



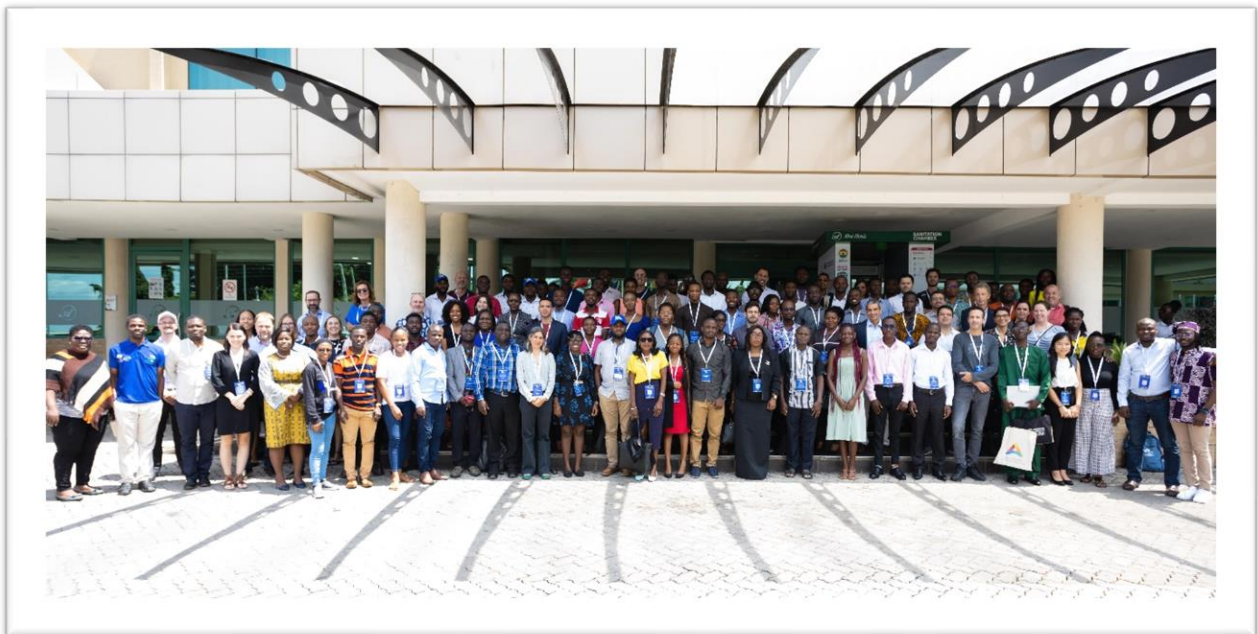
GEO Blue Planet 5th Symposium

24 - 28 Oct 2022 | Accra, Ghana

Local action in support of global traction



GEO Blue Planet 5th Symposium Report



1. Executive Summary

The 5th GEO Blue Planet Symposium was held from 24 to 28 October 2022 at the Alisa Hotel North Ridge in Accra, Ghana. For the first time, this signature GEO Blue Planet event took place on the African continent after four previous symposia in North and South America, Australia and Europe. Themed **Local Action in Support of Global Traction**, the 5th Symposium was specifically geared towards improving GEO Blue Planet's engagement with African nations in an effort to expand the Earth Observation (EO) community of practice, strengthen local capacity and provide access to resources, tools and services. A total of 181 delegates participated in the symposium from research institutions, international and regional organisations, government agencies, private sector companies, media and NGOs. The event welcomed high representation from Ghana and a large number of university students and early career ocean professionals, as well as achieved near equal gender balance.

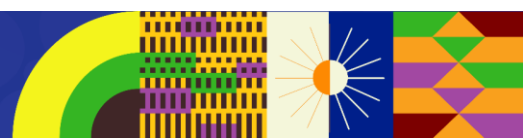
Featuring plenary sessions centred around using ocean and coastal observations for fisheries, coastal hazards and ecosystem conservation, the 5-day event also included a full day of training sessions, five thematic workshops, an Interactive Poster Forum and a side event dedicated to Earth observations for private sector opportunities in the Blue Economy.

