

フィリピンにおける持続可能なブルーエコノミー
推進に向けたリーダーシップ育成と
スタートアップ支援制度設計に関する
ワークショップ

報告書

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概要

持続可能なブルーエコノミーの推進は海洋保全と持続可能な海洋資源利用を通じた地域経済振興を進める上で重要な施策として位置付けられている。一方で、そうしたブルーエコノミーの実践を促すには、これまでの海洋生物学や海洋生態学などに特化した学問分野を深掘りする学習や研究だけではなく、分離融合型の学際的教育の有用性が指摘されてきた。フィリピンのマニラ郊外に所在するフィリピン大学ディリマン校（UPD）の海洋科学研究所（MSI）は、海洋保全と海洋資源の持続可能な利用に関する教育や研究を進めるフィリピン国内の中核的な機関で、UPD と連携する海洋環境資源財団（MERF）が連携し、フィリピンにおける持続可能なブルーエコノミー推進に向けたリーダーシップ育成とスタートアップ支援制度設計に関するワークショップの企画が進められた。

本ワークショップでは、冒頭、ローラ・デイビッド UPD-MRI 所長が趣旨説明を行い、当財団の小林正典特任部長がブルーエコノミー推進に向けた共便益や社会協働等の事例を紹介し、実践・学際的リーダー育成プログラム構想が構築された背景を説明した。その後、参加者は、ブルーエコノミーの概念、知識のギャップ評価、フィリピンでのブルーエコノミー推進のための条件について議論を行った。また、半構造型インタビューやアンケート調査を通じてブルーエコノミーのためのリーダーシップ育成とスタートアップ支援の必要性について更に参加者の意識調査を行った。

多くのワークショップ参加者は UPD-MSI の活動に関わっており、ブルーエコノミーに関する本ワークショップに熱意を示していた。指摘された事項としては、ブルーエコノミーの利点は、フィリピン社会ではあまり理解されていないことや、その概念を知っていたとしても、持続可能な管理より収益性に重きを置いているといった指摘がなされた。この他、持続可能な開発や代替生計支援、マイクロファイナンス、沿岸地域社会振興支援などの必要性も指摘された。この他、金融や海洋の知見・リテラシーの向上に努めるべきといった点や、ブルーエコノミーの環境面での持続可能性に関する知見の共有の必要性が強調された。

アンケートでは、フィリピンの海洋環境は劣悪な状態にあるとの認識が示されつつ、持続可能なブルーエコノミーに関する、集中的かつ実践的で学際的な指導者育成プログラムに強い関心が示された。多くの回答者が生態学や生物学といった自然科学分野に関心を持つ一方で、ブルーエコノミーの成功の鍵を握るのは地域社会との有意義な連携にあると考えており、効果的な科学コミュニケーションや政策にも関心が示された。

フィリピンにおける持続可能なブルーエコノミーのためのリーダーシップ育成に関する集中研修コースの提案および講演者候補のリストが作成された。集中研修プログラムに対する参加者の具体的な期待が示され、科学や政策に関しコミュニケーションに精通した講師

を招聘し、効果的な指導を行うことなどが提案された。また、科学的知見を効果的にステークホルダーに伝えるための指導やブルーエコノミーがもたらす潜在的な利便性とリスク、対策への理解促進などの重要性も指摘された。持続可能なブルーエコノミーのための研修プログラムを成功させるための重要な要因としては、海洋に関する認識や知識の構築、沿岸地域社会だけではなく、内陸の人々の参加の必要性も強調された。この他、経験・知識がありコミュニケーション能力の高い講演者、有益な資料、実践的で理解しやすい教材など、質の高い研修内容や実施方法が挙げられた。また、柔軟なファシリテーションの必要性、現地の状況を考慮すること、そして研修が重要課題に焦点を当てたものであることが有用といった指摘があった。ブルーエコノミー推進に向け、資金供与や援助、金銭的なインセンティブ、堅実な資金運用モデルなどの構築に向けた視点の共有の重要性が繰り返し言及された。経験値のあるメンターとの接点や助言を受ける機会、配慮ある慎重な計画と政策との連動、ネットワークの創出、能力構築の促進、共通の目的意識の促進なども挙げられた。

研修プログラムの実施を模索する上で、群島国家である漁業、養殖業、海洋観光業が基幹産業であるフィリピンと太平洋の中心にある地の利を活かし、持続可能なブルーエコノミー推進に向けたリーダー育成が重要な政策課題であることを認識し、このプログラムの実施に向け準備を進める重要性が強調された。ブルーエコノミーは海洋資源の保全と持続可能な利用を通じた地域経済振興を目指した重要な政策で、UPD-MSI と MERF が笹川平和財団等と連携してこうしたプログラムの実現に向け取り組んでいく意義についての共通の理解が得られており、今後の展開が期待されている。



Report on the Workshop on Leadership Development and Start-up Support for Sustainable Blue Economies in the Philippines

UP Marine Science Institute
March 2025

EXECUTIVE SUMMARY

The leadership discussion, initiated by Mr. Masanori Kobayashi of the Sasakawa Peace Foundation, focused on the sustainable blue economy, leadership development, and the design of a startup ecosystem to support marine-based industries. The discussion aimed to introduce participants to the blue economy concept, assess knowledge gaps, and explore potential workshop development in the Philippines. Through a workshop, interviews, and a survey questionnaire, the need for leadership development and start-up support for blue economies was assessed.

Most participants were from the UP Marine Science Institute and expressed enthusiasm for workshops on the blue economy. It was noted that the benefits of a blue economy are not widely understood in Filipino society, and even those that were aware of the concept were more focused on business rather than the sustainable management of marine ecosystems. The need for more programs for coastal communities — including development programs, alternative livelihood programs, and microfinance institutions — were discussed. Financial literacy and ocean literacy were highlighted as key concepts to address with stakeholders.

The need for an environmentally sustainable approach to the blue economy is emphasized, as survey respondents perceive the marine environment in the Philippines to be in poor condition. Respondents show strong interest in an intensive, pragmatic, and interdisciplinary leadership development program on sustainable blue economies. While many respondents are interested in scientific topics such as ecology and biology, they also believe that a key factor in the success of the blue economy is meaningful engagement with local communities. As such, they are also interested in effective science communication and policy.

A workshop, “Intensive Training Course on Leadership Development for Sustainable Blue Economies in the Philippines”, is proposed with an attached shortlist of potential speakers.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
LIST OF ONSITE PARTICIPANTS	4
LIST OF INTERVIEWEES	6
LIST OF SURVEY RESPONDENTS	7
WORKSHOP AND INTERVIEW RESULTS	9
Thematic Issue I	9
Thematic Issue II	9
Thematic Issue III	10
Thematic Issue IV	10
Thematic Issue V	11
SURVEY RESULTS	12
Part 1: Respondents Profile	12
Position of Participants	12
Major or Specialization of Participants	12
Respondents' involvement in ocean management, marine resource use, science, and other ocean-related matters	13
Part 2: Assessment of the marine and coastal environment ecosystems in the Philippines	14
State of marine and coastal environment and ecosystems	14
Assessment of sectoral/thematic coastal and marine ecosystem issues	15
Part 3: Needs assessment of blue economy leadership training	16
Participants' knowledge on subjects related to blue economy	16
Interest rate on blue economy	17
Interest on undergoing leadership training regarding blue economy	18
Interest level on acquiring knowledge in subjects related to blue economy	19
Other topics participants are interested in	20
Expectations of the intensive training course on sustainable blue economies	20
Specific expectations participants have for the intensive training program	21
Key factors for the successful implementation of the training program	21
Part 4: Needs assessment of start-up support to sustainable blue economies	22
Importance for Start-up Support on Sustainable Blue Economy	22
Key factors for the successful operation of the start-up support	22
WORKSHOP PROPOSAL	23
Introduction	23
Objectives	23
Proposed Activities	23
Expected Outcomes	24
Modalities	24
Budget	24
INDICATIVE BUDGET	25
LIST OF POTENTIAL LECTURERS	26

Marine Biology and Ecology	26
Mangroves – Dr. Rene Rollon	
Professor, UP Institute of Environmental Science & Meteorology	26
Seagrass – Dr. Michael Roleda	
Professor, UP Marine Science Institute	26
Seaweed – Dr. Wilfred John Santiañez	
Associate Professor, UP Marine Science Institute	27
Coral – Dr. Patrick Cabaitan	
Professor, UP Marine Science Institute	27
Fish – Dr. Rene Abesamis	
Associate Professor, UP Marine Science Institute	28
Marine Physical Sciences and Biotechnology	28
Oceanography – Dr. Charina Lyn Amedo-Repollo	
Deputy Director for Research and Development, UP Marine Science Institute	28
Marine Biotechnology – Dr. Lilibeth Salvador-Reyes	
Deputy Director for Instruction, UP Marine Science Institute	29
Marine Energy – Dr. Michael Abundo	
CEO, Oceanpixel Pte Ltd	29
Coastal Management	30
Conservation and Management – Dr. Vanessa Baria-Rodriguez	
Deputy Director for the Bolinao Marine Laboratory, UP Marine Science Institute	30
Social Work & Community Development – Prof. Lenore Polotan-Dela Cruz	
Dean, UP College of Social Work and Community Development	30
Blue Economy and Policy	31
Blue Economy — Masanori Kobayashi	
Program Director, Sasakawa Peace Foundation	31
Economics – Dr. Toby Monsod	
Professor, UP School of Economics	31
Business – Prof. Alicia Morales	
Managing Director, John Clements Leadership Institute	32
Tourism - Dr. Ramon Benedicto A. Alampay	
Associate Professor, UP Asian Institute of Tourism	33
Global Policies – Atty. Alett Nuñez	
Environmental Lawyer	34
Marine Policy – Atty. Jay Batongbacal	
Director, UP Institute for Maritime Affairs and Law of the Sea	34
Communication	35
Development Communication – Dr. Maria Stella Tirol	
Dean, UP Los Banos College of Development Communication	35
Science Communication – Ms. Bayosa Aya Cariño-Valdez	
UP Marine Science Institute	36

