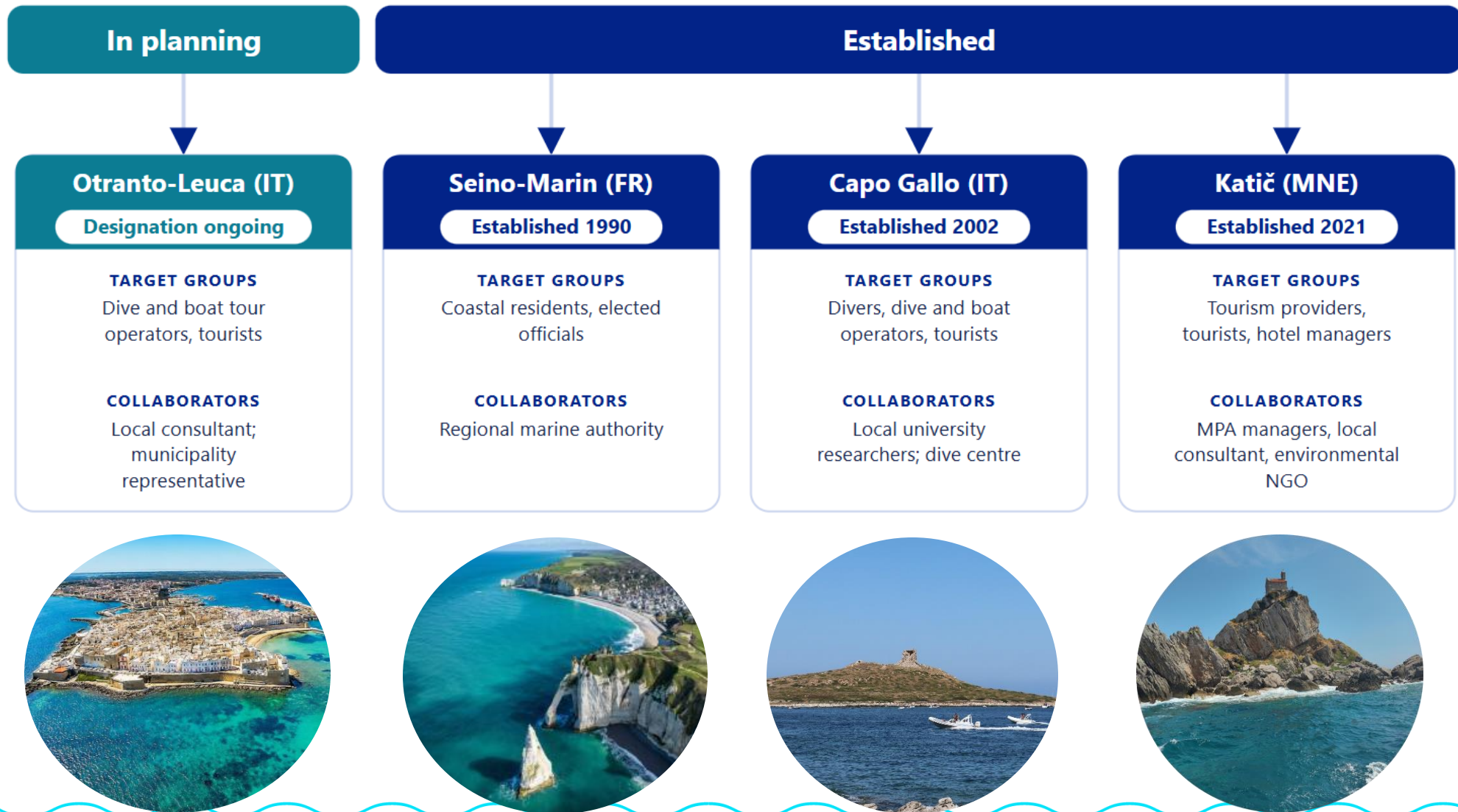


Sija Brinksmä



Cédulie Chapot

The Four Living Labs



Key Findings: Low Awareness across all MPAs

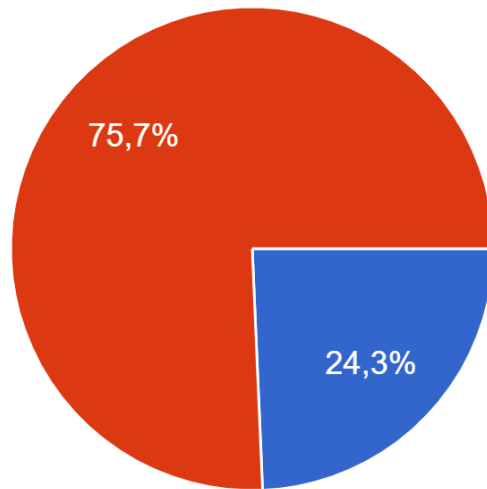
- **Low awareness** MPAs, regulations and habitats among residents, tourists, and sometimes even tourism operators → low compliance
- Few could name protected species or habitats, and awareness of pressures was low
- Knowledge of tourist operators (e.g. diving, boating, jet ski) on MPA and regulations **inconsistent**
- Tourism stakeholders often **supportive** of MPA protection when informed
→ PEAR toolkit first step towards awareness