The Symposium was organised by the GEO Blue Planet Secretariat, comprising the European Office hosted by Mercator Ocean International and the US Office hosted by NOAA and the University of Maryland, in collaboration with local partners - the University of Ghana and the University of Energy and Natural Resources (UENR), and the Atlantic International Research Centre (AIR Centre). This year's Symposium was funded by the European Union through the [EU4OceanObs project](#), the [Copernicus Marine Service](#) and the [Framework Partnership Agreement on Copernicus User Uptake](#).

The main outcomes and recommendations:

- Develop an information hub for the fishing community & other stakeholders to expand the reach and efficiency of the GMES and Africa marine weather early warning service.
- Propose the development of a charter for Blue Schools & Blue Careers to help promote and develop aquaculture in Ghana
- Organise teams to work on guidance for coastal National Adaptation Plans (NAPs), and Fisheries and Aquaculture NAPs
- Develop a plan to support integrated land-to-sea-litter monitoring using Earth Observations and citizen science
- Engage local stakeholders and policy makers to build inclusive and integrated regional solutions to coastal hazards

All presentations, full agenda, speaker bios, photos and other resources are available here: <https://geoblueplanet.org/5th-symposium-2022/>



1. Symposium overview

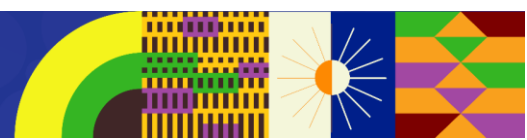
24 Oct 2022 | Pre-event: Training Sessions (9:00 – 15:30)

The training sessions were geared towards introducing ocean and coastal observations to a wide audience. About 90 participants attended these sessions, mainly from research organisations and universities, but also end users from sectoral stakeholders, NGO representatives and Ghanaian public agencies. These sessions included diverse topics, from a review of the basic principles of Ocean Observations (e.g., fundamentals of oceanography, introduction to satellite and in-situ observations, modelling), to common tools and strategies for analysing observations, and exploring the availability and capacity of data products for information-based decision making.

Training session titles and presentations

Click on the presentation titles to access the presentations.

What are Ocean and Coastal Observations and Why are They Important?	Nikelene Mclean, Satellite Oceanography and Climatology Division, STAR/NESDIS, NOAA
Introduction to Observational Oceanography and Modelling	Dr. Fifi Adodo, Mercator Ocean International Dr. Rory Scarrott, University College Cork, Horizon Europe-funded DOORS project
Introduction to Remote Sensing for Decision Making	Dr. Ebenezer Nyadjiro, NOAA National Centres for Environmental Information
Introduction to Open Source EO Tools: Copernicus Marine Service and Jupyter Notebooks	Fabrice Messal, Mercator Ocean International
International Collaboration and Sharing: An Overview of the Ocean Info Hub Project and the International Coastal Atlas Network	Jeff McKenna, President Emeritus of OSGeo / Gateway Geomatics/ ICAN / Ocean Information Hub (OIH)
Creating powerful maps and apps using the ArcGIS Living Atlas Ocean Data-	Pauline Okeyo, Solution Engineer Environmental Systems Research Institute (ESRI) Eastern Africa
Marine and Coastal Data Products for Decision Making	Fabrice Messal, Mercator Ocean International
Application of Open-Source Tools for Fisheries, Biodiversity Conservation and Coastal Erosion Applications in West Africa	Dr. Ebenezer Nyadjiro, NOAA National Centers for Environmental Information
Coastal Observations for Under-Resourced Countries	Prof. Gregory Cowie, University of Edinburgh
Retrieval, Processing and Analysis of Remotely Sensed Ocean Data: Utilising NASA Resources for Ocean Analysis	Dr. Richard Damoah, NASA GESTAR and Dr. Anthony Kinyua, Morgan State University
Coastal and Marine Data for Management and National Development	Antisem Donkor, Institute of Applied Science and Technology, Ghana
Sharing Ocean Data through Standards: An Introduction to the Ocean Data and Information System (ODIS)	Jeff McKenna, President Emeritus of OSGeo / Gateway Geomatics / ICAN / Ocean Information Hub (OIH)



A shout out to our amazing trainers!



