EU-CARIBBEAN WORKSHOP ON MARINE SCIENTIFIC COOPERATION

EC ACTION "SUPPORT TO THE EU-CARIBBEAN COOPERATION ON MARINE RESEARCH UNDER THE HORIZON EUROPE PROGRAMME"

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1. EU-CARIBBEAN STUDY ON MARINE SCIENTIFIC COOPERATION

- March-December 2023
- Two key experts: Roland Brouwer
- Desk research

 Survey: <u>http://survey.spi.pt/in</u> <u>dex.php/873726?lan</u> <u>g=en</u>

- Map research and capacity building priorities
- Map funding schemes and knowledge gaps
- Foster cooperation for HE
- Missions: Dominican Republic, Belize, Sint Maarten, Guadaloupe, Jamaica, Trinidad and Tobago, Curacao
- Bi regional Workshop JIRI Summit 28-29 Brussels
- FINAL REPORT

2. BACKGROUND

Oceans are basic to a number of SDGs: 1,2,3,5,6,7,8,9,10,12,13,16,17 and International agreements, i.a. Paris, BBNJ



2. BACKGROUND-CONTEX

- Global framework: NEW instruments, i.a. UN Biodiversity Beyond National Jurisdiction (2/3 oceans) in June 2023 to protect 30% marine ecosystems by 2030, UN Decade on Oceans Science
- EU-CELAC July and up coming Summit and Joint Initiative on Research and Innovation (JIRI) Brussels 28-29 November 2023
- Heterogenous region, COMMON CHALLENGES with limited research capacities and intraregional cooperation although :
 - 0,08% GERD in the CAR, 0,66% LA, 1,79% global (UNESCO science report 2018)
 - Only 2% co publications in CARICOM, 40% USA
- Need for research to advise policy and empower society, youth, gender, inequalities and OCEANS are key



2. BACKGROUND-CONTEX

NO ONE LEFT BEHIND:

- Poverty and inequality biggest barriers to the SDGs- UNESCO,2019
- Disalignment between policy needs and research production
- LAC being the most unequal region in the world, requering special focus on inclusion and diversity: gender, youth, rural communities, Indigenous and Local Knowledge, LGTBI, others.

- NEED for Social Sciences and Humanities, Arts, Culture, ILK – social and cultural integration for the CAR region

- Gender equality is more than a question of justice or equity. Countries, businesses and institutions which create an enabling environment for women increase their innovative capacity and competitiveness. The scientific endeavour benefits from the creativity and vibrancy of the interaction of different perspectives and expertise. Gender equality will encourage new solutions and expand the scope of research. This should be considered a priority by all if the global community is serious about reaching the next set of development goals.





Interviews to national and regional actors: RFOs, RPOs, Ministries Environment/ Fisheries, STI, Tourism, civil society, business associations,, STI commissions, and regional actors as CANARI, CMO, CRFM, IOCARIBE, UN, EC, OECS,

University of West Indies (UWI) key RFO, regional settings/centers

- Region invests in education and research but suffers from brain drain and capacity to invest differs between the countries and territories.
- Home-grown technical innovation (patents) very limited, not wells supported by policy/funders, informal sector
- A large variety of environmental and conservation issues with insufficient resources and scientific critical mass to provide an adequate response- need to foster intra national and intra regional cooperation as well as other regions
- There is a lack of baseline data and open data, national/regional (FAIR) repositories
- Some well-equipped research facilities (labs), vassels, buoys, scarce not shared at national level/regional- law enforcement, governance issues
- Financing of research and conservation dependent on projects; other, more sustainable, models are neededalso capacity enhancement and foster intra regional cooperation, risk of agenda setting by donors not meeting policy needs



- Evidence based policy making needs data (populations, migrations, changes, causes, etc.) to sustain it; but these data are not available: i.a. Deep sea mapping, Spatial data-satellite, Marine habitats, pollutants
- The key is access to data with the right resolution and the right geographic coverage; data and management collection capacity
- Natural resource management requires **community involvement**; there is no understanding of coastal communities, their culture and their economies, ILK, conflict of uses/stakeholders
- Need to involve them rightly, meaningful cooperation for both: need tools and methods from SHS: ethics, sociology, social sciences, education, ocean literacy, livelihoods, CC resilience, ethical approaches, Intellectual property, data use, etc.
- Inclusive and diverse



- Thematic networks coordinated by **centers of excellen**ce across the region to monitor and prioritize regional marine research agenda and capacity building needs to meet regional and international agreements and addressing societal needs-Community focus with joint infrastructures and reducing brain drain : Gender and youth focused
- Virtual research labs for international cooperation- diáspora (blue cloud)
- Data sharing and data management and digital repositories- CB, digital infrastructures
- Horizon Europe topics- to be discussed now keeping attention to
 - Intra Regional funding calls
 - Multistakeholders calls (CSO, ILK, Industry, policy with researchers)
 - Interdisciplinary- SHS, arts, culture, innovation