LIST OF ONSITE PARTICIPANTS

Seminar workshop on leadership development and start-up support for achieving sustainable blue economies | March 21, 2025, UP MSI Conference Room

#	Name	Affiliation
1	Dr. Laura David	Director, UP Marine Science Institute Ocean Color and Coastal Oceanography Laboratory
2	Dr. Charina Lyn Amedo-Repollo	Deputy Director for Research, UP Marine Science Institute Physical Observation and Oceanography Laboratory
3	Masanori Kobayashi	Program Director Sasakawa Peace Foundation
4	Dr. Caroline Marie Jaraula	UP Marine Science Institute Organic and Stable Isotope Geochemistry Laboratory
5	Dr. Gizelle Batomalaque	UP Marine Science Institute Marine Biodiversity Resources and Information System
6	Dr. Remika Gupana	UP Marine Science Institute Ocean Color and Coastal Oceanography Laboratory
7	Rebecca Yu	UP Marine Science Institute Ocean Color and Coastal Oceanography Laboratory
8	Kyla Ymasa	UP Marine Science Institute Ocean Color and Coastal Oceanography Laboratory
9	Laurice Dagum	UP Marine Science Institute Ocean Color and Coastal Oceanography Laboratory
10	Talna dela Cruz	UP Marine Science Institute Ocean Color and Coastal Oceanography Laboratory
11	Mark John Manalo	UP Marine Science Institute Ocean Color and Coastal Oceanography Laboratory
12	Justin Doctolero	UP Marine Science Institute Ocean Color and Coastal Oceanography Laboratory
13	Aldwin Almo	UP Marine Science Institute Ocean Color and Coastal Oceanography Laboratory
14	John Darryl Lagdameo	UP Marine Science Institute Chemical Oceanography Laboratories
15	Kristel Joyce Occeña	UP Marine Science Institute Chemical Oceanography Laboratories

LIST OF ONSITE PARTICIPANTS

Seminar workshop on leadership development and start-up support for achieving sustainable blue economies | March 21, 2025, UP MSI Conference Room

16	Jude Wincel Marino	UP Marine Science Institute Marine Environment and Resources Foundation
17	Bayosa Aya Cariño-Valdez	UP Marine Science Institute Director's Office Staff
18	April Rose Casonete	UP Marine Science Institute Director's Office Staff
19	Ella Marie Inciong	UP Marine Science Institute Director's Office Staff
20	Jean Dorothy Andrada	UP Marine Science Institute Director's Office Staff
21	Miryam Kalyxta Tolentino	UP Marine Science Institute Director's Office Staff
22	Jae Camille Calo	UP Marine Science Institute Director's Office Staff
23	Diego Salcedo	UP Institute of Environmental Science and Meteorology

LIST OF INTERVIEWEES

Seminar workshop on leadership development and start-up support for achieving sustainable blue economies | March 21, 2025, UP MSI Conference Room

#	Name	Affiliation
1	Dr. Charina Lyn Amedo-Repollo	Deputy Director for Research, UP Marine Science Institute Physical Observation and Oceanography Laboratory
2	Dr. Caroline Marie Jaraula	UP Marine Science Institute Organic and Stable Isotope Geochemistry Laboratory
3	Dr. Gizelle Batomalaque	UP Marine Science Institute Marine Biodiversity Resources and Information System
4	Dr. Remika Gupana	UP Marine Science Institute Ocean Color and Coastal Oceanography Laboratory
5	Rebecca Yu	UP Marine Science Institute Ocean Color and Coastal Oceanography Laboratory
6	Laurice Dagum	UP Marine Science Institute Ocean Color and Coastal Oceanography Laboratory
7	Talna dela Cruz	UP Marine Science Institute Ocean Color and Coastal Oceanography Laboratory
8	Aldwin Almo	UP Marine Science Institute Ocean Color and Coastal Oceanography Laboratory
9	Jean Dorothy Andrada	UP Marine Science Institute Director's Office Staff

LIST OF SURVEY RESPONDENTS

Seminar workshop on leadership development and start-up support for achieving sustainable blue economies | March 21, 2025, UP MSI Conference Room

#	Name	Affiliation
1	Ma. Gillian Comendador Valles	Government
2	Jayson Tirol Arat	Student
3	Daniza Mae Oco	University faculty member
4	Jumelyn Nalazon Selencio	Student
5	Christine Israel Abraham	Researcher
6	John Darryl B. Lagdameo	Student
7	Laurice Dagum	Student
8	Vanessa Love Hilum Lacsamana	Business & Private Sector
9	Kristel Joyce Ty Occeña	Student
10	Emilyn Selencio Cariño	Government
11	Jeffrey Munar	Researcher
12	Aubrey Jacklynn Abadiano	Researcher
13	Anonymous*	Researcher
14	Anonymous*	Researcher
15	Anonymous*	Not specified
16	Anonymous*	Researcher
17	Maria Vanessa Rodriguez	University faculty member
18	Rene Rollon	University faculty member
19	Anonymous*	Researcher
20	Iris Orizar	Researcher
21	Giannina Marie G. Albano	Researcher
22	Lee Arraby Desabelle	Researcher

LIST OF SURVEY RESPONDENTS

Seminar workshop on leadership development and start-up support for achieving sustainable blue economies | March 21, 2025, UP MSI Conference Room

23	Amethyl Mardin Pernito	Student
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** Some respondents chose to remain anonymous.*

WORKSHOP AND INTERVIEW RESULTS

Thematic Issue I

Overall assessment on the coastal and marine ecosystems and the socio-economic conditions of the communities/residents and businesses

- **There is no public consciousness of what a blue economy can give us.** The Philippine blue economy should focus on regional, coastal communities that depend on fisheries and coastal livelihoods to survive.
 - Problems in building a blue economy include the **current issue on municipal water boundaries**, which also put a strain on MPAs that are often nearby fishing grounds
 - *Additional context: The Fisheries Code originally declared the first 15 kilometers of water from the shoreline as municipal waters, thus exclusive to local and artisanal fisherfolk. A recent ruling by the Supreme Court allowed commercial fishing vessels within the 15 kilometer boundaries.*
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Thematic Issue II

Perception on the problems and challenges in relation with coastal and marine ecosystems and their potential solutions

- We have **very fragmented concerns and jurisdictions among government agencies**. There is a lot of confusing overlap among the mandates. It may be easier if changes to these mandates and jurisdictions would start from the top and then trickle to the bottom.
 - There is a need to **build ocean literacy in our stakeholders** and look for a balance between economic growth and environmental health. When Dr. Amedo-Repollo recently attended a stakeholder meeting on the blue economy, the focus was on business rather than environmental sustainability. Dr. Jaraula also attended the same meeting and noted that the tourism discussion was centered on blue economy. However, there were no researchers or education authorities in the discussion.
 - **There is no discussion of blue ecosystems when discussing the blue economy.** People from UP MSI can help, especially in describing the ecological connection between mangroves, seagrasses, and coral reefs. Perhaps something similar to a tour guide can be a good start? It can be set-up for a TESDA course.
 - *Additional context: TESDA, or the Technical Education and Skills Development Authority, is a Philippine government agency that supervises vocational education.*
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Thematic Issue III

The need and challenges in having more social entrepreneurs pursue solutions to the challenges

- There is a need to change the consciousness of the Philippines to an archipelagic nation. Our programs are land-centered because we do not recognize that we are a maritime nation. **Development in the last 100 years has historically focused on urban cities and the agricultural sector.**
 - For example, our start-up and development space is more focused on agriculture and textiles. It is possible that our social entrepreneurs simply haven't considered coastal communities.
 - If there are existing players — even small ones — who are on the right track, then we can try to highlight these players and think of how we can incentivize them further.
 - **The absence of microfinance institutions for fisherfolk** is another problem that should be addressed and considered. The microfinance institutions that we do have in the Philippines are focused on farmers.
 - Multi-stakeholder collaboration, including government, academia, and industry, is crucial for sustainable blue economy development.
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Thematic Issue IV

Assessment on the merit of having the intensive, pragmatic and interdisciplinary leadership development program for sustainable blue economies

- Our workshops should focus on how to incorporate science into policy and programs: we must teach **ocean literacy** that cuts across sectors and **financial literacy** that can help our small-scale fisherfolk operate diversified businesses.
 - We can include MSI's students, but also students from economics and management. We should capacitate our students to learn the entrepreneurial side of their research. We should also encourage business people who are interested in a science-based approach.
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Thematic Issue V

Need for the start-up support to social entrepreneurs in finding solutions to the challenges of ocean conservation and sustainable use, and developing business models for sustainable blue economies

- **One possible opportunity is providing services for food storage.** For example, there is a place where small tuna species sell for very low prices because fishers cannot store them for very long. Companies that can provide freezers can stimulate the tuna industry in the area.
- The Sasakawa Peace Foundation's programs seem to consider the advantages of the local economy. We can do something similar. **In the Philippines, we have a One Town, One Product policy.** We can ask coastal communities what product is best for them to capitalize. It is a tourism initiative but also an economic one.
 - *Additional context: The One Town, One Product policy is a priority stimulus program for micro, small, and medium-scale enterprises that is inspired by Japan's One Village, One Product program. One Town, One Product includes processed food, agri-based products, artisanal crafts, and skills-based services.*
- **There are already existing initiatives led by fisherfolk.** In Sorsogon, there is a people's organization that has mangrove conservation activities, offers tourism packages, and produces dried rabbitfish. In Capiz, there is a fishing village that organizes river tours, operates a restaurant with their catch, and partners with a local college for annual mangrove planting. We can suggest alternative livelihoods such as these, which can also help coastal communities support themselves when seasonal monsoons interfere with fishing activities.

