

THE VALUE OF OCEANS

OCEANS INITIATIVE 2013-2017



CALOUSTE GULBENKIAN
FOUNDATION

GULBENKIAN
OCEANS
INITIATIVE

5
years

Calouste Gulbenkian Foundation

Gulbenkian Oceans Initiative

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This brochure summarizes the main results and impacts of the Gulbenkian Oceans Initiative (GOI), which ran from 2013 to 2017. During these five years, the GOI collected information on its activities, including through project reports and questionnaires answered by participants. The GOI also commissioned an external organisation, Logframe, to collect information on the perceptions its partners and beneficiaries have about the GOI, through an online questionnaire and/or through face-to-face or telephone interviews.

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Lisbon, September 2017

Introduction

Over a period of five years, an initiative of the Calouste Gulbenkian Foundation worked towards a better understanding of the value of oceans. The Gulbenkian Oceans Initiative (GOI) brought to the public debate and the political agenda the role of oceans in sustainable economic development and human well-being, promoting new policies based on scientific knowledge in Portugal, the European Union and globally.

With a view of better protection, conservation and management of the oceans, three strategic axes were defined to guide the work of the GOI (Fig.1):

/ **Increase knowledge** on the economic value of oceans, in particular on the benefits of oceans as strategic assets for sustainable economic development and human well-being;

/ **Increase environmental awareness** on oceans in Portugal;

/ **Promote the adoption and/or improvement of policies** for public and private management of the marine environment.

The Gulbenkian Oceans Initiative has been determinant to put scientific, technological and innovation issues related to the oceans on the national research agenda, as well as to strengthen bonds and international networks. Portugal is an ocean country and such initiatives, coming from prestigious organisations such as the Calouste Gulbenkian Foundation, are determinant to place Portugal at the forefront of the knowledge on oceans. It is, without doubt, an initiative to cherish and strengthen.

Ângela Lobo, Statistics Portugal

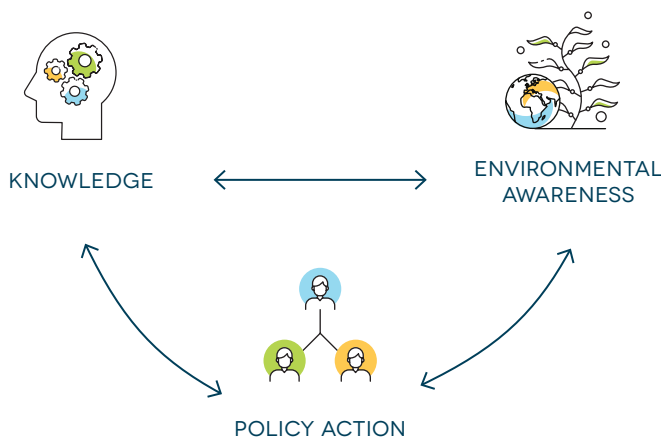


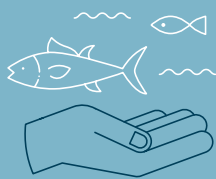
Figure 1/
Strategic axes of the Gulbenkian Oceans Initiative

The Gulbenkian Oceans Initiative worked with multiple agents (local, national and European) of the Sea Economy. To find high-impact answers, it sought to collaborate closely with people and organisations, design training programs adjusted to the different needs, create networks and synergies, and promote opportunities for sharing and exchanging knowledge.

For that, it supported/developed a wide range of projects and actions with different goals and targeting different audiences. These included: researchers from different areas, in particular

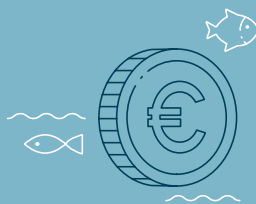
natural sciences and social sciences; environmental NGOs working on the marine environment; educational, business and other non-profit organisations; children and youth; large companies, SMEs and micro companies; local and national public administration and European institutions.

In this document we highlight seven of those projects, presenting a summary of each and their main impacts, and showing how the Gulbenkian Oceans Initiative contributed for the value of oceans to be considered, now and in the future, acting for its protection and management.



