

公益財団法人  
環日本海  
環境協力センター

Northwest Pacific Region  
Environmental  
Cooperation Center

# Protecting the marine environment through international cooperation

## Aim of Establishment

The Sea of Japan and the Yellow Sea are shared resources for the coastal countries, which have many benefits such as fishing, marine transport and recreational areas.

Nevertheless, it is concerned that progress in industrialization, concentration of populations in urban areas, and increased use of the ocean for fishing and marine transport purposes are leading to the deterioration of the marine environment, and will cause serious damage to the rich fishing grounds and tourism in the coastal areas.

In “the Age of the Northwest Pacific Region”, protecting the ocean from environmental damages is a common mission of the people living in the coastal countries and areas.

To fulfill this mission, the countries, relevant organizations and the people must stand together and promote a variety of international activities in a collaborative manner. At the same time, it is considered indispensable to establish a solid base for promoting the activities.

Aiming to enjoy the services which the Sea of Japan and the Yellow Sea can provide and to secure healthy marine environment now and in the future, the Northwest Pacific Environment Cooperation Center (NPEC) is working to contribute to the marine environmental protection in the region, including management of the coastal basins under coordination and cooperation with neighboring coastal countries and areas.

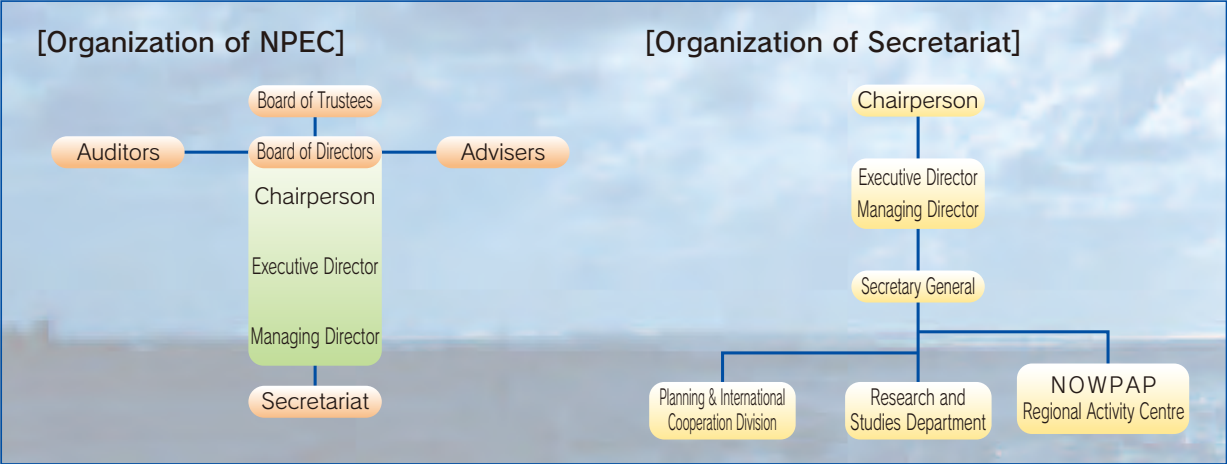
## Overview of NPEC

Name	Northwest Pacific Region Environmental Cooperation Center (NPEC)
Location	Tower 111 6 <sup>th</sup> Floor, 5-5 Ushijimashin-machi, Toyama City Imizu Branch: Inside the Toyama Prefectural Environmental Science Research Center (TESC) 17-1 Nakataikoyama, Izumi City
Chairperson	Motoyuki Suzuki
Establishment	September 1, 1998
Basic Fund	250 million yen

## History

April 1997	Established as Northwest Pacific Region Environmental Cooperation Center Office located at 7-18 Azumi-cho, Toyama City
September 1998	Approved as legally incorporated foundation by the Ministry of the Environment, Japan
April 1999	Designated as a Special Monitoring and Coastal Environmental Assessment Regional Activity Centre (CEARAC) at the Northwest Pacific Action Plan (NOWPAP) Intergovernmental Meeting.
September 2001	Office moved to 5-5 Ushijimashin-machi, Toyama City
April 2013	Transferred to a public interest incorporated foundation

