**SEA of Solutions 2019—Sessions’ summary from National University of Singapore (NUS) Team**

**Parallel session 1: 11 November 2019 (9.30am–10.30am)**

**NUS / State of the science: How does scientific research support action to combat marine plastics in South East Asia?**

This session discussed the methodology, scientific findings and policy recommendations of an ongoing investigation into the status of research on pollution from marine plastics in Southeast Asia conducted by a team of marine science and ocean, law and policy researchers from the National University of Singapore. This publication, which has been developed to support regional efforts to combat pollution from marine plastics, is available at <https://cil.nus.edu.sg/publication/a-review-of-research-on-marine-plastics-in-southeast-asia-who-does-what>.

The discussion was conducted into two parts:

* First a presentation of the project: The methodology and finding published in a first report in May 2019 were presented by Ms Yuke Ling Tay from NUS. The revised methodology, scope and preliminary findings of the ongoing version 2 of the study were presented by Ms Amanda Lim from NUS.
* Second, collect insights comments and recommendations for the second phase of the study from Dr Wenxi Zhu from IOC-Westpac and the audience, with a view, to the extent possible, to include them into the revised version.

The presentation of the first report highlighted that following a comprehensive literature search through the internet and NUS library of peer-reviewed and grey literature, they identified similarities and differences in the research extent, focus, methodology and sampling environment in each of the 10 ASEAN member states. Indonesia stood out as it displayed the greatest attempt at marine plastic research through examining various research focuses and using a diversity of research methodologies. The two most common areas of research were surveys and assessment of occurrence of marine plastics and research in ecological and environmental impacts.

Amanda Lim reported progress on expanding the project scope into three East Asian countries (China, South Korea, and Japan). These three countries demonstrate high volumes of marine plastic research with a priority in the same areas of surveys and assessment of occurrence of marine plastics and understanding of impact of plastic pollution on marine organisms. However, they also investigate less-common topics such as the economic impact of plastic pollution and processes of plastic fragmentation.

Building on comments from the commentator and the audience, it was made clear that the report should be developed with a view to include the following features:

* Identification of members of a potential network of research cooperation within the region and internationally,
* Revised categories of research purpose and characteristics to reflect accurately the context and status of knowledge on different questions being investigated (including source, fate, transport and impact),
* Highlight gaps such as bioaccumulation, degradation and transport and therefore risk assessment framework,
* Public inventory of research studies realised in or about the region,
* Identification of different streams of work that global and regional intergovernmental organisations are engaged in and their limit,
* Visible non-institutional initiatives that are regionally relevant,
* sharing of information with and across research communities, policy-makers, private entities and public stakeholders, and
* Identification of potential gaps in research, regional policies, law or initiatives or disconnect between policy and science.

Discussions pointed to gaps in also highlighted the importance to find ways to capture on-going research as well as domestic reports by national governments and local players although they may not be readily accessible in English.

**Parallel Session 3: 1.30pm–3pm**

**NUS/ Governance Frameworks to manage marine plastics in Southeast Asia: Recent Developments and Way Forward**

This panel discussion on the governance framework to manage marine plastics in Southeast Asia focussed on institutional, legal and regulatory frameworks need taking into account at global, regional and domestic levels for solutions to marine plastic pollution to be successful. It also raised challenges faced at national level and from the perspective of the development of a circular economy.

The discussion was structured into four parts:

* First, a presentation of the global legal institutional framework and on-going developments by Dr Raubenheimer;
* Second, a more detailed focus on regional institutions and mechanisms at regional level: Dr Vu Hai Dang started with a presentation of relevant regional institutions for policy and law making and their on-going work; Dr Vong Sok provided additional comments and insights from the perspective of the ASEAN and Mr Kim Nong discussed implementation challenges at national level in the context of Cambodia;
* Third, a consideration of mechanisms put in place to combat marine plastics in another regional sea’s programme in the context of the Northwest Pacific Action Plan (NOWPAP) was presented by Dr Volavik; and
* Fourth, a discussion of the challenges arising from these models and observed in practice was introduced by Dr Hotta before the same challenges and others being built on by the audience.

The presentation of the global institutional and legal framework distinguished ongoing work streams under bodies with a general environmental mandate such as UNEA and UNEP from those initiated under specialised bodies such as plastic pollution in the context of fisheries, shipping and in the context of the chemical conventions for restrictions to the trade of plastic waste that cannot be recycled and control of toxic additives to plastic polymers. The fast path of work under these bodies was clearly highlighted.

The discussion of regional institutions also distinguished regional institutions with a general marine environmental mandate from those that deal with specific plastic pollutions arising from specific activities such as shipping or fisheries. However, it particularly emphasised two detailed and parallel processes for the development of regional policies to combat marine plastics: on the one hand, the Bangkok Declaration on Combating Marine Debris in ASEAN Region and ASEAN Framework of Action on Marine Debris, and on the other hand, COBSEA Regional Action Plan on Marine Litter. Despite differences in approach and language, similarities in goals and objectives and the potential for and desirability of synergistic relationship between these two policy frameworks were highlighted. In the context of the ASEAN, funding partners, high-level dialogue partners and activities centres involved in combatting marine plastics were highlighted as well as the ongoing development of a regional action plan that will be more specific than the current Framework.

In the context of NOWPAP, highlights included the following: marine plastic pollution is a cross-cutting issue; several Regional Centres of Activities were involved; implementation of the Marine Litter Activity (MALITA) resulted in a NOWPAP marine litter database; and in 2020, a third regional overview on marine litter would be released. Three steps of progress may be first to prevent marine litter from reaching the marine environment, second to monitor, third to ensure national action.

Finally, salient points of the enlarged discussion focussed on potential gaps between the current framework and the general understanding of the need to move to a model of circular economy. These gaps included the need for abroad society change that goes beyond the work streams of institutions previously discussed. Disconnects between the circular economy model and existing institutional mechanisms such as impacts of unilateral restrictions to the trade of plastic, knowledge gaps and technical capacity gaps were also highlighted. Finally, ensuring adequate flow of information between different stakeholder groups was also identified as a key issue.