

**REPORT OF THE NEAT WORKING GROUP ON WATER POLLUTION**  
**“Cleaning Up Our Waters: Finding a Workable Regional Cooperation Framework on**  
**Water Pollution”**

**A One Hotel, Jakarta, August 29<sup>th</sup> 2017**

**BACKGROUND**

1. On August 29<sup>th</sup> 2017, experts and scholars from ASEAN Plus Three (APT) countries gathered in Jakarta for the NEAT Working Group on Water Pollution meeting. With “Cleaning Up Our Waters: Finding a Workable Regional Cooperation Framework on Water Pollution” as the main theme, delegates exchanged their knowledge, experiences and views on the issue of water pollution, with a special highlight on marine plastics debris, and the possibility of regional cooperation to deal with the problem.

**WATER POLLUTION IN EAST ASIA**

2. Not only becoming more important, seas and rivers are also becoming dirtier. According to the most recent study, there are around 12.7 Million Metrics Tons (MMT) of plastic dumped into world’s oceans per year<sup>1</sup>, threatening to turn those seas into massive sewages. Result of official investigation indicated that only beach garbage in some Asian countries reach up to nearly 2,000 kilograms per square kilometer, while ocean plastic debris hit more than one million metric tons
3. The consequences are dire. In economic terms, marine pollution leads to losses in fishing, shipping, tourism and insurance amounting to \$ 1.2 billion per year (APEC, 2010). A report of World Economic Forum in 2016 estimated costs from plastic leakages at \$695 million per year for coastal and beach cleaning.
4. The impact goes beyond the economy. Around 267 different species suffer from entanglement and ingestion of plastics in our seas and oceans. Submerged plastics that cover coral reefs areas have increased corals death and have prevented corals from effectively absorbing released carbons, thus accelerating global warming.

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<sup>1</sup> Jambeck, J.R., Geyer, R., Wilcox, C., Siegler, T.R., Perryman, M., Andrady, A., Narayan, R., Law, K.L., 2015b. Plastic waste inputs from land into the ocean. *Science* 347, 768–771. doi:10.1126/science.1260352

5. Water pollution also have huge impact on food security, as 25 to 65% of protein intake among Southeast Asia is sourced from fish including seafood. Credible studies also indicate that marine organism not only plankton, fish juvenile, crabs and shells but also big pelagic fish and marine mammals (whales) tend to consume plastic debris, thus increasing the risk of health repercussion on humans who consume seafood products. It has been demonstrated that the possible impact of plastics on organisms was through ingestion of the size of microscopic (microplastic) similar with the microorganism, leaching of additive substances from microplastics and also transferring high concentration of pollutants.
6. It is alarming that some APT countries are leading contributors of marine plastic debris. Environmental damages caused by plastic debris are extensive, complicated by most APT countries' lack of capabilities to manage urban wastes. Hazardous fishery activities also contribute to the worsening state of both freshwater and marine ecosystems. As the presentations in the Working Group have indicated, wastes from anthropogenic activity particularlys from industry, tourism, household and agricultural sectors have significantly contributed to the water pollution in APT countries.

### **Challenges to Tackle Water Pollution, Especially Marine Plastics Debris**

7. To tackle the water pollution issue, the Working Group identified various challenges. These challenges are classified into three major categories: (i) awareness; (ii) regulation and governance; and (iii) implementation.
8. *Awareness*: The challenges in awareness are: (i) lack of awareness and knowledge among the general public, as well as lack of incentives to act to solve the problem of water pollution; and (ii) national education in APT countries do not put enough emphasis on marine environment conservation; (iii) data and knowledge discrepancy;
9. *Regulation and governance*: Challenges occurring in the regulation and governance aspect in many APT countries are: (i) insufficient national legal framework on water pollution, especially on marine plastics debris and microplastics pollution; (ii) disparity between local and central government policies; (iii) no sufficient budget allocation to support infrastructure, facilities, projects, research, and monitoring; (iv) lack of regional cooperation platform for managing trans-boundary pollution.

*Implementation:* Implementation challenges include: (i) Weak law enforcement; (ii) lack of budget and resources; (iii) lack of capacity in terms of manpower, technical capabilities, technology, and knowledge; (iv) the absence of solid database, monitoring, and research collaboration among APT countries; (v) limited involvement of private and civil society sectors in many APT countries; (vi) lack of involvement of the academia and research institutions; and (vii) lack of involvement in international scientific cooperation related to marine plastics debris and microplastics.

### **Experiences and Best Practices**

10. The Working Group also wants to highlight notable experiences of APT countries as best practices to tackle water pollution issue. In Singapore, civil society acts as bridge between government, private sectors, communities and academia to tackle problems. They raise awareness through bringing people to experience and be involved directly with environmental problems, while constantly distributing message through social media and public communication. Another important experience is the importance of leadership and effective governance. Republic of Korea display instrumental role of government commitment to translate international treaties into national plans and local actions. These actions successfully decrease waste percentage significantly in past ten years. Another best practice is on how to creatively decrease the number of pollutants. Japan did so by converting garbage into resources for construction materials.

### **RECOMMENDATIONS**

11. As a region consisting of APT countries whose welfare depends largely on fresh water resources, East Asia must move forward to develop a better and more effective cooperation to deal with the problem of water pollution, especially the issue of marine plastic debris. By gathering experts from APT countries, this Working Group is designed to start a regional initiative towards that goal.
12. As a result of the discussion in the Working Group, the forum recommends several points covered in three major categories (awareness, regulation and governance, and policy implementation).
13. *Awareness:*
  - a. Create East Asian Open Access Data Center on Marine Pollution;

- b. Initiate joint campaign to raise public awareness by focusing on “experience” (*see it, believe it, do something about it*)
- c. Integrate environmental education related to water waste and pollution to national education systems.

14. *Regulation and Governance:*

- a. Call for stronger leadership by APT Leaders to see the issue of water pollution, especially marine plastic debris, including ghost fishing, as a major priority.
- b. Create cooperation between APT countries to support capacity building, technology transfer and funding mechanism to tackle water pollution, especially on topics such as microplastics, microbeads, and marine conservation;
- c. Encourage joint research to be funded by APT Cooperation Fund (APTCF);
- d. Develop common policies on plastics pollution prevention and waste management.

15. *Implementation:*

- a. Create platforms for sharing, learning, and adopting the best practices suited with local context (think globally, act locally).
- b. Promote the development and standardization of methodologies on marine debris and microplastics investigation.
- c. Undertake joint action to reduce marine debris in East Asian waters.
- d. Encourage technology transfer that can help the development of ‘recycling economy’ in APT countries.
- e. Create stronger collaboration between stakeholders, including experts and academia, civil society, business sector and government at local, national, and regional levels to address the issue.