

# NOWPAP Experience: Governance of and Policy Response to Marine Litter and Plastics Pollution

Yegor Volovik, MCE, PhD  
NOWPAP Coordinator  
Bangkok, November 11, 2019



# Regional Seas Programmes (18)

- Provides a legally binding framework to protect the marine environment at the regional level
- MEAs - Regional Seas Action Plans and Conventions
- Governed by the participating countries through Conference of Parties

## Administered by UNEP:

- Caribbean Region
- East Asian Seas
- Eastern Africa Region
- Mediterranean
- North-West Pacific
- Western Africa
- Caspian Sea

(7)

## Non-UNEP Administered:

- Black Sea
- North-East Pacific
- Red Sea & Gulf of Aden
- ROPME Sea Area
- South Asian Seas
- South-East Pacific
- Pacific Region

(7)

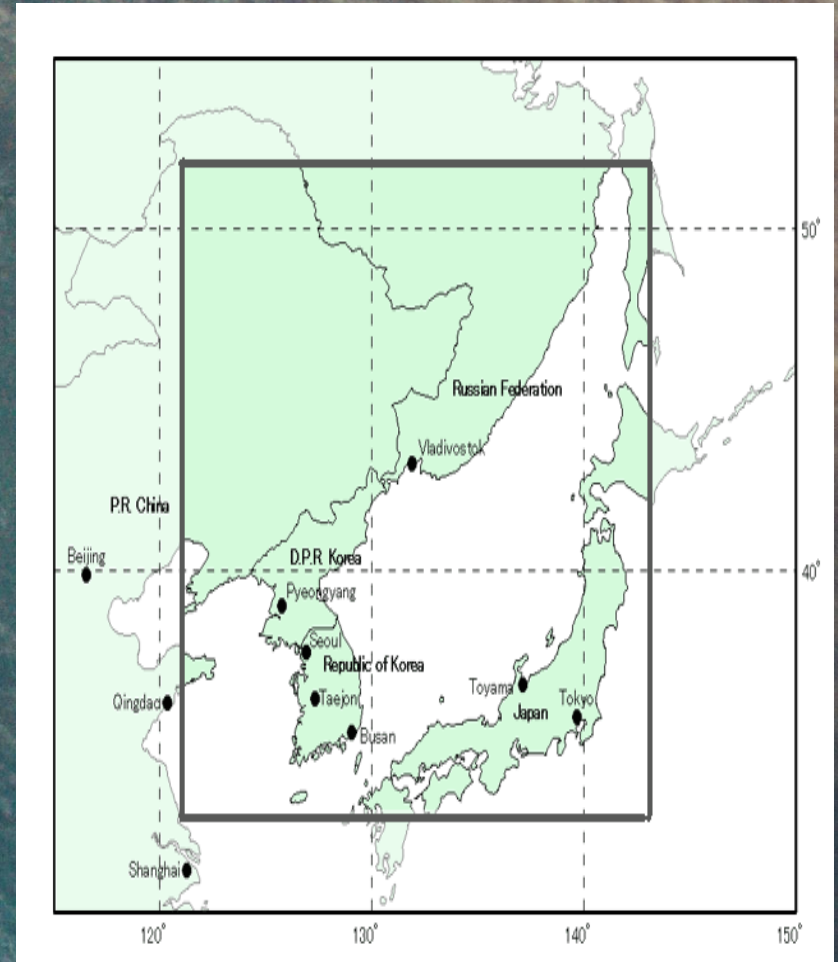
## Independent:

- Arctic Region
- Antarctic Region
- Baltic Sea
- North-East Atlantic

(4)

# Northwest Pacific Action Plan (NOWPAP)

- Established in 1994
- Part of UN Environment Programme's Regional Seas Programme
- Member states: China, Japan, Korea, Russia
- Overall goal: Protection of the marine and coastal environment in the NOWPAP region



