Twenty second Intergovernmental Meeting of the Northwest Pacific Action Plan
Toyama, Japan
19-21 December 2017

Summary of the 2017 NOWPAP-TEMM Joint Workshop on Marine Litter Management and 2017 NOWPAP International Coastal Cleanup

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NOWPAP-TEMM Joint Workshop on Marine Litter Management and 2017 NOWPAP International Coastal Cleanup

19-20 September 2017
Toyama International Conference Center, Toyama, Japan

Organized by:
NOWPAP Regional Coordinating Unit (RCU)
Ministry of the Environment, Japan
Northwest Pacific Region Environmental Cooperation Center (NPEC)

Supported by:
Ministry of Foreign Affairs, Japan
Ministry of Land, Infrastructure, Transport and Tourism, Japan
Toyama Prefecture
Imizu City
Transcript of the workshop

Opening ceremony

Mr. Yasushi NAKAZATO (MOE, Japan), Mr. Yuichi NAGASAKA (Toyama Prefecture) and Dr. Lev NERETIN (NOWPAP RCU) gave opening addresses.
Participants introduced themselves.

Session 1: Progress on Marine Litter Management in the NOWPAP region

Dr. Ruizhi LIU made a presentation titled “Progress in addressing marine litter in China”. Dr. LIU reported about current three main measures against marine litter in China; prevention and control of land-based solid waste, waste management related to shipping and fishing, and public awareness activities, including the International Coastal Cleanup (ICC). China started the implementation of “Mandatory Garbage Classification” in 4 major municipalities (Beijing, Tianjin, Shanghai and Chongqing), provincial capitals, provincially administered cities which are authorized to formulate their own independent plans, and 10 other cities with a special status.

Dr. Kanako SATO presented the “Progress in addressing marine litter in Japan – Efforts to combat marine litter in Japan”. Dr. SATO provided the data on financial support from the central government to local governments for cleaning up coasts and reducing generation of marine litter. The total budget has reached US$198 million since 2009. She also introduced the national marine litter monitoring program on beaches, sea surface and on the seabed, and provided information about the ongoing microplastics surveys.

Dr. Lee Yoon JUNG delivered a presentation entitled “Korea’s policies against microplastics to protect the marine environment”. Dr. JUNG introduced the Marine Debris Management Policy, management of expanded polystyrene (EPS) buoys and regulations addressing microplastics in R. Korea. R. Korea’s current management policy is in the third phase. In R. Korea, abandoned EPS buoys are one of the major sources of marine litter. Therefore, the Korean government has developed various management tools, such as alternative buoys and educational campaigns aimed at fishermen. The Korean government established a new regulation on the use of microbeads in products as means to prevent input of microplastics into the ocean.

Dr. Sergey MONINETS presented “Central and local government’s efforts in Russian Federation”. He introduced the “Clean Country” project which aims to eliminate accumulated damage to the environment (including abandoned thermal treatment facilities) in large cities as well as along the Arctic coast. The Ministry of Natural Resources and Environment of the Russian Federation has drawn
up a road map for “cleaning up” the Arctic in 2017-2019; A total of 102 sites have been identified as priority sites for cleaning accumulated pollution loads.

During the Q&A part of the session, the participants exchanged opinion about the role NGOs supporting governmental actions and discussed the necessity to look at the alternatives to fossil-fuel derived plastic materials. In Russia, many NGOs conduct regular campaigns for collecting garbage. In China, the central government promotes green economic development and supports research projects on the treatment of new types of package waste.

**Session 2: Addressing Challenges of micro-plastics**

Dr. Lihui AN presented “National Projects for Controlling Microplastics Pollution in China”. The Chinese government has started monitoring of microplastics in sea water and fresh water, as well as conducting research on the impacts of microplastics on aquatic organisms. For example, data for Taihu Lake show microplastics concentrations of 3.4 – 25.8/L in the water, 11.0 – 234.6/kg in bottom sediments, and 0.2 – 12.5 items /gww in clams. The main polymer types of microplastics are cellophane, PET, PS, PE and PP. In the Bohai Sea sediments, the distribution of microplastics was surveyed and the abundance was 102.9 – 163.3 items/kg. Microplastics contamination is observed in various fish taxa from freshwater and marine environment.

