

The Nippon Foundation
and the World Maritime University-Sasakawa Global Ocean Institute:

“Closing the Circle” Programme:

*Exploring challenges and advancing potential solutions to
marine debris and Sargassum threats in Small Island
Developing States with a particular focus on the Eastern
Caribbean region*

Terms of Reference 2020

The Nippon Foundation and the
World Maritime University-Sasakawa Global Ocean Institute introduces:

“Closing the Circle” Programme:

Exploring challenges and advancing potential solutions to marine debris and Sargassum threats in Small Island Developing States with a particular focus on the Eastern Caribbean region

Ph.D. Scholarships addressing Marine Debris and Sargassum Threats in the Eastern Caribbean Region

Marine debris is one of the top polluting substances entering the marine environment. The 192 littoral States to the Atlantic, Pacific, Indian Ocean, Mediterranean and Black Sea produced an estimated total of 2.5 billion metric tonnes of solid waste in 2010, 275 million tonnes of which was plastic. An estimated 8 million metric tonnes of this plastic waste was mismanaged and discharged into the ocean.

Marine debris has significant impacts on marine habitats as well as significant potential human health implications. This is especially the case as some marine debris such as plastics, may persist 500 years or more, therefore creating an inter-generational problem of daunting scale that requires interdisciplinary analysis and the proposal and implementation of innovative yet practical solutions.

The Caribbean region, host to more than half of the UN member and non-member states classified as SIDS, is especially vulnerable to pollution from marine debris and cumulative pressures from Sargassum due to its fragile marine environment and high dependency on tourism.

With a view to addressing this pressing environmental and societal issue, the World Maritime University (WMU)-Sasakawa Global Ocean Institute is pleased to implement with the generous support of The Nippon Foundation, *The Nippon Foundation and WMU “Closing the Circle” Programme: Exploring challenges and advancing potential solutions to marine debris and Sargassum threats in Small Island Developing States with a particular focus on the Eastern Caribbean region.*

In order to identify, integrate and systematize the complexity of the problem, the research will focus on three interconnected, holistic and multidisciplinary research themes:



- 1. Science and technology;**
- 2. Blue / Green Economics; and**
- 3. Societal awareness.**

Adaptive marine spatial planning is considered as a cross-cutting theme for all of the research themes.

Against this background, WMU is recruiting Ph.D. candidates, researching each of the research themes respectively. Scholarship research proposals are welcome, canvassing novel interdisciplinary societal, economic and scientific approaches towards increasing the knowledge base of marine debris and cumulative effects of Sargassum with a specific focus on the challenges experienced by SIDS in the Eastern Caribbean region.



These submitted proposals could include, *but are not limited*, to the following suggested research themes related to marine debris and/or Sargassum. Each of the topics should be considered in relation to land and ocean governance which mutually drives and influences the scientific, economic and societal developments as outlined below.

Topic 1: Science / Technology

- Apply trans-boundary spatial modeling tools, including geographical information system (GIS), to map, visualise and evaluate the scope and potential consequences of marine debris;
- Research to understand the interaction between marine debris and Sargassum, notably at the land/sea-interface;
- Understand the correlation between climate change, such as extreme weather events and marine debris;
- Map the management responses, governance arrangements and stakeholder participation in prevention and response measures;
- Research on the presence and effects of micro-plastics in the food chain of marine species.
- Research on the application of new technologies to assist in monitoring and combating marine debris and help achieve important environmental goals.





Topic 2: Blue / Green Economics

- Evaluate the impacts of marine debris and/or Sargassum on ecosystem goods and services and policy recommendations towards prioritization of actions;
- Best-practices for port-reception-facilities to prevent illegal discharges of ship-generated waste and cargo residues into the sea;
- Strategies to enable frameworks for business-based solutions to marine debris and Sargassum in the Eastern Caribbean;
- Examine the application of the principles of the circular economy to business cases and integration of financial mechanisms;
- Analyze the role and opportunities of the blue economy approach in the prevention of marine debris and dealing with Sargassum in the Eastern Caribbean;
- Examine green finance as a means to encourage industry and business to move towards circular economy approaches in the context of the Eastern Caribbean;
- Analyze the role of monetary financial institutions in addressing marine debris and their specific application in the Eastern Caribbean;
- Enable frameworks for public-private sector partnerships and the role of corporate social responsibility (CSR) in the prevention of marine debris in the Eastern Caribbean; and

Topic 3: Societal Awareness

- Analyze and explore the gender dimension of marine debris and/or Sargassum management and mitigation;
- Analyze public attitudes to waste, marine debris and Sargassum in the Eastern Caribbean - perceived problems and future solutions;
- Access quality education on sustainable ocean development solutions addressing the inter-related challenges of marine debris and Sargassum;
- Develop methods that promote the integration of inter-sectional aspects for the prevention of marine debris;
- Advance the role of civil society actors, such as non-governmental organisations and fisherfolk, in relation to community based responses;
- Engage with shipping, fishing and/or tourism industry representatives in the formulation and delivery of industry responses; and
- Use cross-boundary transformative partnerships for knowledge transfer and to bridge the gap between science and policy in the field of marine debris.



