EMECS07 ABSTRACT

# DISTRIBUTION OF SUBMERGED AND STRANDED DEBRIS ON THE BEACHES OF NORTHWEST PACIFIC REGION, 1996-2004.

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The distribution and abundance of marine debris on the beaches of the Northwest Pacific region had been investigated from 1996 to 2004 as an international research initiated by Northwest Pacific Region Environmental Cooperation Center (NPEC), Japan. In 1996, 10 local governments in Japan participated in the initial research. Then, in the 2001 other 3 Japanese local governments in Kyushu area and 1 Korean civilian organization, and in the 2002, 1 Korean and 1 Chinese local government got involved in the research. In 2004, with the cooperation of 25 local governments including 16 in Japan, 2 in Russia, 3 in Korea, 4 in China, the research was conducted as an international collaboration in 51 beaches. Two types of litter were measured. To evaluate the amount of stranded litter on the beach quantitatively, a survey unit of 10m width and 10 m length ($100m^2$) was set from the water edge to backshore zone of beaches continuously. In each unit, the collected litter were categorized into 8 items, counted and weighed. As for the buried litter, the sand of 8L was collected, then, mixed with seawater and the supernatant was filtered with a net (0.3mm mesh) to collect floating plastic particles. As a results of 9 years' research, following tendency have been found. As a general characteristic, there is a tendency that the quantity and weight of stranded debris decrease northwardly along the coasts in Japan. It is also found that the stranded debris in the coasts along the Northwest Pacific is mostly plastic. As for the buried litter, styrofoam was the predominant item numerically among 11 categories. The mean concentrations of buried litter on Japanese beaches were higher those of other countries. At the same time, the results reveal that the amount of buried litter is not negligible in evaluating the amount of litter on beach. To reduce the marine debris in this region, appropriate measures for the source control and effective disposal of these objects need to be considered internationally as well as locally.