Dr. Keiichi UCHIDA discussed “Present and future research on micro-plastic in Japan”. Microplastics monitoring is conducted in the offshore and coastal areas of Japan. Microplastics are collected using neuston nets, the size is measured using a PC, and source polymers are identified using FTIR method. Their research showed the amount of microplastics in surface waters of the NOWPAP region of about 1,720,000 pieces/km², which is about 27 times higher than the average concentrations in the world’s oceans. His study group expanded the research area to cover the Antarctic Ocean. Dr. UCHIDA also emphasized the importance of standardization and/or harmonization of sampling methodologies in the region.

Dr. Sang Hee HONG made a presentation entitled “Microplastics research in the Republic of Korea”. Monitoring of floating microplastics has been implemented in seven coastal areas between 2012 and 2017 and two additional coastal areas for monitoring of microplastics are expected to be added in 2018-2020. Monitoring data are used to derive horizontal and vertical distributions of microplastics in Korean coastal waters. In addition to monitoring in sea water, monitoring of microplastics in sediments has been conducted at 20 sites and the assessment of microplastics contamination in bivalves has been undertaken at 12 sites. Microplastics contamination is recorded along the beaches and in bivalves.

Dr. Yana BLINOVSKAYA presented the results of the research on “Microplastics in the coastal sea
water of Russia”. In 13 sites in the coastal area of Vladivostok, microplastics are being monitored. In addition to monitoring in the coastal area, microplastics monitoring in river waters, in offshore areas, at sand beaches and bottom sediments as well as in the Arctic region are being conducted.

Dr. Nikolai KOZLOVSKII discussed the preliminary results of research on the “Sources of microplastic pollution in the Peter the Great Bay”. Samples of microplastics were collected at 12 sites in the Peter the Great Bay; polymer types and sizes were measured. Results of this research suggest that the main sources of microplastics in the Peter the Great Bay are 1) untreated discharge of domestic water, 2) degradation of large plastic litter coming from land, fisheries and aquaculture sectors, 3) summer recreation activities, and 4) riverine discharge.

During the Q&A and summary of the session, all participants discussed the priorities of microplastics issues in the NOWPAP region. The participants unanimously agreed on the need of harmonization/standardization of current monitoring methods in order to compare results from various countries. In addition, the importance of coordination with other international organizations on the harmonization/standardization of monitoring methodologies was emphasized.

Session 3: From global to regional to local action

NOWPAP partners, namely the International Environmental Technology Center of United Nations Environment Programme (IETC), Yellow Sea Large Marine Ecosystem project Phase II (YSLME Phase II), and the Food and Agriculture Organization of United Nations (FAO), introduced their activities on marine litter by remote presentations. IETC briefed their work on policy support, demonstrating effectiveness, and education and awareness raising on waste management. YSLME introduced their project components and relevant deliverables at regional level. FAO introduced their effort on combating abandoned, lost or otherwise discarded fishing gear (ALDFG). In addition, Dr. Ning LIU from NOWPAP RCU presented the activities on marine litter of Coordinating Body on the Sea of East Asia (COBSEA) and the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP) on behalf of these two organizations.

Mr. Hiroshi KANEKO presented “The effort of Japanese NGO in addressing marine litter, including microplastics”. Mr. KANEKO introduced Marine Litter Summit organized by Japan Environmental Action Network (JEAN) and cleanup efforts by local communities and NGOs in Japan. He also introduced their activities addressing drifted marine litter derived from the Great East Japan Earthquake 2011 and collaboration with NGOs in USA and Canada.