1,000 Million

OF THE POOREST PEOPLE
IN THE WORLD DEPEND ON FOOD
FROM THE OCEAN



90%

OF THE GLOBAL TRADE
IS CARRIED BY SEA



3rd
PORTUGAL IS THE THIRD LARGEST
CONSUMER OF SEAFOOD
PER CAPITA AT THE WORLD LEVEL



150 km

ABOUT HALF OF THE WORLD
POPULATION LIVES WITHIN
150 KM FROM THE COAST



PORTUGAL HAS THE
THIRD LARGEST
EXCLUSIVE ECONOMIC
ZONE (EEZ) OF THE
EUROPEAN UNION



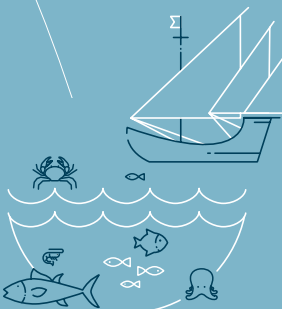
38 TWh

IT IS ESTIMATED THAT, IN 2015,
WORLD OFFSHORE WIND ENERGY
PRODUCTION WILL HAVE REACHED
38 TWh, WHICH IS 50% ABOVE
THE VALUE FOR 2014



TOURISM IN PORTUGAL BENEFITS
FROM A TEMPERATE CLIMATE
GENERATED BY A WARM
OCEAN CURRENT ALONG
THE COAST, REPRESENTING

7 %
OF THE
NATIONAL GDP



THE OCEAN - WITH ITS BEAUTY, STRENGTH
AND DIVERSITY - IS FUNDAMENTAL IN THE
HISTORY, CULTURE AND TRADITIONS
OF MANY COUNTRIES.

The value of all these
contributions of the oceans
to our well-being and the
economy is difficult to
calculate.

If we don't know the value
of what the oceans give
us, we also won't know the
value of the opportunities
they will give us in the
future if we protect them,
nor how much we risk to
lose if we degrade or
even destroy them.

Activities and impacts

The activities presented below are highlighted because of their innovative character, their impact, potential to create change and contribution to achieve the goals of the GOI. The activities were planned and developed seeking as much as possible to contribute to more than one of the three strategic axes of the Gulbenkian Oceans Initiative (Fig. 2), and to have lasting impact beyond the five years of the GOI.