SURVEY RESULTS

After the workshop discussion, participants from Zoom, Facebook Live, and the in-person session were asked to answer a survey to assess the need, merits, enabling conditions, and future perspectives regarding the feasibility of undertaking an interdisciplinary and pragmatic program on leadership development for sustainable blue economies, as well as designing the schemes to support the start-up activities. A total of **23 respondents** were recorded.

Part 1: Respondents Profile

Position of Participants

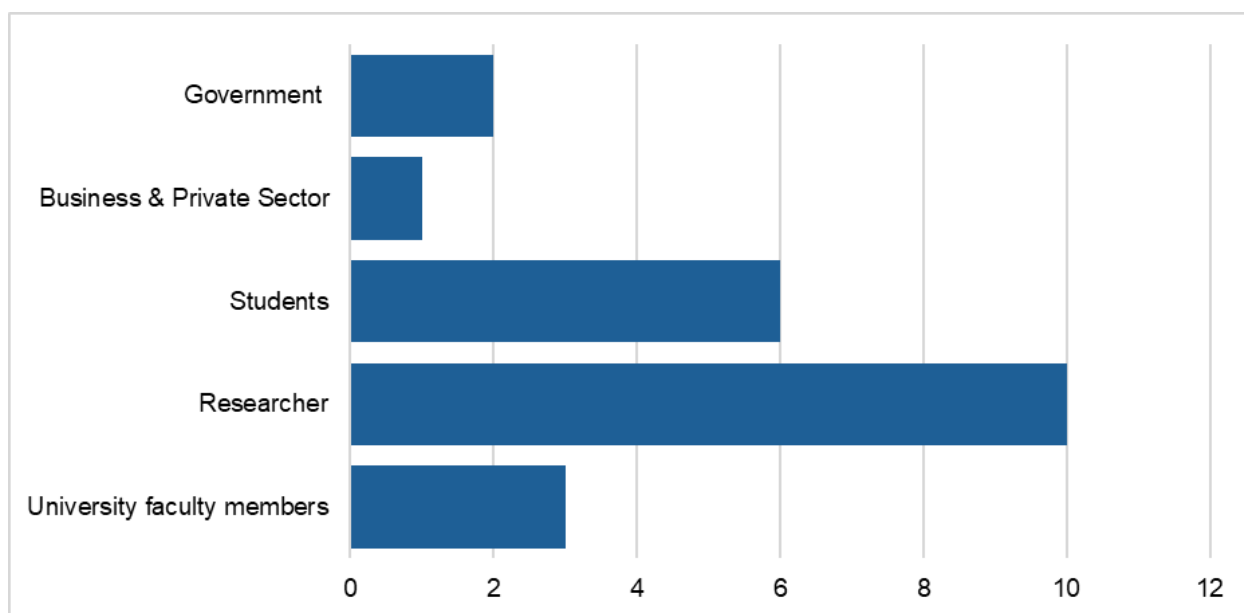


Figure 1. Distribution of respondents by sector

Major or Specialization of Participants

Among the 23 respondents, the majority have backgrounds in science, particularly marine science, with many specializing in Marine Biology, Biology, Chemistry, Oceanography, and Taxonomy. Some have expertise in economics, including Business Economics, Marketing Law Economics, and Home Economics. A few respondents did not specify a field or provided unclear responses. From these, we can observe a strong representation of science backgrounds, alongside some expertise in economics, supporting the feasibility of interdisciplinary training for sustainable blue economies.

Respondents' involvement in ocean management, marine resource use, science, and other ocean-related matters

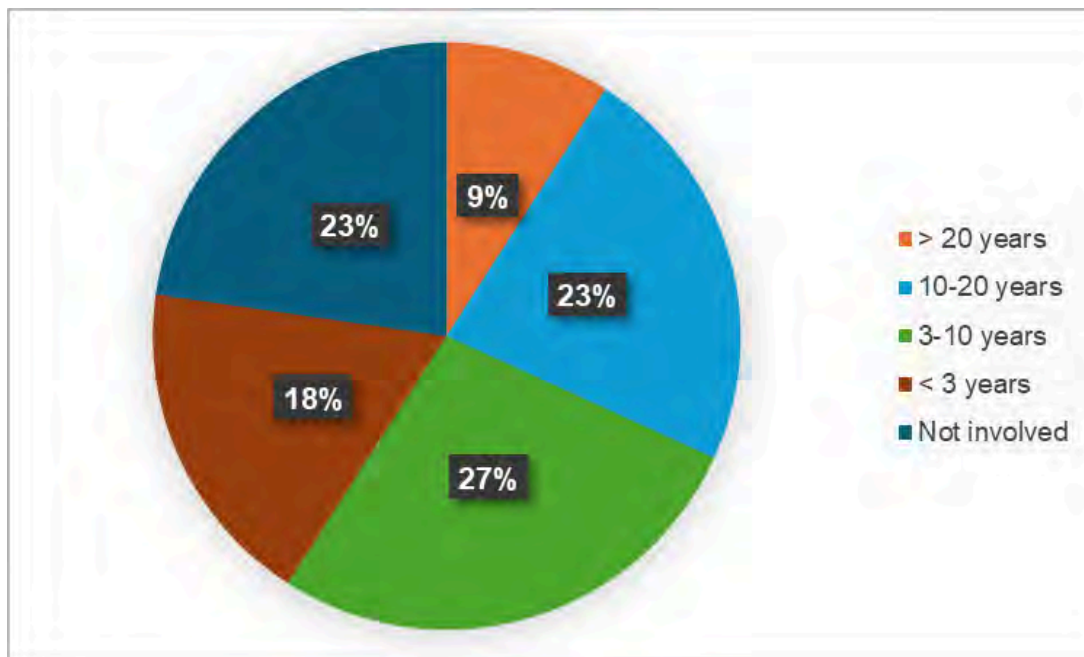


Figure 2. Years of involvement of respondents in ocean management, marine resource use, science and other ocean related matters

A majority of the participants have substantial involvement in ocean management, marine resource use, science, and other ocean-related matters, with many engaged for 3 to 20 years. This suggests a foundation of practical knowledge that can help inform the development of an interdisciplinary leadership program. Meanwhile, the presence of some respondents with less experience or no involvement shows a potential entry point for capacity building within the program.

Part 2: Assessment of the marine and coastal environment ecosystems in the Philippines

State of marine and coastal environment and ecosystems

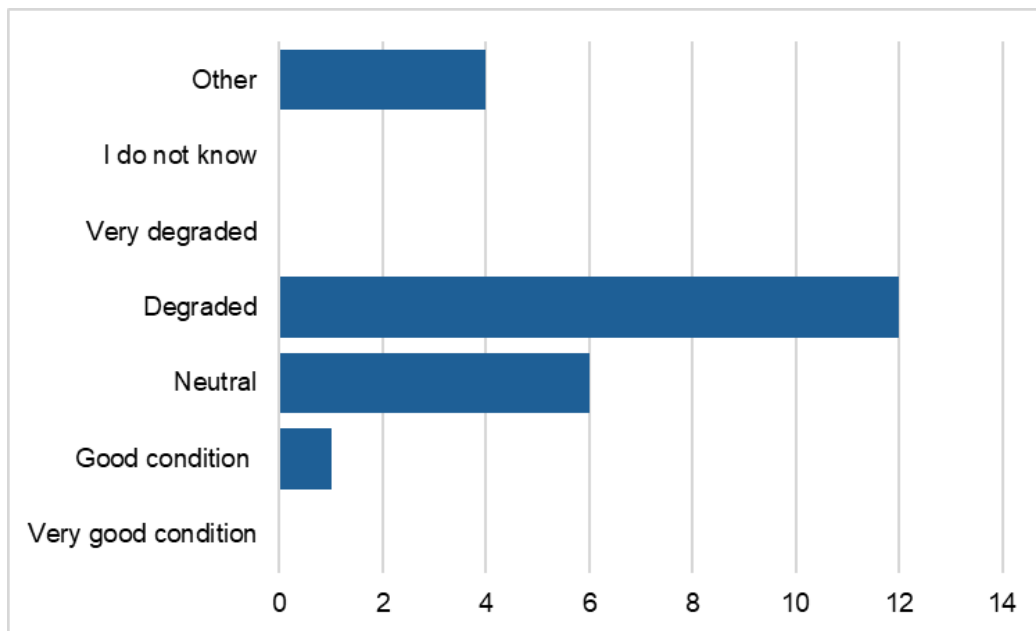


Figure 3. Respondents' assessment of the marine and coastal environment and ecosystems

A majority of the respondents perceive the marine and coastal environment as degraded. Meanwhile, a significant portion chose neutral, suggesting uncertainty or a perception of mixed conditions. Very few respondents assessed the environment as being in good condition, and none rated it as very good. Overall, the results suggest a prevailing concern about the state of marine and coastal ecosystems.