Key Findings: Low Awareness across all MPAs

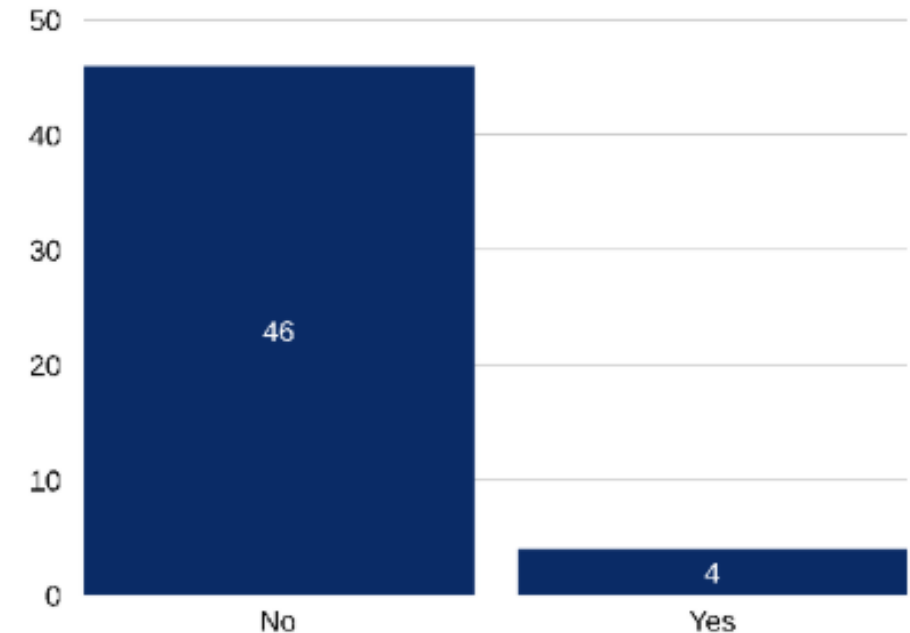
Are you familiar with the Katič Marine Protected Area?

37 antwoorden



Are you aware of the project to establish the Otranto-Leuca Marine Protected Area?

● Yes
● No



Perceptions of Ecological Outcomes and Social Impacts



Ecological outcomes

- Expectation that the MPA will **improve biodiversity**, *on the condition* of effective management



Social impacts

- **Burdens:** restrictions on fishing, boating, diving and jet skiing seen as threats to income and tradition
- **Benefits:** nature-based tourism, gains for the local community
- Support shaped by who bears costs: a sense of **unfairness** where not all follow the rules (Capo Gallo)

Perceptions of Governance Legitimacy and Management Acceptability



Management acceptability

- Protection is accepted *in principle*
- **Low trust** in enforcement capacity
- Support for protective regulations **conditional** on:
 - Clear and visible rules
 - Credible enforcement
 - Safeguards for livelihoods



Governance legitimacy

- Lack of trust in managing authorities
- Mostly **one-way communication** → exclusion decision-making
- Some operators reluctant toward governance involvement; others open to communication
- Support: **coordinated, two-way communication** aligned with local working realities

The PEAR Toolkit: From Findings to Action

- **Internal evaluation:** process & brainstorming management actions
- **Recommendations** presented to Stakeholder Engagement Groups (SEGs) and MPA managers
- External stakeholder engagement events
→ community **feedback**
- Lessons learned incorporated into the online **MPA Solutions Hub**



The PEAR Toolkit: Use for MPA Managers

- Building practical **research experience**
- Identifying priority **target groups** for collaboration
- Developing stakeholder **communication strategies** and **priorities**
- Co-design of **awareness-raising materials**



The poster is for the Katič Marine Protected Area. It features a scenic background image of a coastal area with a small island. At the top left is the Katič logo, and at the top right is the Blue4all logo. The main title is 'KATIČ MARINE PROTECTED AREA' in large blue letters, followed by 'SHARE YOUR THOUGHTS!' in orange. A starburst graphic on the left says 'PARTICIPATE IN A SURVEY AND WIN!'. Below the image, there are several sections: 'KATIČ MPA' with details about its establishment and area, 'ECOSYSTEMS' listing Seagrass Meadows, Coral Reefs, and Marine Caves, 'MISSION' describing the MPA's purpose, 'KEY CHALLENGES' listing Tourism Disturbance, Unsustainable Fishing Methods, and Marine Litter & Pollution, 'YOUR VOICE MATTERS!' with a QR code and a megaphone icon, and 'Your support is essential!' with a call to action to complete a survey. At the bottom right, it says 'Participate & Win!' with a trophy icon and details about a prize.

KATIČ MARINE PROTECTED AREA
SHARE YOUR THOUGHTS!

PARTICIPATE IN A SURVEY AND WIN!

KATIČ MPA
Established September 16, 2021
Area 2,745 ha
Border length: 35.8 km
Extends from Škočičevojka (NW) to Majevik (SE)

ECOSYSTEMS

SEAGRASS MEADOWS
These ocean forests clean the water, protect the coast, and shelter marine life.

CORAL REEFS
These colourful underwater structures shelter marine life and support ocean biodiversity.

MARINE CAVES
Marine caves shelter unique sea life, offering protection from waves and sunlight.

MISSION
The Katič Marine Protected Area (MPA) has been established to protect valuable marine and coastal habitats. The MPA safeguards important marine ecosystems, which are essential for the health of the sea and our future.

KEY CHALLENGES

- Tourism Disturbance
- Unsustainable Fishing Methods
- Marine Litter & Pollution

YOUR VOICE MATTERS!

SCAN HERE TO PARTICIPATE

Your support is essential!
Help us by taking only 10-15 minutes to share your experience and thoughts about the Petrovac marine area and Katič MPA.

Participate & Win!
Complete the survey and stand to win a 50 euro voucher for sustainable outdoor brand Finisterre!