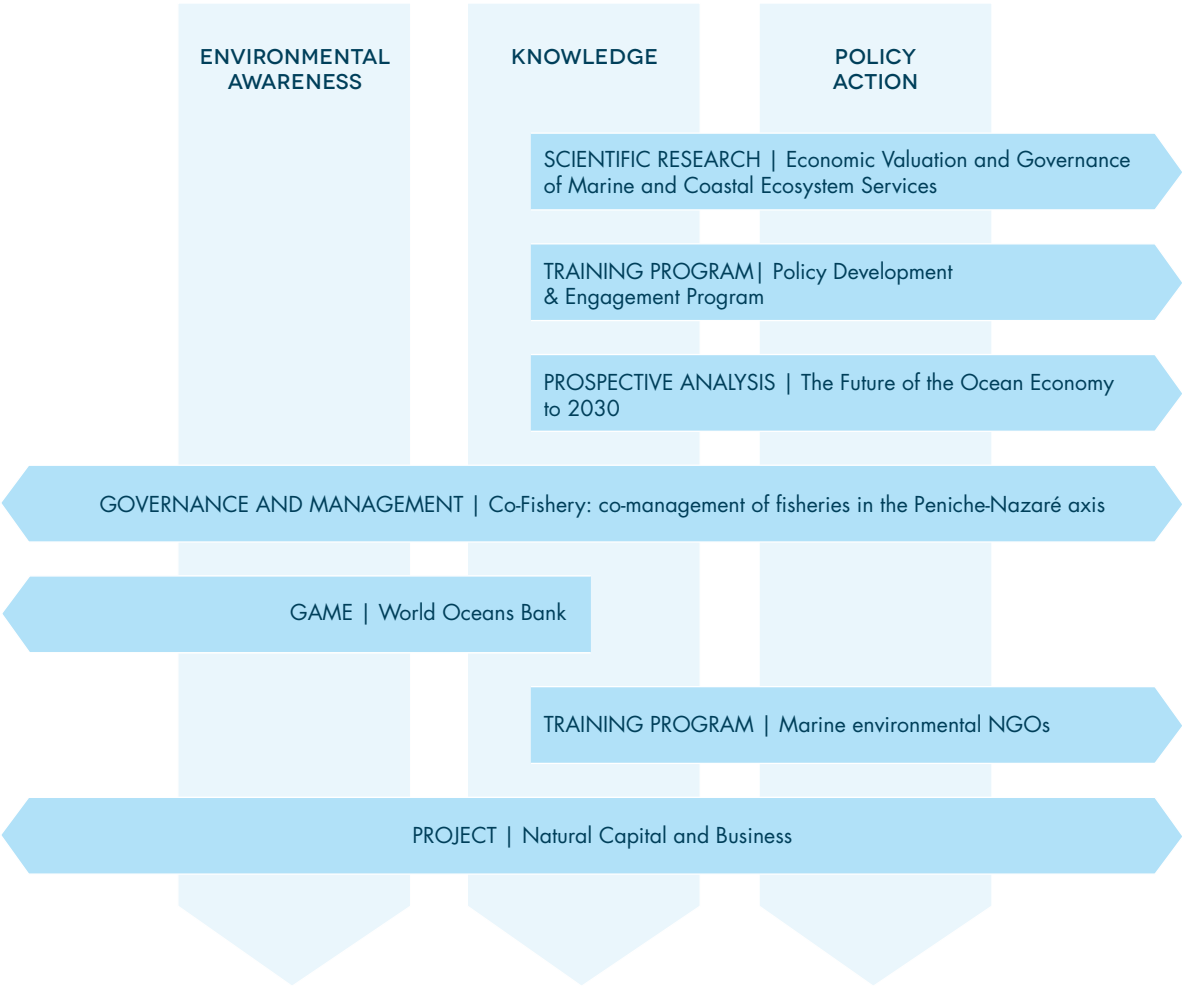


Figure 2/
High-impact activities of GOI and strategic axes they are associated to.

Throughout the Gulbenkian Oceans Initiative, a wide range of information was collected from partners and beneficiaries of each activity. This has enabled establishing causality relationships between the activities and their impact on target audiences (Fig. 3).

ACTIVITIES	OUTPUTS	IMPACTS
SCIENTIFIC RESEARCH Economic Valuation and Governance of Marine and Coastal Ecosystem Services	8 research papers 25 researchers involved 4 policy briefs	Increased scientific knowledge and information on the economic value the oceans
TRAINING PROGRAM Policy Development & Engagement Program	2 workshops 14 participants 5 policy briefs (4 on research results and 1 on natural capital)	Researchers able to better influence public policies based on scientific results, in particular on the themes of marine renewable energies, the giant waves of Nazaré, trawling and interdisciplinary research
PROSPECTIVE ANALYSIS The Future of the Ocean Economy: Exploring the prospects for emerging ocean industries to 2030	10 technical workshops 1 workshop on Marine Spatial Planning co-organised in Lisbon data and projections on the future evolution of the Sea Economy	Pioneer work on oceans at OECD that has now continuity on the topic of oceans and innovation
GOVERNANCE AND MANAGEMENT Co-Fishery: Scenarios for a co-management process for fisheries in the Peniche-Nazaré axis	11 fisheries identified 6 fisheries with medium/high potential >40 organisations involved 2 fisheries selected	Co-management processes under preparation in the 2 fisheries selected, and co-management of fisheries on the political agenda
GAME World Oceans Bank	>1600 children and youth 40 schools	Increased awareness of children and youth on the importance of sustainable management of the marine environment to economic development and to the well-being of current and future generations
TRAINING PROGRAM Marine environmental NGOs	48 participants from 8 marine ENGOs 4 training workshops	Marine ENGOs with more capacity to use economic arguments in defense of the oceans and to influence sea policies in a sustained way
PROJECT "NATURAL CAPITAL AND BUSINESS" Questionnaire "Blue Natural Capital"	201 responding companies 93 companies learned about the concept of natural capital. From these, 76% considered "urgent" or "very urgent" take action to protect and maintain blue natural capital 1 publication "Blue Natural Capital and a sustainable business strategy"	Increased awareness of maritime companies on the importance of sustainable management of blue natural capital to economic and environmental sustainability of their activities
PROJECT "NATURAL CAPITAL AND BUSINESS" Training Program and Business Challenge about the Natural Capital Protocol	1 information session (70 participants) 4 technical workshops (55 participants from 36 large companies and SMEs) 3 business case studies 1 policy brief	Increased awareness of the Portuguese business sector on the economic and environmental benefits of embedding a sustainable management of natural capital Increased technical knowledge of the Portuguese business sector on natural capital accounting Faster transition to more sustainable business models and business management practices Impulse for market followers

Figure 3/
Activities developed by the GOI with high impact on the **protection, conservation and good management of the oceans.**



RESEARCH

ECONOMIC VALUATION AND GOVERNANCE OF COASTAL AND MARINE ECOSYSTEM SERVICES

Execution / NOVA School of Business and Economics, and Centre for Environmental and Marine Studies (CESAM) of the University of Aveiro

Duration / 30 months

What and what for?