Assessment of sectoral/thematic coastal and marine ecosystem issues

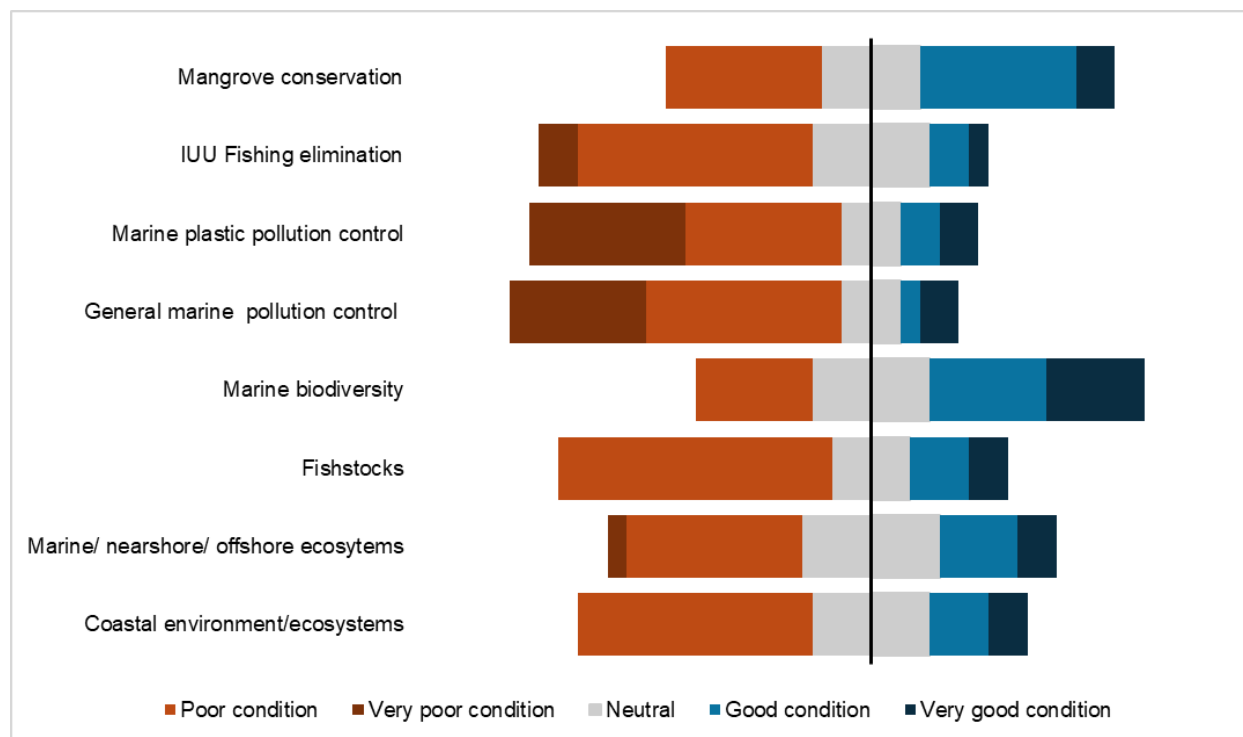


Figure 4. Perceived condition of coastal and marine ecosystem issues

The assessment of sectoral or thematic coastal and marine ecosystem issues reveals that most areas are perceived to be in **very poor** condition, particularly in **general marine pollution control** and **marine plastic pollution control**, indicating concerns about pollution. **Fish stocks** are perceived to be in **poor** condition, suggesting depletion of resources or overfishing. Meanwhile, **marine biodiversity** and **mangrove conservation** received slightly more positive assessments, with some respondents indicating **good** or **very good** conditions. **Neutral responses** were also common across categories, suggesting variability in perception or uncertainty. While some areas are seen more favorably, the overall sentiment points to a need for stronger conservation and management efforts, reinforcing the importance of an interdisciplinary leadership development program to address challenges in coastal and marine ecosystems.

Part 3: Needs assessment of blue economy leadership training

Participants' knowledge on subjects related to blue economy

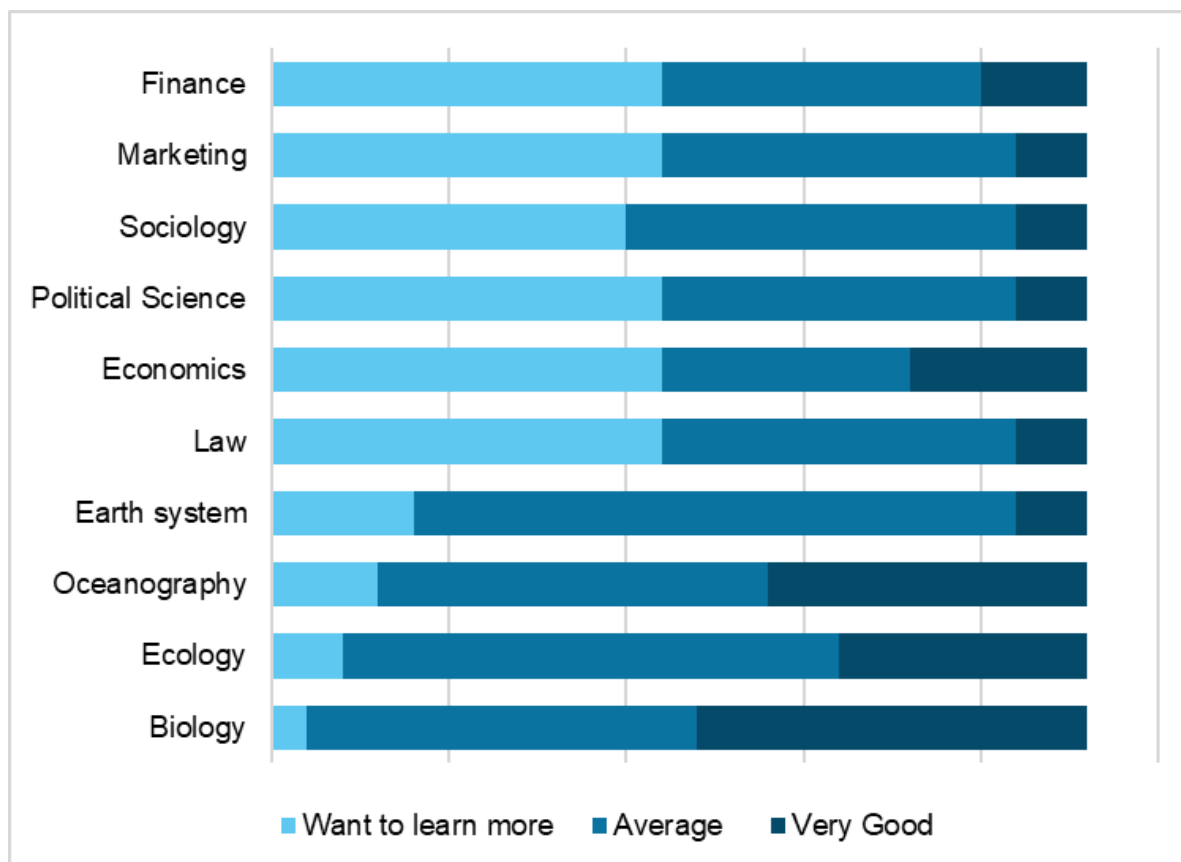


Figure 5. Respondents' level of knowledge on blue economy related subjects

Respondents are generally more knowledgeable in the natural sciences, particularly in oceanography, ecology, and biology, with a high percentage indicating average or very good knowledge. At the same time, the majority want to learn more about social sciences and business, particularly finance, marketing, political science, economics, law, and sociology. These findings suggest that while participants have a solid grasp of the natural sciences aspect of the blue economy, there is a need to strengthen their knowledge of social sciences. The proposed training program should bridge this gap by integrating governance, economic, and policy expertise with scientific knowledge for a well-rounded approach.

Interest rate on blue economy

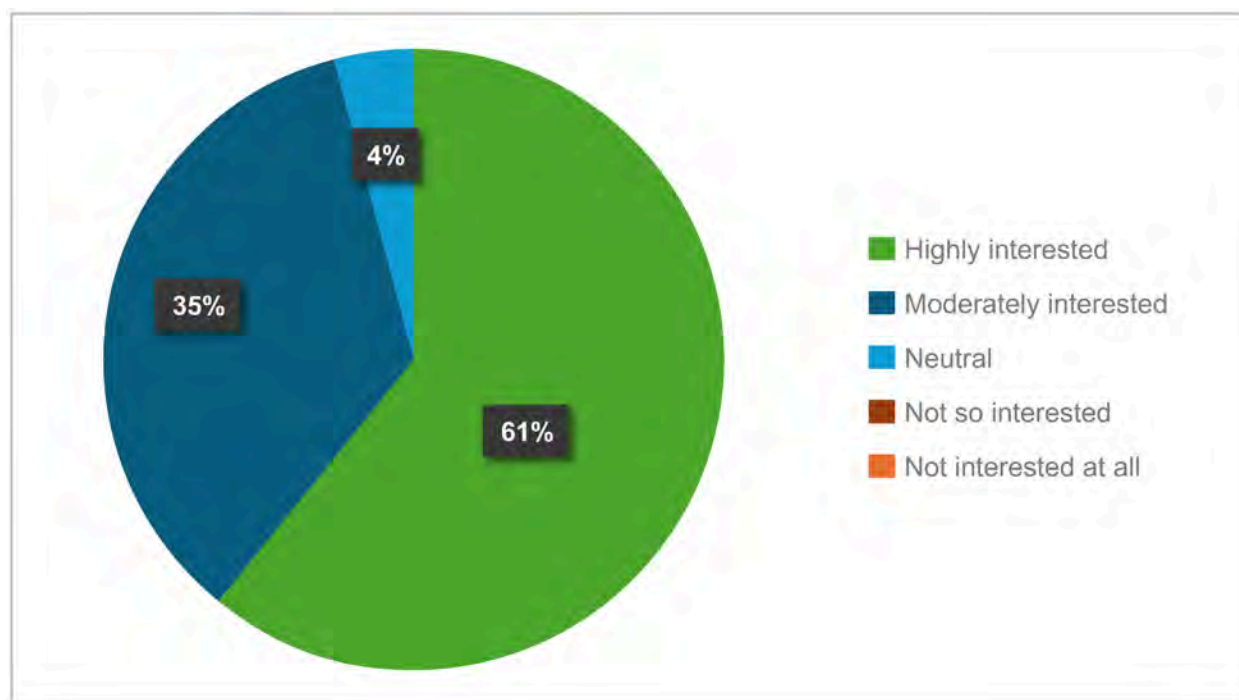


Figure 6. Respondents' interest in getting involved in sustainable blue economy activities

The results indicate a strong interest in sustainable blue economy activities, with most respondents being highly or moderately interested. Only a few were neutral, and no one expressed disinterest, suggesting a high willingness to participate in a training program for sustainable blue economies.