The PEAR Toolkit: Advantages and Limitations

Advantages

- ✓ Provides in-depth qualitative evidence to inform more equitable MPA management
- ✓ Builds new relationships and initiates dialogue between local stakeholders and managers
- ✓ Raises awareness among local stakeholders during implementation

Limitations

- ! Resource-intensive
- ! Tourist operators may be hard to reach
- ! Can only substantially change awareness when conducted over long timescales
- ! Harder to apply where relationships with stakeholders are not well established

MPA Solutions Hub



The PEAR Toolkit: Requirements for Implementation

Use the PEAR toolkit when

- ✓ You want to elicit the perceptions and awareness of a defined target group
- ✓ You have sufficient resources: funding, local assistance, and a dedicated fieldwork period of at least two to three weeks
- ✓ Your team has the capacity to interpret qualitative social-science data

Do not use the PEAR toolkit when

- ! Your main goal is an awareness raising campaign; PEAR only forms a first step
- ! You need to track how perceptions change over time
- ! You lack the financial, personnel or analytical resources to implement the tools
- ! You require a quantitative assessment of awareness and perceptions





**Università
degli Studi
di Palermo**



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Thanks!



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Are our marine protected areas (MPA) gender-responsive?

A gender self-assessment tool for MPA management

Sara Bonilla Anariba, Zamorano University

Why do we need to promote gender equity in MPA management?

- MPA management often treats categories such as “fishers,” “resource users,” and “stakeholders” as gender-neutral.
- Sex-disaggregated information is frequently absent.
- Women’s roles across fisheries, tourism, and other marine-resource activities remain invisible.
- Participation does not necessarily mean influence or decision-making power.
- As MPAs expand, gender-blind management risks reproducing existing inequalities.



Women's voices: valuing, protecting and governing marine resources

VALUE OF MARINE ECOSYSTEMS

"We have many songs and dances about fishing and marine resources... it's that almost all, if not all, of our daily activities are linked to the sea."

"The sea and all its resources distinguish us as Garifuna, and they are part of what our ancestors taught and how our parents raised us... now it is our turn to educate others."

Isabela, fisherwoman, Cayos Cochinos

WOMEN AS CONSERVATION STEWARDS

"We know that the men go fishing and bring the catch. We buy it from them, transform it, and then sell it."

"We women are the ones taking care of the mangroves here. When the men are fishing or working on the farm, we are left to handle everything else."

Raquel, fisherwoman · Cuyamel Omoa

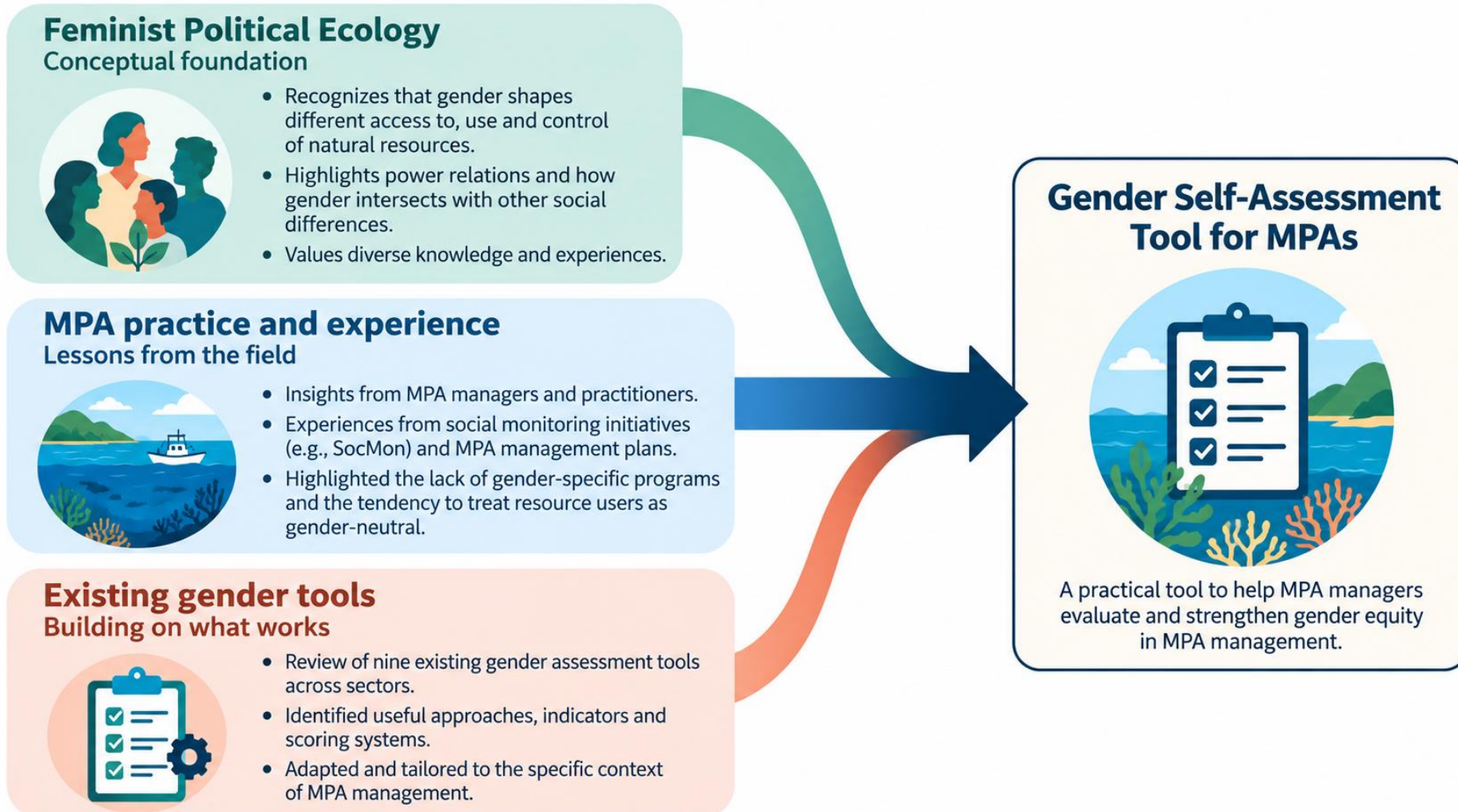
BARRIERS TO PARTICIPATION

"We can't always participate in meetings because we have to care of our children, take them to school, help them with their homework."

