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ECOP
Early Career
Ocean Professionals

ECOP Africa Survey Report 2022-2023: Analysis and Results



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Background

The Early Career Ocean Professionals (ECOP) Programme seeks to empower young ocean professionals, who self-identify as being early in their career in any ocean-related field. The Programme is at the heart of the UN Decade of Ocean Science for Sustainable Development (2021-2030), hereafter referred to as UN Ocean Decade, and endorsed as a network program in 2021. ECOP Africa, one of the regional nodes, has as its vision to address the needs and priorities of ECOPs across Africa and empower its members with important professional and networking opportunities. The ultimate aim is to equip African ECOPs with the tools required to engage in discussions and actions that will culminate in sustainable ocean and blue economy outcomes during this vital decade and beyond.

As a primordial step to ensuring the success of the program, it was vital to undertake an inventory of the existing early career professions, their demographics, needs, challenges, strengths, and opportunities, as well as gauge the willingness of early career professionals in Africa to integrate the ECOP network. Hence, between the months of January and March 2022, a web survey was conducted consisting of both closed and open-ended questions in a Google form. The survey form was sent to African early career researchers/professionals identified in the ECOP Africa mailing list, other organizational mail lists, websites, newsletters, and social networks.

The 10 to 15-minute survey aimed to take stock of the level of engagement and networking among African ECOPs, and draw from that information to establish the ECOP Africa network, focusing on the needs, priorities, and challenges of African early career professionals working in the marine space, or other closely related fields. During this survey, 192 participants responded. Extreme caution was exercised to guarantee the confidentiality of the individual respondents and their data.

1. Demographic information

The survey revealed a wide distribution and diversity of ECOPs across Africa in terms of age, gender, nationalities, and professional status. It also revealed strong regional disparities concerning demographic patterns.

1.1. Gender distribution

The responders were almost split in half between males and females. Male respondents however surpassed females slightly: 54.8% and 45.2%, respectively.

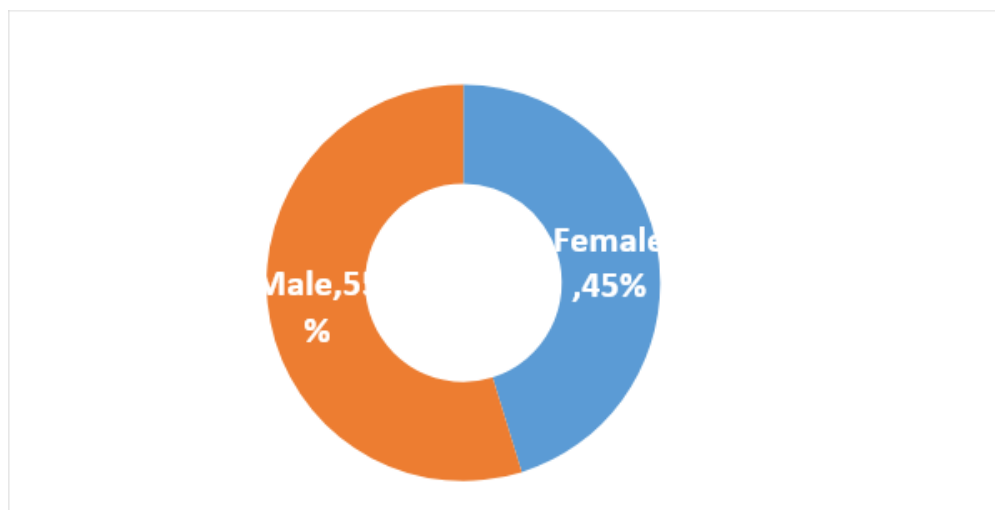


Figure 1.1. Graph showing the distribution of male to female respondents. Although male respondents slightly outnumbered females, the views of both groups can be said fairly well represented.

1.2. Age distribution

The age distribution of respondents revealed that the majority fell within the 21-30 age bracket (45.9%), followed by 31 – 40 (34.9%), and finally, the 40+ age group made up only 19%.

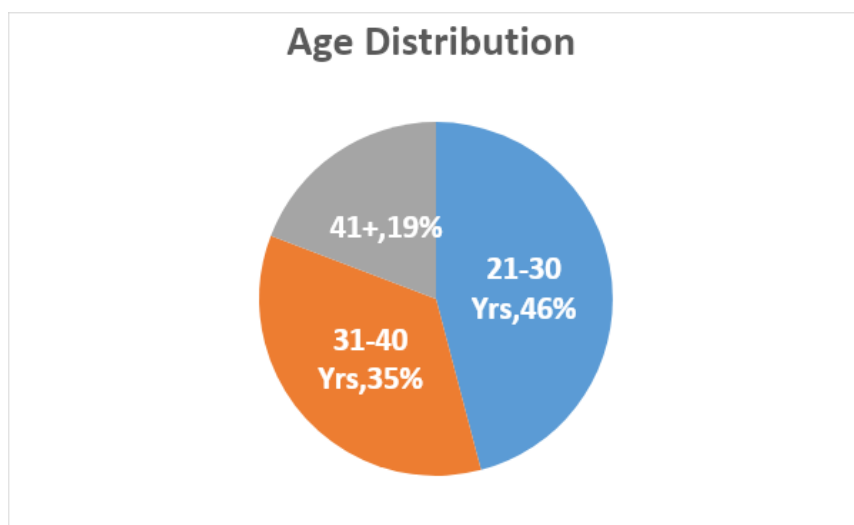


Figure 1.2. Age distribution of African ECOPs. The results of the age distribution are consistent with Africa’s designation as the youngest continent with 70% being under the age of 30 years. It reveals



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that at the onset of the ECOP Africa programme node, the most interested groups were likely university/post-graduate students.

1.3. Nationalities of ECOPs

The respondents came from a diversity of countries across Africa. ECOPs from Kenya, Nigeria, Ghana, and South Africa constituted the majority of respondents, followed by Somalia, Egypt, Cameroon, Tanzania, and Mozambique. The rest of the countries had only one respondent.