## Organization Chart



[Organization of Secretariat]

Chairperson

Executive Director

Managing Director

Secretary General

Planning & International Cooperation Division

Research and Studies Department

NOWPAP Regional Activity Centre



# Creating a Northwest Pacific Region Network

## For international exchange and human resource development

It is crucial for coastal countries and areas to work in coordination and cooperation with one another in order to protect the marine environment in the Northwest Pacific (the Sea of Japan and the Yellow Sea). Therefore, a variety of projects are being implemented to promote mutual dialogues and exchanges among related countries and areas.

Furthermore, in order to support environmental protection measures implemented by each coastal country or local government solely or in a collaborative manner, NPEC collects and disseminates environment-related data and information as well as develops human resources and networks.



Map of the Countries in the Northwest Pacific Region  
(reprinting of No. 238, 2012 produced by Toyama Pref.)

## Activities for international exchange and human resource development

### 1 Support to the Environment Subcommittee of NEAR

Toyama Prefecture is elected as a coordinator for the Environment Subcommittee of the Association of North East Asia Regional Governments (NEAR) and NPEC performs the administrative duties of the subcommittee.



The 10<sup>th</sup> Meeting of the Environment Subcommittee  
(Toyama, 2011)

### 3 Promotion of the environmental education

The Environmental Experience Program is being implemented, targeting young people in the Northeast Asia Region, to develop human resources who are able to think and act by themselves, through firsthand experience and international exchange on environmental protection.



Northeast Asia Region Environmental Experience Program  
(Toyama, 2012)

### 2 Promotion of the cooperation among coastal municipalities for the environment

In order to effectively promote environmental cooperation among local governments in coastal regions, NPEC collects information of environmental protection and exchanges views to implement projects for environmental protection.



The 6<sup>th</sup> International Environmental Forum  
(Vladivostok, 2012)

### 4 Organization of international meetings for marine environmental protection

Various international meetings are held in cooperation with Toyama Prefecture, to deepen understanding on the status of the marine environment in the Northwest Pacific Region and on activities toward its protection.



Northeast Asia Environmental Partners Forum  
(Toyama, 2007)

Projects to support measures for environmental protection  
Projects to promote environmental researches  
Projects to promote NOWPAP activities

## Researches for environmental protection in the Northwest Pacific Region

### Overview of environmental protection researches

In order to protect the marine environment in the Northwest Pacific Region and its surrounding areas, it is necessary to obtain precise and broad scientific knowledge by conducting researches to understand the status of the ocean and mechanisms of pollution.

Therefore, NPEC implements a variety of research programs in cooperation with research institutions in the neighboring countries and areas.



Research for the Seagrass Bed Restoration Map Project

### Research activities

#### 1 Promotion of the Toyama Bay Project

Using Toyama Bay as a case study, NPEC acquires field data and satellite data on water pollution of the bay in order to develop methods of assessing the coastal environment with remote sensing satellite data. In addition, a research program is being undertaken to improve the NOWPAP Common Procedure for eutrophication assessment.



Water quality survey as part of the Toyama Bay Project

#### 3 Dissemination of remote sensing satellite data

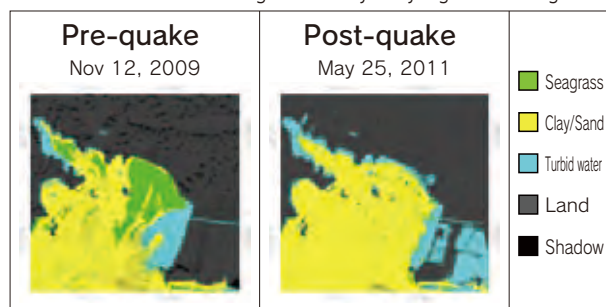
Aiming to promote NOWPAP activities, the Ministry of the Environment, Japan, established the Northwest Pacific Region Marine Environment Watch System within the Toyama Prefectural Environmental Science and Research Center (TESC) in 2002. Now, various data is uploaded on its website, such as chlorophyll-a concentrations (an indicator of phytoplankton concentration) and sea surface temperatures in the Northwest Pacific Region.



