



Research & Monitoring Centre
for Coastal & Maritime Tourism
in the Eastern Mediterranean

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COASTAL & MARITIME TOURISM · EASTERN MEDITERRANEAN

Executive Summary

METHODOLOGICAL FRAMEWORK EVALUATION

FIELD SURVEYS: RHODES · DUBROVNIK · (CORFU)

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Independent, evidence-based research and monitoring to promote sustainable coastal and maritime tourism in the Eastern Mediterranean.

Co-funded by the European Union – NextGenerationEU | Greece 2.0 National Recovery and Resilience Plan



HELLENIC REPUBLIC
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Greece 2.0
NATIONAL RECOVERY AND RESILIENCE PLAN



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Executive Summary

Methodological Framework Evaluation

Introduction

In this executive summary, the structure and results of the evaluation of the Methodological Framework of Sustainable Coastal & Maritime Tourism are presented, by three field surveys in pilot destinations of Rhodes, Dubrovnik and Corfu. The research was based on a multi-level methodology (interviews, focus groups, interactive consultation and quantitative research), utilizing stakeholder registries and collaboration with public data providers. The assessment by four sustainability dimensions highlighted the systematic divergence between the relevance and applicability of the indicators, while the proposals include a legally documented classification of maritime tourism, a redesign of governance and the institutionalization of stable data flows. The findings converge across the three destinations, demonstrating that weaknesses are systemic and addressable with common solutions, thus providing a credible roadmap for a workable, comparable, and useful policy-making tool.

A: The destinations

A.1. Methodology and elements for the analysis of tourist destinations in the country

The selection of Greek destinations was based on a systematic mapping of the country's tourism ecosystem. Indicative destinations were recorded by region¹, and classified not only into urban and small island destinations, but also into medium and large island islands, with distinct marking of coastal destinations.

For the selected destinations, quantitative data were collected with an emphasis on the volume and intensity of tourist activity: arrivals and overnight stays in hotel and rental accommodation from the ELSTAT census surveys with NUTS geographical classification, as well as cruise traffic data (number of ships and passengers) from the Hellenic Ports Association. In addition, they were assessed on two qualitative scales: a) the maturity of local actors (scale 1–5) based on their involvement so far in tourism impact monitoring processes, the existence of relevant studies and surveys and the collection of data on tourism activity and b) the complexity of the destination (scale 1–5) based on geographical dispersion, proximity to the port and variety of points of visit by cruise passengers. Finally, account was taken of the fact that some destinations (Athens/Piraeus, Heraklion, Thessaloniki, Kos, Rethymno, Rhodes, Santorini) have been selected to be organized as DMMOs, which strengthens their institutional readiness.

¹ INSETE Study "Greek Tourism 2030 – National Action Plan"

A.2. Specificities and criteria for choosing destinations

A.2.1. Rhodes

One of the most mature and internationally recognizable Greek destinations, dominated by the "Sun and Sea" model, dynamic development of cultural and gastronomic tourism and inclusion in the destinations organized as Destination Management and Promotion Organizations (DMMOs). The cruise operates in addition to holiday tourism (in 2024: 347 calls and approximately 458 thousand passengers). A key element of preparedness was the existence of local monitoring initiatives by the Dodecanese Chamber of Commerce and the South Aegean Region: the Dodecanese Sustainable Development Observatory and the European TOURISMO project in the Medieval City — which offer ready-made data infrastructures and familiar interlocutors.

A.2.2. Dubrovnik

Chosen as a destination outside Greece, in order to test the transnational "applicability" and comparability of the Framework. It is a leading Mediterranean cruise destination with a UNESCO Old Town, an emblematic experience in managing overtourism (collaboration with CLIA, GSTC assessment, cruise ship berthing policy, "Respect the City" campaign) and extreme seasonality: almost half of overnight stays (49.75%) take place in July and August, with consequent population pressures and an outflow of young people. Consultation was facilitated by the local government.

A.2.3. Corfu

Selected for the special pilot research on cruise, as a destination where maritime tourism — both yachting and cruising — is already highly developed. The cruise is showing a strong upward trend, with a strong geographical concentration of pressure in the Old Town (UNESCO site), where about 90% of the passengers end up. Important tourism and cruise footprint surveys have also recently been carried out by the Chamber of Corfu and the O.L.K.E. From the pilot research of Corfu, in this part, only feedback concerning the evaluation of the methodological model is used, with emphasis on maritime tourism.