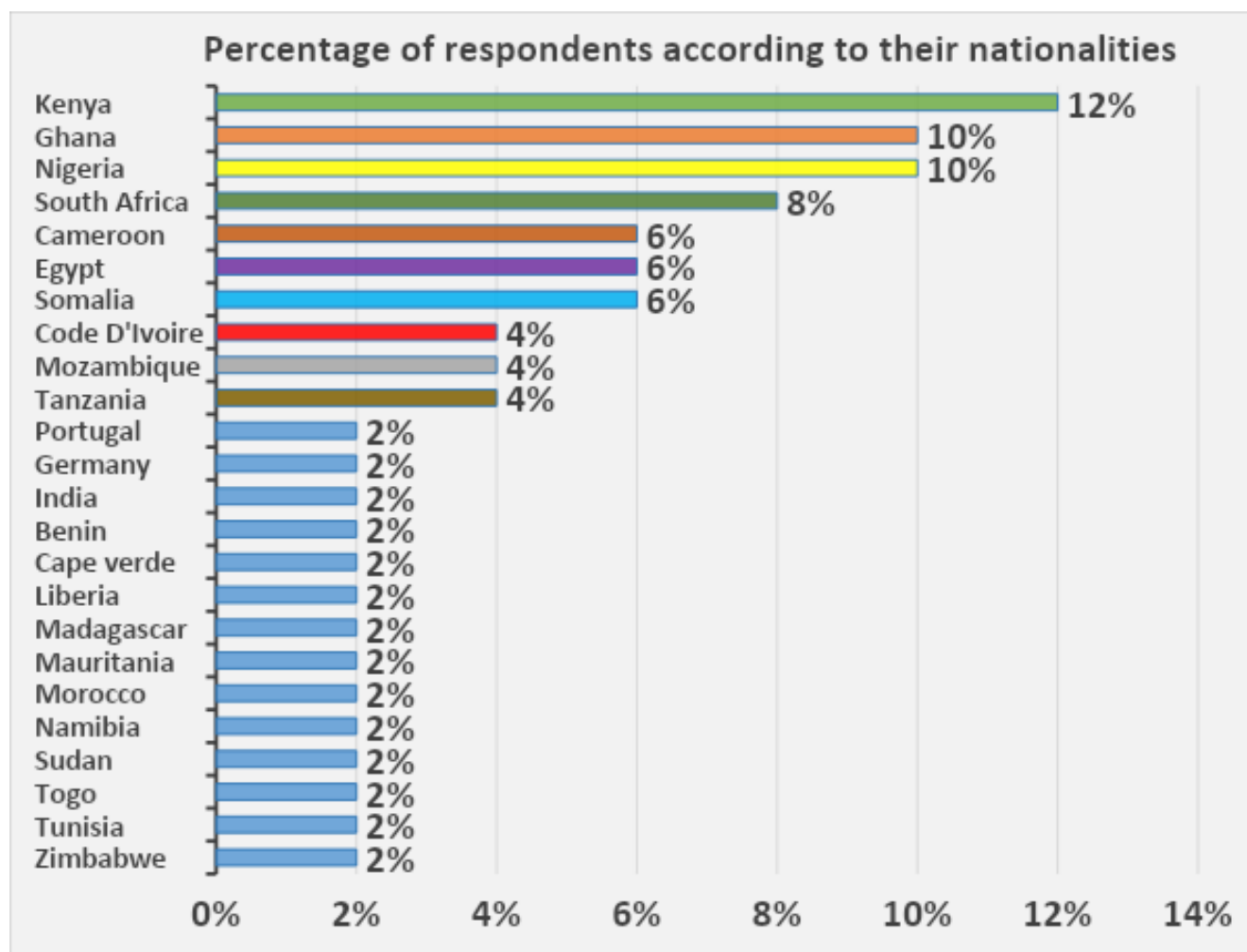


Figure 1.3. Nationalities of African ECOPs

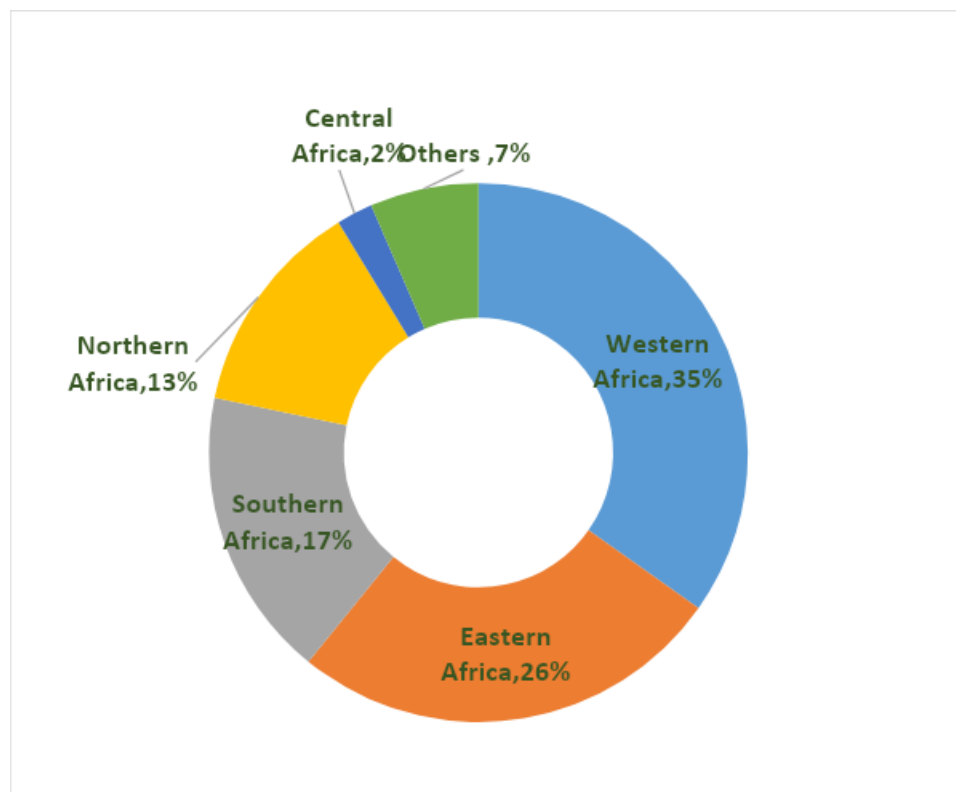


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Regarding the sub-regional composition of ECOPs, the West and East African sub-regions dominate the ECOP membership (60% and 18%, respectively), followed by Southern Africa (14%), North Africa (5%), and Central Africa (3%).





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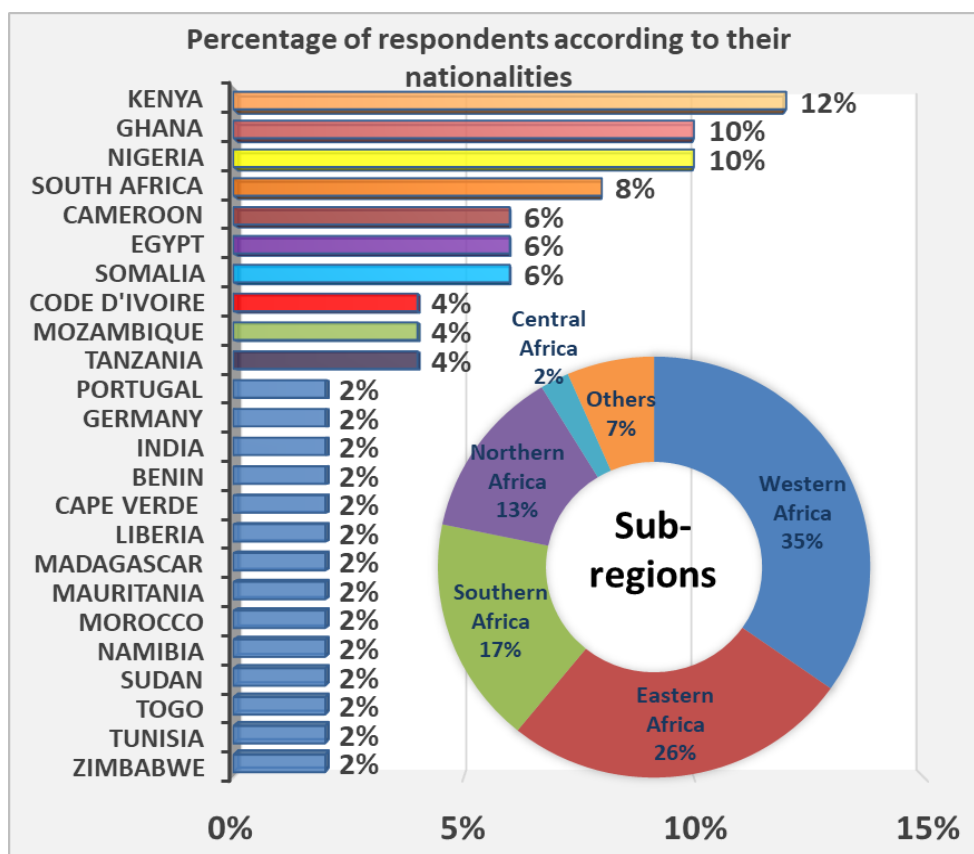


Figure 1.4. Regional disparities in the distribution of respondents. This distribution highlighted the potential for sub-regional disparity in ECOP Africa membership, dominated by Western and Eastern Africa. The category 'Other' (7%) refers to the nationals from other continents who took part in the survey for some reason.

1.4. Academic level

Regarding the respondents' academic level, the majority of the respondents had post-graduate education (76%), followed by diploma/Bachelor's degree holders (23%). 1% of the respondents had no university education.