Results on-line survey among marine research community members

Juliana Chaves

Roland Brouwer

Where are we from



Summary:

- 71 valid responses
- 55 from 19 Caribbean states and territories
- Caribbean territories with most respondents are Barbades (12) and Cuba (6)
- 16 from outside the Caribbean region (Spain, Portugal, Italy, Colombia, Belgium, Costa Rica, El Salvador, Greece, USA)

Organizations represented and kind of activities

Type of institution		Kind of activities					
Where	Freq	Top 5: Most mentioned	freq	Bottom 5: Least mentioned	freq		
Government	22	Biodiversity	34	Construction and Development	0		
NGO	13	Climate change	32	Employment	0		
Other	14	NR management	30	Welfare	1		
Private business	2	Nature conservation	25	Mining (gas, oil, minerals)	1		
Research institute	7	Environment	24	Transformative industries	1		
University	12	Science, technology and innovation	20	Tourism (hospitality)	1		
Organization's involvement in scientific research							
No, not at all							
Yes, it provides services to research activities							
Yes, it uses research done by others as a source of information (evidence) to guide its activities							
Yes, it subcontracts research organisations							
Yes, it carries out its own research							

Respondents' organizations' involvement in research (n=71)



Regional distribution of partnerships of researchers

Do you partner with researchers and/or institutions in other countries?	All	Non Carin	Carib- ean
Respondents mentioning partnerships	56	15	41
Caribbean	47	9	38
Latin America	30	9	21
North America (US, Canada)	26	4	22
European Union	34	14	20
Other European countries (e.g., Norway, Switzerland, UK)	15	7	8
Asia	5	2	3
Africa	9	8	1
Pacific	4	2	2
Other	47	9	38

- Intra Caribbean partnerships are the most common (mentioned by 38)
- EU (mentioned by 22) and European countries (mentioned by 8) are important partners of Caribbean researchers but less than North and Latin America,
- Mostly non-Caribbeans have partnerships with Africa;
- Only 4 researchers did not have international partners

NB: Questions only answered by the 60 respondents who themselves carry out research

Motives mentioned for selecting a partner (n=56)

Access to private partners Access to policy makers Public engagement Student exchange Access to research (field) locations Access to knowledge and information (libraries, journals, etc.) Opportunities for co-publication Interest of the other partner in accessing data, services and... Personal network Common working language Access to data (including satellite data) Access to infrastructure (laboratories, vessels, computing capacity,... Cultural proximity Access to funding Thematic interest

0

2

4

8

10

12

14

16

18

Expertise, excellence

Reason to select a partner (n=56)

Who pays for the research

Sources of research finance for research over the last five years (n=51)

Multilateral funds (e.g., European Commission,... Your own institution (core funding) International NGOs (e.g., Caribbean Biodiversity... National Research Council or similar bodies... Your own institution (competitive grants) National government contracted services (e.g.,... National not-for-profit non-governmental... Funds from private businesses (e.g., Sandals... Bilateral funds (USAID, JICA, GIZ, KOICA)



- Most mentioned are multilateral funds and funds from one's own institution (core funding)
- National NGOs, private businesses and bilateral funds are the least mentioned

NB: Number of citations ≠ amount of money involved

Multilateral funders (n=31)

Name	Freq	Perc	Name	Freq	Perc
Global Environmental Facility	17	54.8	Caribbean Development Bank	5	16.1
UNDP	13	41.9	UNESCO	5	16.1
UNEP	13	41.9	European Development Bank	3	9.7
European Commission	10	32.3	OECS	3	9.7
World Bank	10	32.3	CELAC	1	3.2
Inter American Development					
Bank	9	29.0	UNESCO-IOC	1	3.2
FAO	7	22.6	CYTED	0	0.0
CARICOM i.e. Green Climate Fund	6	19.4	OCDE	0	0.0

Note: Table in order of number of times mentioned.