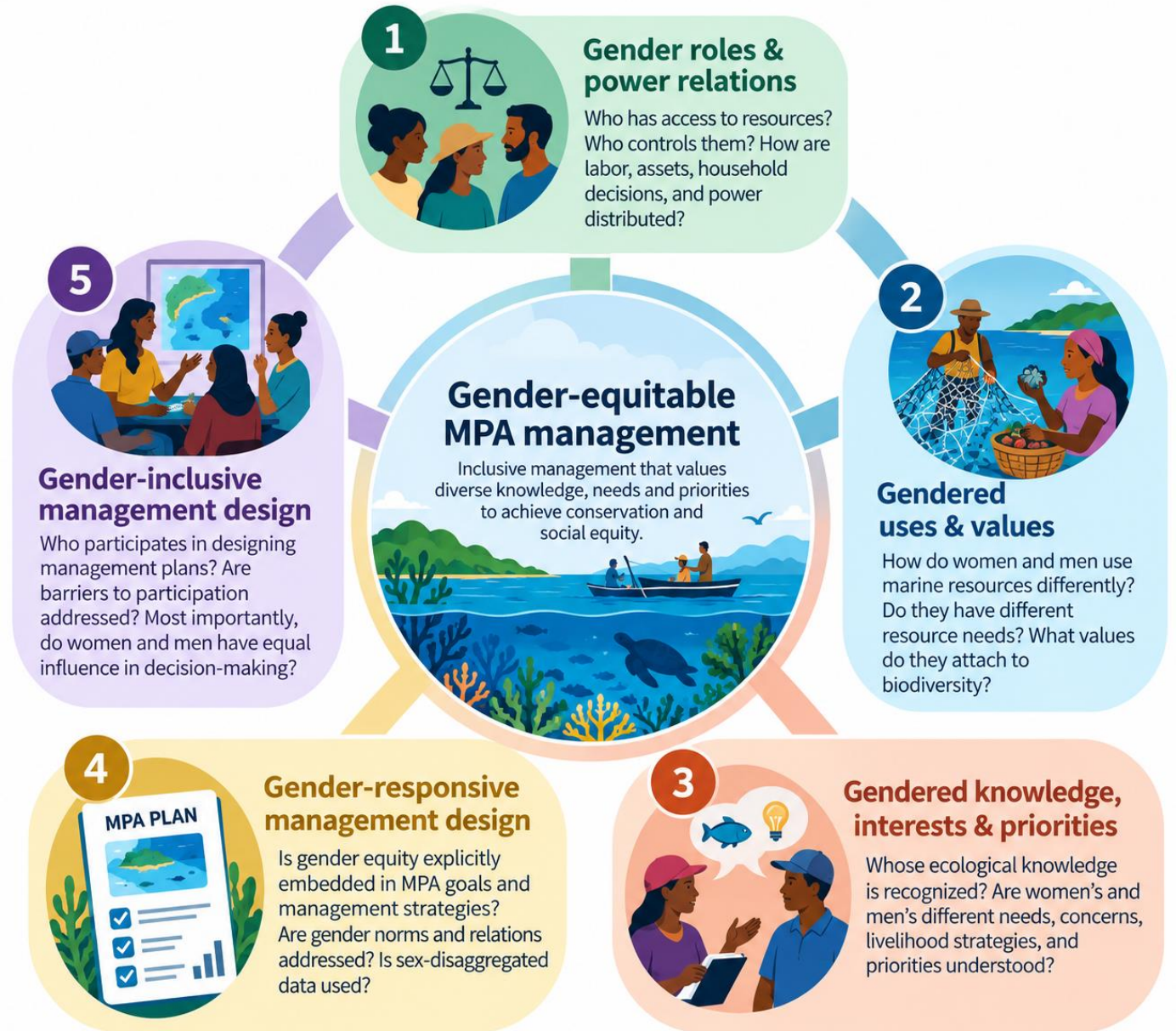
"Most of the time, they tell us that the meetings are only for fishermen... so, none of us goes, and those who do, don't speak up for fear to men."

Elia, seafood trader, Cuyamel Omoa

From research to a practical management tool



What does the tool assess?



From dimensions to indicators

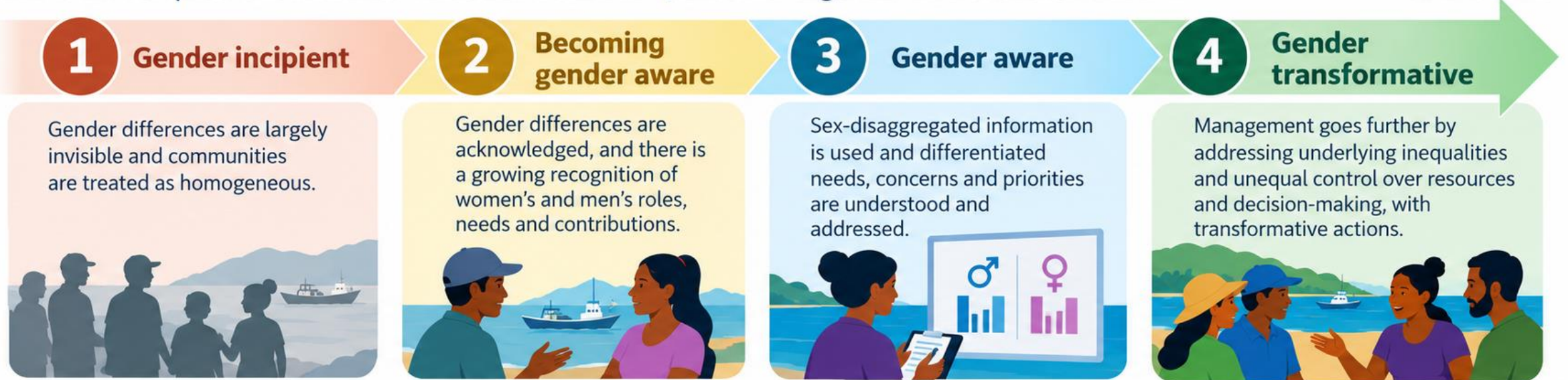
Dimension	Indicators		
Roles & power	Household dynamics	Access and control over assets	Division of labor
Uses & values	Resource uses	Resource needs	Resource values
Knowledge & priorities	Gender-specific knowledge	Gender-specific needs and priorities	Gender-specific livelihood strategies
Responsive design	Explicit gender-equity commitment	Gender norms and relations	Sex-disaggregated data
Inclusive design	Participation in plan design	Measures for equal participation	Equal decision-making power