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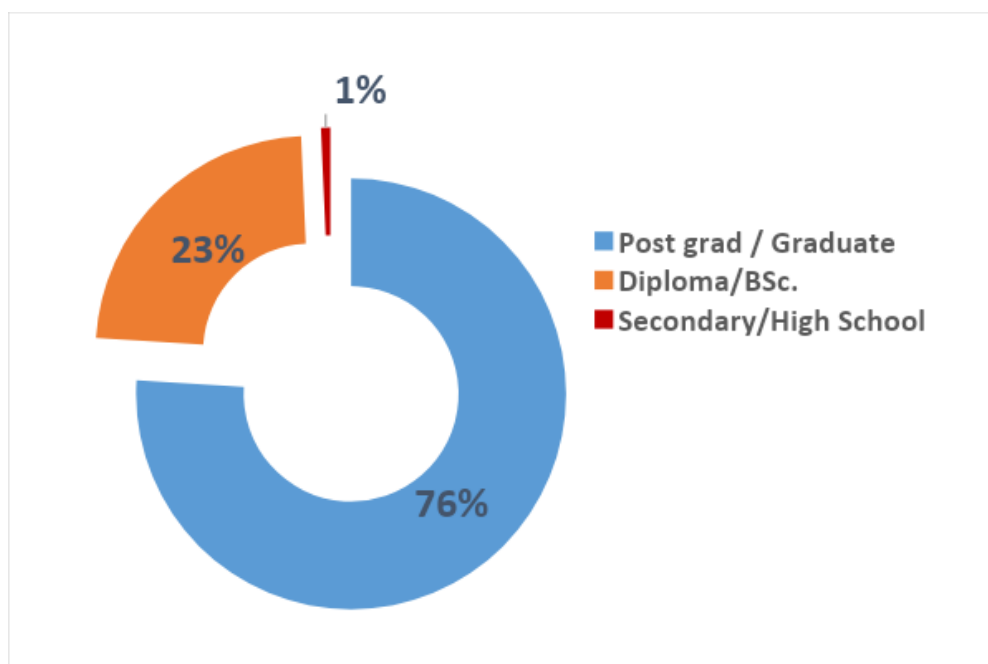


Figure 1.5. Academic levels of African ECOPs

This distribution revealed that ECOPs had relevant academic qualifications, implying a high literacy rate. The strong skew towards those with formal academic backgrounds also meant that emphasis should be placed on attracting other early career professionals irrespective of academic levels.

1.5. Professional career sectors to which ECOPs were affiliated

In terms of professional representation, most of the respondents were from the academic and scientific sector (62%), followed by Government workers (31%) and NGOs (15.2%). The private sector constituted only 6.2%, followed by community-based NGOs and international organizations (4.8% and 4.1%), and finally student-based organizations and the maritime logistics sector (2.8% and 0.7%), respectively.



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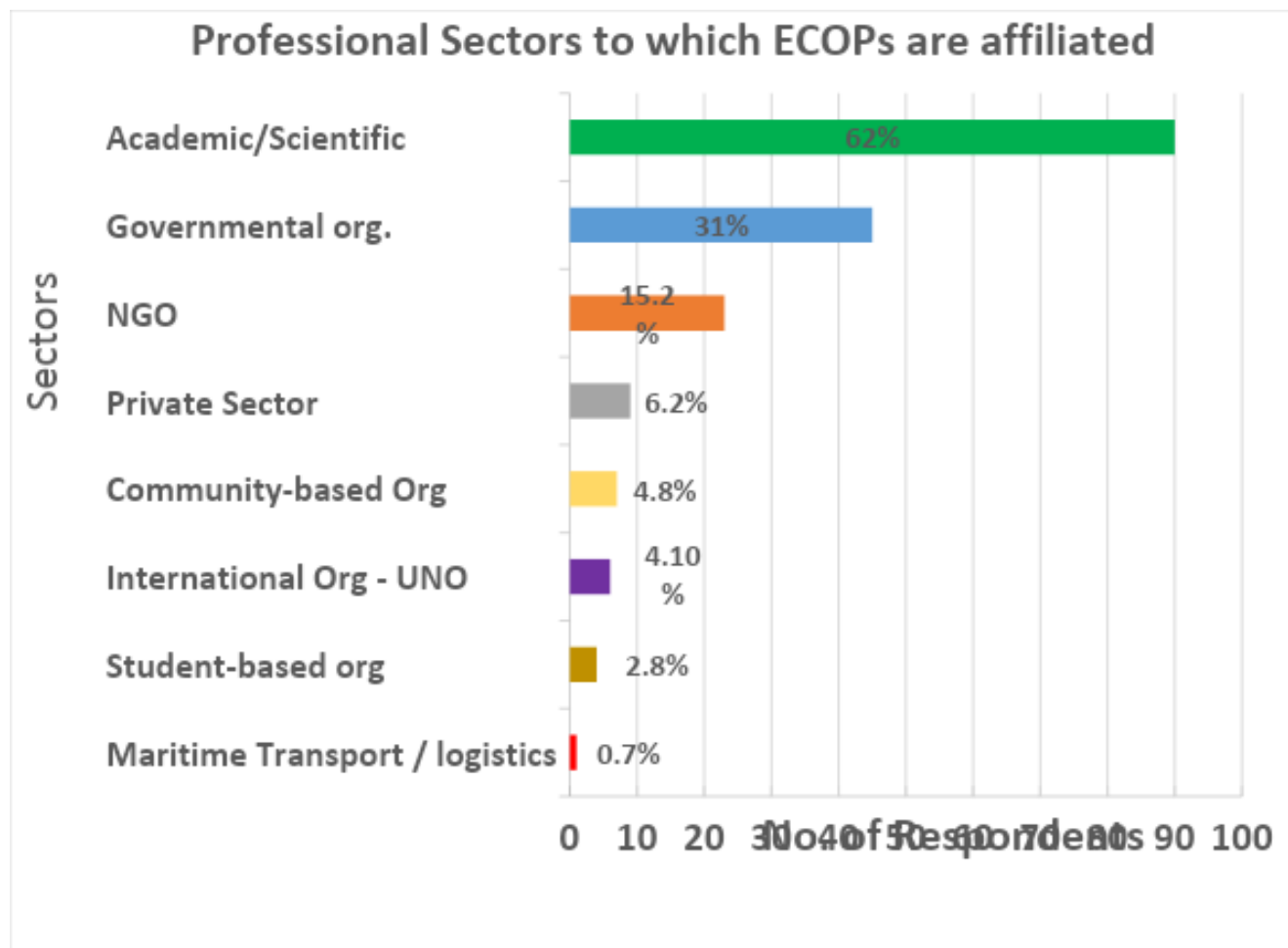


Figure 1.6. Professional sectors to which ECOPs were affiliated

The survey results highlighted the disproportionate representation of researchers and scientists from diverse institutes/universities across Africa, as well as employees from governmental and non-governmental organizations. The low participation of civil society groups, and professionals from other important blue economy sectors such as fisheries, aquaculture, ports, and marine transport, was also noted.

2. Self-identification and knowledge of existing networks

2.1. Self-identification as ECOPs

According to the survey results, 92.5% identified as ECOPs while only 7.5% were non-ECOPs. This is consistent with the youthful population across the continent and highlights the strong interest of early career professionals to network with their peers.

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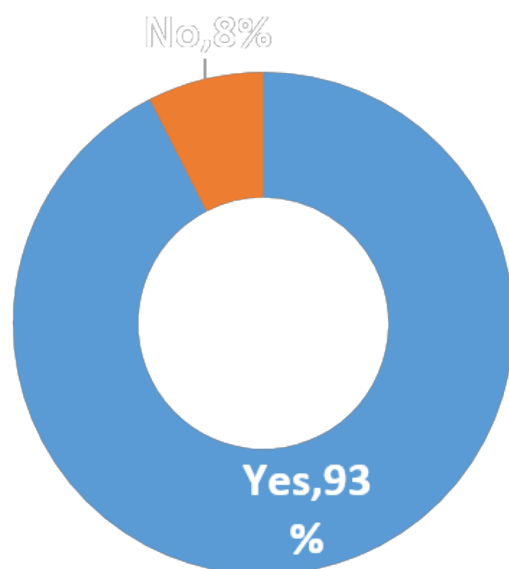


Figure 2.1. Self-identification as ECOPs. Over 90% of the respondents were within 10 years of their professional careers in an ocean-related field.

2.2. Awareness of existing ocean networks

The survey revealed that 63.8% of the respondents confirmed the existence of environmental and ocean-related networks in their countries of origin. The rest (36.2%) were not aware of the existence of such professional networks.