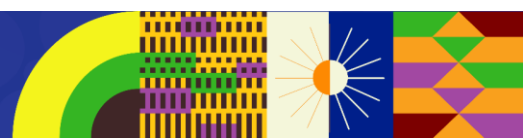
24 Oct 2022 | Opening Ceremony (16:00 – 18:00)

The Symposium opening ceremony took place in the mid-afternoon with welcome addresses from the GEO Blue Planet European and US offices, represented by Dr. Pierre-Yves Le Traon (Mercator Ocean International) and Dr. Emily Smail (Univ. of Maryland and NOAA), and high-level speakers:

- **Kwamena Quaison** - Chief Director of the Ministry of Environment, Science, Technology and Innovation (MESTI), Ghana
- **Dr. Zacharie Sohoun** - IOC-Africa Vice Chair and Director of the Benin Fisheries and Oceanological Research Institute
- **Prof. Elvis Asare-Bediako** (Vice Chancellor of the University of Energy and Natural Resources (UENR), Ghana
- **Dr. Angela Lamprey** – Fisheries expert & lecturer at the University of Ghana
- **Joanna Drake** (Deputy Director-General for Mobility and Environment at the European Commission Directorate-General for Research and Innovation
- **Massimo Mina** - Head of Cooperation of the European Union Delegation to Ghana
- **Ignatius Williams** – GMES and Africa programme/ University of Ghana

This was followed by keynote presentations on:

- [GEO Blue Planet Activities](#) – Dr. Emily Smail (GEO Blue Planet Executive Director (University of Maryland/ NOAA)
- [UN Ocean Decade Roadmap for Africa](#) – Dr. Ir. Zacharie Sohoun (IOC Africa Vice-Chair and Director of the Benin Fisheries and Oceanological Research Institute)





25-26 Oct 2022 | Plenary Sessions

The Plenary Sessions were geared towards exploring the role of ocean and coastal observations in addressing fisheries, ecosystem conservation and coastal hazards through region-specific user needs assessment, tools & opportunities, and inspiring examples of successful applications supporting decision making. These sessions aimed to reflect the context of GEO Blue Planet's Core Action Areas of Stakeholder Engagement, Cooperation and Co-design and Capacity Development. The selection of this year's plenary topics was based on a review of the ocean and coastal related engagement priorities set forth by the relevant regional governing bodies in recent conferences and meetings (such as the African Union Blue Economy Strategy, the African Union Commission Agenda 2063, and the Ocean Decade Africa Roadmap).

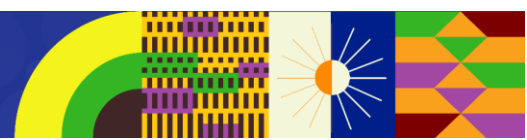
Thank you very much to all our speakers and panellists for your crucial part in this Symposium's success!

All the presentations are available on here: <https://geoblueplanet.org/5th-symposium-2022/>

25 Oct 2022 | Fisheries Plenary Session (9:00 – 12:00)

The Fisheries Plenary Session was geared towards first understanding the needs of stakeholders who are involved in small scale fisheries, commercial fisheries and fisheries management in the region. This was followed by a demonstration of the tools and opportunities which have been developed using ocean and coastal Observations for fisheries-related applications. Finally, the session was closed by a presentation on inspiring examples of cases wherein ocean and coastal observation tools have been successfully employed to meet fishery related needs.

The session was co-chaired by Nikelene Mclean (NOAA), Dr. Isa Elegbede (TGER/CEESP/ IUCN, Switzerland & Lagos State University) and Dr. Stewart Bernard (South African National Space Agency (SANSA)).



Key takeaways from the Fisheries Plenary session include:

- There are major concerns regarding the sustainability of fisheries stocks in Ghana given the high rates of overexploitation in the region.
- There are also concerns related to overcapitalisation and instances of illegal, unregulated and undocumented fisheries.
- There needs to be more focus on tackling issues related to pollution and the impact of pollution on ecosystem sustainability.
- There should be more emphasis placed on the implementation and enforcement of laws related to fisheries and ecosystem conservation.
- There is a need for better collaboration between fisheries experts and policy and decision makers in the region.
- There is a need for more toxicologists, taxonomists, oceanographers, environmentalists etc., given that there is a lack of trained experts in decision-making agencies.
- Early exposure to fisheries/marine science related subject matter is needed to encourage younger generations to pursue careers that support sustainable marine and coastal resources.
- Traditional knowledge should be taken into consideration when developing plans for sustainable fisheries and ecosystem management.