NOWPAP geographic coverage



# NOWPAP Mechanism



**GEARAC**

- JAPAN – Special Monitoring and Coastal Assessment

**DINRAC**

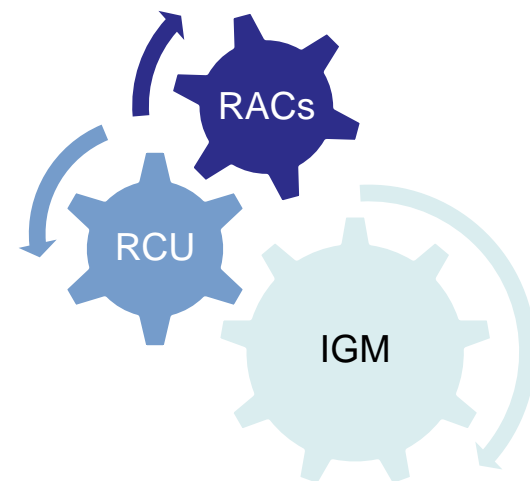
- CHINA - Data and Information

**MERRAC**

- KOREA - Marine Environment Emergency Preparedness and Response

**POMRAC**

- RUSSIA - Pollution Monitoring



**Marine Litter  
National Focal  
Points**

**International  
Partners**

**Municipalities**

**Governments  
Academia  
Public and NGOs**

# UNEP Guidance

- 2006 – “Guidance for Regional Strategies on Marine Litter”:
  - Phase I – Assessment of Regional Situation
  - Phase II – Development of Regional Action Plans
  - Phase III – Integration of Regional Actions Plans on Marine Litter into Programme of Work



# NOWPAP MALITA Project

- MALITA Project – 2005 (10<sup>th</sup> IGM):
  - Database on Marine Litter
  - Regional Review of legal and institutional issues
  - Regional workshops and International Clean-up Campaigns (ICC)
  - Public awareness materials and reports
  - Cooperation with COBSEA and UNDP GEF Yellow Sea Project





# NOWPAP efforts



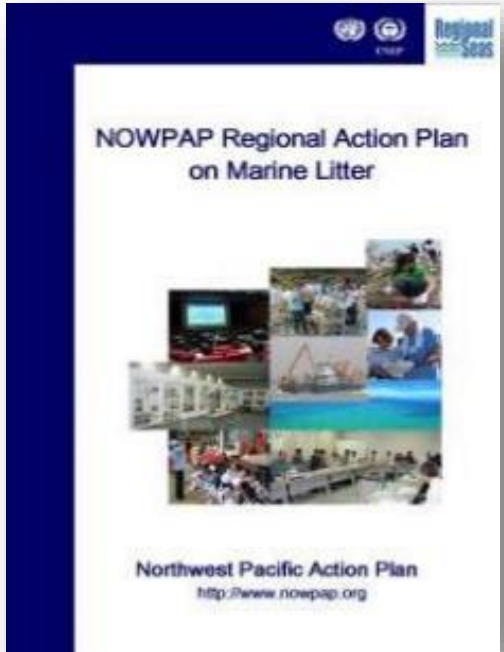
## MALITA, 2006-2007

To assist NOWPAP countries in the environmental protection and sustainable development of the NOWPAP region through the development of a NOWPAP Regional Action Plan on Marine Litter



## RAP MALI, 2008-2019

To improve the quality of the marine and coastal environment of the Northwest Pacific region by addressing the marine litter problem through cooperation and partnerships