B: Field Research Methodology

B.1. Research tools

As no single research tool is sufficient for all the needs (Framework checking, consultation, difficulty recording, local indicators, piloting), the fieldwork was based on four complementary tools: (a) in-depth semi-structured interviews (IDIs) of 40–50 minutes, for initial familiarisation with the project and preparation of group discussions and for technical depth; (b) 90-minute focus groups to build consensus and collaborate on solutions; (c) real-time interactive consultation with digital tools (Mentimeter, Wooclap), enhancing participation, anonymity and direct visualisation; and (d) electronic quantitative research, for the statistical mapping of the scale of phenomena.

The evaluation of the indicators was based on two complementary criteria — utility/relevance (relevance and usability) and applicability (clarity, comparability, ease of data collection) — on a seven-point Likert scale

(1–7). The two criteria were weighted almost equivalent (0.49 and 0.51 respectively) and a combined value with a weighted linear aggregation was calculated for each indicator. Functional interpretation thresholds have been set: values below 4.5 in any criterion indicate insufficient suitability in the current format, while a combined value above 5.0 characterizes strong, clearly prioritized indicators.

The 1st pilot survey was organized in two phases: national (hybrid consultation workshop with expert and institutional panels, with real-time recording of responses) and local (in-depth interviews, four focus groups – one per coastal tourism dimension and one for maritime tourism – and online quantitative research). In Dubrovnik, in-depth interviews, a focus group and an extensive online quantitative survey (translated into English) were carried out in 24 local actors, and the availability of data for each of the 127 indicators of the draft Framework was systematically recorded. In Corfu, the consultation (May–June 2026) included in-depth interviews and two focus groups – one on the economic dimension and governance and one on the environmental and social/cultural dimensions – with a focus on cruise and maritime tourism.

In all destinations, the assessment was complemented by a pilot collection of actual data on selected key indicators by sustainability dimension, with selection criteria of relevance, availability, comparability and local relevance. The quantitative answers were processed on spreadsheets, with tables, diagrams and heat maps per sub-thematic axis, while the qualitative sessions were transcribed and coded thematically. Thus, each conclusion of the summary is based on double documentation: numerical scoring and qualitative justification by the institutions themselves.

B.2. Registers of stakeholders related to tourism (Greece)

A side-deliverable, crucial for the preparation of the surveys, was the establishment of documented stakeholder registers, which were used to staff the consultations and remain available as a permanent infrastructure for future monitoring phases. The registers were organized into three categories:

B.2.1. Academics

Fifteen faculty members specializing in tourism, maritime economy, environment and cruise, from the Universities of the Aegean, Piraeus, Patras, Thessaly, the International Hellenic University, the HMU, the Hellenic Open University and the Bremerhaven University of Applied Sciences (Germany).

B.2.2. Public bodies / authorities

Co-competent Ministries (Maritime Affairs and Insular Policy, Environment, Culture, Interior), Bank of Greece (Directorate of Statistics), ELSTAT, Central Union of Municipalities of Greece, Regions (South Aegean, Ionian Islands), Municipalities, Port Funds and Port Authorities, Port Authorities, Police Directorates and Research Institutions (HCMR).

B.2.3. Business Entities

INSETTE, Hellenic Chamber of Hotels, Hellenic Ports Association, CLIA (Eastern Mediterranean), ESEE and POESE, chambers (Dodecanese, Corfu), hoteliers' associations, associations of travel and shipping agents, catering associations, trade associations, tourist guides' and day boat associations, infrastructure managers (Fraport, marinas).

In each destination, the members of the registers were allocated to the research tools (interviews, focus groups, quantitative research) according to their field of competence, so that each dimension of the Framework could be evaluated by the most relevant bodies – for example, in Rhodes, the Region, university departments of Environment and Oceanography and the Port Fund participated in the environmental focus group, while in the financial sector, the business bodies, the Chamber and Fraport.

A similar register was drafted for the Dubrovnik case as well.

B.3. Methodology for reaching out and consulting stakeholders at local level

The approach of the local partners followed a single protocol: an official invitation from the Ministry of Tourism accompanied by agreed information material, telephone communication for explanations and organization of the meetings, sending links and short participation instructions, two to three days before each session and testing the equipment for hybrid conduct. The focus groups were provided with distinct roles (central coordinator, technology supporter, room assistant), a structured five-module scenario and digital collaboration tools for the simultaneous participation of physically present and remote participants. The participation of local partners was designed as a field-testing mechanism: the operators were not only asked to give their opinions, but to check the suitability of the indicators in the real conditions of their destination, to record the available data and their gaps and to propose local indicators. To ensure the anonymity of the responses, interviews contributions were depersonalized with key informant codes.