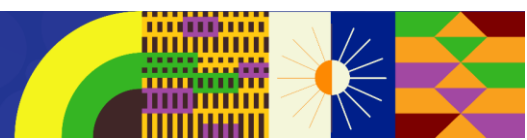
Recommendations for GEO Blue Planet:

- Host workshops and meetings at local universities and institutions to promote the use of Earth Observation in managing fisheries and ecosystem sustainability.
- Organise training opportunities to improve local capacity to use satellite derived products as decision support tools.
- As an intergovernmental body, GEO has the convening power to work with local scientists/experts and decision-making bodies to improve science-based decision making.
- GEO Blue Planet can work with the larger GEO community to discuss making peer reviewed journal articles related to Earth Observation available to students and researchers in Ghana.
- GEO Blue Planet can work with fisheries stakeholders in the region to gain insight into the parameters of importance in the region in order to develop dedicated, user-friendly EO-based products and tools.



Group photo of the fisheries plenary speakers and panellists

[Click here for the speaker bios](#)



25 Oct 2022 | Ecosystem Conservation Plenary Session (14:00 – 16:00)

This session served to explore how data from satellites may help communities and regions secure the ecosystem foundations of their Blue Growth potential. It recognises the critical role played by local and regional stakeholders, and stakeholder networks, in all aspects of managing and harnessing an ecosystem, and the information needs of these diverse stakeholder communities.

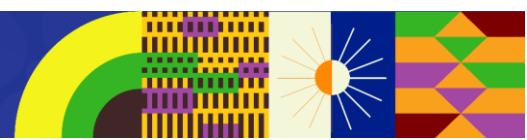
The session focused on the use of participatory approaches and using example ecosystems such as Mangroves and Sargassum - key ecosystems that can support or even hinder both tourism and fisheries. These ecosystems are used to provide examples and inform discussions on how data from satellites and other sources, and stakeholder-led development, can be used by local and regional stakeholders to identify issues, provide management guidance, and ultimately restore and conserve the balance within these habitats which support their local communities and economic activity.

Key takeaways from the Ecosystem Conservation plenary session include:

- Ecosystem degradation is occurring at an alarming rate in Ghana due to pollution, Illegal, Unreported and Unregulated (IUU) fishing, poor enforcement of environmental laws and climate change.
- Ecosystem conservation is the foundation of sustainable blue economies and as such there are needs to be better management of critical ecosystems such as mangroves, seagrasses, and coral reefs.
- If not prioritised, the degradation of these environments will impact the most vulnerable groups (e.g., small scale fishers, indigenous groups).
- Engagement with stakeholders is critical to the successful implementation of management solutions- there should be more campaigns that educate members of communities in close proximity to ecosystems of importance.
- Potential solutions that can be used to address these issues involve the use of built infrastructure, socio-institutional adaptation as well as marine and coastal nature-based solutions.
- There is a need for more early childhood education campaigns so that the upcoming generation are aware of the importance of ecosystems and be aware of the role of science in solving these issues.
- There is a need for better enforcement of laws geared toward reducing dumping, littering, release of industrial effluent and other sources of pollution of important marine ecosystems.

Recommendations for GEO Blue Planet:

- GEO Blue Planet can help support education campaigns whereby the importance of ecosystem conservation is emphasized.
- GEO Blue Planet can partner with local universities and institutions to host more seminars on the role of Earth O in supporting ecosystem conservation.
- Host trainings so that Ghanaians and representatives from other countries in the region can strengthen local capacity at using EO based tools in support management of ecosystems.
- GEO Blue Planet can work with local educators to propose curricula that provides early exposure to topics related to ecosystem conservation, fisheries, aquaculture etc.
- Improve the capacity among small island developing states and developing countries to monitor ecosystem health using EO derived tools and products.
- Provide improved access to available data that can be used to inform policies and decision support frameworks needed to reduce the degradation of marine ecosystems.





