Measures against Marine Debris in Nagasaki Prefecture

February 2022
Marine debris stranded on the shore in Nagasaki Prefecture

Photos by: (General Incorporated Association) Tsushima CAPPA

Tsushima City

Iki City
Due to the geographical characteristics of Nagasaki Prefecture, a large amount of marine debris becomes stranded on the shores in the prefecture every year, causing severe deterioration of the coastal environment and a negative impact on fishery resources. In particular, in areas close to South Korea and China, such as around Iki, Tsushima, and Goto, a large amount of marine debris coming from foreign countries can be seen.

<Geographical characteristics of Nagasaki Prefecture>

- Nagasaki is the westernmost prefecture in Japan.
- The number of islands in the prefecture totals around 600, which is the most in Japan (for islands with an area of 1,000 m² or more).
- The total length of the coastline in Nagasaki Prefecture is the second longest in Japan after Hokkaido (about 4,200 km).
Garbage from South Korea found in Tsushima
Garbage from China found in Amami Oshima
Garbage from Russia found in Nemuro

Warm ocean current
Cold ocean current

Northwest wind (winter)
Limon Current
Oyashio Current
(Kuril Current)

Tsushima Current
Kuroshio Current
Southeastern wind (summer)

Garbage drifting with the winds and ocean currents

*Ministry of the Environment, Comprehensive Study of Measures against Marine Debris FY2017*
<Reference>

(1) Monitoring survey: Debris (PET bottle)

Tsushima City (FY2016)
Foreign: 57% (South Korea 40%, China 17%), Domestic: 13%, Unidentified: 30%
Goto City (FY2017)
Foreign: 55% (South Korea 25%, China 28%, Other 2%), Domestic: 17%, Unidentified: 28%

(2) Plastic tank [FY2017–FY2019 (average for 3 years)]

Domestic total : 14,737
Nagasaki coast : 5,667 (highest number among all prefectures)

(3) Medical waste (syringes, vials, etc.) [FY2017–FY2019 (average for 3 years)]

Nagasaki coast : 282 pieces

(4) Fishing gear (float) [FY2017–FY2019 (average for 3 years)]

Nagasaki coast : 2,678 pieces

(Figures in a survey by the Ministry of the Environment)
1. National act and Prefectural plan
(1) Act on Promoting the Treatment of Marine Debris Affecting the Conservation of Good Coastal Landscapes and Environments to Protect Natural Beauty and Variety (Act on Promoting the Treatment of Marine Debris)

(Enforced on July 15, 2009, partially revised in June 2018)

(i) Purpose: Provide basic principles for measures required for the smooth treatment of marine debris and control of its generation in light of the current situation whereby marine debris has a serious impact on the conservation of good coastal landscapes and environments.

(ii) Basic Principles: Comprehensive conservation and recovery of coastal environments, promotion of the clarification of responsibilities and smooth treatment, effective control of the generation of coastal debris with 3R promotion, conservation of marine environments (with measures against microplastics and others), appropriate segregation of duties and cooperation among various actors, and promotion of international collaboration.
(2) Plan against marine debris stranded on the coast of Nagasaki Prefecture (regional)

(i) **Plan: Established** in October 2010 (partially revised in March 2021)
   According to the basic principles of the national Act on Promoting the Treatment of Marine Debris

(ii) **Measures against marine debris in the priority areas**
   Implement measures against marine debris in the priority areas, taking into account the natural conditions of the areas, costal utilization, and social conditions such as economic activity, in collaboration with the prefectural government, municipalities, citizens, businesses, and private organizations, with segregation of duties.

   A. Treatment of marine debris stranded on the coast
   B. Prevention of the generation of marine debris
   C. Environmental education and consumer education on marine debris

(iii) **Priority area**: 171 areas
   (88 on the mainland and 83 on the islands, as of March 31, 2021)
   About 4,058 km
Measures against marine debris in Nagasaki Prefecture
(planned based on a national subsidy)

Act on Promoting the Treatment of Marine Debris
(enforced in July 2009, partially revised in June 2018)

Plan against marine debris stranded on the coast of Nagasaki Prefecture
(established in October 2010, partially revised in March 2021)

[Basic policies for measures against marine debris]
1. Smooth treatment of marine debris
2. Effective control of the generation of marine debris
3. Segregation of duties and collaboration among various actors
4. International cooperation
5. Other efforts against marine debris