This project studied the economic value of the benefits of oceans in a pilot area in mainland Portugal (the Peniche-Nazaré axis) which, by its diversity, could be an example transposable to other regions. It sought to produce a remarkable example of economic valuation of the benefits of oceans, and of how knowing their value contributes to improve decision-making processes, while increasing environmental awareness about the oceans.

The study of the benefits we can obtain from the various ocean ecosystems has been hard to complete, to a great extent because it requires a truly interdisciplinary approach, in this case between natural sciences and social sciences. This project was run by two research centres, resulting in the integration of natural and economic sciences. The interdisciplinary approach involved joint work by the researchers from these two domains, allowing the combination of knowledge about how coastal and marine ecosystems function with knowledge about how society uses and explores these same ecosystems. In particular, the project worked on the following research lines: (i) **the economic impact of the giant waves in Nazaré**; (ii) **the economic viability of marine renewable energies** (offshore and nearshore wind and wave energy); (iii) **sardine fishery**; (iv) **bottom trawling**; (v) relationship between **the vulnerability of marine and coastal habitats and the benefits they provide**; and (vi) **perceptions of different stakeholders** on the benefits of oceans.

Main outputs

8 research papers / 25 researchers involved / 4 policy briefs

Impact

This project showed the need for an interdisciplinary approach to the study of the economic benefits of oceans. Besides contributing to increase knowledge on the value of oceans in Portugal, the methodologies it developed and the results it obtained have the potential to be adapted to other study sites, both in Portugal and abroad. The communication of some of the research results as policy briefs (page 8) also constitutes an example of change towards a better use of research on the economic benefits of oceans.

“This is a pioneer initiative in the national context, by challenging a team composed of economists, biologists, oceanographers, among others, to study a chosen region of the Portuguese coast. It was an enormous challenge from which it became obvious the need for interdisciplinarity. This aspect was also materialized in the partnerships that were created in the meantime, and which demonstrate the growing need to integrate various fields of knowledge to jointly better address the challenges posed by an increasingly complex reality, namely in what concerns the contribution to policy-making, which requires the collaboration of different stakeholders in the context of sustainable development”.

Antonieta Cunha-e-Sá, coordinator of the research project, NOVA School of Business and Economics

“The wave of Nazaré was interpreted as a marine ecosystem in its full extent, and now its economic valuation is better understood; the production of knowledge about the impact of trawling at the national level increased and may be used in future research projects as a reference; the management of marine ecosystems may be improved taking into account the works on the Blue Economy; offshore wind energy production areas that avoid conflicts with fishing gears have been delimited.”

Juan Bueno Pardo, researcher, CESAM/University of Aveiro



TRAINING PROGRAM

POLICY DEVELOPMENT & ENGAGEMENT PROGRAM

Execution / International Centre for Policy Advocacy

Duration / 8 months

What and what for?

The Oceans Initiative promoted a training program on policy advocacy¹ so that the scientific knowledge produced in the context of the interdisciplinary research project would have impact in terms of changing policies.

This training program targeted simultaneously project researchers and the GOI team so that all could support the GOI in this goal.

The Policy Development and Engagement Program (PDEP) was focused on improving the ability of participants to prepare recommendations based on scientific evidence, and to communicate them as policy briefs,² which support the efforts to promote new public policies with decision-makers.

As a result of this training, five policy briefs were prepared. The policy briefs on the giant waves of Nazaré, marine renewable energies, and trawling resulted directly from the research project. The policy brief on interdisciplinary research was inspired by the research project, namely by the contrast between the potential of interdisciplinary research to have an impact on society and the insufficient support it receives in Portugal at several levels. The fifth policy brief, on natural capital, resulted directly from the “Natural Capital and Business” project and it is directed towards the business sector, unlike the others that are directed towards policy decision-makers.

Main outputs

2 workshops / 14 participants / 5 policy briefs (4 on research results and 1 on natural capital)

Impact

PDEP enabled the production of five policy briefs on different themes, to which the knowledge produced and/or collected by the research project and the GOI was fundamental. This training confirmed that there are researchers interested in improving the societal impact of their research, through their involvement in policy advocacy. This training, new in Portugal, has therefore substantial potential to leverage scientific knowledge produced in Portugal, to the benefit of better public policies.

I was aware of the theory, but not of the instruments, the logics, the analysis process, and the learning was helpful to start thinking about the potential that my organisation has to influence decision-making processes.