Where is your MPA on the gender continuum?

Gender awareness scoring scale

Each of the 15 questions in the tool is scored from 1 to 4, based on a gender awareness continuum.

Bonilla et al. 2025



Where is your MPA on the gender continuum?



The tool is a starting point

Reflect

- Where are gender dynamics currently visible and invisible in our management?

Identify

- Which dimensions are strongest and where are gaps?

Act

- Set priorities, develop targeted actions, and track change over time.

Thanks!!!



Sara Bonilla Anariba
sbonilla@zamorano.edu

Gendered Participation in MPAs:

Stakeholder Perceptions of Management and Tourism Use in Isola delle Femmine, Sicily, Italy

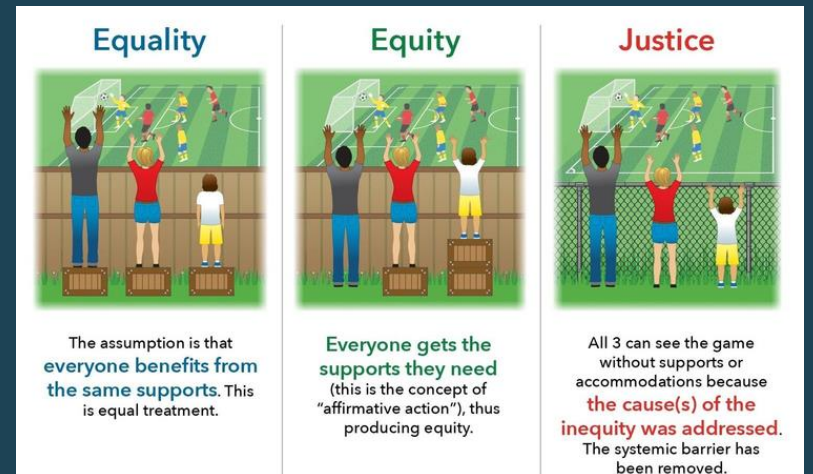


Lydia Rose

Supervisor: Dr. Eira Carballo Cardenas

Gender and Marine conservation

- **Reasons for ineffective MPAs stem from human dynamics**
 - social dimensions shape humans (e.g. gender)
- **Literature on gender in marine conservation is limited**
 - most focuses on natural resource allocation
 - limited focus on European contexts and tourism
- **Gender equity influences MPA outcomes**
 - improves social and ecological outcomes
 - women's representation in decision making remains low
- **Article 8 of the Treaty on the Functioning of the EU** requires the elimination of inequalities between women and men.