# Explored solutions to address ML in International Workshops



**International ML Workshop  
Toyama, Japan, 2005**



**1st NOWPAP ML Workshop  
Incheon, Korea, 2006**



**2016 NOWPAP ML Workshop  
Vladivostok, Russia**



**2nd NOWPAP ML Workshop  
Toyama, Japan, 2007**



**3rd NOWPAP ML Workshop  
Dalian, China, 2008**



**2017 NOWPAP ML Workshop  
Vladivostok, Russia**





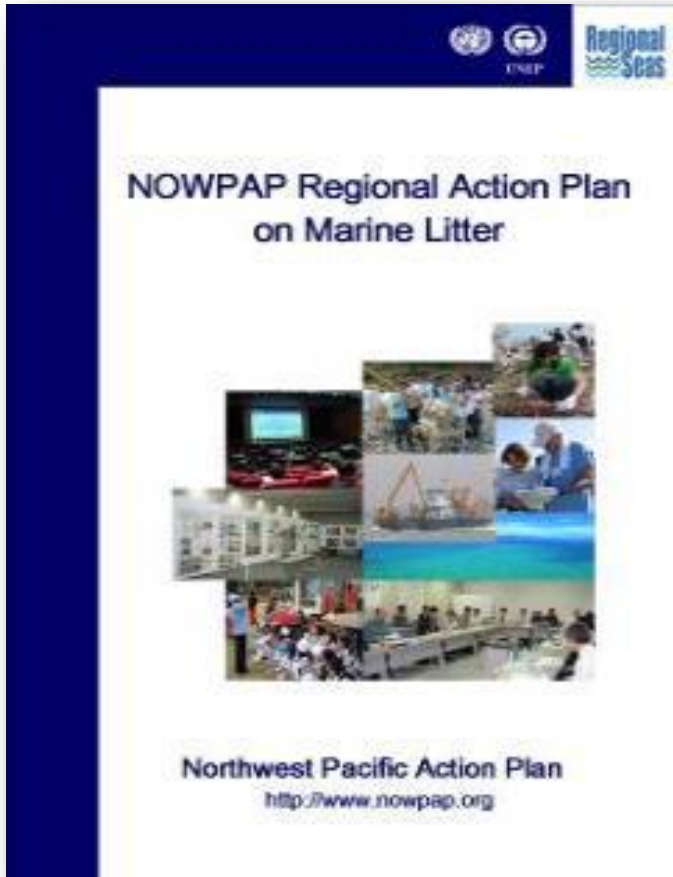
## Addressing fishing gear in NOWPAP-TEMM Marine Litter Management Workshop, June 2018, Busan



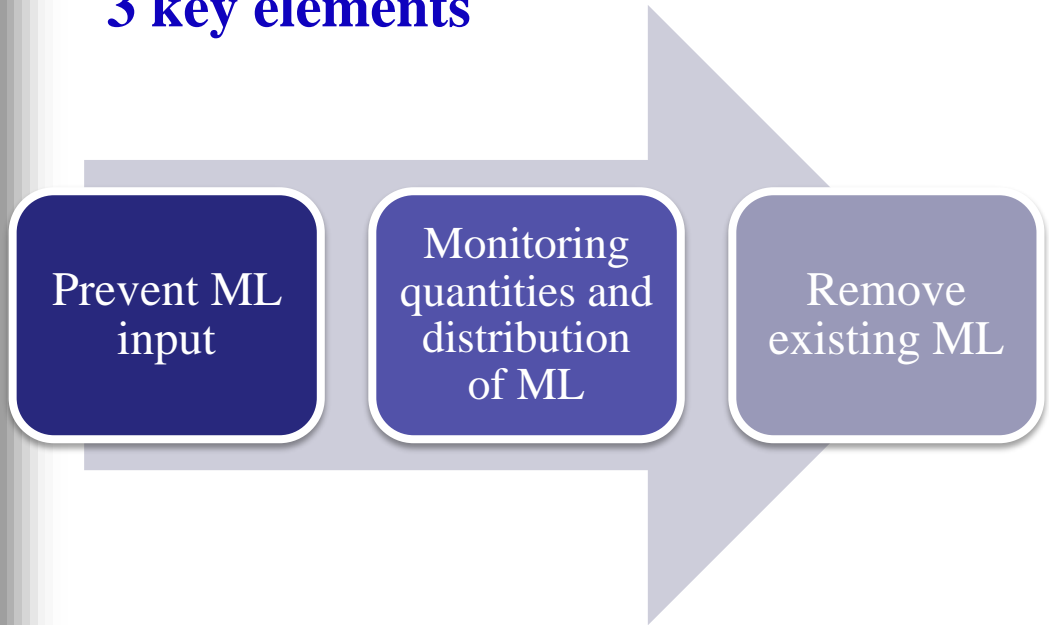
## Waste management in NOWPAP-TEMM ML Workshop, 24-25 Sep 2019, Dalian, China