Interest on undergoing leadership training regarding blue economy

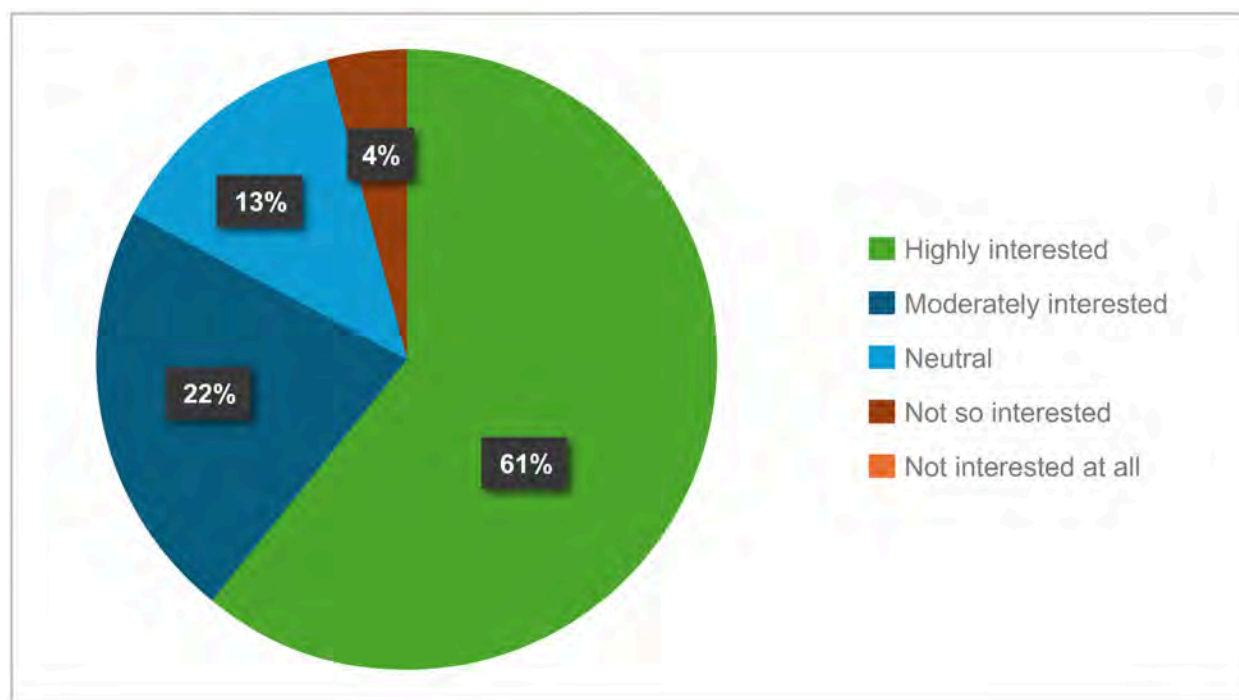


Figure 7. Respondents' interest in undertaking an intensive, pragmatic and interdisciplinary leadership development program on sustainable blue economies

The results indicate a strong interest in undertaking an intensive, pragmatic, and interdisciplinary leadership development program on sustainable blue economies, with the majority expressing high or moderate interest. While a small percentage remained neutral or not so interested, overall enthusiasm for the program is evident.

Interest level on acquiring knowledge in subjects related to blue economy

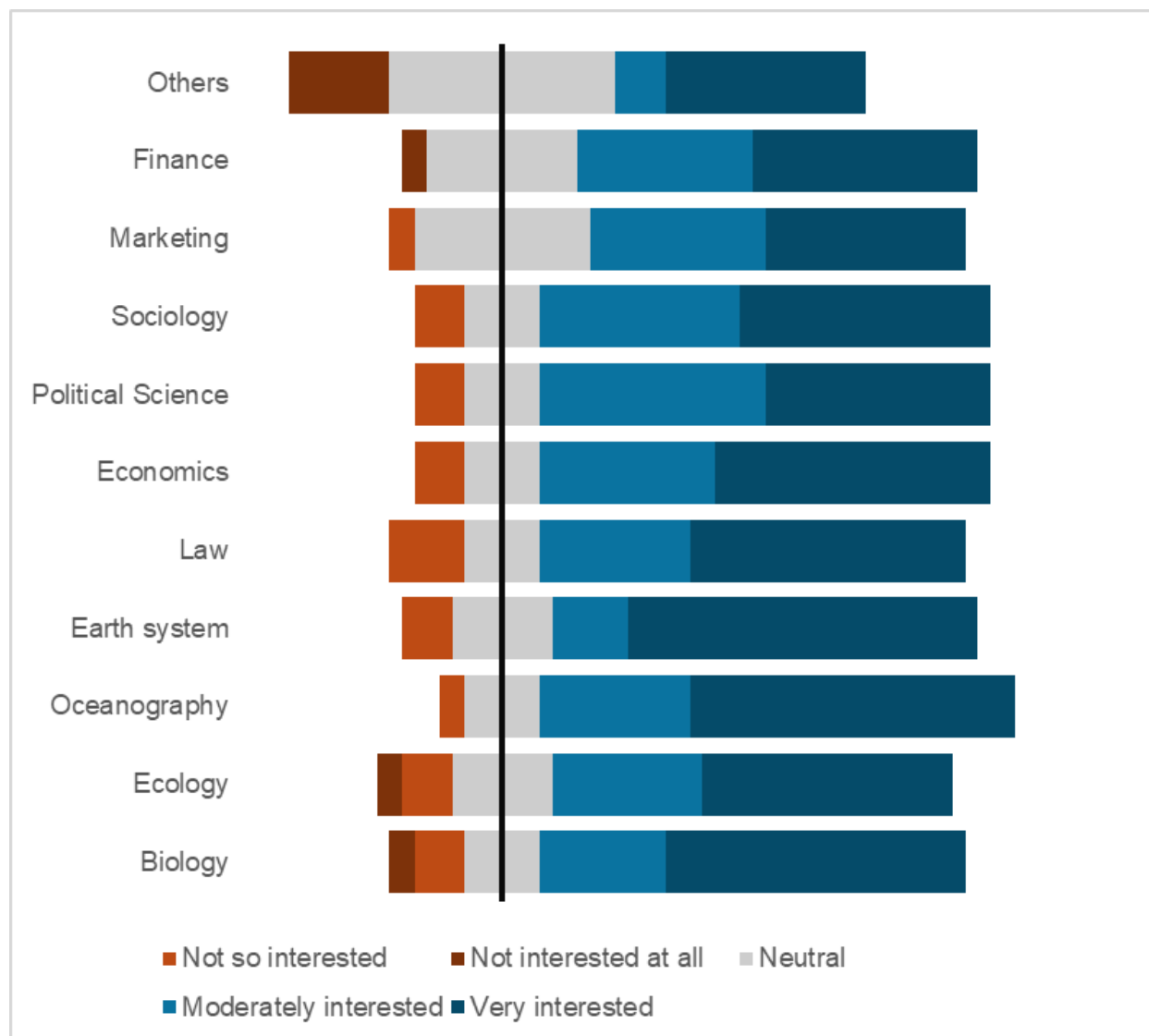


Figure 8. Respondents' interests in acquiring knowledge in blue economy related subjects through the intensive training program

The data shows strong interest in blue economy-related subjects, particularly in biology, ecology, and oceanography within the natural sciences, as well as economics, political science, and sociology within the social sciences. Interest in the natural sciences is consistently high, while the social sciences see a mix of moderate and high interest. This suggests an interest in both environmental and socio-economic aspects of sustainability, reinforcing the value of interdisciplinary learning in the leadership program.

Other topics participants are interested in

Aside from the topics already covered in the program, respondents expressed interest in various areas. In the sciences, biotechnology was mentioned. In management and governance, respondents highlighted conservation and management, project management, business economics, and global policies. In communication and outreach, there was interest in community engagement, development communication, and effective science communication.

Expectations of the intensive training course on sustainable blue economies

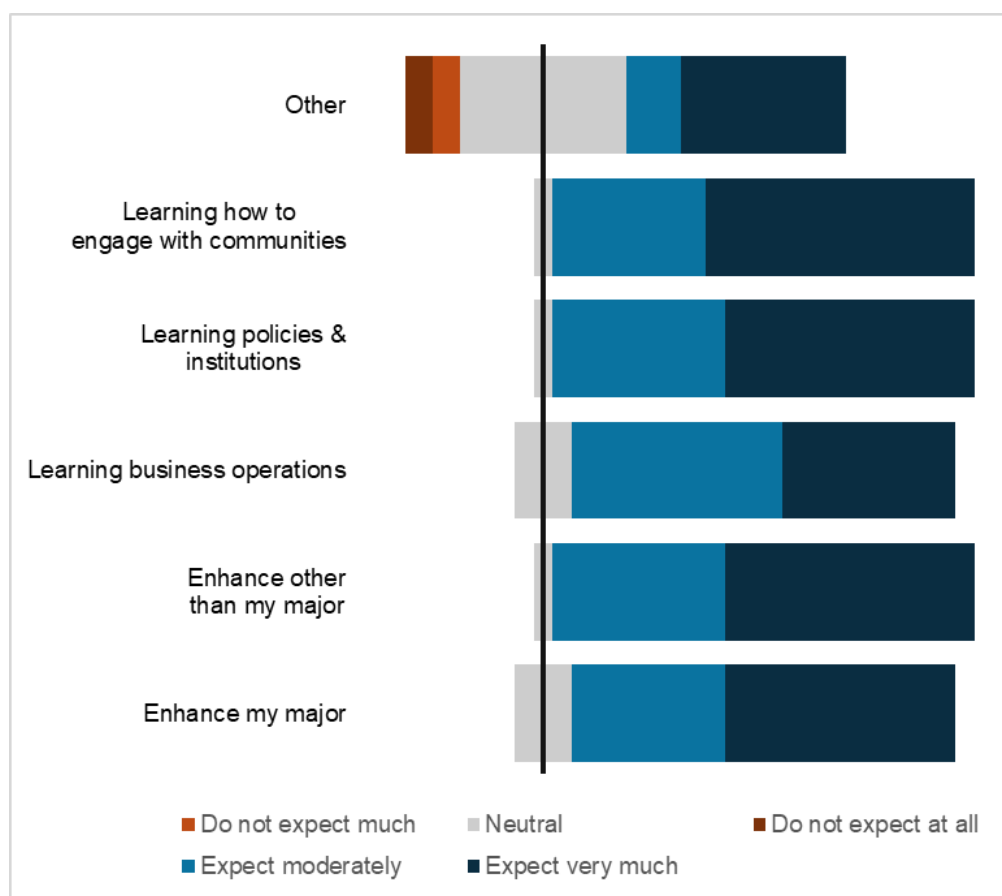


Figure 9. Respondents expectations to the intensive training program

The data shows that most respondents have high expectations for every category of the training program, particularly in learning how to engage with communities, understanding policies and institutions, and expanding their knowledge beyond their major. Overall, the findings highlight a demand for interdisciplinary learning and an opportunity to broaden their expertise through the training program.