Group photo of the ecosystem conservation plenary speakers and panellists

[Click here for the speaker bios](#)

Oct 2022 | Coastal Hazards Plenary Session (9:00-12:00)

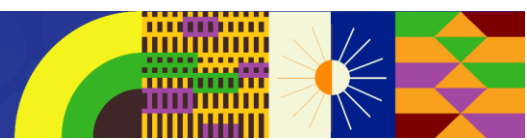
This session served to explore the role of ocean and coastal observations in addressing coastal hazards issues through stakeholder's needs assessments, tools and opportunities to tackle coastal risks challenges, and inspiring examples of successful EO-based applications for decision making in coastal areas, contributing to coastal resilience. This session initiated and stimulated dialogue about ocean and coastal related issues in African countries. It allowed GEO Blue Planet community to discuss and collect feedback that can help develop activities and deliverables, which would in turn contribute to coastal resilience, sustainable coastal activities, and use of coastal resources in the continent.

General information needs for coastal hazards assessment

- Increase research support to help collect in situ, relevant and reliable data to understand coastal hazards
- Skills in cloud computing (infrastructure and human resources) are needed to process and explore the collected data and information
- Need for hazard modelling and forecasting (e.g., flooding, erosion risk) at local and regional scale
- Need for increased ocean wave modelling required for early warning systems of coastal flooding
- Developing linkages and pathways to use of EO products
- Best practice guidelines for the use of coastal data
- Need to implement a regional collaboration, crucial because whatever is done in each country impacts the neighboring countries.

Recommendations for GEO Blue Planet

- GEO Blue Planet should work with all stakeholders (in different countries and with decision and policy makers) to increase awareness of the potential for EO to be used in support of management and monitoring coastal risks and resilience.



- GEO Blue Planet should work to significantly engage more ECOPs and Youth in ocean science and policy.
- GEO Blue Planet should support the sharing of best practices for advocacy and collect information needs and requirements to help develop integrated and inclusive solutions that meet the needs of the ocean observing community.
- GEO Blue should consider developing training and education workshops to strengthen local capacity.



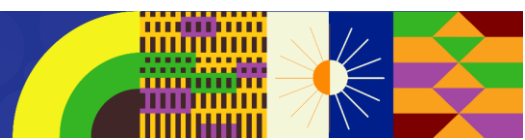
Group photo of coastal hazards plenary speakers and panellists

[Click here for the speaker bios.](#)

24 – 25 Oct 2022 | Interactive Poster Forum

Widely attended by Symposium participations, the forum served as space for informal roundtable discussions, networking and to stimulate interactive dialogue among participants. The forum featured 5 booths exhibiting posters from data providers, academics, and stakeholders from end-user groups around the themes of **Fisheries**, **Ecosystem Conservation**, **Coastal Hazards**, **Cooperation and Co-design**, and **Capacity Development**, with the cross-cutting theme of **Stakeholder Engagement**.

Aligned with the plenary session themes and GEO Blue Planet's core action areas, the forum was quite the success, allowing participants to take forward topics presented in the plenary session and panel discussions, and find out more about existing coastal and observation data, services, and tools available and explore possibilities for future collaboration.





26 Oct 2022 | Side-event: Copernicus Private Sector Opportunities

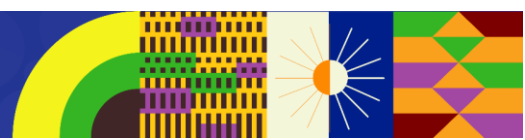
This session highlighted private sector opportunities using Copernicus-based products in support of a sustainable blue economy. 20 Ghanaian and European Small and Medium-sized Enterprises (SMEs) gave 5-minute pitches to present their companies/services/products relevant for the African context, as well as needs and ideas for collaboration.

This session was hosted by the Atlantic International Research Centre (AIR Centre), together with the Portuguese Space Agency as part of the activity “[Copernicus SMEs – Atlantic Ocean Interactions](#)” funded by the European Union through the Framework Partnership Agreement on Copernicus User Uptake.

[Click here](#) for the profiles of the speakers of this session.



Group photo of SMEs representatives and session chairs during Copernicus private sector opportunities session



27 – 28 Oct | Thematic Workshops

The Symposium ended with 2 days of thematic workshops aligned with GEO Blue Planet's [current activities](#). The workshops aimed to strength linkages between local/regional sectoral end-users and Earth Observation data providers.