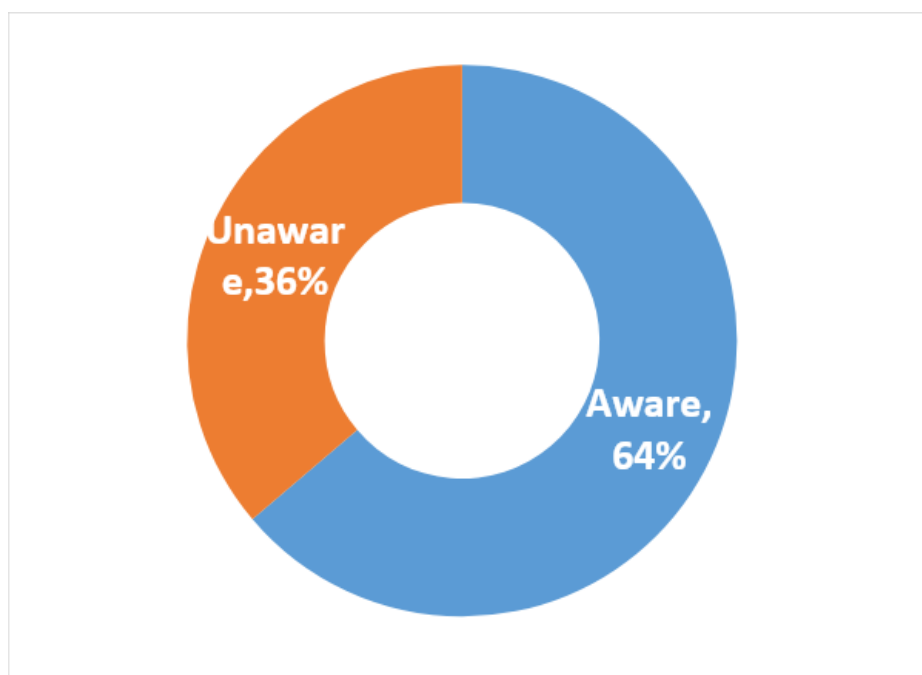


Figure 2.2. ECOPs' awareness of existing ocean-related networks.

This implies that there was already substantial networking among ECOPs in Africa spread across diverse organizations and networks.

2.3. Association with existing ocean networks in Africa

In terms of ECOPs' associations and affiliation to diverse networks, the survey revealed a mix of organizations and institutions, including early-career networks, comprising national, regional, and international organizations. The majority of the organizations were South African, followed by Ghana and Kenya, Mozambique, and Nigeria.

Table 1: Association with existing ocean networks.

Network/Institution	Location	No. of Early career professionals
Nelson Mandela University (NMU)	South Africa	1
PetroSA - https://www.petrosa.co.za/Pages/Home.aspx	South Africa	1
MetOcean - https://www.metocean.co.nz/	South Africa	1
South African Weather Service (SAWS)	South Africa	1
Institute of Maritime Technology (IMT)	South Africa	1



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University of Cape Town UCT)	South Africa	1
Council for Scientific and Industrial Research (BCSIR)	South Africa	1
South African Environmental Observation Network (SAEON)	South Africa	1
National Marine Research Information Centre	South Africa	1
WildOceansSA - https://wildtrust.co.za/wildoceans/	South Africa	4
South African Institute for Aquatic Biodiversity (SAIAB)	South Africa	1
Institute of Coastal and Marine Research, SA	South Africa	1
The South African Association for Marine Biological Research (SAAMBR)	South Africa	1
Council for Scientific and Industrial Research (CSIR)	South Africa	1
South African Environmental Observation Network (SAEON)	Durban, South Africa	1
Ocean Research Institute (ORI)	South Africa	1
International Ocean Institute – South Africa Center	South Africa	1
SEAMester - https://www.seamester.com/	South Africa	1
Ocean Rewards Program	South Africa	1
Youth4MPA - https://youth4mpas.com/	South Africa	1
South African Network for Coastal and Oceanic Research (SANCOR)	South Africa	4
Hurghada Environmental Protection and Conservation Association (HEPCA) - https://www.hepca.org/	Egypt	1
BlueMED (http://www.bluedmed-initiative.eu/)	Mediterranean	1
WestMED Initiative (https://westmed-initiative.ec.europa.eu/)	Mediterranean	1
Startup Europe Mediterranean (SEMED) -- http://www.bluedmed-initiative.eu/tag/semед/	Mediterranean	1
Coastal Conservancy Organization - https://www.conservancy.org/south-africa	South Africa	1
Ocean Revolution Mozambique - https://www.equatorinitiative.org/2022/08/02/ocean-revolution-mocambique/	Mozambique	1
Biofund Mozambique	Mozambique	1
MAR MOZAMBIQUE	Mozambique	1
PROAZUL https://www.proazul.gov.mz/	Mozambique	1
Aocan Acidification (OA) Africa - https://www.oa-africa.net/		1
Coast Avar		1



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Benguela Current Commission (BCC)		1
TEAMS (Cable systems)		1
Nairobi convention - UNEP		1
National Institute of Marine Science and Technology (NIMST)	Ghana	1
Sustainable Ocean Alliance Ghana Hub (SOA)	Ghana	1
West African Science Service Centre on Climate Change and Adapted Land Use (WASCAL)	Regional	3
Safe Ocean Network - https://biodiversitylinks.org/organizations/safe-ocean-network		1
Gulf of Guinea Maritime Institute (GoGMI) - https://www.gogmi.org.gh/	Ghana	1
Maritime Organisation for West and Central Africa (MOWCA)	Ghana	1
Marine Litter Network (MALNET) - https://malnetproject.com	Ghana	1
A ROCHA Ghana - https://www.arocha.org/ghana	Ghana	1
GOAN - https://www.thegoan.net/feeding-ghana/19431.html	Ghana	1
Ghana Science Association (GSA)	Ghana	1
Society for Conservation Biology (SCB)		1
British Ornithology Union (BOU)		1
Nigerian Institute of Oceanography and Marine Research (NIOMR)	Nigeria	1
Atlantis Ocean Society Nigeria (AOS)	Nigeria	1
Western Indian Ocean Early Career Scientists Network (WIO-ECSN) (wiomsa.org)	East Africa	10
The Western Indian Ocean Marine Science Association (WIOMSA)	East Africa	15
Tanzania Whale Network - https://tanga-yacht-club.or.tz/times/2020-09-29-tanzanian-whale-network/	Tanzania	1
MWAMBAO Coastal Community Network - https://mwambao.or.tz/	Tanzania	1
IOSEA marine turtles - https://www.cms.int/iosea-turtles/en/country/united-republic-tanzania	Tanzania	1
WINAM Community Scout	Tanzania	1



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TAOLA Network - Turtle Foundation (turtle-foundation.org)	Cape Verde	1
Seabed2030 Atlantic & Indian Ocean Regions - Seabed 2030	Regional	1
Af4		1
Namibia One Ocean Hub	Namibia	1
IUCN Species Survival Group		1
Atlantic Ocean Youth Ambassadors (AANCHOR) - https://allatlanticocean.org/global-resources/introduction/		1
National Institute of Marine Science and Technology (NIMST)	Kenya	1
National Oceanographic Data Centre (NODC)	Kenya	1
Oceans Alive Kenya - https://www.oceansalive.org/	Kenya	1
Integrated Coastal Zone Management (ICZM) Forum	Kenya	1
ABM Marine Fair - ABM Marine Products – Seafood Export	Kenya	1
Kenya Marine and Fisheries Research Institute (MFRI) Network	Kenya	1
Camp Management Capacity Building - CMCBO https://www.facebook.com/groups/CleanUpKenya/	Kenya	1
United Nations Educational, Scientific and Cultural Organization (UNESCO)	Global	1
International Oceanographic Commission IOC-Africa	Regional	5
Partnership for Observations of the Global Oceans (POGO) - http://ocean-partners.org/	Global	3
All-Atlantic Ocean Research and Innovation Alliance (allatlanticocean.org)	Global	1

**Several ECOPs were also associated with multiple organizations and networks.*

Most of the respondents were associated with WIOMSA and other related Western Indian Ocean networks, followed by international organizations and universities. The totality of respondents expressed their ambition to join a network for several reasons including capacity building and knowledge acquisition, networking, and a desire to contribute to marine science in Africa.

3. Needs assessment and priorities highlighted by ECOPs in Africa

3.1. Major financial needs prioritized by ECOPs

Capacity development ranked highest on the scale of important needs. In addition to capacity development, ECOPs also unanimously highlighted the importance of funding for scholarships, training workshops, conferences, projects, and startups.