Specific expectations participants have for the intensive training program

Respondents suggested that the program include speakers well-versed in science and policy communication, as well as guidance on effectively communicating their scientific findings to stakeholders. There was also interest in understanding the potential negative impacts of the blue economy and possible mitigation strategies.

Key factors for the successful implementation of the training program

Respondents identified several key factors for the successful implementation of training programs for sustainable blue economies, with stakeholder engagement and building awareness or knowledge about the oceans being the most frequently mentioned. They emphasized the need to engage not only coastal communities but also those living away from the coasts, as cooperation and participation from various sectors were seen as important. This includes promoting ocean literacy, increasing understanding of the importance of marine ecosystems, and educating people about their potential impact on the ocean.

Other noted factors include having quality training content and delivery such as good speakers, informative materials, and practical, digestible topics. In relation to this, respondents also mentioned the need for flexible facilitation, consideration of the local context, and ensuring that the training is issue-specific, intentional and policy-driven were also mentioned. Lastly, the responses also pointed to the importance of motivating people, providing technical assistance, empowering communities, and ensuring participation from individuals with diverse backgrounds.

Part 4: Needs assessment of start-up support to sustainable blue economies

Importance for Start-up Support on Sustainable Blue Economy

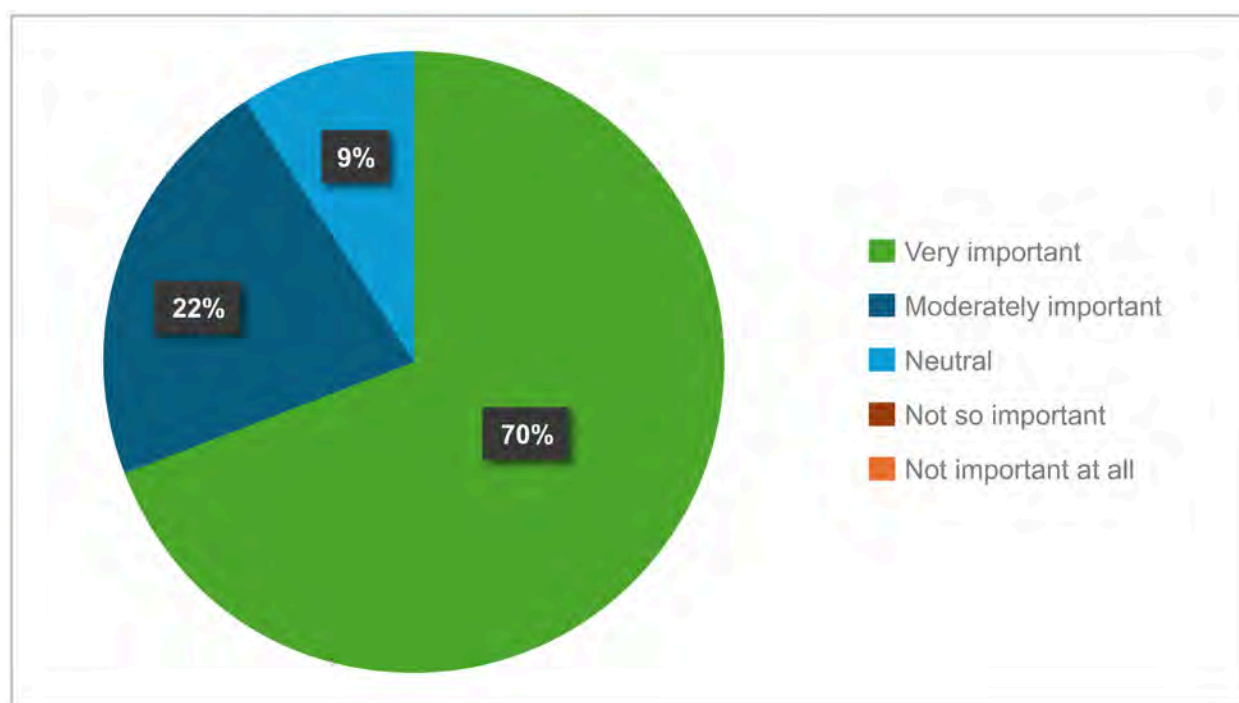


Figure 10. Perceived importance of start-up support to sustainable blue economies

According to the respondents, start-up support to sustain blue economies is considered very important. The data shows a generally favorable response, with the majority rating it as very important, followed by moderately important and neutral. In contrast, no respondent indicated that it was not so important and not important at all.

Key factors for the successful operation of the start-up support

Respondents identified several key factors that contribute to successful operation for start-ups in the blue economy. Financial support emerged as recurring, with mentions of funding, monetary incentives, and solid financial models. Mentoring is also emphasized, specifically access to experienced mentors who can offer industry knowledge. Some also answered the role of strategic planning framing. Respondents suggest careful planning and policy-driven approaches are vital.

Furthermore, collaboration, stakeholder engagement, and knowledge sharing were also mentioned. Respondents included creating networking opportunities, facilitating capacity building, and promoting a sense of shared purpose.

WORKSHOP PROPOSAL

Proposal for Intensive Training Course on Leadership Development for Sustainable Blue Economies in the Philippines

Introduction

The Philippines is an archipelago country in the Pacific. Fishery, aquaculture and marine tourism constitute an important economy and industry for the country including island communities. Sustainable blue economies are a critical policy goal aimed at promoting the conservation and sustainable use of marine resources while advancing sustainable development. Recognizing the need for leadership in this domain, the University of the Philippines Diliman (UPD) and the Marine Environment & Resources Foundation, Inc. (MERF), leading institution on ocean science and stakeholder engagement, have taken a proactive role in fostering research and human resource development in marine resource management.

To further this mission, UPD and MERF, in collaboration with the Sasakawa Peace Foundation – Ocean Policy Research Institute (OPRI/SPF), propose an intensive leadership development training course. This course is designed to equip graduate students, young professionals, and undergraduate students with interdisciplinary knowledge and practical skills essential for designing business projects, mobilizing financial resources, managing organizations, and fostering partnerships within the sustainable blue economy sector.

Objectives

The proposed training course aims to:

- Develop leadership skills essential for advancing sustainable blue economies.
- Provide interdisciplinary knowledge and practical experience in marine resource management.
- Enhance participants' ability to design and implement business projects in the blue economy sector.
- Foster collaboration and partnerships among stakeholders in the marine resource domain.
- Evaluate the feasibility of establishing a full-fledged and regularized training program.
- Consider the designing of the mechanism to provide start-up support.

Proposed Activities

To achieve these objectives, the following activities will be undertaken:

- **Curriculum Development:** Design a comprehensive curriculum that includes core disciplines, relevant topics, and case studies on sustainable blue economies.
- **Selection of Teaching Staff:** Engage faculty members and practitioners from UPD, MERF, and affiliated networks to deliver lectures and mentorship sessions.

- **Training Program Implementation:** Conduct in-house lectures, field visits, group projects, and presentations where participants propose hypothetical blue economy business models.
- **Regional Engagement:** Explore opportunities to involve teaching staff and participants from neighboring Southeast Asian countries to enhance knowledge-sharing and networking.
- **Logistical Coordination:** Arrange accommodations, transport, and resources necessary for participants and faculty members to ensure a smooth training experience.
- **Evaluation and Feedback:** Conduct post-training surveys and assessments to evaluate outcomes, gather feedback, and provide recommendations for developing a full-fledged leadership development program.

Expected Outcomes

The successful implementation of this training course is expected to:

- Enhance the leadership capacity of young professionals and students in sustainable blue economy management.
- Equip participants with practical skills to design, fund, and implement blue economy business projects.
- Strengthen partnerships among academic institutions, industry professionals, and policymakers in the blue economy sector.
- Provide valuable insights for the establishment of a regularized and comprehensive training program.
- Contribute to the long-term sustainability and development of marine resource management practices in the region.

Modalities

By piloting this intensive training course, UPD, MERF, and SPF will play a pivotal role in developing the next generation of leaders in sustainable blue economies. This initiative will serve as a stepping stone toward a full-scale program that will drive sustainable marine resource management and economic development across Southeast Asia and beyond.

Budget

It is ideal to develop a program that will allow UPD and MERF to engage other universities in the Philippines. The provisionally estimated budget is herewith attached and it is still subject to further reviews. There is also an option to focus on the students at the UP Diliman without engaging off-campus faculty members and students as an initial phase.

A proposed budget table for the workshop is included in the next page.