Dr. NERETIN informed participants about the UN Environment efforts to tackle marine litter in the presentation entitled “UN Environment response to marine litter: Towards implementation of
Sustainable Development Goal 14”.

Dr. SATO reported on the “Cooperation on marine litter within the framework of TEMM”. The 19th Tripartite Environment Ministers Meeting among R. Korea, P.R. China, and Japan (TEMM19) held in August 2017 in R. Korea agreed to enhance collaboration and exchange information on countries policies addressing marine litter and related research efforts under the TEMM framework through joint workshops and working level meetings.

**Roundtable discussion and summary of the workshop**

The chairs of each session summarized major issues discussed at each session and invited participants to join the roundtable discussion.

Dr. SATO summarized major conclusions of session 1 by emphasizing that four NOWPAP member states have promoted actions against marine litter through various methods, national action plans, monitoring surveys and collaboration with scientists and private sectors.

Dr. Ruizhi LIU summarized results of session 2 highlighting the increased research and monitoring efforts of NOWPAP member states addressing microplastics pollution. He stressed that there is a need for NOWPAP to enhance efforts in harmonizing methodologies on assessing of microplastics pollution.

While reporting on the results of session 3, Dr. NERETIN mentioned that collaboration with NOWPAP partners on marine litter issues is important and should be strengthened in the future. Based on the message from Mr. KANEKO, he proposed to have better representation from NGOs and private sector at the next TEMM-NOWPAP joint Workshop and ICC in 2018 that was agreed to be held in R. Korea in 2018. He also concurred with Dr. Ruizhi Liu about the need of further NOWPAP work on understanding and where feasible harmonizing for microplastics measurement, monitoring and impact assessments.

**Closing**

The workshop was closed at 17:00 on 19 September 2017.

Workshop presentations (where permitted by presented) are available at the following webpage: [http://www.nowpap.org/meetings/ICC_2017.html](http://www.nowpap.org/meetings/ICC_2017.html).

**2017 NOWPAP International Coastal Cleanup**

20 September 2017

Coastal cleanup activities were conducted at the Rokudouji Coast in Imizu City near Toyama City. All workshop participants attended the ICC campaign. NOWPAP participants were joined by local NGOs and members of the International Volunteer University Student Association of Japan. Rokudouji Coast
is characterized by frequent loads of beach litter. The community leader introduced their regular cleanup activities and described local characteristics of marine litter. Following the introduction, under supervision of the director of JEAN, participants have collected and sorted out marine litter in two kind of garbage bags (burnable including plastics and non-burnable such as glass and metals). Over the course of the cleanup campaign that lasted about one hour and a half, about 500 kilograms of marine litter (60 bags) was collected, which will be reported by JEAN to Ocean Conservancy as results of the 2017 NOWPAP ICC campaign.

Local media was present at the ICC 2017 and reported about the beach cleanup campaign in the local newspaper.
ANNEX 1: Agenda

NOWPAP-TEMM Joint Workshop on Marine Litter Management and
2017 NOWPAP International Coastal Cleanup (ICC)

(Toyama, Japan, 19-20 September 2017)

Tuesday, 19 September 2017: NOWPAP-TEMM Joint Workshop on Marine Litter Management

**Venue:** Toyama International Conference Center, Conference Hall, 2nd Floor, 1-2 Otemachi, Toyama, Toyama Prefecture 930-0084

**Organizer:** NOWPAP Regional Coordinating Unit (RCU) and the Northwest Pacific Region Environmental Cooperation Center (NPEC)

**Co-organizer:** Ministry of Environment of Japan

**Supporters:** Ministry of Foreign Affairs of Japan; Ministry of Land, Infrastructure, Transport and Tourism of Japan, Toyama Prefectural Government, and Imizu City Government (Toyama, Japan)

8.30 – 09.00 **Registration**

09.00 – 09.30 **Opening Ceremony** (Mr. Takaﬁumi Yoshida)

