

The Marine Tourism Commons (MTC)

Analyzing the Social Ecological System of Marine Tourism
in the Karimunjawa Marine National Park, Indonesia

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Research Interest and Research Question

- Study on the „New Commons“ - like commonly-used coral reefs for marine tourism
- Which variables of the SES framework enhance or impede the tragedy of the MTC?

Method & Framework

- Whole system approach using the Social Ecological System Framework (SESF) - 34 of 55 variable analyzed to “track” the tragedy of the MTC for the case study of Karimunjawa
- Unstructured interviews with various actors during the 1st field visit
- Structured interviews with 50 Tourist Guides (resource users) during the 2nd field visit

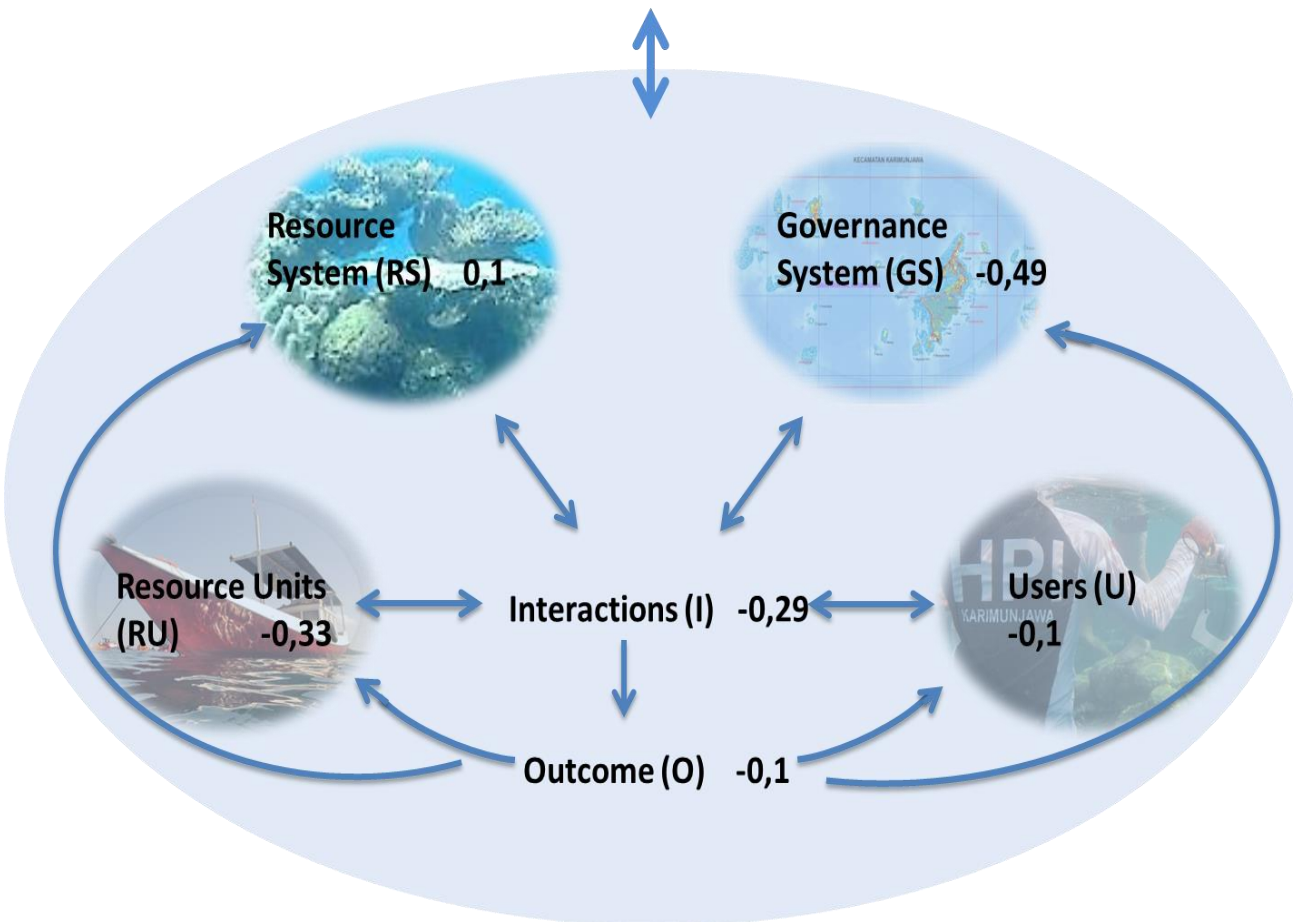
Definition of the Marine Tourism Commons

“Marine resources which tourists and tourist businesses utilize, and in such destinations, residents often wholly or mainly rely on tourists for their livelihood” (Yabuta, Scott & Ozawa, 2014, S. 2).

- MTC share the same attributes as common-pool resources, such as nonexcludability and high rivalry and are exposed to overuse or damage if rules for the marine resource use are absent

Calculation method, results and conclusion

(S) Social and economic settings -0,73



Every variable is given a value (scale -1 to 1). The scale is based on Ostrom's 8 design principle approach:

Overall Institutional Performance	Range of the -1 to 1 scale applied for the SES
Robust	0,33 to 1
Fragile	-0,33 to 0,33
Failed	-1 to -0,33

Every superior tier is calculated based on the mean of its sub-variables.

Conclusion: The tragedy of the MTC is happening right now!

Ecological System	-0,1	Social System	-0,3
RS Resource System	0,1	GS Governance System	-0,49
RS1 Sector - Coral Reef Ecosystem	0	GS1 Government Organizations	-0,13
RS2 Clarity of System boundaries	0	GS2 Nongovernment Organizations	-0,18
RS3 Size of Resource System	0,35	GS3 Network Structure	-0,43
RS9 Location	0	GS4 Property Rights System	-1
		GS5 Operational Rules	-0,73
RU Resource Units	-0,33	GS6 Collective-Choice Rules	-0,58
RU2 Growth and Recovery Rate	0,5	GS7 Constitutional Rules	-0,5
RU4 Economic Value	-0,33	GS8 Monitoring and sanctioning Processes	-0,38
RU5 Number of Units	-1		
RU7 Spatial and temporal distribution	-0,5	U Users	-0,1
		U1 Number of Users	-1
S - Social, economic, and political setting	-0,73	U2 Socioeconomic Attributes of the Users	-0,2
S1 Economic Development	-0,4	U3 History of Use	-0,37
S2 Demographic Trends	-1	U4 Location	1
S4 Government Resource Policies	-1	U5 Leadership	-0,71
S5 Market Incentives	-0,50	U6 Social Capital	-0,04
		U7 Knowledge of SES	0,36
I Interactions	-0,29	U8 Importance of Resource	0,02
I1 Harvesting Levels	0	U9 Technology Used	0
I2 Information Sharing among Users	0,19		
I4 Conflicts among users	-0,48	O Outcomes	-0,1
I5 Investment activities	-0,16	Impact of Tourism Arrangements on Livelihood	-0,08
I7 Self-Organizing activities	-1	Compliance within the HPI community	-0,08