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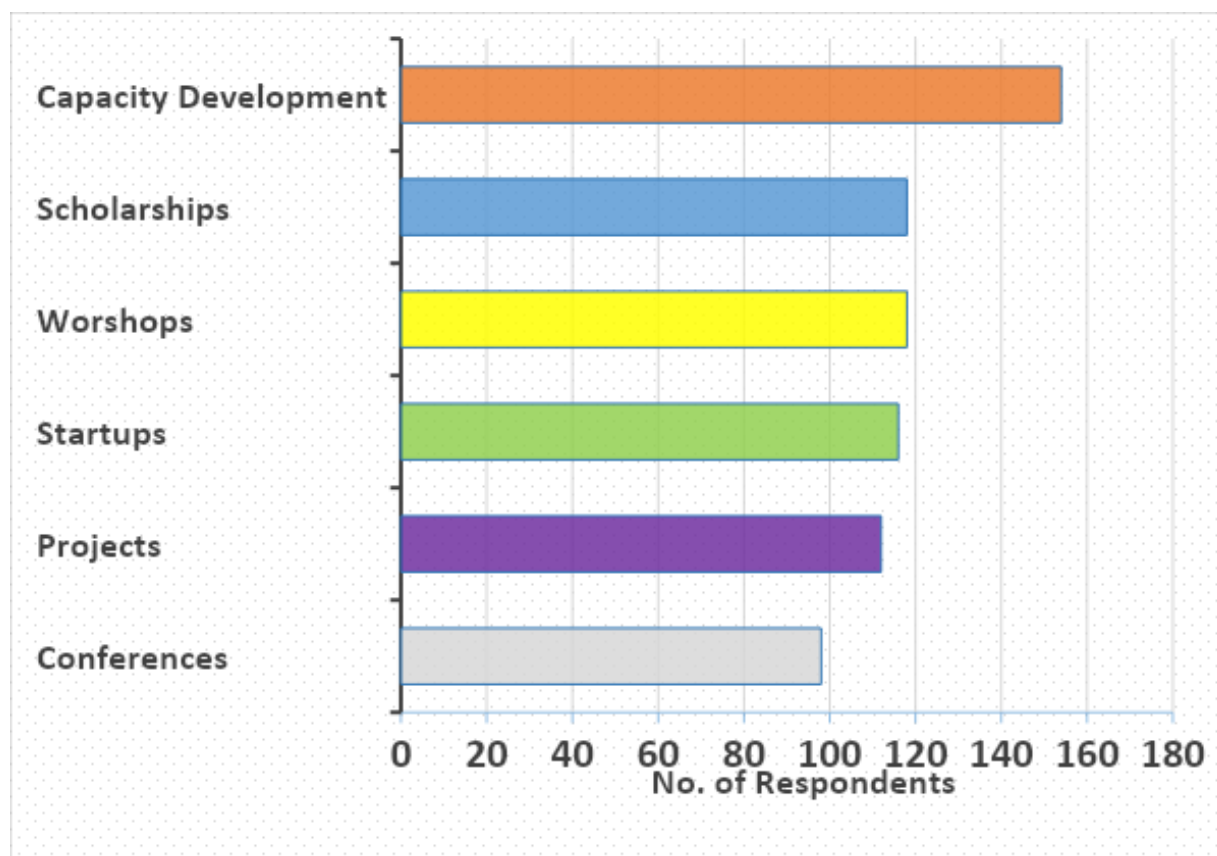


Figure 3.1. Major types of financial support needed by ECOPs, ranked according to perceived importance, based on the question: how important is the need for funding for the following activities? The results presented in the graph reveal that ECOPs unanimously require financial support for the key activities listed, of which capacity development was the most important.

4. Level of awareness among ECOPs

Respondents were asked to rate the following statements on a scale of 1 – 5 to gauge their level of awareness regarding the UN Ocean Decade, ECOP Programme, existing training opportunities, and establishment of sub-regional ECOP nodes.



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4.1. Awareness of the UN Ocean Decade

The majority of respondents expressed awareness of the UN Ocean Decade and its various activities (56.7%). However, up to 28.4% of the respondents were indifferent, while only 14.9% disagreed that ECOPs were largely aware of the UN Ocean Decade.

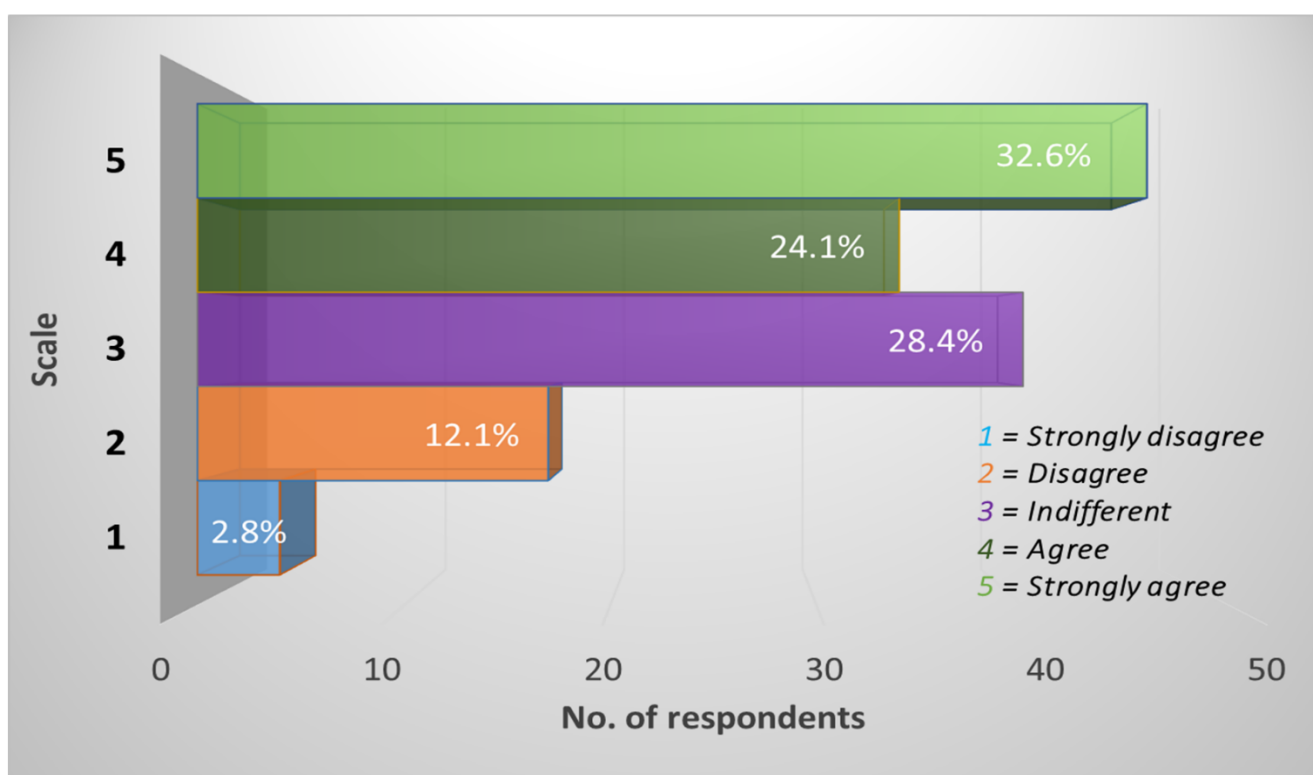


Figure 4.1. ECOPs' awareness of the UN Ocean Decade

The graph was based on the question: are ECOPs aware of the UN Ocean Decade Program? (1 = Strongly disagree, 2 = Disagree, 3 = Neither agree or disagree, 4 = Agree, 5 = Strongly agree).

4.2. Awareness of the ECOP Programme

48% of the respondents confirmed knowing the ECOP Programme, whereas 31.4% disagreed that African early career researchers were aware of the ECOP Programme. The rest, 20.6% neither agreed nor disagreed that young professionals across Africa knew about the ECOP Programme.