In Dubrovnik, the approach was adapted to the international environment through "local ambassadors": the selection and mobilization of the 24 bodies was made under the guidance of the Municipal Authority, with a decisive contribution from officials from the Port Authority, the city's Department of Tourism and the University of Dubrovnik, while the questionnaire was translated into English. This model – institutional access through local government and scientific support from the local university – proved to be effective and repeatable for future transnational applications of the model.

B.4. Collaboration with key public data collectors and providers

The viability of a system of indicators is judged by the constant flow of data. The surveys confirmed that at the national level the three critical hubs are ELSTAT, the ERGANI information system and the General Business Registry, supplemented by the tax data of AADE (myDATA) and the Bank of Greece. ELSTAT covers arrivals and overnight stays in accommodation and basic employment figures, while it was also proposed to use family budget and price index data for the development of cost of living and tourist pressure indicators in local markets. ERGANI documents salaried employment, its seasonality and the average age of employees — with the well-known limit that it does not reflect the self-employed, who in tourist destinations constitute a significant share of the market. The General Business Registry provides data for the establishments and discontinuations and the sampled contact info: in Corfu, the sample of the quantitative business survey was drawn processing the data of the General Business Registry by the Chamber of Commerce, so that it becomes representative.

At the local level, the main providers are port funds and port authorities (monthly data on calls and cruise passengers), airport operators (Fraport: arrivals per month and nationality), municipal water companies and Energy Providers (monthly consumption), the Electronic Waste Register (annual data by municipality), the

Hellenic Centre for Marine Research and the National Observatory of Athens (water quality, air pollution), as well as existing local monitoring infrastructures, such as the Dodecanese Sustainable Development Observatory and the sensors of the TOURISMO project in Rhodes.

The common recommendation of all three surveys is the institutionalization of these relationships: signing memoranda of cooperation with providers for regular data flow, creation of a centralized, institutionalized repository, development of interoperability (API, automated extraction) and access to anonymous aggregated data of myDATA by spatial dimension and activity. Dubrovnik offers the international analogue: there the maturity of the economic indicators is precisely due to the constant access to institutionalized national databases (statistical office DZS, financial authority FINA, insurance fund HZMO, eVisitor system).

C: Evaluation

C.1. By sustainability dimension

The central and most consistent finding of the three surveys is the systematic discrepancy between the relevance and applicability of the indicators: the problem is not the thematic relevance of the Framework, but the unequal maturity of the conditions for its implementation. This distinction has practical value, because it makes it possible to distinguish between indicators that are weak because they are not considered important and those that are weak simply because they are not yet practically mature — the latter are not discarded, but are reformulated or linked to alternative sources. An interesting finding is also the differentiation of the hierarchy between levels: while at the central level the economic dimension gathered the most coherent picture, local stakeholders highlighted governance and the environmental dimension as the most critical, considering the economic basis as a necessary basis but not an end in itself. The image is specified by dimension as follows:

C.1.1. Economic dimension

The most mature in all three destinations. In Rhodes, the axes of tourist flows — and in particular cruise flows — gathered the highest combined prices. In Dubrovnik, the economic dimension showed the smallest significance-applicability divergence (-0.38), thanks to the institutionalized databases, while the indicator "dependence of the local economy on tourism" emerged as the most important of all (6.63/7). Weak points remain the indicators of complex or indirect economic effects (e.g. participation in local GDP, which is not calculated at destination level and requires proxy figures) and the difficulty of isolating tourism turnover.

C.1.2. Environmental dimension

It is widely recognized as a top priority — in Dubrovnik it received the highest average significance (6.14) — but has the largest measurability gap (deviation -1.22), due to the lack of systematic environmental monitoring. Waste and pollution management and water and energy consumption (readily available from providers) are a strong core; The indicators of emissions, biodiversity and quality of marine water, which require equipment and specialized personnel, remain more difficult. In Rhodes, coastal erosion emerged as a critical local indicator, measurable through aerial photographs and cadastre. In marine waste from ships, the largest deviation of all was recorded in Dubrovnik (-2.2), as the relevant data is checked by international cruise lines and is not accessible to local authorities.

C.1.3. Social / cultural dimension

It is considered critical — in Dubrovnik local identity, cultural heritage and security scored among the highest scores — but it is less operationally mature, as many indicators (social acceptance, satisfaction, sense of security) require regular primary surveys of residents and visitors that are not currently carried out systematically. The strongest sections were social acceptance / quality of life and safety/public health, which can be measured by indicators such as availability of medical / nursing and police personnel or ratio of road accidents; in Corfu, the temporal and geographical concentration of social pressure and the feeling of reciprocal injustice in terms of the allocation of revenues were particularly emphasized.