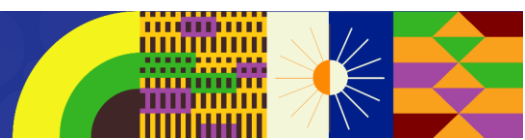


The five workshops focused on the following topics:

Earth Observations for Fisheries and Aquaculture Site Selection

Workshop co-chairs: Dr. Isa Elegbede (TGER/CEESP/IUCN, Switzerland & Lagos State University), Nikelene Mclean (NOAA) and Ignatius Williams (University of Ghana)

This workshop was designed to provide regional fisheries stakeholders with insight into the suite of EO products and services that can be used to meet fisheries and aquaculture related needs. Workshop participants had the opportunity to gain first-hand knowledge from Earth Observation experts who have successfully developed and implemented fisheries related products and services. With support and guidance from these experts, participants were given the opportunity to propose the implementation of region-specific Earth Observation-based fisheries projects and outcomes that are in line with the GEO Blue Planet Core Action Areas of Stakeholder Engagement, Cooperation and Co-design and Capacity Development.



Ocean and Coastal Observations for National Adaptation Plans (NAPS)

Workshop co-chairs: Dr. Louis Celliers (WIOMSA), Dr. Pierre-Yves La Traon and Fabrice Messal (Mercator Ocean International)

This workshop was designed to explore the role of Earth Observations in the formulation of National Adaptation Plans with special considerations for improving the resilience and adaptive capacity of coastal resources by integrating coastal adaptation into NAPs. This is needed to ensure that the coastal and ocean economies can achieve their potential, whilst ensuring the functioning of ecosystem services upon which such economies are built. The need for transformation of coastal communities is a key element of sustainability as part of strategies to adapt to climate change.

Earth Observations for Sargassum Monitoring

Workshop co-chairs: Dr. Emily Smail (University of Maryland and NOAA) and Dr. Shelly-Ann Cox (Blue Shell Productions)

This workshop presented the need and role of Earth Observations for Sargassum monitoring in the tropical Atlantic. A number of important advances have been made in the last decade to address sargassum influx events, which have emerged as a coastal hazard impacting climate-sensitive socio-economic sectors in the Wider Caribbean and West Africa. While there is a general consensus that we should view influxes as an economic opportunity through the promotion of valorisation initiatives, the reality is that sargassum inundations remain more of a threat than a benefit until key issues are resolved. A shift in mindset is a critical step, but this must be followed through with deliberate action.

Earth Observations for Coastline Changes

Workshop co-chairs: Dr. Donatus Angnuureng (University of Cape Coast), Dr. Lisa Rebelo/ Dr. Edward Boamah (Digital Earth Africa), & Dr. Fifi Adodo (Mercator Ocean International)

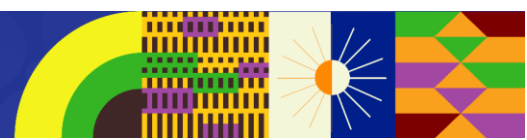
This workshop on aimed to share information, spark interest, and to strengthen the cooperation between all coastal stakeholders, from academic to non-academic communities, by developing reflections, strategies, and recommendations on addressing coastal hazards at regional and global level. Focusing on exploring coastline dynamics, coastal erosion, and coastal pollution, the workshop also presented a range of related monitoring and management aspects and challenges in the African context, including:

- Bridging gaps in data availability, and between academics and non-academics
- Engaging with the leading policy and decision makers
- Strengthening regional cooperation and collaboration (co-design & co-management) to manage the same hazards
- Strengthening legal & institutional frameworks & capacity building

Earth Observations for Marine Litter Monitoring

Workshop Co-chairs: Richmond Kennedy Quarcoo (Plastic Punch), Dr. Ebenezer Nyadjro (Mississippi State University and NOAA) and Ivy Akuoko Gyimah (University of Cape Coast)

Marine litter has become a multi-dimensional problem with economic, environmental, cultural, and human health costs. To address this issue, the United Nations created Sustainable Development Goal (SDG) 14, “Life Below Water” and Target 14.1: “By 2025, prevent and



significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution”. Achieving this target requires the identification and assessment of marine litter via a host of observation and detection methods to inform policy. This workshop is designed to explore the role of EO in supporting marine litter monitoring efforts.