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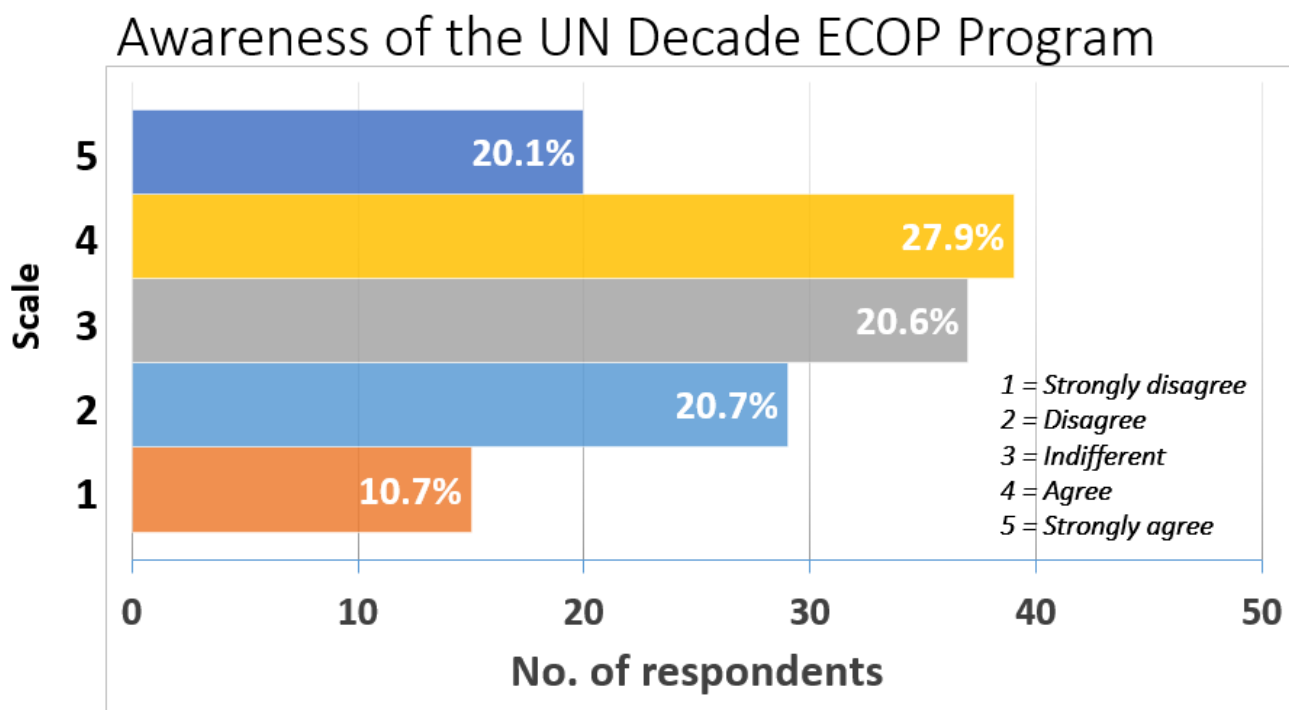


Figure 4.2. Awareness of the ECOP Programme. This graph was based on the question: are ECOPs aware of the UN Ocean Decade ECOP Program? (1 = Strongly disagree, 2 = Disagree, 3 = Neither agree or disagree, 4 = Agree, 5 = Strongly agree).

4.3. Awareness of existing training opportunities or programs in Africa

Having identified limited funding as one of the main challenges ECOPs face, the level of ECOPs' awareness of existing training opportunities was assessed. The majority of the respondents were unaware of any training opportunities. The rest knew of one or two opportunities, out of the training opportunities identified.



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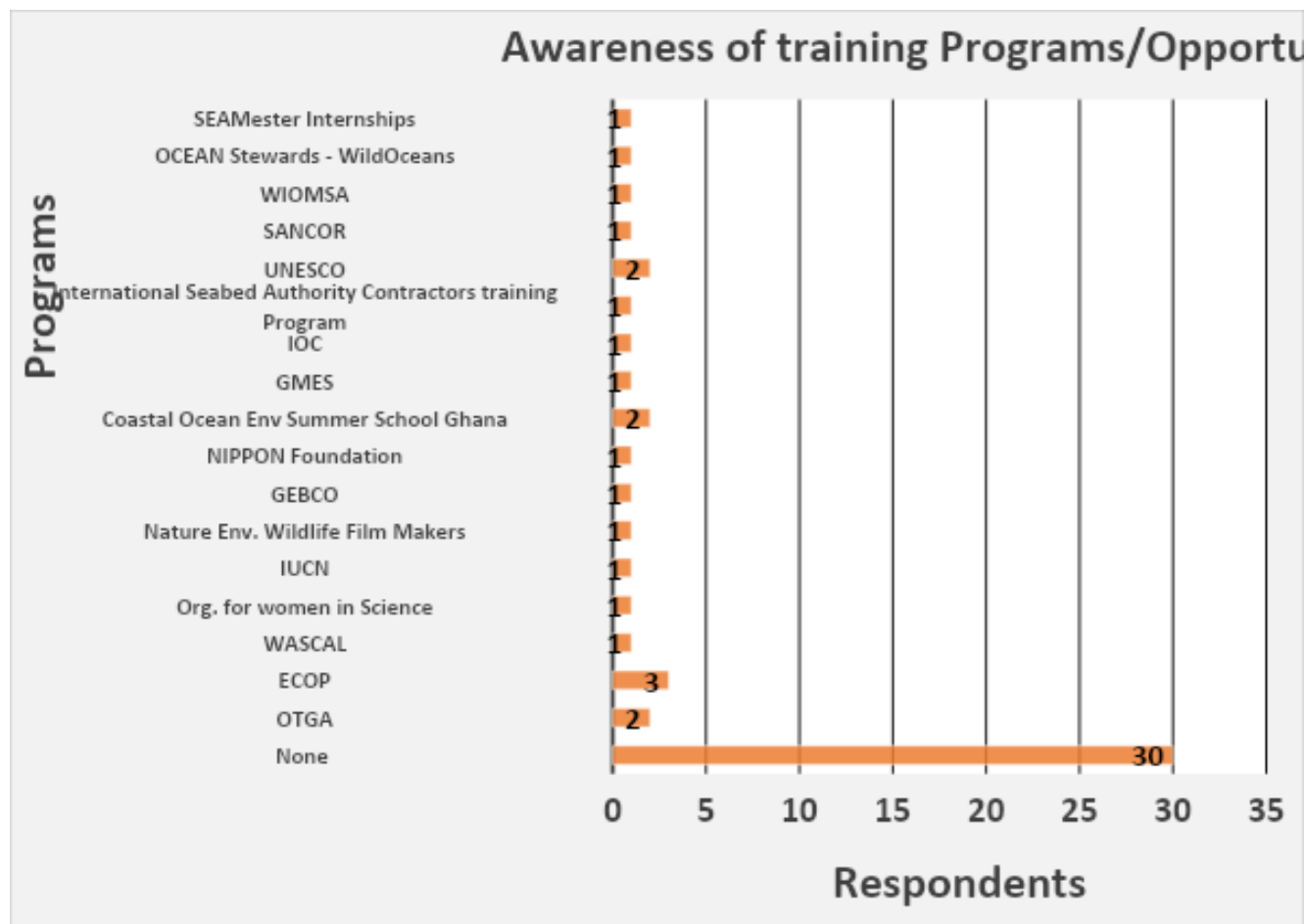


Figure 4.3. Awareness of existing capacity development opportunities. These results show a strong mismatch between the ECOPS' needs and existing opportunities. Hence, there is an urgent need to enhance communication between training providers and ECOPs in Africa.

4.4. The need to establish sub-regional nodes

Decentralization of any program can help facilitate its management and enhance the flow of information to the end-users. Consequently, respondents were asked to give their opinion regarding the establishment of sub-regional ECOP nodes. The respondents unanimously voted in favor of such decentralization (87%).