C.1.4. Governance dimension

The dimension with the greatest need for redesign — and, at the same time, the one that local stakeholders consider most critical. In Rhodes, its indicators were judged to be geared more towards formal compliance than actual institutional capacity, with the positive exception of cruise governance. In Corfu, governance emerged as the central problem, due to the fragmented operation of bodies without supra-municipal coordination and an institutionalized data exchange mechanism. In Dubrovnik the relevant indicators must essentially be "built from scratch", as participation and communication are not systematically measured. Requirements: indicators for the port-city relationship, the coordination of agencies, the return of revenues and the adequacy of staffing of public services.

C.2. By category of stakeholders

Categorizing the findings by types of participants, reveals distinct — and complementary — perspectives:

C.2.1. Academia and experts

They focused on the conceptual foundation of the Framework: the need for a clearer definition of coastal and maritime tourism and the spatial unit of reference, the distinction between capacity indicators and the operational and result indicators, methodological compatibility with other monitoring systems and the use of alternative sources (tourism satellite accounts, big data, perception surveys). They pointed out that the low applicability of a conceptually strong indicator does not justify rejecting it but rather reformulating it or linking it to more realistic sources.

C.2.2. Public bodies and authorities

They highlighted the operational and institutional obstacles: fragmentation of sources without a single exchange protocol, understaffing of services, legal obstacles (GDPR, refusal to provide data), insufficient digitization and lack of local scale at critical sizes (GDP, investments). They called for a centralized institutionalized data repository, clear spatial demarcation (the Regional Unit is proposed as a unit of reference), supra-municipal coordination and transparent, rewarding management of revenues — in Corfu, the fee of €5 per cruise passenger was recognized as a positive first step, but its reciprocity in local projects is proposed.

C.2.3. Business Entities

They approached the model as a tool for competitiveness: they explicitly called for the monitoring mechanism not to be limited to data collection, but to produce interpretation, benchmarking with other destinations and strategic directions, as well as training and technical assistance to operators. They highlighted the informal economy and the incomplete recording (boats outside marinas, unlicensed activities, short-term leases), the inability of Business Activities Index to capture maritime tourism — large companies declare revenues at their headquarters outside the island — and the importance of the actual peak population and hourly congestion for the correct measurement of pressure. During the cruise, they documented with primary data the average expenditure and value leaks (imported souvenirs, external tour operators).

C.3. Suggestions for adding and removing markers

The surveys resulted in a common rationalisation framework: classification of indicators into three categories – (A) direct maintenance, with a combined value above 5.0; (B) to be reformulated or specified; and (C) not sufficiently mature, to be withdrawn or reintroduced at a later stage. On this basis, the most important proposals by dimension are:

C.3.1. Economic dimension

Average expenditure per passenger with transit / home porting distinction; disembarkation rate per ship; the time of stay of the cruise passenger on the shore; arrivals of day trippers from international ferry lines; number of licensed (and estimated unauthorised) water recreational rental businesses; categorisation of vessels by size and type; average age of workers, percentage of self-employed and workers moving from other regions.

C.3.2. Social/cultural dimension

Actual peak population as a common denominator of pressure indicators; doctors, nurses and police officers per thousand inhabitants of real population; average journey time on key axes during peak season; availability of housing for long-term lease and housing affordability; an indicator of a sense of security through surveys; carrying capacity of cultural sites and an indicator of the valorisation of intangible cultural heritage.

C.3.3. Environmental dimension

Adopt the "excessive" method for the efficiency of water/energy consumption and waste generation in tourism (peak month to base month comparison); quantities of liquid and solid waste received by ships per berth; average annual coastline retreat (erosion); concentrations of fine particulate matter in ports and tourist areas; percentage of Blue Flag coasts; noise pollution and high vessel mobility zones (maritime traffic heatmap).

C.3.4. Governance

Reciprocity ratio (percentage of fee revenue that goes directly back to local projects); adequacy of staffing of critical public services; estimated share of informal economy in maritime tourism; pending permits and

investment projects of more than twelve months; measuring delinquency as a percentage of infringements in the checks carried out; indicators on the port-city relationship and the functioning of coordination mechanisms.

C.3.5. Deductions and "downgrades" of Indices

The inbound private jet index was considered of low priority in all three destinations; the "daily sea voyage passengers" indicator should be abolished as a stand-alone indicator and included in charter and ferry data; keep the repeat visitor rate only optional due to high difficulty in measuring; and indicators of limited local relevance (e.g. investments in diving parks or composite climate change indicators for the Corfu cruise) to be postponed to the next phase, by destination.