INDICATIVE BUDGET

		Unit Cost (USD)	No.	Days	Subtotal (USD)
Staff Cost					
	Lecturers on-campus	250	10	3	7,500
	Lecturers off-campus	250	5	3	3,750
Management and Administration					
	Supervisor	250	1	15	3,750
	Researchers	100	3	15	4,500
	Documentors	100	4	5	2,000
	Office Assistance				3,600
Accommodation					
	Off campus faculty members	50	5	5	1,250
	Off campus students	50	10	7	3,500
Meals					
	Lunch	20	50	3	3,000
	Dinner	30	60	2	3,600
Transport					
	Off campus faculty members and students				
		100	15	2	3,000
Grand Total					USD 39,450

LIST OF POTENTIAL LECTURERS

The detailed course outline will be developed as part of the Curriculum Development part of the proposal. Based on the survey, a list of potential resource people on different topics have been identified.

Marine Biology and Ecology

Mangroves – Dr. Rene Rollon

Professor, UP Institute of Environmental Science & Meteorology



Dr. Rollon is a full Professor and former Director of the Institute of Environmental Science & Meteorology (IESM), College of Science, University of the Philippines - Diliman. He studies various aspects of coastal marine science, with focus on mangrove and seagrass habitats. His involvement in research over the years includes national assessment of coastal resources, genetic connectivities, biodiversity studies, resilience and recovery of tropical coastal communities, coastal resource management, climate change vulnerability of coastal systems, impacts of typhoons and earthquakes, and blue carbon ecosystems. For two decades now, Dr. Rollon is also among the

EMB-DENR pool of experts sitting as members of the technical committees reviewing applications for environmental compliance certificates (ECC) of various projects.

Seagrass – Dr. Michael Roleda

Professor, UP Marine Science Institute



Dr. Michael Roleda is a Professor at The Marine Science Institute of the University of the Philippines–Diliman. He obtained his Dr. rer. nat. in Biology from the University of Bremen, Germany and undertook postdoctoral stints in Germany, Sweden, Scotland, New Zealand, and Norway. He returned to the Philippines in 2018 through the Department of Science and Technology (DOST) Balik Scientist Program. Dr. Roleda is among the Stanford List Top 2% Scientist based on 2023 citations. His research focuses on seagrasses and seaweeds. He has worked with tropical, cold temperate and Polar algae and participated in land-based research expeditions in the Arctic and Antarctic. Dr. Roleda's research interests include carbon, nutrient, and stress physiology,

reproductive biology, biodiversity, and applications and product development of commercially important seaweed species, among others.

Seaweed – Dr. Wilfred John Santiañez
Associate Professor, UP Marine Science Institute



Dr. Santiañez is an Associate Professor at the University of the Philippines Marine Science Institute, a DOST-PCAARRD Balik Scientist, and a Blue Pioneers Fellow.

He is the Collections Manager of the Gregorio T. Velasquez Phycological Herbarium and the Principal Curator of the Marine Macroalgal Reference Culture Collection of UPMSI. He works on various aspects of seaweed research for development, including seaweed biodiversity, biology, ecology, cultivation, and seaweed resources management. He is among the youngest seaweed taxonomists in the country and has described several new genera

and species of seaweeds from the Indo-Pacific Ocean in recent years.

Coral – Dr. Patrick Cabaitan
Professor, UP Marine Science Institute



Patrick Cabaitan is a Professor at the UP Marine Science Institute and a coral reef ecologist. His primary research interests lie in coral reef community ecology and restoration ecology.

Through the Coral Reef Ecology Laboratory, he leads research aimed at understanding the changing dynamics among different animals living in reef ecosystems. The broad applications of his work in coral reef monitoring include the study of behavior and interactions of reef animals, bleaching and reproductive response to disturbances such as thermal stress. His work on corals and

giant clams continues the restoration efforts led by the institute's late founder, Dr. Edgardo Gomez, which cemented UP MSI's role in marine conservation on a national scale.

Fish – Dr. Rene Abesamis
Associate Professor, UP Marine Science Institute



Rene Abesamis is an Associate Professor at the UP Marine Science Institute and a marine biologist. His research focuses on coral reef fish ecology and marine protected areas (MPAs).

He was previously based at the Silliman University - Angelo King Center for Research and Environmental Management (SUAKCREM) in Dumaguete City. After obtaining his PhD at James Cook University in Australia, he worked as a postdoctoral researcher at SUAKCREM and James Cook University and as adjunct faculty at Silliman University. In 2013, he was recognized as an Outstanding Young Scientist by the National Academy of

Science and Technology. In 2019, he was awarded with the Australian Alumni Excellence in Innovation Award for his contributions to Philippine and global marine science. Recently, he was awarded a 2024 Pew Fellowship in Marine Conservation — one of only four Filipino awardees in the grant's history. Through the Pew Fellowship, he hopes to enhance local capacity to identify and protect climate-resilient coral reefs in the central Philippines.

Marine Physical Sciences and Biotechnology

Oceanography – Dr. Charina Lyn Amedo-Repollo
Deputy Director for Research and Development, UP Marine Science Institute



Charina Lyn Amedo-Repollo is a physical oceanographer, Assistant Professor, and the Deputy Director for Research and Development at the UP Marine Science Institute. She is also a DOST-PCAARD Balik Scientist, earning her Ph.D. in Oceanography from the University of Hawai'i at Manoa.

As the head of the Physical Oceanography Observation Laboratory, she specializes in coastal and island circulation, high-frequency radar remote sensing, hydrodynamic modeling, and climate change dynamics. Beyond academia, she is actively involved in public outreach endeavors, utilizing her expertise through invited talks, workshops, training, and media.

engagements. Her commitment extends to research, mentorship, and advocacy, where she strives to advance our understanding of the ocean while advocating for its conservation.

Marine Biotechnology – Dr. Lilibeth Salvador-Reyes
Deputy Director for Instruction, UP Marine Science Institute



Lilibeth Salvador-Reyes is a Professor, and the Deputy Director for Instruction at the UP Marine Science Institute. She earned her Ph.D. in Pharmaceutical Sciences - Medicinal Chemistry at the University of Florida and returned to the Philippines with a UP Balik-PhD grant.

As the head of the Marine Pharmacognosy Laboratory, she leads efforts on the purification, structure elucidation, and bioactivity assessment of marine natural products. In combining the traditional method of bioactivity-guided purification with advanced methodologies in genomics, metabolomics, and high-throughput screening, she discovered many natural products from marine bacteria, cyanobacteria, sponges, and mollusks. She also bolstered the biobanking efforts of marine microorganisms and compounds, which she continues to work towards as the curator of the UP MSI Marine Natural Products Legacy Collection.

Marine Energy – Dr. Michael Abundo
CEO, Oceanpixel Pte Ltd



Dr. Michael Abundo is a green (and blue) techno-preneur who specializes in Marine Renewable Energy (with pilot projects in small island developing states and ‘tropical’ solutions) and other technology-enabled, innovation-infused sustainability transitions. He has over 15 years of experience in various roles in the Innovation and Research, Development, & Demonstration (RD&D) Ecosystems of the Asia-Pacific Region working with academe, industry, and government. He has contributed to the inclusion of Marine Renewable Energy into South East Asia’s Energy mix at various scales (e.g. energy harvesting, micro-grid, grid-tied/large scale) and for a spectrum of applications (e.g. vessel, ports, aquaculture, etc).

Michael is handling R&D/Project collaborations between industry, academe, and government focusing on Digitalization, Data Processing and Management, Autonomous Vehicles (land, air, sea -surface and underwater), Internet-of-Things (IoT), Human Factors, etc in applications such as robotics, food security, resiliency, energy, defense, traffic management (air and vessel), sustainable operations, and the wider Blue Economy.

He has successfully initiated, executed, and handed-over a community-based energy intervention programmes especially for accelerated post-disaster recovery with a sustainability plan involving various stakeholders (e.g. NGOs, Academe, Industry, local gov't).

Coastal Management

Conservation and Management – Dr. Vanessa Baria-Rodriguez **Deputy Director for the Bolinao Marine Laboratory, UP Marine Science Institute**



Maria Vanessa Baria-Rodriguez is an Associate Professor and Deputy Director of the Bolinao Marine Laboratory for the UP Marine Science Institute. She specializes in coral reef ecology.

As head of the Interactions of Marine Bionts and Benthic Ecosystems Laboratory, she leads research on the biology and interactions of coral reef benthic organisms. Her research projects aim to advance the science and socio-political governance of coral restoration efforts in the Philippines. Her objective is to use her research findings as a foundation for evidence-based policies that promote effective management and conservation practices.

Social Work & Community Development – Prof. Lenore Polotan-Dela Cruz **Dean, UP College of Social Work and Community Development**



Lenore Polotan-Dela Cruz, a professor of community development, is the dean of the UP Diliman (UPD) College of Social Work and Community Development (CSWCD). Polotan-Dela Cruz is an expert in community-based disaster risk reduction and disaster management, and coastal resources management.

Among her research interests are organization development, leadership, learning and knowledge management for non-profit organizations; monitoring, evaluation, accountability and learning for program quality enhancement; community development strategies; and gender and development.

Blue Economy and Policy

Blue Economy — Masanori Kobayashi Program Director, Sasakawa Peace Foundation



Mr. Masanori Kobayashi is the Program Director of Sasakawa Peace Foundation (SPF) in Tokyo, Japan working on ocean and sustainability policies including sustainable blue economies, sustainable fisheries, marine resource management, and ocean-based renewable energy. He worked on these subjects as Senior Research Fellow at the Ocean Policy Research Institute of SPF. He also worked for the Ocean Policy Research Foundation, Yokohama National University, Institute for Global Environmental Strategies, United Nations (New York, Geneva, and Bonn), and the Permanent Mission to UN in New York of the Japanese Ministry of Foreign Affairs.