- Mr. Yashushi Nakazato, Director, Office of Marine Environment, Ministry of the Environment, JAPAN
- Mr. Yuichi Nagasaka, Toyama Prefectural Government, JAPAN
- Dr. Lev Neretin, Senior Coordinator, NOWPAP RCU
Session 1. Progress on Marine litter Management in the NOWPAP region
(policy changes, updated statistics, new approaches)
Presentations of 15 min followed by Q&A 5 min
Chair: Dr. Kanako Sato, Japan

09:30 – 09:50  Progress in addressing marine litter in China
Dr. Ruizhi LIU, State Key Laboratory of Environmental Criteria and Risk Assessment, Chinese Research Academy of Environmental Sciences

09:50 – 10:10  Progress in addressing marine litter in Japan
Dr. Kanako Sato, Ministry of Environment, Japan

10:10 – 10:30  Korea's recent policies to protect the marine environment from marine debris
Dr. Yoon Jung LEE, Korea Maritime Institute (KMI)

10:30 – 10:50  Central and local government's efforts in Russian Federation
Dr. Sergei MONINETS, Director, Sea Protection Institute Maritime State University named after G.I. Nevelskoi, Russia

10:50 – 11:10  Q&A and brief summary of the session

11:10 – 11:30  Coffee break / Group Photo

Session 2. Addressing challenges of micro-plastics
Presentations of 15 min followed by Q&A 5 min
Chair: Dr. Ruizhi Liu, P.R. China

11:30 – 11:50  Research on micro plastics in China
Dr. Lihui An, Chinese Research Academy of Environmental Sciences, P.R. China

11:50 – 12:10  Present and future research on microplastics in Japan
Dr. Keiichi Uchida, Tokyo University of Marine Science and Technology, Japan

12:10 – 12:30

Microplastics research in the Republic of Korea
Dr. Sang Hee HONG, Korea Institute of Ocean Science and Technology (KIOST), R. Korea

12:30 – 12:50

Microplastics in the coastal sea waters of Russia
Dr. Yana Blinovskaya, Head of sub-faculty, Maritime State University named after admiral G.I. Nevelskoy and Mr. Nikolai Kozlovskii, NOWPAP Pollution Monitoring Regional Activity Centre (POMRAC), Russia

12:50 – 13:10

Roundtable discussion on research gaps and response

13:10 – 14:10

Lunch at the hotel restaurant

14:10 – 14:20

Roundtable discussion on the role of NOWPAP in addressing microplastics and summary of the session

Session 3. From global to regional to local action

Presentations of 15 min followed by Q&A 5 min

Chair: Dr. Lev Neretin, NOWPAP RCU

14:20 – 14:30

UN Environment response to marine litter: Towards implementation of Sustainable Development Goal 14
Dr. Lev Neretin, NOWPAP RCU

14:30 – 15:20

Guest presentations from regional partners (FAO, GESAMP, YSLME Phase II GEF Project, COBSEA, and UNEP IETC)

15:20 – 15:30

Cooperation on marine litter within the framework of TEMM
TBC

15:30 – 15:50

The effort of Japanese NGO in addressing marine litter, including microplastics
Mr. Hiroshi Kaneko, Partnership Office (Yamagata, NPO)
Director, JEAN Representative of Directors, Japan

15:50 – 16:10    Q&A and brief summary of the session

16:10 – 16:30    Coffee break

16:30 – 16:50    Roundtable discussion and summary of the workshop (Chair summaries: Dr. Kanako Sato, Dr. Ruizhi Liu, and Dr. Lev Neretin)

16:50 – 17:00    Closing

19:00 – 20:00    Reception at the Toyama International Conference Center

Wednesday, 20 September 2017

International Coastal Cleanup    International Coastal Cleanup (ICC) at the Rokudouji coast in Imizu City