Northwest Pacific Region Marine Environment Watch System Website

#### 2 Support to seagrass bed restoration

NPEC is working on creating maps through satellite image analysis in order to assist in restoration and reproduction of seagrass beds in the coastal areas in Miyagi Prefecture, which had serious damage by the Great East Japan Earthquake. NPEC has also been conducting another research in Toyama Bay since 2012 to understand the current distribution of seagrass beds by analysing satellite images.



Example of analysis by remote sensing (Matsushima Bay, Miyagi)

#### 4 Joint environmental researches with Liaoning, China

To tackle serious air pollution problems, NPEC has conducted joint research programs with Liaoning Province such as on Yellow Sand (2008-) and automobile emissions (2012-). The programs include researches, briefing sessions for local citizens and training sessions for officials of Liaoning Province.



Training in a joint research on air quality



# Solving marine litter problem

## Overview of projects to promote countermeasures against washed-up litter

Washed-up litter and its impact on marine ecology and beach scenery have become a global marine environmental issue.

Therefore, NPEC promotes countermeasures against washed-up litter, such as international researches, utilizing the network NPEC has cultivated with neighboring coastal countries and local governments.



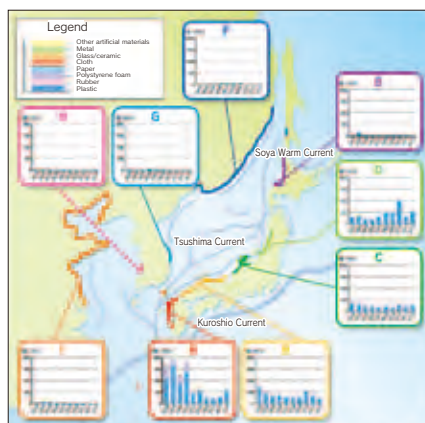
Children surveying washed-up driftage on the beach (Russia)

## Activities to promote countermeasures against washed-up litter

### 1 Marine litter monitoring survey (1996–)

Using scientific methods, NPEC has conducted international researchers on washed-up litter/driftage in the Northwest Pacific.

With the participation of local governments and NGOs from China, Japan, Korea and Russia, NPEC measures the quantity and weight of objects washed ashore (e.g. plastic and paper). This survey contributes to raising awareness among citizens, “not to litter but to protect the marine environment.”



Washed-up Driftage Survey Results (Average values from 2003 – 2012)

### 2 Raising the public awareness

NPEC has focused on raising public awareness on marine litter by developing and distributing reports and booklets on research results, holding meetings and lecture sessions and exchanging opinions.

NPEC also holds exhibitions of art, in which washed-up objects are used, to help increase citizens' understanding on marine litter and its impact.



Creating art from washed-up objects  
Cooperation by:

- University of Toyama Faculty of Art and Design
- Himi City Kubo Elementary School
- Himi Seaside Botanical Garden



## Contributions to NOWPAP Marine Litter Activities

Reports and materials developed by NPEC have been utilized in NOWPAP activities to promote reduction of marine litter.



Marine Litter Pamphlet



Booklet on Recycling of  
Plastic Marine Litter

The four member states of NOWPAP (China, Japan, Korea and Russia) have conducted research on marine litter on the Northwest Pacific shores, using the Guidelines for Monitoring Marine Litter which NOWPAP developed based on the experience of the NPEC marine litter monitoring survey. NPEC also participates in this survey, contributing to deepen understandings on the status of marine litter in the region.



Guidelines for Monitoring  
Marine Litter

# Northwest Pacific Action Plan (NOWPAP)

## Tasks of NOWPAP Regional Activity Centre (CEARAC)

In order to protect the environment of the semi-enclosed Sea of Japan, it is essential that coastal countries, including those on the Yellow Sea, work together cooperatively. Consequently, CEARAC, cooperating with experts and government officials of the NOWPAP members and others, tackles marine environmental problems such as red tides and eutrophication, and protects marine biodiversity in the Northwest Pacific Region.