His latest publications include “Capitalizing on Co-Benefits and Synergies to Promote the Blue Economy in Asia and the Pacific” published by the Asian Development Bank Institute in 2021. He holds LL.B. (Chiba U), M.A. (ICU), LL.M. (U of Georgia), and completed the doctor course without a degree in agriculture and life sciences (U of Tokyo).

Economics – Dr. Toby Monsod Professor, UP School of Economics



Dr. Toby Melissa C. Monsod is a Professor at the University of the Philippines School of Economics and Chairholder of the Ruperto P. Alonzo Professorial Chair in Development Economics. She is a Member of the National Technical Panel for the Reduction of Stunting and Malnutrition, Member of the Philippine Health Insurance Corporation Expert Panel on COVID-19, Associate of the Financial Futures Center, and Adviser to the Institute of Climate and Sustainable Cities, among others. She previously served as Assistant Secretary of Trade and Industry and Secretary General of the Housing and Urban Development Coordinating Council.

Dr. Monsod is currently a member of the Task Force on Climate, Development and the International Monetary Fund, a consortium of experts working to advance development-centered climate policy at the IMF.

Business – Prof. Alicia Morales

Managing Director, John Clements Leadership Institute



Alicia Rita L. Morales is the Managing Director of the John Clements Leadership Institute. Alicia has developed leadership programs for over 10,000 senior leaders from leading multinationals and regional conglomerates in Southeast Asia. She was instrumental in forging John Clement's previous partnership with Harvard Business Publishing from 2007 to 2019.

Concurrently, Alicia is the first woman Independent Director of publicly listed First Gen Corporation elected to the board since 2018, an Independent Director of BPI Securities Corporation since 2020 and a Professorial Lecturer on Sustainability at the Virata School of Business, University of the Philippines (UP) in 2024.

Prior to that, Alicia was the youngest Chairman of the Philippine Stock Exchange for two consecutive years and an active director for five years. She was then concurrently a Director of the Securities Clearing Corporation of the Philippines and a CEO of a top brokerage firm for nine years. Prior to that, she worked in Hong Kong for five years as Managing Director of a deposit-taking company in Hong Kong and a Director of an investment company. Before that, she was an AVP for Southeast Asian conglomerate, handling corporate finance and banking accounts in Hong Kong, Guangzhou, Thailand and Indonesia for three years. Prior to obtaining her MBA, she had worked and trained in US multinational banks in New York; undertook accounting internships in Bohlins Revisionsbyra in Stockholm, Sweden; and in Cologne, West Germany.

She garnered The Outstanding Women in Nation's Service (TOWNS) award for the category 'Business-Stock Exchange' in 2004, and the Triple A award from Maryknoll/Miriam College in 2014. She is a member of the International Coach Federation, a certified coach of Zenger Folkman, and a certified discussion leader of the Harvard Business School (HBS).

Ms. Morales is a CPA with a BS BAA Business and Accountancy degree from UP (1984) and an MBA from the Kellogg Graduate School of Management, Northwestern University, triple major in Finance, Marketing and Economics (1990). She completed the Advanced Management Program from HBS (2014), University of Oxford's Leading Sustainable Corporations Program (2023), Insead's International Directors and Sustainability Program (IDP 60) and obtained an INSEAD Certificate in Governance 2024.

She is a Trustee and Treasurer of the Harvard Club of the Philippines Global from 2020-2025, Trustee and Vice President of the Towns Foundation Inc. from 2024 to 2027, and former President of the HBS Club of the Philippines from 2018 to 2020.

Tourism - Dr. Ramon Benedicto A. Alampay
Associate Professor, UP Asian Institute of Tourism



Dr. Alampay works with local government units (LGUs) and their partners in the community and in the private sector to apply sustainable approaches to their regional economies, particularly tourism. His current areas of interest are focused on regenerative development and inclusive local economic development (LED), mostly in relation to tourism.

From 2010 to 2016, Dr. Alampay managed technical support programmes for 18 local government unit clusters across 9 Regions of the Philippines. At program's end, his partner LGUs reported a combined total of more than USD 1.4 billion in new public and private investments, more than 27,000 new tourism-related jobs created, and more than 8 million visitor arrivals per year. He also developed the projects' tourism circuit planning framework that combines tourism asset mapping/physical site planning with value chain analysis.

Dr. Alampay returned to the tourism faculty of the University of the Philippines in 2017 to continue his research in relation to local competitiveness for inclusive growth, as well as to contribute to the development of the Institute's new graduate program in tourism development. He has also worked on a variety of sustainable tourism planning projects with national and local government agencies in the Philippines and around Asia. As a tourism consultant, he has worked on regional cooperation projects such as the Asian Development Bank-funded Greater Mekong Subregion (GMS) Tourism Sector Strategy Project and the South Asia Subregional Economic Cooperation (SASEC) initiative.

Global Policies – Atty. Alezz Nuñez **Environmental Lawyer**



Atty. Alezz Nuñez is an environmental lawyer with more than two decades of experience in environmental and natural resource policy and governance and program management. She has served as an advisor and specialist to numerous international and local agencies including the US Agency for International Development, World Wildlife Fund, Department of Public Works and Highways, and Provincial Government of Negros Occidental. She provides policy and legal support in programs related to fisheries management, water quality management, and in ensuring transparency and accountability in the mining, oil and gas industries. Her work experience also covers training, capacity-building and teaching, and the practice of law before courts and administrative agencies.

Alezz received her degree in political science and Bachelor of Laws at the University of the Philippines Diliman. She completed her Master of Laws at the Columbia University in New York City with a Parker School Certificate of Achievement in International Law. She joined the TAO-Pilipinas Board of Trustees in 2021.

Marine Policy – Atty. Jay Batongbacal **Director, UP Institute for Maritime Affairs and Law of the Sea**



Jay L Batongbacal is a lawyer with degrees in Political Science and Law from the University of the Philippines, as well as Master of Marine Management and Doctor in the Science of Law, both from Dalhousie University (Canada). At present, he is a full Professor at the University of the Philippines College of Law and serves as Director of the Institute for Maritime Affairs and Law of the Sea of the U.P. Law Center. He has worked extensively on maritime affairs since 1997, carrying out research, consultancy work, and teaching, with numerous national and international publications to his credit. Dr. Batongbacal was legal advisor to the Philippine delegation that successfully pursued the Philippines' claim to a continental shelf beyond 200 nautical miles in the Benham Rise Region before the Commission on the Limits of the Continental Shelf in accordance with the United Nations Convention on the Law of the Sea (UNCLOS), and the successful application before the International Maritime Organization for the designation of the Tubbataha Reef Natural Park Particularly Sensitive Sea Area. He has been included among the UNESCO/IOC List of Experts for UNCLOS Annex VIII Special Arbitration on Marine Scientific Research. In 2022, Dr. Batongbacal completed a Taiwan Fellowship Program at the National

Taiwan Normal University in Taipei, Taiwan and a Fulbright Advanced Research and Lecturing Fellowship at the US Naval War College in Rhode Island, USA. He has since returned to continue teaching basic courses in Obligations & Contracts and Property Law, and is conducting “experimental game-based learning” with two elective courses, The Law of the Sea and Natural Resources Law.

Communication

Development Communication – Dr. Maria Stella Tirol Dean, UP Los Banos College of Development Communication



Dr. Tirol is the current Dean of the College of Communication, University of the Philippines. She is the College’s frontline practitioner when it comes to evaluation of communication programs. She recently completed a project of the Agricultural Training Institute on results-based evaluation of the e-learning program on agriculture and fisheries. She finished a study on communication, evaluation, and policy formulation of research-based information on muyong-payoh systems in Banaue, Ifugao.

Her expertise is on educational communication, community broadcasting, agricultural systems communication, participatory development communication, and communication planning, design, testing, and evaluation. She has served as a resource person in more than 40 training courses for UPLB and other state institutions, various government agencies, NGOs, and international organizations. She was consultant or team leader for communication research and extension programs on agricultural and rural development funded by local and foreign agencies. The Philippine local agencies include the Department of Agriculture-Agricultural Training Institute, UP Office of the Vice President for Academic Affairs, National Research Council of the Philippines, UPLB Basic Research Program, and the Department of Science and Technology. The international agencies comprise UN-FAO, UN-IFAD, IDRC-Canada and Singapore, UNICEF, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and Asian Development Bank (ADB), AUSAID, Philippine-Australia Short Term Assistance, and ACIAR.

She served as ComDev consultant for an IFAD project on rural radio initiatives for coastal climate resilience infrastructure project in Bangladesh in 2015-2016. She was study leader for the program on communication strategies and action plans in promoting rice-white corn combination as staple food of Filipinos (2016-2017). She served consultant for the project on production of DVD training video on pest and disease monitoring of cassava from September 1

– November 1, 2016. She was one of the international consultants for the FAO-funded project on enhancing rural communication services for agricultural development in Bangladesh from 2010-2013. She accumulated a wealth of experience with development communication projects on participatory broadcasting, adaptive learning and linkages for community-based natural resource management, food security, and climate change. She co-authored several articles published in refereed journals as well as chapters in a book with focus on communication for development.

Science Communication – Ms. Bayosa Aya Cariño-Valdez
UP Marine Science Institute



Ms. Aya Cariño-Valdez has served as the Head of Science Communications of the University of the Philippines Marine Science Institute (MSI) since 2022. Aside from handling MSI's social media where she shares MSI's research to a broader audience, her role was critical in MSI's participation in the public discourse for ocean issues in the Philippines including the regional importance of the biodiversity found in the West Philippine Sea, delivering timely communication during oil spills, synthesizing possible impacts of coastal development and reclamation along Manila Bay. She has developed several materials and tools for ocean literacy including an award winning book, digital games, animations, exhibits, and tabletop games on climate change adaptation, and disaster risk reduction. She is persistently working to integrate the use of science in the policy and management of the Philippines' oceans.