[I learned] how hard it is to do policy analysis. And how interesting too. And that academics don't think enough (or at all) about the policy implications of their research and it's time we start doing so.

Participants in the PDEP 1st workshop

[I learned] about the different roles in terms of influence, and [how to set] feasible objectives. It is now very clear the role I can play in terms of advocacy.

[I learned] about the profile of the target audience, to adapt the message, and to create and seize opportunities.

Participants in the PDEP 2nd workshop

You made this squared-minded scientist a believer in the need to write policy briefs and the need to contextualize my work according to the policy-making cycle.

Juan Bueno Pardo, researcher, CESAM/Univ. Aveiro

¹ Deliberate process of influencing those making decisions and setting policy guidelines.

² Policy briefs are short, concise documents free from technical language, that use empirical and/or scientific evidence to recommend alternative courses of action to decision-makers.



PROSPECTIVE ANALYSIS

THE FUTURE OF THE OCEAN ECONOMY: EXPLORING THE PROSPECTS FOR EMERGING OCEAN INDUSTRIES TO 2030

Execution / OECD
Duration / 24 months

What and what for?

OECD conducted a prospective analysis of the ocean economy up to 2030, giving emphasis to the growth potential of emerging industries. This study, supported by several member states of OECD, including Portugal, and by organisations such as the Calouste Gulbenkian Foundation, through its UK Branch and the Oceans Initiative, was motivated by the optimistic perspectives regarding the global growth of the ocean economy, but also by the realization that this growth faces some risks.

The study concluded that many maritime industries (marine aquaculture, offshore wind energy, seafood processing, and shipbuilding and repair) will outperform the world economy in 2030, and that ocean degradation will be a limiting factor of the growth of the ocean economy at the world level.

Main outputs

10 technical workshops / 1 workshop on marine spatial planning co-organised in Lisbon / data and projections of the future evolution of the Ocean Economy

Impact

The work carried out during this project, which was new at the OECD, is now being continued with a new project on the Ocean Economy and Innovation. The goal is to make information available to decision-makers, for them to improve the range of innovation-inducing policies for sustainable ocean management.

Following the Foundation's contribution to the Ocean 2030 project, OECD started working in a much more comprehensive way in oceans which can lead to policy recommendations in different areas such as innovation, Marine Protected Areas, Marine Spatial Planning, ocean indicators.

Laura Recuerdo Vitro, French Ministry of Foreign Affairs

Several countries have leveraged the results of our work to develop long-term strategies in sound management of marine systems; at the OECD, where the work was conducted, the project has given ocean issues a much needed lift in visibility both within the secretariat and among member countries — in addition it has led to the establishment of new important work on the role of science and technological innovation in strengthening sustainable approaches to ocean management.

Barrie Stevens, senior advisor, OECD Ocean Economy Group



GOVERNANCE AND MANAGEMENT

CO-FISHERY: SCENARIOS FOR A CO-MANAGEMENT PROCESS FOR FISHERIES IN THE PENICHE-NAZARÉ AXIS

Execution / WWF-Portugal (co-funded by PROMAR)

Duration / 24 months

What and what for?

This project, in which the Oceans Initiative was a partner, had the goal of identifying fisheries in the Peniche-Nazaré axis that could benefit from a co-management process (i.e., in which fishermen decide fishery management measures jointly with fisheries management authorities), to ensure its social, economic and environmental sustainability. Of the eleven fisheries initially identified by WWF-Portugal, six had medium/high potential to be co-managed. These were discussed in a participatory process with over 40 organisations, and two fisheries were selected as having the greatest potential to implement co-management: goose barnacle harvesting in Berlengas, and shellfish harvesting in Óbidos Lagoon.

Main outputs

11 identified fisheries / 6 fisheries with medium/high potential / >40 organisations involved / 2 fisheries selected

Impact

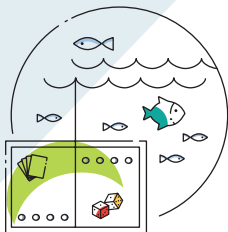
After the end of the project, WWF-Portugal has continued its work on co-management, seeking now to implement co-management processes for these two fisheries, in collaboration with harvesters and fisher associations and fisheries management authorities. The Co-Fishery project had also the merit of putting fisheries co-management in the political agenda.

[This project was very important to] manage the stock so it never ends.

Emanuel Henriques, Berlengas Harvesters Association

The involved participants accepted co-management as a new way to manage resources, which implies a new perspective in political and policy terms.