# NOWPAP Regional Action Plan on Marine Litter



## 3 key elements



**Approved in March 2008**



# 1. Prevention of Marine Litter Input

## CEARAC:

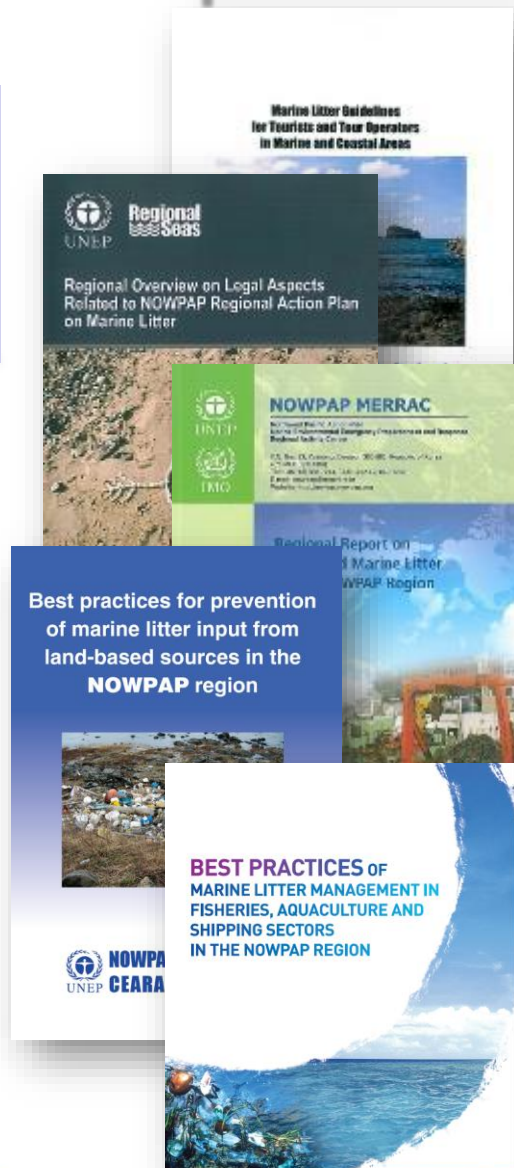
- Updated “Marine litter **guidelines** for tourists and tour operators in marine and coastal areas” (2011)
- Best practices** for preventing marine litter from land-based sources (2013)

## DINRAC:

- Regional **Overview** with updated information on legal and administrative arrangements (2010)

## MERRAC:

- Regional **report** on negative impacts of Marine Litter (2013)
- Best practices** of marine litter management in fisheries, aquaculture and shipping sectors (2014)

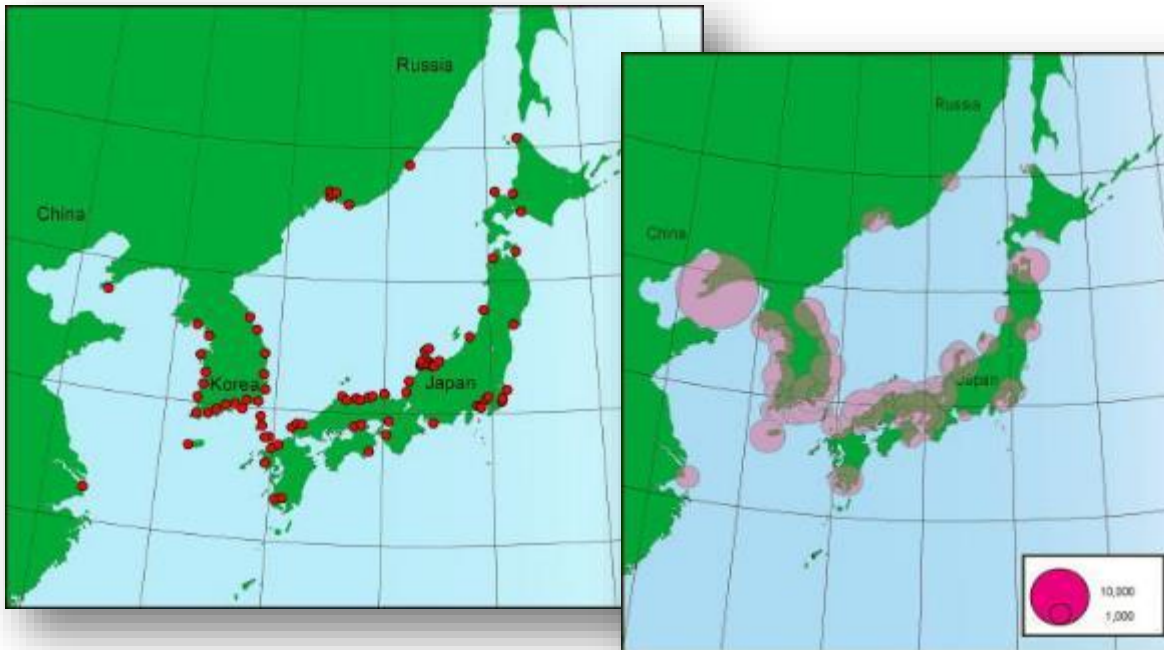




## 2. Monitoring of ML quantities and distribution...

- Marine litter monitoring (national)

➤ Monitoring data since 2003 are available online!