[Subsidy for regional measures against marine debris]
1. Collection and disposal of marine debris by a prefectural government
2. Control of the generation of marine debris by a prefectural government
3. Collection and disposal of marine debris by a municipality
4. Control of the generation of marine debris by a municipality
   * Ratio subsidized: 7/10 (island: 9/10, peninsula: 8/10)
3,695 million yen allocated for the subsidy in the FY2021 national budget,
and 516 million yen allocated to Nagasaki Prefecture from the subsidy
(1) Amount of marine debris stranded on the coast
(Excerpt from the Report on the Comprehensive Study of Measures against Marine Debris FY2016)

○ FY2014
Domestic total: 160,000 to 310,000 tons, Nagasaki Prefecture: 17,000 to 32,000 tons

○ FY2015
Domestic total: 96,000 to 180,000 tons, Nagasaki Prefecture: 6,000 to 12,000 tons

(2) Amount of debris collected in Nagasaki Prefecture
(Unit: tons)

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<tbody>
<tr>
<td>Island (city/town)</td>
<td>1,884</td>
<td>1,335</td>
<td>1,497</td>
<td>1,381</td>
<td>1,642</td>
<td>1,701</td>
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<td>Mainland (city/town)</td>
<td>159</td>
<td>274</td>
<td>282</td>
<td>320</td>
<td>343</td>
<td>361</td>
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<tr>
<td>Coast</td>
<td>89</td>
<td>359</td>
<td>62</td>
<td>61</td>
<td>64</td>
<td>345</td>
</tr>
<tr>
<td>Total</td>
<td>2,132</td>
<td>1,968</td>
<td>1,841</td>
<td>1,762</td>
<td>2,049</td>
<td>2,407</td>
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○ In FY2014, as part of the exchange agreement between Nagasaki Prefecture and Busan Metropolitan City, symposiums on marine debris were held in Tsushima City and Busan Metropolitan City, and beach cleanup efforts were made in connection with the symposiums.
○ In FY2015, people concerned about marine debris from Japan, South Korea, and other countries gathered in Goto City to hold the "13th Marine Debris Summit," co-sponsored by the General Incorporated Association JEAN.
○ From FY2016, the prefectural government and four cities and towns on the islands started a collaborative project for marine debris control with South Korea to share the latest information about efforts against marine debris made in Japan and South Korea and to promote future efforts and collaboration against marine debris.
Beach cleanup events, surveys, workshops, and meetings on marine debris in collaboration with high school students, university students, and NPO members in Japan and South Korea.

**Dates / Places**
- July 16 and 17, 2016: Tsushima City, Kisaka Omaehama and other beaches
- December 23 and 24, 2017: Iki City, Amagahara and other beaches
- July 14 and 15, 2018: Goto City, Hassakubana and other beaches
- October 5 and 6, 2019: Shinkamigoto Town, Hamagurihama and other beaches

**Major events**
- Visits to Busan Metropolitan City
- Beach cleanup and marine debris surveys
- Lectures
- Presentations by region
- Workshops
- Dinner meetings
- Recapitulations (resolutions)

**Main participants**
- High school students from Busan Metropolitan City
- High school students from the islands in Nagasaki Prefecture
- University students and foreign students in Nagasaki Prefecture
- NPO members
- Municipal staff

"Collaborative Efforts for Marine Debris Control"
Outcomes of the project

- The project allowed younger generations, mainly high school students from the islands in Nagasaki Prefecture and Busan Metropolitan City, to see how marine debris becomes stranded on the coast on islands in Nagasaki Prefecture; to take the opportunity to talk and learn about measures implemented against marine debris and gain more awareness about the issue; and to understand the importance of working together to prevent marine debris.

- Since FY2020, the project has been suspended due to the COVID-19 pandemic, so the municipalities are independently planning to aid in efforts against marine debris.
Collaborative efforts for marine debris control (volunteer beach cleanup)

(1) Tsushima City
   Beach cleanup by Japanese and South Korean people
   • From 2003, students from the Busan University of Foreign Studies and high school students
     and volunteers in Tsushima City
   Japan-South Korea Beach Cleanup Festa in Tsushima
   • From 2013, students and others from Tsushima City and South Korea

(2) Iki City
   VolunTourism in Iki
   • From 2010, locals on the island and non-locals

(3) Goto City
   Knights of Anti-Marine-Debris in Goto
   • From 2014, locals on the island and non-locals

(4) Shinkamigoto Town
   Marine Debris: SOS Tour
   • From 2016, non-locals on the island

Approximately 18,000 people participated in more than 80 events in Nagasaki Prefecture (FY2020).
Thank you very much for your kind attention.