Rita Sá, WWF-Portugal



GAME

WORLD OCEANS BANK

Execution / Gulbenkian Oceans Initiative and Oceanário de Lisboa

Duration / since 2014

What and what for?

The World Oceans Bank is a game for middle and secondary schools visiting Oceanário de Lisboa. Each class is split into four teams, and each team has the responsibility to ensure the sustainable management of an inheritance, formed by money and a marine area, for 25 years. At each round, each group is invited to invest part of its money in its ecosystem, and to take into account both environmental and financial impacts of its decisions. At the end of the game, the team will be evaluated by the cash on hand and the economic value of each ecosystem.

It is expected that, at the end of this activity, participants understand the importance of balancing the economic and environmental benefits of oceans with the (positive and negative) impact that human activity can have on them.

Main outputs

>1600 children and youth / > 40 schools

Impact

By raising awareness among youth about the importance of sustainable environmental management, the Oceans Initiative hopes to contribute to create more environmentally responsible adults in the future.

The sharing of knowledge and ideas by the GOI for the development of the educational program World Oceans Bank added value to the project, to Oceanário and to all participants. For Oceanário, this partnership revealed to be of extreme importance as we were able to contribute to make such an unexplored theme, of high interest and extreme complexity, accessible to youth from middle and secondary school. The education of these youngsters is a priority to our institution and, therefore, we will always be available to collaborate with initiatives such as the GOI that are dedicated to themes of relevance in the context of ocean literacy and its conservation.

Teresa Pina, Oceanário de Lisboa

The students obtained a much broader and more globalizing approach of the interconnection of natural processes and the decisive role of the oceans in the ecosystem equilibrium. All agreed that this program was excellent and very enriching.

Professor of Secondary School, Lisbon



TRAINING PROGRAM

MARINE ENVIRONMENTAL NGOs

Execução / new economics foundation

Duração / 1st session "Economics for marine conservation" (24 hours), 2nd session "Economics for marine conservation" (16 hours), 3rd session "Strategic planning and organisational development" (24 hours), 4th session "Fundraising" (16 hours)

What and what for?

A training program for environmental NGOs working on marine conservation was developed with the aim of increasing their capacity for intervention, both in terms of their technical knowledge on oceans and on organisational management.

In the first stage, the program consisted of **two training sessions on "Economics for marine conservation"**, which were also attended by Fisheries Local Action Groups. These training sessions were focused on twelve topics related to economics concepts, methodologies of economic analysis and environmental economic valuation techniques. The participants, mostly biologists, became more able to use economic arguments when advocating for ocean conservation, by strategically integrating notions of environmental, economic and social sustainability in the development of the Blue Economy.

In the second stage, the training program was focused on topics related to the **management of environmental NGOs**. With the view that organisationally stronger and more sustainable environmental NGOs are more able to act for oceans' defence, two additional training sessions were developed for the NGOs of the Portuguese Platform of NGOs on Fisheries (PONG-Pesca), which also work on broader ocean issues. **In the third training session, on "Strategic Planning and Organisational Development"**, the development phases of NGOs were discussed, as well as methodologies for preparing their strategy. Participants also initiated the preparation of a strategic plan for PONG-Pesca. Afterwards, two of the NGOs were offered specific technical support by the trainers of the new economics foundation to develop their individual marine conservation strategy. **The fourth session was focused on "Fundraising"**, during

It is an excellent training, which allows scientists, in my specific case, to obtain a language more appropriate to reach different stakeholders involved in resource management. I acquired knowledge that allows for integrated resource management taking into consideration a more holistic vision of management, so that resource exploitation is done more sustainably without jeopardizing the resource itself nor the communities that depend on that exploitation to survive.

NGO participant in one of the sessions on "Economics for Marine Conservation"

[The training on fund raising was] very useful to apply on the day-to-day of an NGO. And perfectly back-to-back with previous trainings (strategic planning). [It was] motivating also to learn together and share experiences between NGOs.

Ana Almeida, Sociedade Portuguesa para o Estudo das Aves

which participants became familiar with the various sources of funding they may resort to, and with the elements of a good project proposal. They also had the opportunity to talk to representatives of two philanthropic organisations, to better understand what they expect from the NGOs seeking their financial support. With these two last training sessions, PONG-Pesca met its goal of having a long-term strategy, enabling its members to be more efficient in the use of their human and financial resources. From this strategy, PONG-Pesca is now able to prepare project proposals aligned with its goals of promoting sustainable fisheries and marine conservation. After the training program, the Oceans Initiative promoted, in collaboration with the UK Branch of the Calouste Gulbenkian Foundation, a visit of PONG-Pesca's NGOs to the UK, to establish and strengthen the bonds between Portuguese and British NGOs.