The successful applicants are required to incorporate innovative components and/or techniques to address complex challenges relevant to the research themes. The innovative components and/or techniques should be guided by sound research methodology or a combination of research methodologies. The outcome of the research should aim to promote practical strategies within the region to address the marine debris and Sargassum issues and to contribute to developing and implementing solutions to broader sustainability issues surrounding marine debris.

This opportunity requires the candidates to be resident at WMU in Malmö, Sweden, for the duration of the programme. The successful applicants shall be under an obligation to conduct research under the supervision of a GOI faculty member. The PhD scholarship covers tuition fees and an annual stipend of approximately 180,000 SEK to cover living and related expenses. The PhD scholarship is awarded for a maximum period of three years from the date of registration.

Further information:

Further information regarding the Programme can be obtained through informal communication with Professor Ronán Long, Director WMU-Sasakawa Global Ocean Institute by contacting **Ms. Jill Jarnsäter**, Secretary at the WMU-Sasakawa Global Ocean Institute at: goisecretariat@wmu.se

Kindly see application procedure and deadline on the following page.

PhD Scholarship: Eligibility and Conditions

1. Applicants must have a Master's degree completed with a dissertation in a discipline appropriate to the proposed topic of research below.

a) For research theme on science and technology

- *Marine Science and Technology*
- *Geographic Information Systems and cartographic/geodetic science*
- *Modelling of environmental change*

b) For research theme on blue and green economics

- *Economics and finance*
- *Socio-economic evaluation*
- *International Business and management studies*
- *Sustainability Studies, with a focus on corporate responsibility and/or sustainable business practice*
- *Tourism management*
- *Maritime related degree*

c) For research theme societal awareness

- *Behavioral studies*
 - *Psychology*
 - *Education*
 - *Sociology / Social Analysis*
 - *Communication and marketing*
 - *Tourism management*
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PhD Sholarship: Eligibility and Conditions

2. Language proficiency in English is essential. Applicants must offer one of the following tests as proof of competence in the English language:

- A. *Test of English as a foreign language (TOEFL): 96+ (internet-based test), 590+ (paper based test)*
- B. *International English Language Testing System (IELTS): band 7.0 or above*
- C. *Cambridge Examinations: Cambridge Proficiency Examination at grade A or B*
- D. *GCE O-level or the equivalent: a good pass grade.*

3. Professional or academic expertise in the area of marine debris and Sargassum management/research as demonstrated through project implementation and/or research activities including a track record of ideally peer-reviewed publications, among others, will be an added advantage.

Notes:

Candidates from countries in the Eastern Caribbean region are strongly encouraged to apply. Female applicants are particularly encouraged to apply.



PhD Scholarship: How to Apply

Applicants must apply through the WMU's online portal at <https://www.wmu.se/phd/apply> and click "Apply now" to the Maritime Affairs (PhD).

The applicant will need to submit the following documents in connection with their application to the doctoral programme of this scholarship:

1. WMU **Ph.D. Application Form**
2. Complete the **WMU Ph.D. Research Proposal** along with the application for admission
3. A **one-page motivational letter**, with subject line of Marine Debris/Sargassum Research Programme
4. Updated Curriculum Vitae (CV)
5. Certified copies of degree certificates and transcripts
6. Copy of English language proficiency certification
7. Copy of passport (data page, only for internal record)

In addition, to complete the application, the applicant must inform referees to:

- Send **2 Letters of academic reference** to be sent directly by your referees to the Doctoral Office, email phd@wmu.se

Application cut-off dates for applying to this PhD programme is: **23:59 CET 29 March 2020.**

- Applications for admission will be considered by WMU's Doctoral Admissions Board. The Admissions Board will select only the best-qualified candidates taking into account their research proposal as well as all their qualifications and achievements. Kindly note that *only shortlisted candidates will be contacted for next steps.*

* All necessary forms can be downloaded at <http://www.wmu.se/phd/apply> and **application should be submitted online.**

** All applicants must submit a research proposal that clearly indicates the area in which their research will be conducted, including the key issues to be examined in detail. The research proposal should identify an original research question, and demonstrate that the applicant understand what research at the postgraduate level entails. The quality of the research proposal is extremely important. It is a crucial part of the application and will be used to match prospective candidates with research supervisors