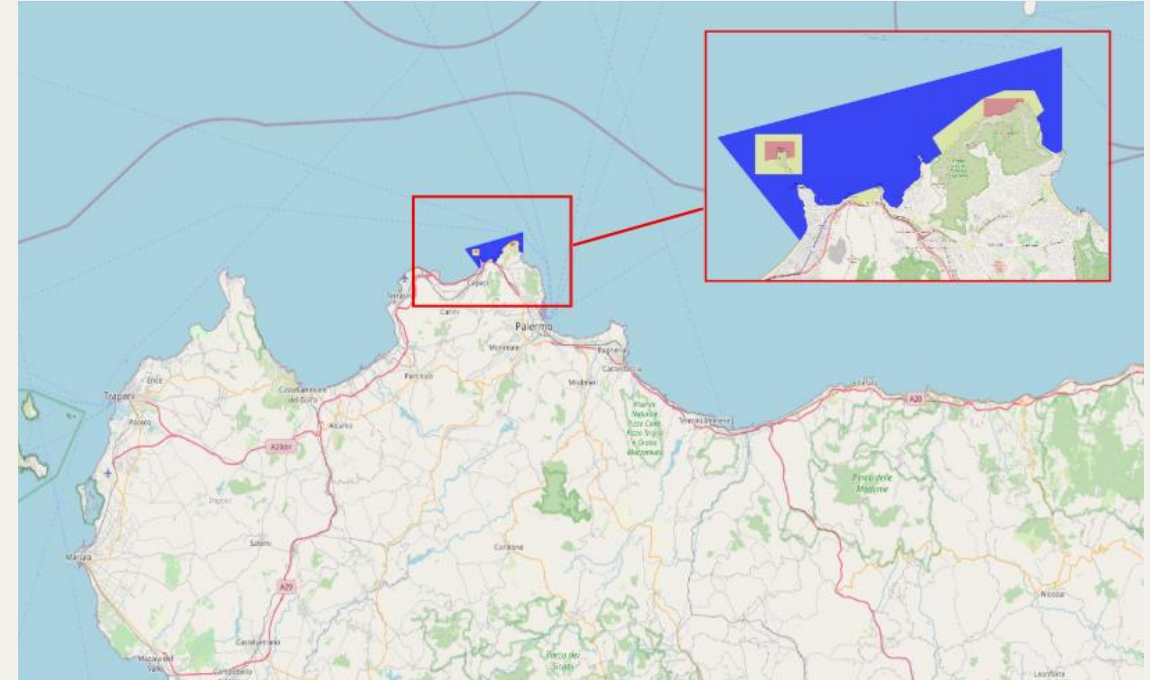
Tourism in MPAs

- Generates **economic opportunities** but also **key driver of marine environmental degradation**
 - physical disturbance, marine pollution, and extensive coastal development
- MPA establishment can intensify tourism through 'nature based tourism activities'
Particularly apparent in the Mediterranean, where **MPAs are often located in touristic regions**
- **Overtourism** - When the impact of tourism, at certain times and in certain locations, exceeds physical, ecological, social, economic, psychological, and/or political capacities



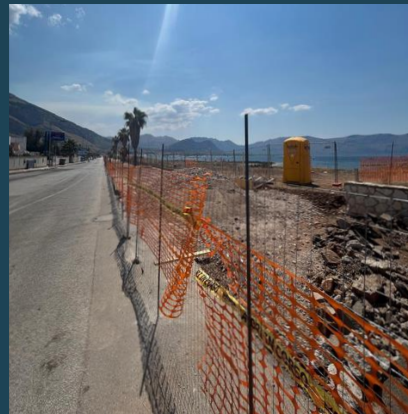
Isola delle Femmine - Capo Gallo MPA

- Living Lab in northern Sicily, Italy
- Encompasses both **marine and coastal** areas
(rocky and sandy beaches and important marine habitats like Posidonia meadows)
- **Established 2002** to **protect** important marine environments, increase and disseminate environmental **knowledge**, and promote socioeconomic **development**
- Blue4all Needs assessment (2025):
MPA's **governance structures need establishing and strengthening**



Isola delle Femmine

- Village population ~7000 inhabitants; **livelihoods tied to the sea** (recreational tourism & small-scale fishing)
- Key tourism activities: **SCUBA diving, guided and unguided boat tours, and beach-based recreation**
- During high tourism season (mid-June to early September), the intensity of these activities result in **signs of overtourism**
 - pollution, physical disturbance of nature, crowded beaches, traffic jams and, MPA management capacities exceedance

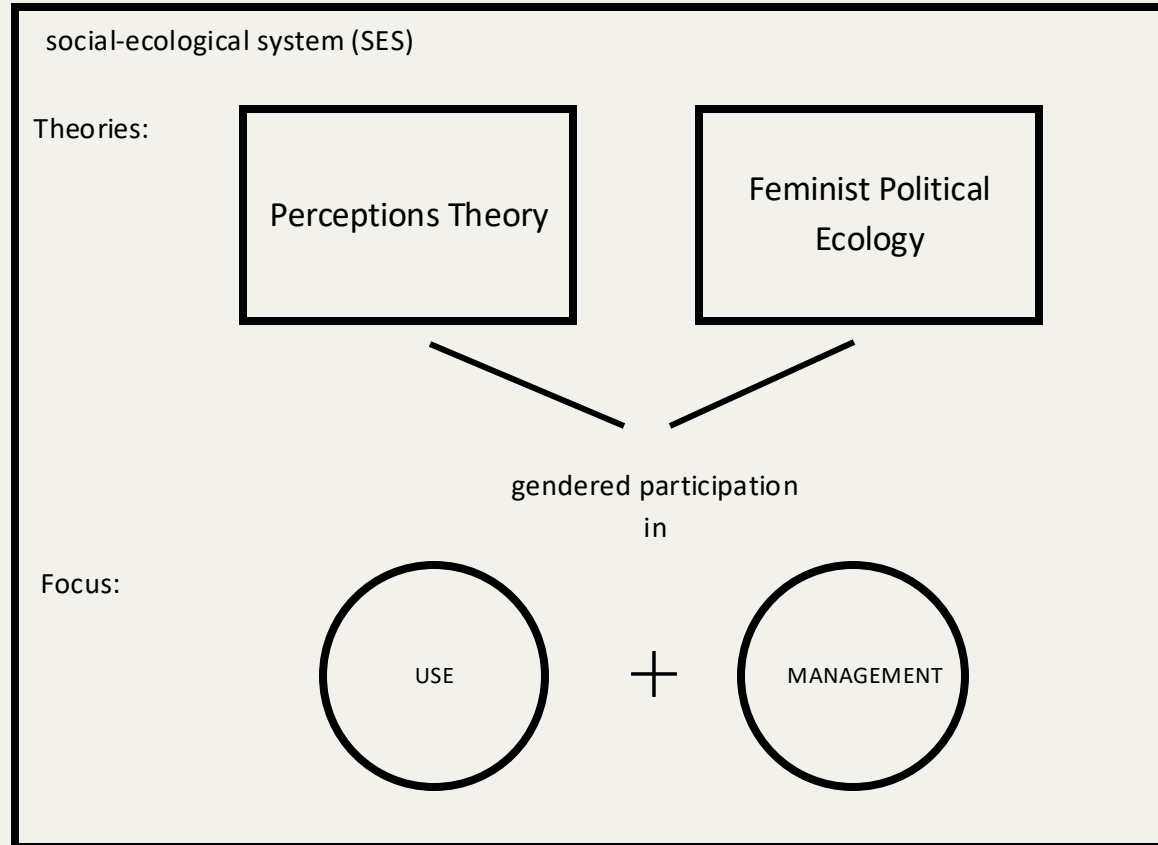


Research Questions

How do stakeholders perceive gendered differences in participation in management and tourism use of the Isola delle Femmine MPA?