12:10 (sharp)    Bus leaves the Canal Park Hotel Toyama hotel for ICC 2017

13:00 – 15:30    Beach Cleanup

NOTE: Participants from R. Korea leave to Toyama airport by taxi at 14:30, all other leave by bus at 16:00
ANNEX 2: LIST OF PARTICIPANTS

P.R. CHINA
- Mr. Ruizhi LIU (NOWPAP Marine Litter Focal Point), Ministry of Environmental Protection
- Dr. Lihui AN, Researcher, Institute of Water Environment Research, Chinese Research Academy of Environmental Sciences
- Dr. Li LI, Researcher, Institute of Soil and Solid Waste Research, Chinese Research Academy of Environmental Sciences
- Mr. Xiangbin PEI (TEM M Marine Litter Focal Point), Director, Department of Water Environmental Management, Ministry of Environmental Protection
- Ms. Diyin LU, DINRAC - NOWPAP Data and Information Network Regional Activity Centre

JAPAN
- Mr. Yasushi NAKAZATO, Director, Office of Marine Environment, Water Environment Division, Environmental Management Bureau, Ministry of Environment
- Mr. Katsunori YANO, Deputy Director, Office of Marine Environment, Water Environment Division, Environmental Management Bureau, Ministry of Environment
- Dr. Kanako SATO (NOWPAP Marine Litter Focal Point, TEMM Marine Litter Focal Point), Office of Marine Environment, Water Environment Division, Environmental Management Bureau, Ministry of Environment
- Mr. Tomoyuki NONOMURA, Office of Marine Environment, Water Environment Division, Environmental Management Bureau, Ministry of Environment
- Dr. Keiichi UCHIDA, Assistant Professor, Tokyo University of Marine Science and Technology
- Mr. Hiroshi KANEKO, Director, JEAN
- Mr. Yuichi NAGASAKA, Director, NOWPAP Special Monitoring and Coastal Environmental Assessment Regional Activity Centre
- Dr. Takafumi YOSHIDA, Senior Researcher, CEARAC - NOWPAP Special Monitoring and Coastal Environmental Assessment Regional Activity Centre
- Ms. Mihoko NAGAMORI, CEARAC - NOWPAP Special Monitoring and Coastal Environmental Assessment Regional Activity Centre
- Ms. Kimiko SHISHIDO, CEARAC - NOWPAP Special Monitoring and Coastal Environmental Assessment Regional Activity Centre

REPUBLIC OF KOREA
- Ms. Jeong Ja KIM (NOWPAP Marine Litter Focal Point and TEMM Marine Litter Focal Point), Deputy Director, Marine Conservation Division, Ministry of Oceans and Fisheries
- Ms. Jinsung MOCK, Marine Debris Management Team, Korea Marine Environment Corporation
- Dr. Yoon Jung LEE, Korea Maritime Institute
- Dr. Sang Hee HONG, Korea Institute of Ocean Science and Technology
- Mr. Eun Jeong PARK, Goseong-gun County
- Mr. Seung Gyun WOO, Gyeongsangnam Province
- Mr. Seung Yup LEE, Taean-gun County
- Dr. Jeong Hwan OH, Senior consultant, MERRAC - NOWPAP Marine Environmental Emergency Preparedness and Response Regional Activity Centre

RUSSIAN FEDERATION
- Dr. Sergey MONINETS (NOWPAP Marine Litter Focal Point), Director, Sea Protection Institute, Maritime State University named after G. I. Nevelskoi
- Dr. Yana BLINOVSKAYA, Head, Sub faculty, Maritime State University named after G. I. Nevelskoi
- Mr. Nikolai KOZLOVSKII, POMRAC - NOWPAP Pollution Monitoring Regional Activity Centre

NOWPAP RCU
- Dr. Lev NERETIN, Senior coordinator
- Dr. Ning LIU, Programme officer
- Ms. Chika KIMURA, Programme Management Assistant
- Ms. Kotoe KURODA, Intern
ANNEX 3: 2017 NOWPAP International Coastal Cleanup