<http://dinrac.nowpap.org/our-work/marine-litter/monitoring-datasheets/>

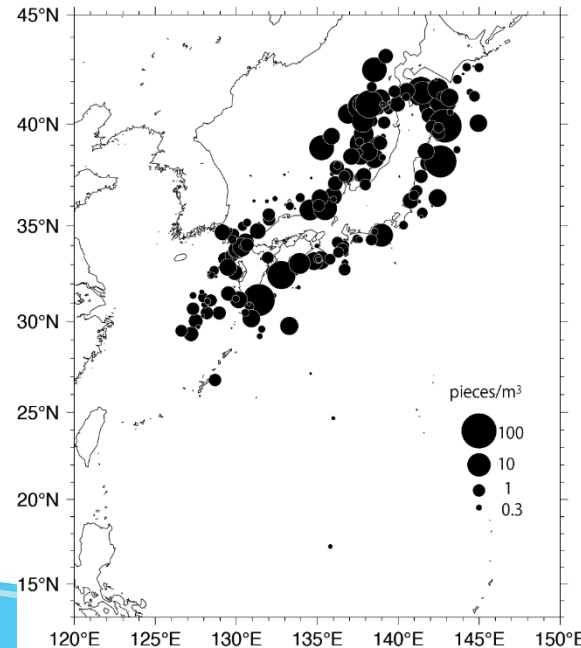


## 2. Monitoring of ML quantities and distribution...

- Marine litter monitoring (national)



海洋垃圾数量分布(个/平方千米)柱状图以数量密度的对数值(log<sub>10</sub>)表示,“0”表示监测区域未监测到海洋垃圾  
 ■ 海面漂浮大块和特大块垃圾 ■ 海面漂浮中块和小块垃圾 ■ 海滩垃圾 ■ 海底垃圾  
 2018年监测区域海洋垃圾数量分布图



Credit:  
 CRAES,  
 KOEM,  
 MOEJ



## 2. Monitoring of ML quantities and distribution...

**CEARAC:** Compiled and harmonized monitoring data on Marine Litter on beaches since 2003

**DINRAC:** Added to its ML DB monitoring results since 2003 provided by the surveys conducted in China, Japan, Korea and Russia

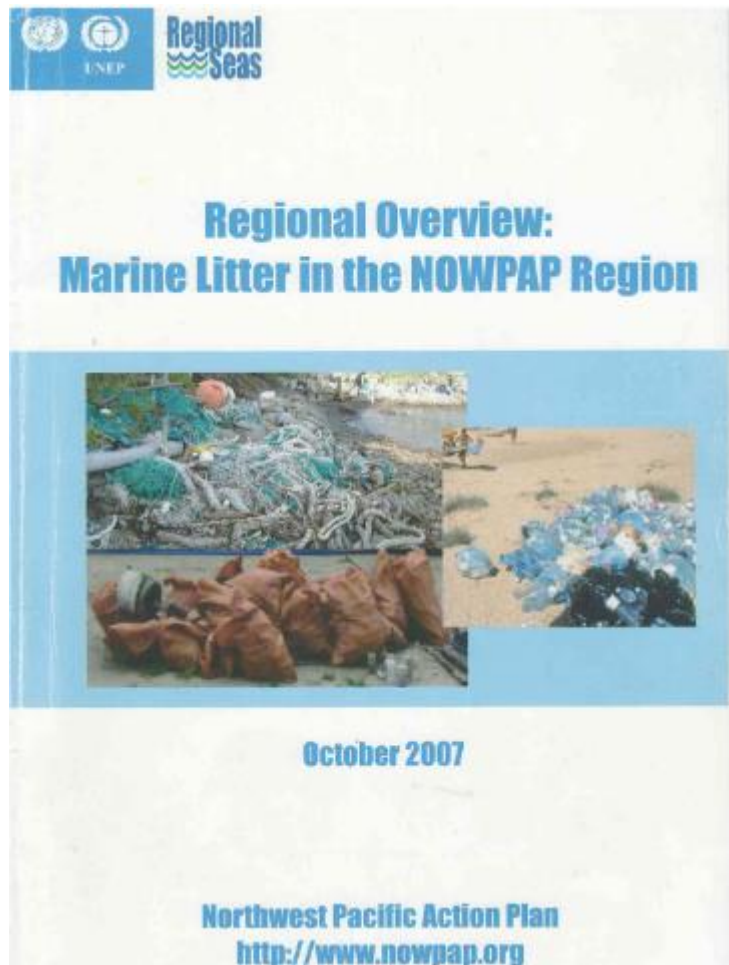
**MERRAC:**

- Published “Understanding of Floating Marine Litter Distribution and Impacts in the NOWPAP Region” 2016
- Review and Analysis of Existing Floating Marine Litter Prediction Models in the NOWPAP region