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The need to establish sub-regional ECOP nodes

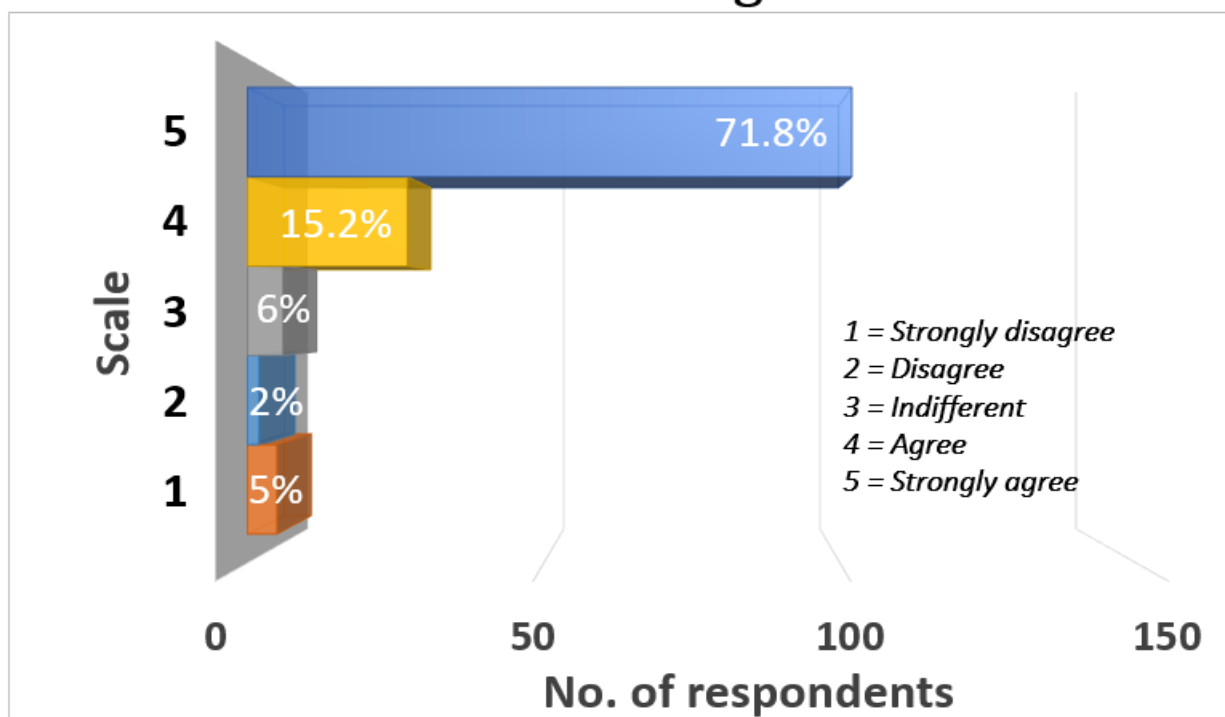


Figure 4.4. ECOPs' opinion regarding the need for a sub-regional node. This graph was based on the question: do you agree that there is a need for sub-regional ECOP nodes? (1 = Strongly disagree, 2 = Disagree, 3 = Neither agree or disagree, 4 = Agree, 5 = Strongly agree)

Hence, the majority of ECOPs believed that establishing sub-regional nodes would significantly improve the coordination of ECOP activities and increase awareness of the ECOP Programme.

5. Identification and prioritization of challenges faced by ECOPs in Africa

5.1. Prioritization of major challenges

The top three professional challenges identified by ECOPs included inadequate research funding, difficulties finding a job in the marine sector after graduation, and limited training opportunities.

Other important challenges included the lack of sub-regional ECOP nodes to facilitate the dissemination of information concerning ECOP-related activities, low salaries for ocean-related jobs, the effects of the COVID-19 pandemic that disrupted every major sector of society and economy, and gender inequality.

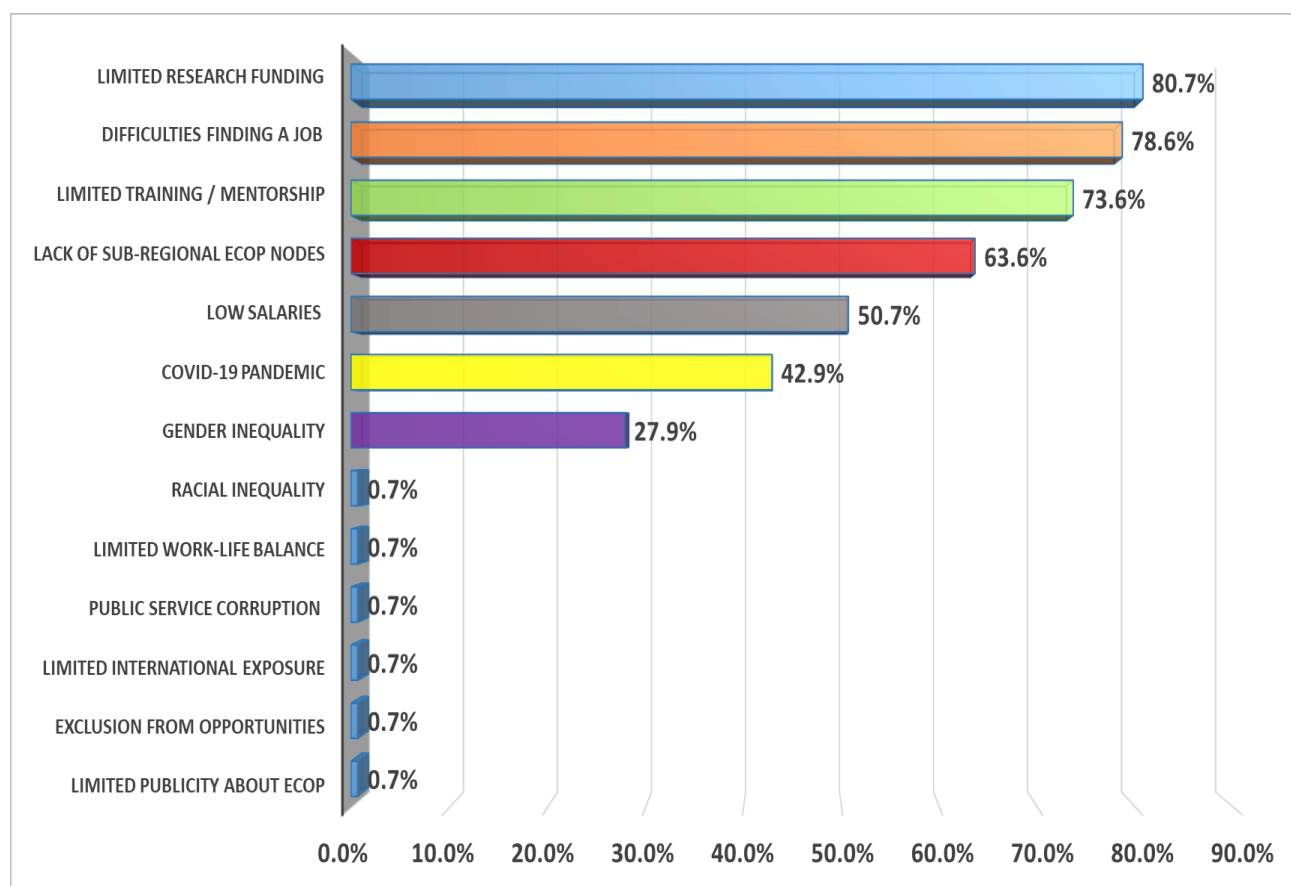


Figure 5.1. Major challenges identified by ECOPs and ranked by importance.

Out of the 16 challenges identified, the top seven were the most important ones. These challenges correspond with the funding needs identified earlier bolstering the point that funding for capacity development activities was a priority need for ECOPs.



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5.2. Representation in the governmental blue economy programs

An important step towards the empowerment of ECOPs is to involve and engage them in national governance mechanisms linked to the blue economy. In response to the question of whether ECOPs felt effectively represented in national blue economy programs, about 39% of respondents were unsure about ECOPs' involvement in their governments' blue economy strategies. In contrast, almost 33% of the respondents believed that ECOPs were not involved, while almost 28% affirmed that national governments involved ECOPs in the planning and operationalization of their blue economy sectors.