Implication of Early Ocean Career Professionals

In support of the UN Decade ECOP programme [OceanBRIDGES task team](#) co-led by GEO Blue Planet, each plenary session included at least one Early Career Ocean Professional (ECOP) speaker and the coastal hazards panel discussion was entirely made up of ECOP panellists. The ECOPS who took part in the plenary sessions as speakers and panellists, with funding travel support by Mercator Ocean International/EU4OceanObs project, included:



Dr. Temitope Sogbanmu
University of Lagos,
Nigeria



Dr. Raphael Onguene
Douala Institute of
Technology, Cameroun



Gabriel Akoko Juma
ECOP Africa
Coordination Unit,
Helmholtz Centre for
Polar & Marine Research



Dr. Donatus Angnuureng
University of Cape
Coast, Ghana



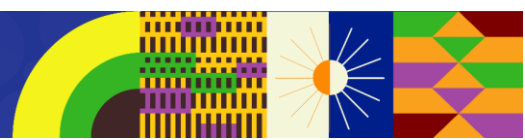
Dr. Sandrine Djakouré
Université Felix
Houphouët Boigny,
Côte d'Ivoire



Dr. Garry Kett
All-Atlantic Youth
Ambassador, University
College Cork



Dr. Babette Tchonang
NASA Jet Propulsion
Laboratory



Summary of Symposium Recommendations and Next Steps

Recommendations and outcomes from the Symposium were then presented to the wider GEO community at [GEO Week 2022](#), which took place a week later, between 31 October and 4 November in Accra, welcoming more than 1200 delegates.

The main recommendations include:

- Develop an information hub for the fishing community & other stakeholders to expand the reach and efficiency of the GMES and Africa marine weather early warning service.
- Propose the development of a charter for Blue Schools & Blue Careers to help promote and develop aquaculture in Ghana
- Organise teams to work on guidance for coastal National Adaptation Plans (NAPs), and Fisheries and Aquaculture NAPs
- Develop a plan to support integrated land-to-sea-litter monitoring using EO and citizen science
- Engage local stakeholders and policy makers to build inclusive and integrated regional solutions to coastal hazards

Symposium Organising Committee

Mercator Ocean International
EU4OceanObs project

Audrey Hasson – GEO Blue Planet EU Coordinator
Fifi Adodo – Use Case Expert
Lillian Diarra – Communications & Outreach Officer
Vincent Legros – Events Manager

University of Maryland & NOAA

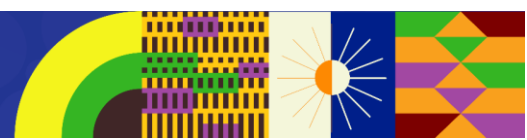
Emily Smail – GEO Blue Planet Executive Director
Nikelene Mclean – NOAA Knauss Marine Policy Fellow

University of Ghana
GMES & Africa programme

Kwame Adu Agyekum – Earth Observation Expert, GEO Blue Planet Steering Committee co-chair & Regional Project Coordinator GMES&Africa phase 2
Bennet Foli – Oceanographer
Dogbeda Azumah - Communication, M&E Officer

University of Energy and Natural Resources

Prof. Amos Kabo-bah - Co-Chair, GEO Land Degradation Neutrality Initiative & Dean of International Relations Office



Symposium Programme Committee

Mercator Ocean International | EU4OceanObs

University of Maryland & NOAA

NOAA

University College Cork, Ireland

University of Energy & Natural Resources, Ghana

University of Ghana | GMES and Africa programme

Atlantic Innovation Research (AIR) Centre, Portugal

University of Michigan, USA

Digital Earth Africa

NASA & GEO Disaster Risk Reduction Working Group

University of Cape Coast, Ghana

South African National Space Agency (SANSA)

IOC Africa

TGER/CEESP/IUCN, Switzerland and Lagos State University

Marine Biodiversity Observation Network (MBON), IPBES

Institut de recherche pour le développement (IRD)