Geographical scope of NOWPAP

## Activities of CEARAC (NOWPAP Regional Activity Centre)

### 1 Development of guidelines

CEARAC develops guidelines and booklets based on latest scientific knowledge in order to protect the marine environment in the Northwest Pacific Region.



Eutrophication Monitoring Guidelines



Booklet of Countermeasures against HABs

### 2 Organization of international expert meetings

Meetings, workshops and symposiums are regularly held with experts from China, Japan, Korea and Russia and others.



Expert Meeting on Assessment of Eutrophication and Marine Biodiversity (Toyama, 2010)



Expert Meeting on Marine Biodiversity and Eutrophication in the Northwest Pacific Region (Toyama, 2013)

### 3 Dissemination of achievements

In addition to dissemination of outcomes and achievements of CEARAC activities through its English website, some booklets are developed in the four languages of NOWPAP members to make technical details understood easily.



Ocean Remote Sensing Portal Site



Regional report on measures and best practices for prevention of marine litter input from land-based sources in the NOWPAP region

Moreover, a training course on remote sensing data analysis is held regularly in the NOWPAP member states.



Training on remote sensing data analysis (Vladivostok, 2011)

## Marine Biodiversity Forum

NPEC held the Marine Biodiversity Forum in the Northwest Pacific Region, taking the opportunity of the organization of the 10<sup>th</sup> Meeting of the Conference of the Parties to the Convention on Biological Diversity (COP 10) in Nagoya, Japan in 2010. Initiatives towards protecting marine biodiversity by the United Nations Environment Programme (UNEP) and NOWPAP were introduced at the forum, as well as a report on the environmental assessment implemented by NPEC to protect the marine biodiversity in Toyama Bay. The results of the forum and activities implemented by Toyama Prefecture were reported at a UNEP symposium that was held as a side event of COP 10.



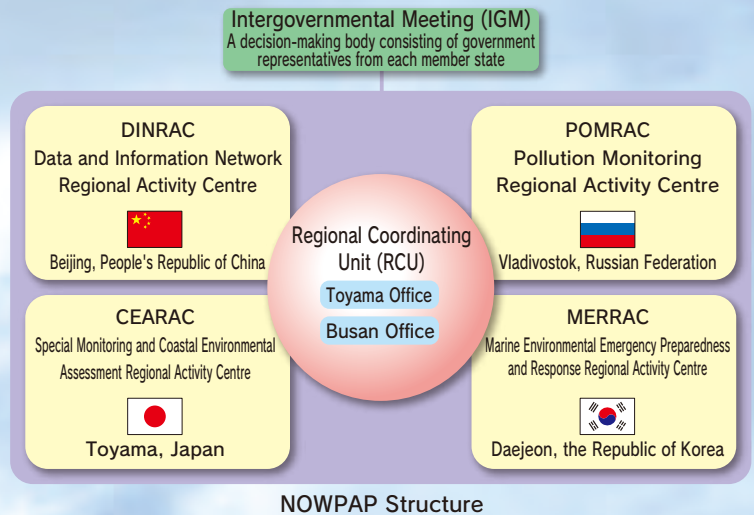
Marine Biodiversity Forum in the Northwest Pacific Region (Toyama, 2010)



## What is the Northwest Pacific Action Plan (NOWPAP)?

The Action Plan for the Protection, Management and Development of the Marine and Coastal Environment of the Northwest Pacific Region (NOWPAP), was inaugurated by the four countries of the People's Republic of China, Japan, the Republic of Korea and the Russian Federation in 1994, with the aim of protecting the environment in the Northwest Pacific Region, as part of the Regional Seas Programme of the United Nations Environment Programme (UNEP).

A Regional Activity Centre (RAC) is located in each member state to implement NOWPAP activities. In addition, Regional Coordinating Unit (RCU) coordinates NOWPAP activities which are mostly implemented by the four RACs. There are two RCU offices: in Toyama, Japan and Busan, Korea.



