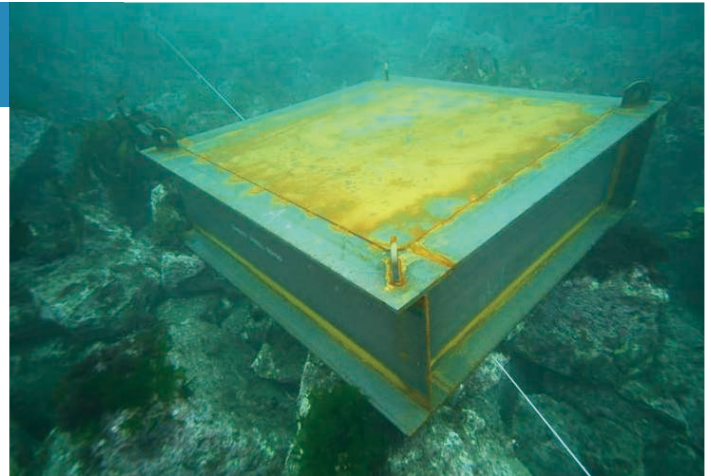


Contributing to the SDGs through the use of iron and steel slag



RELATED SDGS GOALS



PRIMARY COUNTRY

Japan

OTHERS

United States, UAE, Egypt, Australia, Qatar, Ivory Coast, Republic of Korea, Bangladesh, Philippines, Vietnam, Peru, Malaysia

Iron deficiency is considered to be one factor behind the phenomenon of shoreline denudation (loss of seaweed and other marine vegetation) along 5000 km of Japanese coastline. To help alleviate this problem, we developed ""Beverly Series"" iron supply units, which contain a mixture of iron and steel slag and humus in Oct. 2004.

1 OUTLINE OF A PROJECT/ GOOD AND SERVICE

Our main operations utilizing iron and steel slag are as follows:

(i) Blast furnace cement

Blast furnace cement is a mixture comprising 40-45 percent pulverized iron and steel slag and conventional cement. It is utilized in a range of civil engineering applications including coastal and river embankment structures, roadways, and railways. It offers numerous benefits, among them (i) strength that increases with time; (ii) the suppression of alkali-silica reactions; (iii) durability under exposure to seawater and chemical agents; and (iv) contributions to reduced energy consumption and CO₂ emissions.

(2) ""Beverly Series"" iron supply units for the regeneration of fisheries and seaweed beds

2 IMPACT ON SOCIETY

An inevitable by-product of the steelmaking process, iron and steel slag consists of materials that melt and separate out when iron is reduced and refined during the iron-ore smelting stage. (The production of 1 ton of iron generates 0.4 ton of iron and steel slag.) However, rather than dispose of this material, we have harnessed the technologies, knowledge, and development prowess amassed through our steelmaking operations to date and are promoting useful applications for iron and steel slag in a wide range of other industries. (We have achieved a recycling rate of 99 percent for our industrial by-products.) From the perspective also of building renewable systems for a sustainable society, our achievements with the recycling of iron and steel slag and other by-products are aiding efforts to achieve the SDGs.

URL

<http://www.nssmc.com/en/csr/report/index.html>