**POMRAC:** Research on micro-plastics content and migration in the Peter the Great Gulf.

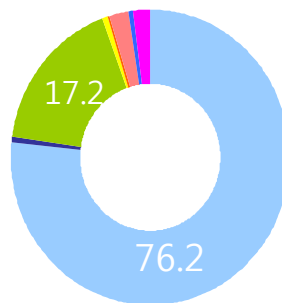


# Regional Overview on Marine Litter (2007)

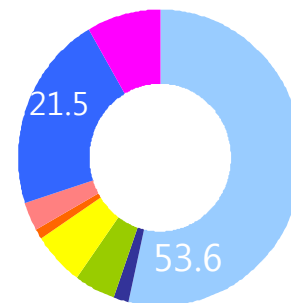


- **Others**
- **Metal**
- **Glass/Ceram**
- **Cloth**
- **Paper**
- **Polystyrene**
- **Rubber**
- **Plastic**

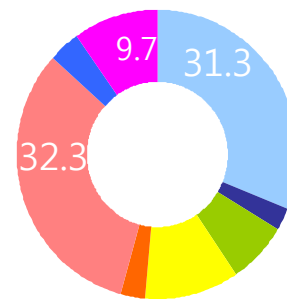
**% in number**



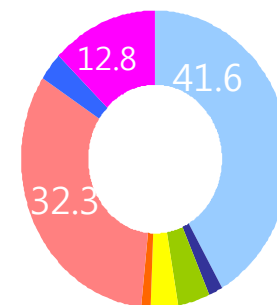
**Japan**



**Korea**



**China**





**Russia**




Source: NPEC (2002-2005)