European Space Agency - EO for Africa

Nansen Environmental & Remote Sensing Centre, Norway

University of Cape Town, South Africa

IMS, University Dar es Salaam, Zanzibar

RCMRD | AfriGEO, Kenya

GEO Secretariat

UNEP Nairobi Convention

UNEP Abidjan Convention

Sustainable Seas Trust, South Africa

Suez University, Egypt

University of Mauritius

Ministry of Environment, Nigeria

**Pierre-Yves Le Traon, Audrey Hasson,
Fifi Adodo & Lillian Diarra**

Emily Smail

Paul DiGiacomo & Nikelene Mclean

Rory Scarrott

Amos Kabo-bah

Kwame Adu Agyekum & Bennet Foli

Jose Moutinho

Brian Arbic

Lisa Rebelo, Cedric Jorand & Lisa Hall

David Borges

Donatus Agnuureng

Stewart Bernard

Mika Odido

Isa Elegbede

Isabel Sousa-Pinto

Yves Morel

Giuseppe Otavianelli & Zoltan Szantoi

Johnny Johannessen

Juliet Hermes

Margareth Serapio Kyewalyanga

Phoebe Oduor & Samantha Musinzi

Sara Venturini

Timothy Andrew

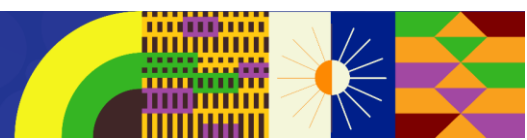
**Abdoulaye Diagana & Vanessa
Ahouadjiro**

Toshka Bernado

Elham Ali

Depeeka Kaullysing

Sonigitu Ekpe



Local Hosts and Partners

University of Energy and Natural Resources



The Department of Fisheries and Water Resources (DFWR) is Bono's foremost Centre directly concerned with research and training of fisheries/aquaculture scientists and practitioners among her institutions

of higher learning. It is the only Department in Ghana to run a combined degree in Fisheries and Aquaculture. The vision of DFWR is to become a leading department in teaching, research, and community outreach in advancing a world with food security, employment and water management.

In the quest to position the University of Energy and Natural Resources (UENR) as a world-class institution for energy and natural resources management, UENR has initiated the process to establish Ghana Inland Blue Economy Centre (GiBEC). The overall objective of GiBEC is to develop integrated solutions to address problems of poor governance, food insecurity, hunger, tourism, transportation, energy, and sustainability through short-to long-term career and academic training programmes in inland fisheries, aquaculture, blue economy and contribute to the design, setting-up and implementation of policies, regulations, and management related to the blue economy in the country.

University of Ghana

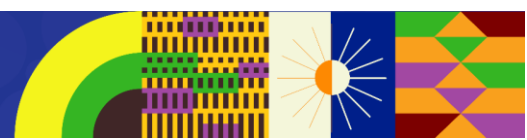


The Department of Marine and Fisheries Sciences at the University of Ghana is Ghana's foremost centre directly concerned with marine environmental research and training of fisheries and aquaculture scientists among her institutions of higher learning. The University of Ghana also hosts the Regional Marine Centre responsible for

implementing the Marine and Coastal Areas Management for North and West Africa (MarCNoWA) project under the Global Monitoring for Environment and Security & Africa programme (GMES & Africa).

The inspiration behind the design language for this year's Symposium

The visual identity for the GEO Blue Planet Symposium for 2022 was inspired by Kente fabric, the regal cloth of Ghana. Given that Kente fabric is made up of individually woven strips that are then joined together, with each telling its own unique story; the overall visual language comprises a mosaic pattern style that incorporates elements that represent the ocean, the coast, and aspects of Ghanaian culture like some of the weave patterns in Kente and Adinkra symbolism. The symbols included generally bear meaning towards unity, collaboration, wholesomeness, and innovation. Collectively, each square tells its own unique story. The background also has hints of the ocean/water bubbles further emphasising GEO Blue Planet's work to use EO towards conversation of marine environments and life.





About the graphical designer

Fungi Dube (www.fungidube.com) is a Brand, Visual and Webflow Web Designer based in Harare, Zimbabwe. She is an ardent Pan-Africanist who is passionate about Elevating African Narratives through Modern Design and Cultivating Afro-positive Sentiments.

Further resources

- [Press release GEO Blue Planet symposium Accra](#)
- [Ghana Business News article on Symposium](#)
- [Ghanaian Times article: Cabinet approves NSSP for environmental management with mentioning of GEO Blue Planet Symposium](#)
- [GEO Week 2022, Accra, Ghana](#)
- Previous GEO Blue Planet Symposia:
 - [1st GEO Blue Planet Symposium](#) (Ilhabela, Brazil, 2012)
 - [2nd GEO Blue Planet Symposium](#) (Cairns, Australia, 2015)
 - [3rd GEO Blue Planet Symposium](#) (Maryland, USA, 2017)
 - [4th GEO Blue Planet Symposium](#) (Toulouse, France, 2018)

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