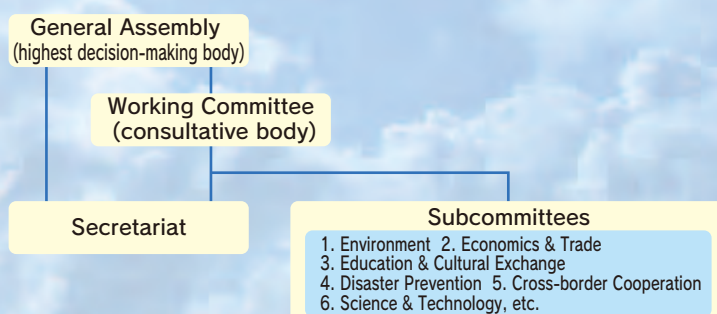
## What is CEARAC?

As one of the four Regional Activity Centres (RACs) located in each member state, NPEC has been designated as the Special Monitoring and Coastal Environmental Assessment Regional Activity Centre (CEARAC), and has worked mainly on the assessment of harmful algae, establishment of new assessment methods including remote sensing, and tackled land-based sources of marine litter under a regional collaborative manner.

## What is the Association of North East Asia Regional Governments (NEAR)?

The Association of North East Asia Regional Governments (NEAR) is an international organization of local governments established in 1996, whose aim is to promote interaction and cooperation within the Northeast Asia Region, and contribute to mutual development and world peace. Currently NEAR consists of 71 participating local governments in the six countries of the People's Republic of China, Japan, Republic of Korea, Democratic People's Republic of Korea, Mongolia and Russian Federation (as of March 2013).

### Organization of NEAR



## What is the Environment Subcommittee?

Subcommittees are established within the NEAR organization to implement projects proposed by participating local governments. Toyama Prefecture, with assistance from NPEC, is responsible for the liaison and coordination of the Environment Subcommittee.

## Publicity and Educational Activities

### Intern and volunteer programs for international environmental cooperation

NPEC accepts interns and volunteers, aiming to develop human resources in the field of the international environmental cooperation, to work closely with universities and research institutions, and to deepen their understandings on activities of the environmental protection in the Northwest Pacific Region.



Instruction by an intern on a survey of washed-up litter

### Educational programs for Northwest Pacific Region environmental protection

NPEC holds the "Northwest Pacific Region Environmental Protection Introductory Workshop" to introduce initiatives regarding environmental cooperation in the Northwest Pacific Region to children who will lead the next generation and local citizens in order to raise public awareness on marine environmental protection. (Workshops are provided upon request)



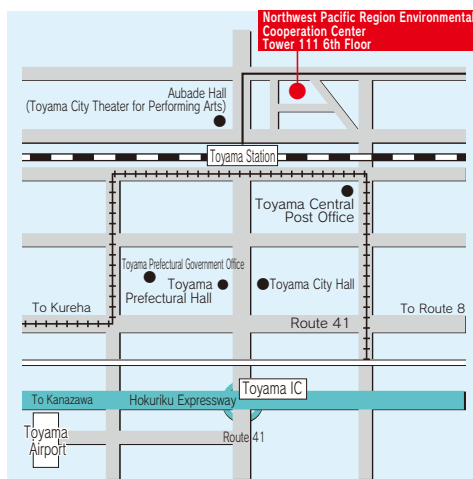
Lecture in the Introductory Workshop

### Dissemination of information

Taking every opportunity, NPEC disseminates information on marine environmental protection and its related activities by publishing reports, uploading data and information on the website and participating in a variety of events.



Exhibition at the Toyama Environmental Fair



- 3 min walk from JR Toyama Station (North Exit)
- 25 min by taxi from Toyama Airport.  
25 min by bus from Toyama Airport to Toyama Station and 5 min walk from there.
- 20 min by car from the Toyama Interchange on Hokuriku Expressway



### Northwest Pacific Region Environmental Cooperation Center

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#### Imizu Branch

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17-1 Nakataikoyama, Izumi City, Toyama Prefecture, 939-0363, Japan