# Regional Overview on Marine Litter (2011)

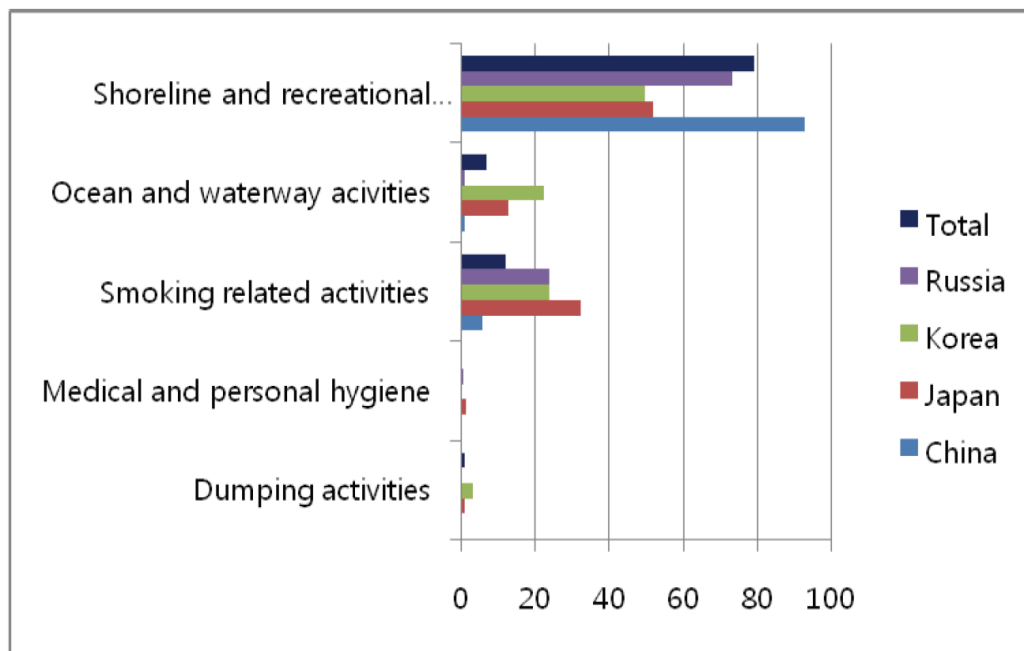



## Marine Litter in the NOWPAP Region

**November 2011**

**Northwest Pacific Action Plan**  
<http://www.nowpap.org>



**Figure 5.** Sources of marine litter in NOWPAP member states in percentage (2010 data from Ocean Conservancy)





# The Third Regional Overview on Marine Litter will be published in early 2020

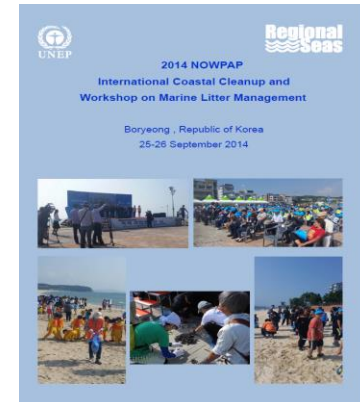




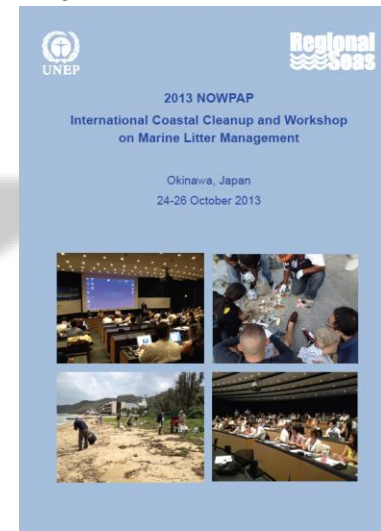
# 3. Removing existing ML and its disposal

With focus on national actions on:

- Beach Cleanup Campaigns
- Removal of existing marine litter
- Research activities related to marine litter



**Boryeong Korea  
2014**



**Okinawa Japan  
2013**



# Organisation of International Coastal Clean-up (ICC) Campaigns since 2006

Jeju, Korea (2010)

Hirado, Japan (2010)

Lianyungang, China (2011)



Yamagata, Japan, 2006



Rizhao, China 2007

Vladivostok, Russia 2012

Okinawa, Japan (2013)

Boryeong, Korea (2014)

Yantai, China (2015)

Vladivostok, Russia 2016

Toyama, Japan 2017

Busan, Korea 2018

Dalian, China 2019





## National efforts - China

- Restrictions to free use of plastic bags in markets from June 2018; About 40 billion plastic bags are reduced per year
- By the end of 2019, enact local laws and standards system prohibiting the production, sale and use of single use and non-degradable plastic products in Hainan Province
- By the end of 2020, completely ban the production, sale and use of single use and non-degradable plastic bags and plastic tableware in Hainan
- By the end of 2025, completely ban the production, sale and use of plastic products listed in the Catalogue
- By 2020, build an indicator system for “Zero-waste cities”

# National efforts - Japan

Subsidy to local governments for cleaning up coasts, reducing generation of litter in Japan

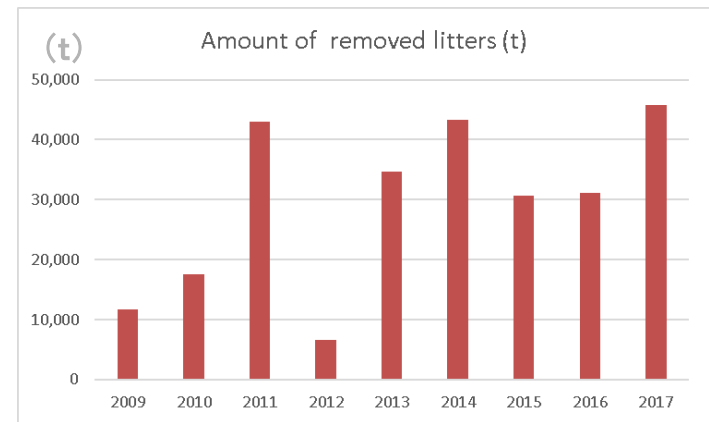
## National Budget

Credit:  
MOEJ

### Results of the Government of Japan's subsidised project for cleaning up coasts in Japan

2009 - 2012	About	<b>54 million US\$</b>
2013 - 2014	About	<b>91 million US\$</b>
2015	About	<b>26 million US\$</b>
2016	About	<b>27 million US\$</b>
2017	About	<b>28 million US\$</b>

US\$1= JY110



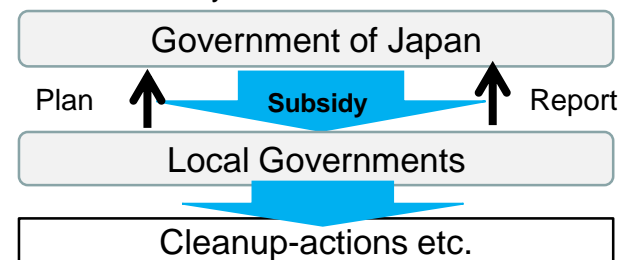
- Subsidy can be used for

Cleaning up  
coasts

Reducing litter  
generation

- From 2015, removal of **floating** and **sea bed-litter** was added to the subsidy menu.