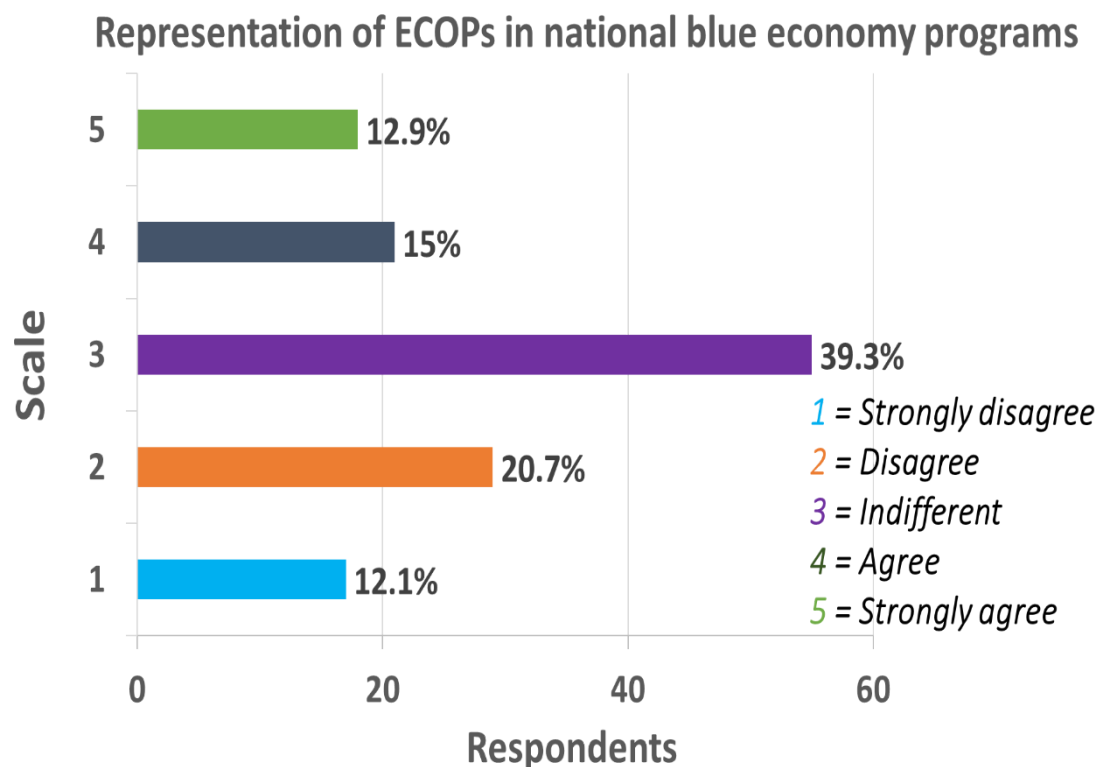


Figure 5.2. Representation of ECOPs in national blue economy programs (1 = Strongly disagree, 2 = Disagree, 3 = Neither agree or disagree, 4 = Agree, 5 = Strongly agree).

The results suggest that efforts need to be made to increase ECOPs' participation in the blue economy across Africa.

6. Matching ECOPs' skills/expertise to the Ocean Decade Outcomes

One of the starting points to a sustainable blue economy strategy is to identify existing strengths and capacities in the diverse disciplines that comprise the blue space and enterprise. Hence, identifying the Ocean Decade Outcomes that ECOPs' skills were matching, an overwhelming majority of respondents indicated that their skills and expertise could substantially contribute to all Decade Outcomes. Outcome 2 was the most addressed (68.1%), followed by (in order of priority) Outcomes 7 (55.3%), 1 (51.1%), 3 (49.6%), 5 (42.6%), and Outcomes 6 and 4 (39%), respectively.

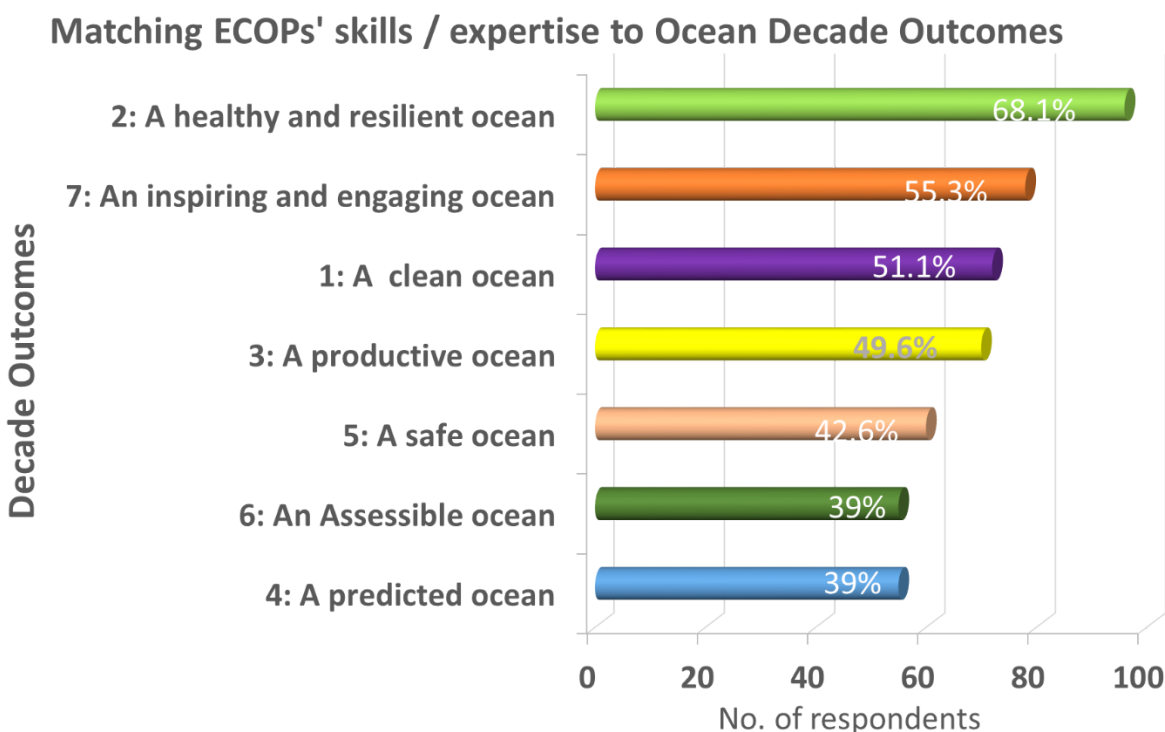


Figure 6. Skills and expertise of African ECOPs about the UN Ocean Decade Outcomes.

Highlighting the skills possessed by African ECOPs relative to the UN Ocean Decade Outcomes revealed the capacity of ECOPs to drive progress towards blue sustainability across the continent. This however would depend on whether these skills are effectively streamlined into national policies and actions.

7. Conclusions

The results of this survey revealed that:

- The demographics of ECOPs was skewed towards the 21-40 years age bracket, with an almost equal gender representation. Regarding regional balance, Western and Eastern Africa were overrepresented (61%), and largely dominated by Ghana, Nigeria, and Kenya. Furthermore, the majority of the respondents were researchers and civil servants. This implied that diversity was an issue to address within ECOP Africa. Hence, there is a need to enhance communication to reach ECOPs in more remote countries, including land-locked ones, as well as those of diverse socio-professional groups, irrespective of their levels of formal education.
- The challenges and needs expressed by ECOPs focused largely on the need for specialized training (capacity development and funding opportunities to better equip early career researchers and professionals with tools needed to drive change towards ocean protection, conservation, and a sustainable blue economy across Africa.
- Marginalization and the lack of opportunities were also identified as major challenges that limit ECOPs' ability to make important contributions to nationally and globally relevant topics. There is a need for a change in this regard because ECOPs possess the enthusiasm and skills required to contribute toward the Ocean Decade Outcomes. All respondents expressed the desire to participate actively in the ECOP Programme. Some of the respondents highlighted the need to include traditional knowledge of ocean management and governance with a strong inclusion of the youth in decision-making. They also pointed out the need to protect and promulgate underwater cultural heritage sites, strengthen the capacity of ECOPs through the provision of research grants, and encourage direct engagement through conferences, workshops, as well as capacity building in data science.
- It was however also observed that most ECOPs were oblivious of the existing capacity development programs and funding opportunities available to them. Furthermore, although ECOPs were affiliated with several regional and national organizations, awareness of other existing networks, and the interactions between these networks seemed insufficient.
- To address the challenges identified, ECOP Africa will focus on efforts to increase awareness of the UN Ocean Decade, the ECOP Programme, and existing capacity development programs available to early career researchers, create new free and accessible training opportunities, boost the ECOP Programme membership, and promote networking amongst the various programs and ocean-related organizations.
- In addition to enhancing regional cooperation among networks and increasing ECOP's global visibility, ECOP Africa will foster ties with regional and sub-regional organizations via its sub-regional and national nodes (to be established), helping African states to leverage the vast wealth of skills and knowledge possessed by ECOPs to address the UN Ocean Decade Challenges.