EU windows mentioned (n=10)

EU mechanism	Freq	Perc	EU mechanism	Freq	Perc
Horizon 2020	2	20.0	All Atl. Oc. R. and I. Alliance	2	20.0
Horizon Europe	3	30.0	Erasmus +	2	20.0
Interreg	4	40.0	European Investment Bank	1	10.0
Euroclima	0	0.0	LIFE	3	30.0

Certain windows are not cited (Euroclima)

Difficulties with EU funding most frequently mentioned by respondents:

- Reporting format and frame;
- timely availability of funds;
- problem definition, drafting the budget, implementation

Importance of research infrastructure

Access of specific infrastructure and its importance if there is no access at the moment (n=71)	Vational	Regional	Global	No access but mportant	No access and not important
Library (electronic) and electronic journals	23	21	29	22	0
Off-line data storage capacity	34	6	5	21	2
Research vessels (including crew)	25	9	5	21	12
Software, including GIS	34	18	20	18	1
Aquaria	21	9	7	18	19
Computing facilities and capacity	38	16	10	17	0
Measuring devices (geology, meteorology, hydrology, etc.)	31	13	10	17	10
On-line computing and data storage capacity	37	12	14	16	2
Research assistants (including graduate and post-graduate students)	33	28	18	16	3
Other data collection equipment (camaras, sonar, etc.)	31	14	13	16	9
Traps and other devices to sample populations	27	10	10	16	13
Data sets (including geospatial data)	34	31	28	15	2
Laboratory equipment and reagents	29	12	11	15	12
Equipment for on-line meetings (video conferences, etc.)	38	14	14	13	2
Laboratory (chemistry, physics, other)	31	14	13	13	11
Vehicles	36	5	3	13	11
Class rooms	42	7	4	11	7
Co-researchers, colleagues	42	44	34	10	0
Library (physical)	35	14	5	10	8
Meeting rooms	47	11	6	8	1
Internet connectivity	48	21	14	3	0

Important resources with no or little (domestic) access:

- Electronic libraries/jornals;
- Data storage and computing facility
- Software
- Data collection equipment (vessel, traps, recorders)
- Data sets
- Research assistants (students)
- Laboratory equipment and reagents

Resources that are easily

accessible

- Teaching and (on-line) meeting infrastructure
- Internet connectivity
- Colleagues and co-researchers

Approach: ranking "no access but important" from high to low followed by "national access" from low to high.

Importance of possible research objectives (n=65)

Intellectual property rights (patents) Student exchange Better outreach for societal awareness... Visibility, organisation reputation Exchange of experiences, piloting Enhance Research quality Evidence based decision making Mutual learning on common challenges Networking, access to experts Capacity building Access to funding

Extremely important



All 11 listed objectives are important

Most important are:

- Funding
- Capacity building
- Networking
- Evidence based decision making

Least important are:

- Outreach and societal awareness
- Student exchange
- Intellectual property rights

Importance of issues for research (n=65)

Marine geology (includes mineral resources and seismic research)

Physical oceanography (chemistry and physics)

Climate and meteorology (data, modelling and extreme events)

Pollution (marine and land based, chemical, blooms and plastics)

Marine biological resources (species, populations, harvesting, restoration,...

Blue economy (marine resource use, tourism, coastal communities and...



Respondents prioritize, blue economy, marine biology, and pollution

Physical oceanography and geology are not seen as important even though several countries rely on mining for their economies

Three most important actions mentioned (n=65)

Frequency

Enhance funding for research Promote research among Small Island... Support research labs, infrastructures Support capacity building and... Facilitate the creation of excellence of... Organise workshops/ networking... Reduce brain drain and support grants... Support capacity building for regional... Create intraregional joint master... Develop call for proposals including... Promote calls for cooperation with... Support ocean's literacy and... Provide access to EU databases and... Increase geographical mobility and... Promote gender inclusive policy...



Top priorities:

- Enhance funding
- Promote research among SIDS
- Support capacity building

Least important:

- Provide access to EU databases
- Increase geographical mobility to EU spaces

60

 Include business and CSO in calls for proposals

Priorities for capacity building

Key priorities

Marine biology, blue economy, and pollution

Physical oceanography and geology are low priority topics Blue economy (marine resource use, tourism, coastal communities and sustainable use)

Pollution (marine and land based, chemical, blooms and plastics)

Marine biological resources (species, populations, harvesting, restoration, farming)

Climate and meteorology (data, modelling and extreme events)

Physical oceanography (chemistry and physics)

Marine geology (includes mineral resources and seismic research)

Frequency (n=65)



60

Summary and conclusion

- 71 Respondents are from Caribbean (emphasis on Barbados) and EU member states
- One-third are from government institutions and two-thirds engaged in biodiversity management or conservation and climate
- Funds for research are a major constraint and highest priority
- EU is an important partner (bias?)
- Key lacking supporting infrastructures are access to online libraries and journals, data storage and computing facilities, and data collection equipment and research assistants
- Priority areas are marine biology and blue economy ("the socio-economic dimension" of marine biodiversity)

"Caminante no hay camino, se hace camino al andar Caminante no hay camino, sino estelas en la mar" Antonio Machado

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Let's co desing the path together for sustainable oceans

Send your comments, fill in the survey Juliana.chaves.chaparro@Gmail.com