Main outputs

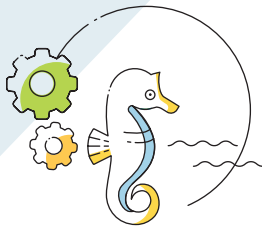
22 participants in the 1st session / 27 participants in the 2nd session
/ 20 participants in the 3rd session / 13 participants in the 4th session
/ 1 joint strategic plan for 8 NGOs

Impact

Environmental NGOs with greater ability to use economic arguments for ocean protection and more able to influence marine policies in a sustained way.

It is of great importance to build the fundraising capacity of NGOs, as this is the main bottleneck to their activity.

Ana Matias, Sciaena – Associação Ciências Marinhas e Cooperação



PROJECT

NATURAL CAPITAL AND BUSINESS

Execution / Gulbenkian Oceans Initiative
Duration / 30 months

What and what for?

This project, based on four strategic phases,¹ sought to raise awareness and build capacity within businesses about the importance of integrating natural capital in their decision-making processes, with the view of a future implementation of more sustainable and more responsible business strategies.

In the first phase (*Phase 1: Awareness*), the Oceans Initiative raised awareness about the concept of natural capital among businesses of the Ocean Economy. For that, it developed a **questionnaire on Blue Natural Capital**, which was answered by 201 Portuguese organisations that benefit from the ocean and the Portuguese coast. The results of the questionnaire were presented in the study “Blue Natural Capital and a sustainable business management, where key concepts, the economic benefits of adopting a sustainable management of natural capital and an action strategy to integrate natural capital in business decision-making are described.

Subsequently, the GOI organised an **Information Session** and a **Training Program** on the **Natural Capital Protocol** (*Phase 2: Training*) in order to accelerate the knowledge on this decision-making support tool. In this phase, participation was open to any business, whether from the Ocean Economy or not, to enable the identification of potential leaders and/or early adopters. This training, composed by two workshops, was attended by 55 participants from 36 large companies, SMEs and consulting companies, which learned in detail how to carry out a natural capital analysis in their company and which are the economic and societal benefits it may bring.

To ensure the applicability of the training, companies were invited to participate in the **Natural Capital Protocol Challenge** (*Phase 3: Adoption*). In order to guarantee the quality of the results obtained, GOI organised two other workshops. From this initiative arised three business case studies from large companies with high potential for applicability of the Natural Capital Protocol, which will be disseminated at national and international levels in order to spur market followers in the context of natural capital assessment (*Phase 4: Leadership*).

Main outputs

201 responding companies / 93 companies learned about the concept of natural capital / From these, 76% considered “urgent” or “very urgent” to take action to protect and maintain blue natural capital / 1 publication “Blue Natural Capital and a sustainable business strategy” / 1 information session (70 participants) / 4 technical workshops (55 participants from 36 large companies, SMEs and consulting companies) / 3 business case studies / 1 policy brief

Impact

The Oceans Initiative, by involving a significant number of companies and showing the applicability of the Natural Capital Protocol from the economic point of view, hopes that more companies take natural capital into account in their decision-making processes, contributing in that way to more sustainable business solutions. It also hopes to instigate market followers in the context of natural capital assessment.

The training sessions and the Natural Capital Protocol Challenge promoted the access to knowledge that would have been hard to access in other way in the short-medium term. The workshops structure was very well defined. The quality of the speakers was excellent. To access for free and locally to this source of knowledge was determinant to our immediate exploration of the theme. By going further and promoting the Challenge, it allowed us to go from theory to practice. This is a clear example of how such initiatives can promote the business sector to act on themes that otherwise would have taken much longer to be introduced and implemented. Congratulations!

Participant of the Natural Capital Protocol Training Program and Natural Capital Protocol Challenge

¹ Partners: PwC and Fórum Oceano, former Oceano XXI (Phase 1) | Business Council for Sustainable Development Portugal and Natural Capital Coalition (Phases 2, 3 e 4).

Lessons learned

During its five years, the Gulbenkian Oceans Initiative dealt with several challenges when trying to promote change in the way oceans are valued. Each challenge contains in itself useful aspects for others working on the theme of valuation, the theme of oceans, or both simultaneously. By sharing them, we wish to pass our testimony and communicate practices that can be replicated by the Foundation and other institutions.