- 1) How do **tourists** of different genders perceive **participation and barriers in tourism activities** within the MPA?
- 2) How do **tourism operators** perceive gendered **roles and opportunities** in tourism-related **livelihoods** within the MPA?
- 3) To what extent is **gender considered**, if at all, in formal and informal **MPA management** structures?
- [4) How are **perceptions of legitimate governance** influenced by **gender experiences** in the MPA?]

Theoretical Framework



Methodological foundation: Gender self-assessment tool for MPA management

- A. Gender roles and power relations
- B. Gendered uses and values
- C. Gendered knowledge, interests, and priorities
- D. Gender-responsiveness management design
- E. Gender-inclusiveness management design

Table 3

Gender assessment tool for MPAs.

A. Gender roles and power relations	
Question	Score (1–4)
1. Does the MPA management plan consider household dynamics, including different effects and opportunities for individual members? Such as the allocation of resources, decision-making power, labor distribution.	
2. Does the MPA management plan collect and report information about the access to and control over livelihood assets by sex? Including tangible (land, equipment, etc.) and intangible assets (education, social capital, etc.)	
3. Does the MPA management plan consider gender-based divisions of labor (paid versus unpaid work, productive versus reproductive work)?	
B. Gendered uses and values	
Question	Score (1–4)
4. Does the MPA management plan consider different uses of marine resources made by women and men?	
5. Does the MPA management plan consider different resource needs of women and men?	
6. Does the MPA management plan recognize and include women's and men's values attached to biodiversity?	
C. Gendered knowledge, interests, and priorities	
Question	Score (1–4)
7. Does the MPA management plan recognize and include gender-specific knowledge?	
8. Does the MPA management plan consider and include women's and men's needs, concerns, and priorities?	
9. Does the MPA management plan consider the living conditions and livelihood strategies of women and men?	



D. Gender-responsiveness management design

Question	Score (1–4)
10. Do the goals, objectives, or principles of the MPA have an explicit commitment to promoting or achieving gender equity?	
11. Does the MPA management plan address gender norms, roles, and relations?	
12. Does the MPA management plan include sex-disaggregated data?	
E. Gender-inclusiveness management design	
Question	Score (1–4)
13. Have women and men participated in the design of the MPA management plan?	
14. Have actions been taken to ensure equal participation in the design of the MPA management plan of women and men?	
15. Do both female's and male's stakeholders have an equal role in decision-making?	
Score hints:	
1 – may indicate that the MPA management is gender incipient.	
2 – may indicate that the MPA management is becoming gender aware.	
3 – may indicate that the MPA management is gender aware.	
4 – may indicate that the MPA management is gender transformative.	

Bonilla Anariba, S. E. B., Sanders, A., & Canty, S. W. (2024). Promoting gender equity in marine protected areas: A self-assessment tool. *Marine Policy*, 173, 106526. <https://doi.org/10.1016/j.marpol.2024.106526>

Methods: Data Collection

Questionnaire for Management

Stakeholder Engagement Group

Questionnaire for tourists

Beach, Dive shop, boat rentals

Semi-structured interviews with tourism operators

Boat tour operators and dive operators

Auto-ethnographical observations

1 week before as a tourist and as researcher during data collection,
reflexively include positionality, relational nature of gender experiences

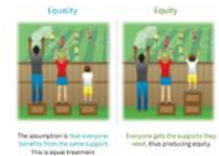


Results: questionnaire for Management

- **State of the management:**
 - Diverging responses - 'There is no MPA management'
- Experience or observation that **someone's gender had affected their ability to contribute to governance or work** in the MPA
 - One researcher observed that only men fish in the MPA and cited the local saying "women bring bad luck"
- **No stated commitment or policy to promote gender equity or inclusion,**
No consideration of how local gender roles or social expectations might affect participation or livelihood

"First, let's get the MPA working, then we'll deal with gender equality"

Number of responses: 3 (2 women, 1 man). All respondents were researchers involved in the Blue4All project.



Section 1: demographics

1. What is your gender identity?
☐ Male ☐ Female ☐ Non-binary / gender diverse ☐ Prefer not to say
2. Describe your role or position related to the Isola delle Femmine MPA (tourism, research, or management).

Section 2: Roles, Access, and Participation

1. Do you feel that people of all genders have equal access to participate in the MPA's management and decision-making?
☐ Yes
☐ No
☐ Not sure
Comment: _____
2. Have you personally experienced or observed that someone's gender has affected their ability to contribute to governance or work in the MPA (e.g. tourism, diving, fishing)?
☐ Yes, namely: _____
☐ No
☐ Not sure
Comment: _____
3. To your knowledge, were all genders involved in the development of the MPA's management plans?
☐ Yes
☐ No
☐ Not sure
Comment: _____

Results: Questionnaire for tourists

Number of responses: 66
(37 women, 29 men).
53 in Italian, 13 in English.

- **Tourists' perceptions of gendered roles**

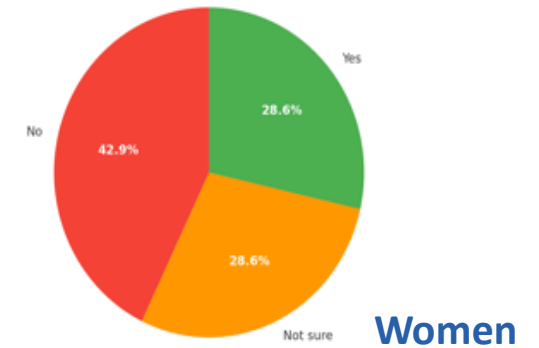
- "The nautical world is often dominated by men, rather than women or non-binary people" (Q.3.5)
- "Skippers/captains were always males" (Q.3.5), "On boats often the guys are the ones who are the captain/drive the boat" (Q.3.5)
- "Physical jobs are male & management is for females" (Q.3.5)
- "Motor sports are for men" (Q.2.2)