### Flow of Subsidy



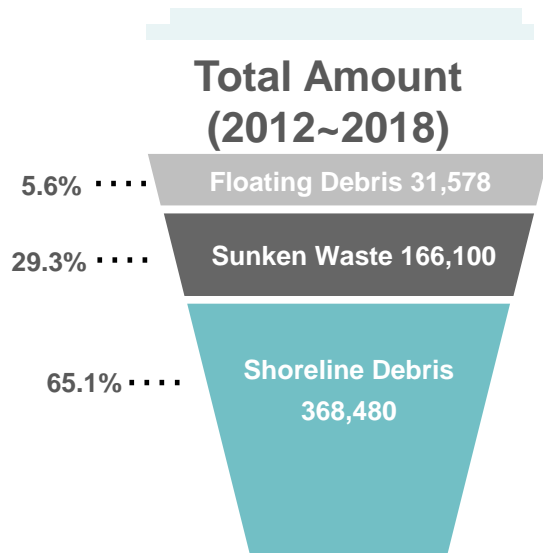


# National efforts of Republic of Korea

## ■ Removal Performance of Marine Litter in ROK (2012 ~ 2018)

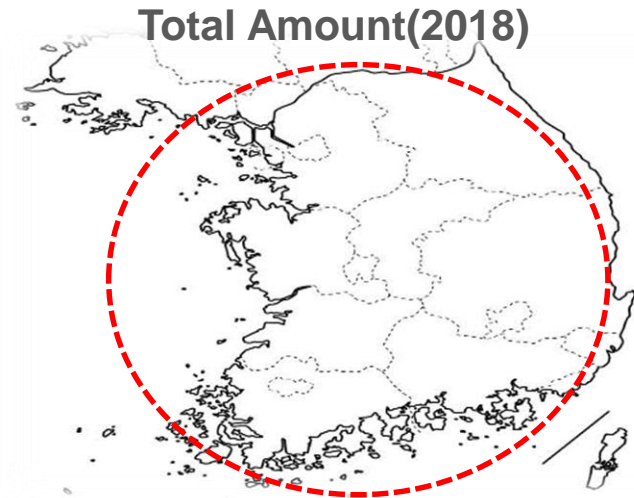
Amount of Removed marine litter every year: about **78,022 tonnes**;  
Overall Cost: appr. **US\$ 46 million** (including local governments)

- Type of ML: Shoreline litter 65.1%, Sunken waste 29.3%, Floating litter 5.6%



Total **566,158 t**

(Unit: Tonnes)



Total **86,621 t**

Credit:  
KOEM



# National efforts of Russia

- ❖ The Amur Regional Waste Management Program for the period 2018-2028 has been approved
- ❖ In 2017, 64 solid waste dumping sites were cleaned
- ❖ "Clean Coast" campaign, the banks of the rivers Tynda, Amur and Zeya have been cleaned up
- ❖ In Khabarovsk region, an interactive map of landfills has been launched
- ❖ Marine litter cleaning up activities along the banks of Amur, Ussuri and other rivers have been carried out
- ❖ In Primorsky Krai - "Water of Russia" program, 138 freshwater objects and 18 km of sea coasts of the shore were cleaned



# Concluding Remarks

- NOWPAP countries drive the process supported by UNEP/other partners
- Addressing ML requires strategic approach
- It's critical to ensure institutional and legal framework, financial resources
- Significant work carried out at municipal/local level - regional coordination
- ML/plastics remain key focus of NOWPAP and countries





# Thank you very much!!!



Yegor Volovik, MCE, PhD  
Coordinator  
Northwest Pacific Action Plan (NOWPAP)  
Regional Coordinating Unit, Toyama  
Ecosystems Division  
United Nations Environmental Programme

Tel.: +81.76.444.16.11

Fax: +81.76.444.27.80

Email: [yegor.volovik@un.org](mailto:yegor.volovik@un.org)

5-5 Ushijimashin-machi, Tower 111-6F  
Toyama City, 930-0856 Japan