Emergent and difficult to communicate theme

Given the novelty of the theme of the value of oceans, it was necessary to **adapt our language to different audiences**. This theme is based on a technical concept – marine ecosystem services – which is easy to communicate only to researchers and other professionals and experts. Therefore, communicating this theme to other audiences required a different strategy.

The Oceans Initiative began to use the expression “benefits of the oceans” to communicate with the general public and the expression “natural capital” to communicate with businesses. In addition, the team adopted an **optimistic discourse on the conservation and protection of the oceans** whenever possible. This option is justified by the fact that behavioural changes are more easily motivated by an increase in opportunities or by the possibility of positive consequences than by a possible reduction of risks or the occurrence of negative consequences.

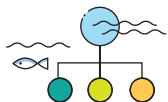
This language adaptation was incorporated into the **specific awareness activities that were developed for each audience**. In this context, we highlight the game World Oceans Bank for children and youth, the training for environmental NGOs, and the questionnaire on blue natural capital for businesses of the Ocean Economy.



Interdisciplinary marine scientific research insufficiently established

When the Oceans Initiative started, in 2013, the knowledge on the value of oceans in Portugal was still very incipient. Interdisciplinary collaboration in marine research, though necessary, was also not very frequent namely between natural sciences and social sciences. The knowledge on the value of oceans could only be improved by combining, on one hand, the comprehension of how marine ecosystems function (through biology, ecology, etc.) with, on the other hand, the comprehension of economic and governance models that determine how oceans are used (economics, marine spatial planning, etc.) Therefore, the Oceans Initiative promoted the constitution of an interdisciplinary research team to carry out a research project on the value of oceans. This team included **researchers with expertise in marine biology, ecology, fisheries, economics and marine spatial planning**.

Additionally, the GOI sought to promote the **establishment of collaborative networks**, either through training actions targeting different professionals, or through the establishment of partnerships with organisations from various sectors. These **intersectorial events** constituted as well an opportunity to gather local and regional stakeholders from different sectors, as in the public presentation of the research project.



Small size of organisations in the Ocean Economy

The small size of organisations in the Ocean Economy made even more necessary to **target and tailor the work to their specificities**. It was necessary not only to collect and analyse information about these organisations, but also to be **flexible to adjust initial plans**.

In the case of the 201 sea companies involved, it was verified that 55% are micro companies, with little availability to participate in training sessions on natural capital, as this is not a legal imposition. Therefore, the GOI sought instead to raise their awareness on blue natural capital through a questionnaire, which also constituted the first step in the Natural Capital project. Afterwards, the training to support the Natural Capital Protocol Challenge was announced without a defined agenda, so this was built only after the questionnaire and an assessment of the needs and specific interests of the national business sector on the topic.

In the case of the environmental NGOs, after two training sessions on economic concepts it became clear that, for them to intervene more effectively for ocean protection, they needed as well to improve their strategic planning, anticipate the development of their organisations, and raise funds to accomplish their missions. Training sessions on these topics were therefore delivered.

The GOI **was able to adjust its initial plans to the organisational reality of its target audiences**. Additionally, and given the multiplicity of projects supported by the GOI in the same region (Peniche-Nazaré axis), meetings between the different teams supported by the GOI were promoted, in order to ensure coordination in their fieldwork.



Produce knowledge with societal impact

The theme of the value of oceans was new in the national arena when the GOI started. If on one hand it was important for the GOI to promote more scientific knowledge on the value of oceans in Portugal, on the other hand it was also fundamental that this knowledge had societal impact.

Research projects generally result in research papers for other researchers to read. By using jargon and presenting information in a format and size appropriate for a specialized audience, they become less accessible to non-specialists. Besides, it is not common for them to present a discussion of the consequences to society of the new knowledge they produced, nor of how this knowledge may be used to promote policy change.

To support the production of policy-oriented scientific research, the GOI promoted a training program on policy advocacy tailored, among others, to the project researchers. This sought to equip them with the necessary tools to produce policy briefs, that is, short, concise and jargon-free documents that “translate” scientific results into options for action and useful recommendations for decision-makers. The training was also focused on developing capacity in policy advocacy, that is, in promoting the policy briefs to decision-makers and other actors, using adequate messages, in order to foster the advocated changes.

The Calouste Gulbenkian Foundation is a Portuguese private institution of public utility, which was created in 1956 in accordance with the last will and testament of Calouste Sarkis Gulbenkian. It actively pursues its statutory aims in the fields of the arts, charity, education and science in Portugal and abroad, including through its UK Branch and Paris Delegation. The Foundation promotes a wide range of direct activities and grants supporting projects and programs.

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