- **Gendered barriers to participation in tourism activities**

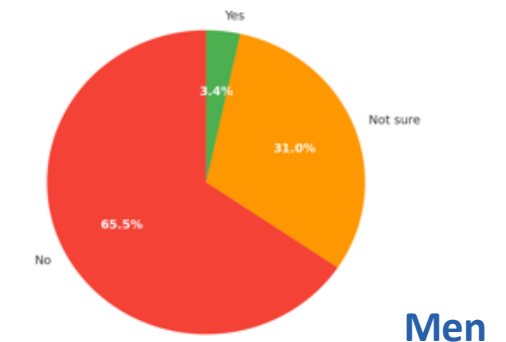
- "safe places to change" (Q.2.4)
- "women are seen/treated differently by men (often sexualised)" (Q.3.8)
- "On the way home at night, there was little street light and men on the streets" (Q.2.6), "Were cautious walking home" (Q.3.3)
- "We experienced cat-calling on the streets"(Q.3.3), "Observed at the beach and bars" (Q.3.3)
- "With a man by my side, I feel safer" (Q.3.3)

Do you think cultural or social expectations related to gender influence who participates in certain activities?

2.5 Do you think cultural or social expectations related to gender influence who participates in certain activities? **(Women only)**



2.5 Do you think cultural or social expectations related to gender influence who participates in certain activities? **(Men only)**



Results: Interviews with tourism operators

- **Gender livelihood opportunities in the MPA's tourism sector**

- "They think that you don't know how to do anything because you're a woman" (tourism operator)
- "A girl has more possibilities to approach a tourist and talk to a tourist. Because you are more beautiful than us" (boat operator)
- "Generally, men handle heavier tasks like carrying tanks, while women take more care of cleaning and organizing spaces" (diving instructor)
- "I can do it (carry heavy equipment) by myself. Because I know that there is no difference. If I am the instructor, it's because I can do it" (diving instructor)
- "No, you have no problem here" (boat operator)

- **High barrierers to tourism business ownership as a woman**

- "We have to fight to be where we are"; "We had a lot of problems (...) First of all, they think that you don't know how to do anything because you're a woman" (tourism operator)
- 'When you're doing something different from them, it's not normal.' (boat operator)

Number of
responses: 9
(3 women, 6
men).
5 dive instructors,
1 dive shop
owner, 3 tour boat
ops. operators



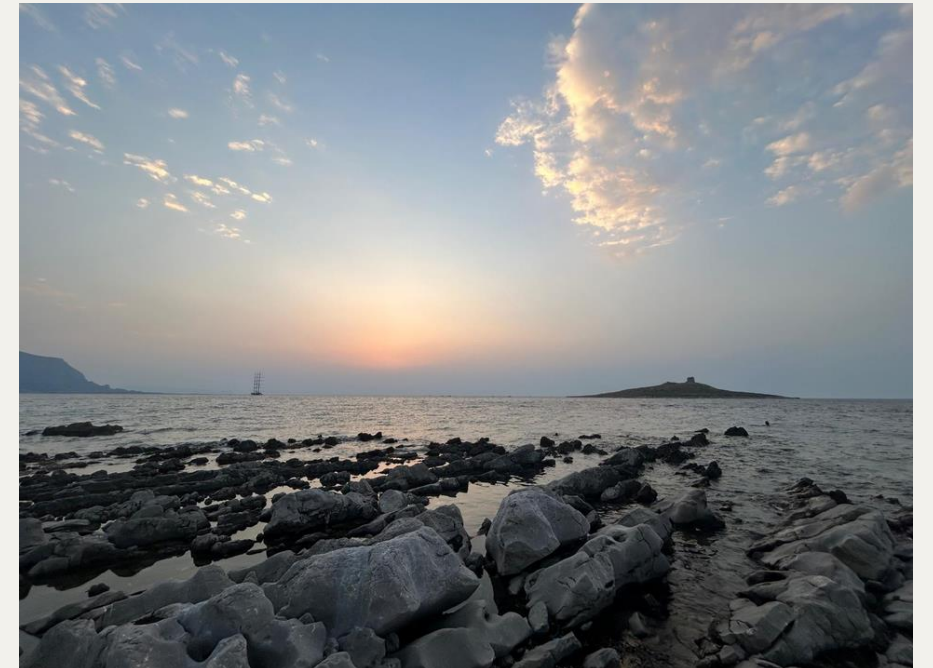
Conclusion

Key emerging findings

- informal gender roles
 - in livelihoods and tourism use
 - Femininity/Masculinity and the Environment
 - traditional narratives
 - Gender blindness
 - women more aware of gender differences
 - Gender is context-specific
 - Urban vs rural gender constructions
- Although the MPA is often perceived as gender-neutral, **gendered dynamics significantly influence participation in tourism use and management.**
 - Three distinct aspects of **gender awareness** were uncovered:
 - (1) recognition of gender differences as socially constructed
 - (2) claims of gender-neutrality that obscure inequalities (gender blindness)
 - (3) assumptions of gender differences as innate or natural.
 - **Socially constructed perceptions** of masculinity and femininity strongly shaped livelihood roles and opportunities.
 - **Safety** as a gendered need

Recommendations

- Explicitly integrate gender equity into MPA governance frameworks
- Conduct a formal **gender analysis as part of the MPA's management** transition to more established management structures
- Promote **equitable access to tourism-related livelihoods**, particularly support for women-owned businesses
- **Promote improved tourist facilities related to gendered needs**, including safety structures and private changing spaces
- **opportunities for further research**
 - Further tool testing
 - Emerging and intersecting themes



Thank you for listening



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QUESTIONS?

We welcome your comments
and experiences!



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