C.4. Feedback from the international destination (Dubrovnik)

The pilot implementation in Dubrovnik offered the most crucial test for the framework: its transfer to a different national, institutional and linguistic environment. The four-dimensional structure worked without any substantive adjustments – all dimensions were rated above 6 for significance, confirming the correctness of the original design – while the necessary adjustments are found at the level of the data sources, which were assigned to the Croatian institutions (DZS, FINA, HZMO, eVisitor, municipal enterprises).

The systematic recording of data availability for the 127 indicators of the Framework gave a realistic picture of maturity: only 7.9% of the indicators are readily available and another 7.9% are partially available; 42.5% require secondary processing of existing data, 27.6% special processing (mainly field surveys) and 14.2% are not available. It was estimated that the system can be immediately put into operation for 15–20% of the indicators, with a realistic prospect of expansion to 60–70% within two years, provided that memoranda of cooperation with providers, annual field surveys and investments in environmental monitoring are implemented.

Two structural peculiarities have a broader value. First, centralized governance of the destination (city, county, tourist boards) with a clear distribution of roles — environmental monitoring by scientific bodies, economic development by development organizations and chambers, socio-cultural management by heritage and safety agencies — facilitates data collection but makes the system dependent on a few critical nodes. Second, Dubrovnik's most important gaps are common to the Greek ones: incomplete recording of maritime tourism beyond the cruise (day trips, fishing and diving tourism), dependence of social indicators on non-repetitive surveys and inability to access the environmental data of ships. This convergence strengthens the transnational comparability of the Framework and substantiates that its weaknesses are not local, but systemic — and therefore addressable with common methodological solutions.

C.5. Proposal to classify maritime tourism

Perhaps the most tangible methodological contribution of the field research is the proposal for a legally documented classification of maritime tourism, which was formulated in Rhodes and confirmed in Corfu. Instead of a single list of indicators, it is proposed to distinguish four main categories, based on the way each activity is organized and licensed:

- **Cruise:** clearly defined statistically, with a mandatory distinction between home ports and ports-of-call, as the economic and social impacts differ substantially, and with a recording of the disembarkation rate per ship.
- **Diving tourism:** only organised diving through licensed centres or with a certified instructor should be counted, as free diving is not allowed without the presence of a professional; snorkeling does not fall into the category.
- **Fisheries tourism:** a distinct category with the same licensing regime, for which a serious recording gap was found in all three destinations.
- **Maritime recreation:** the broadest category, with internal subdivisions: fixed-line day boats to be included in coastal shipping (as a "day cruise"), charters to be an independent subcategory of marine recreation, small boats and marine recreational vehicles (jetskis, inflatables, time-leasing without charter) to be monitored separately, and sports activities (sailing races, windsurfing/kitesurfing, swimming) open seas) to be included in the sports component of recreation.

The classification is complemented by three horizontal recommendations. First, the structure of the Framework should be organized into separate sub-tables of indicators per activity (cruise, yachting with boat size distinction <12 m, 12–24 m, 24–35 m, >35 m and sailing / motor type, diving, fishing, marine recreation), so that each sub-sector is measured with its own sizes. Secondly, in the next phase, coastal tourism should be delimited to a narrower coastal zone — and not to a radius of several kilometers that in an island environment includes a mountainous hinterland — or, alternatively, for data collection purposes, to consider as coastal all the Municipalities of an island destination, even if they are not coastal. Thirdly, for unrecorded activity (vessels anchored outside organized infrastructure), satellite imagery and sample checks of the port authorities should be combined, while the frequency of collection should be adjusted to seasonality: monthly or weekly in the high season, quarterly or annually in the low season.

Conclusion

The three pilot studies documented that the methodological model has a solid thematic basis and that the four-dimensional architecture meets the real monitoring needs — in Greek destinations of different scales but also in an international environment. At the same time, they have unified the points that need to be strengthened: clearer definitions and classification of maritime tourism, a redesign of the governance dimension, a more realistic measurement of social and environmental pressures based on the actual peak population, and — most importantly — institutionalized, stable data flows from national and local providers. The convergence of the findings from Rhodes, Dubrovnik and Corfu shows that the weaknesses identified are not local peculiarities but systemic characteristics of the measurement of coastal and maritime tourism. Precisely for this reason, the solutions proposed — a common framework for the classification of indicators into maturity categories, a legally based typology of maritime tourism, memoranda of cooperation with data providers and targeted additions and removals of indicators — constitute a credible roadmap to finalise a model that is applicable, comparable and useful for policymaking.