



Initiatives for Biodiversity

Basic Approach

The operations of the JXTG Group may impact the environment surrounding our operation and production sites. Given the nature of our business, we consider biodiversity conservation to be an important effort, as stated in the JXTG Group Code of Conduct.

We carry out initiatives with attention to biodiversity

in all aspects of our business activities. These include carrying out environmental impact studies when establishing new operation and production sites in order to obtain an accurate understanding of the local ecosystem, including plants, birds and other animals, and marine life.

Results of Major Initiatives

◆ Initiatives in Japan

JXTG Nippon Oil & Energy has many production sites. In addition to establishing the JXTG Nippon Oil & Energy Group Guidelines on Biodiversity, we systematically carry out activities for the preservation of biodiversity, conducting ecosystem studies at our major business sites in Japan, many of which are surrounded by large green belts. At our other business sites as well, we carry

out environmental conservation activities suited to the surrounding environments.

In addition, we carry out activities such as regular environmental training for employees, and community contribution activities related to environmental conservation.

JXTG Nippon Oil & Energy Group Guidelines on Biodiversity

Basic Stance

We will take measures considerate of biodiversity in every aspect of our business activities under the recognition that our business activities are deeply related to the Earth's biodiversity.

Action Policy

1. We will ascertain and analyze the impacts of our business activities on biodiversity as well as strive to make improvements.
2. We will promote activities that contribute to biodiversity preservation, such as nature protection and environmental education.
3. We will present and share information on our efforts to preserve biodiversity.

Involvement in Initiatives Related to Biodiversity

JXTG Nippon Oil & Energy has been a member of the Japan Business Initiative for Biodiversity (JBIB), a leading business initiative for biodiversity in Japan, since 2013.



Measures at Our Refineries and Plants

Improvements to the Green Belt at the Chita Plant

The Chita Plant is a member of the Ecological Network Formation and Leadership Development Program for Corporate Green Spaces in the Coastal Area of Chita Peninsula and the Project Linking Life with One Another.

These initiatives seek to utilize corporate green belts and other areas to provide a safe and secure habitat for local flora and fauna, and involve a partnership among Aichi Prefecture, Chita City, NPOs, students and companies located along the coastal area.

Improvements are being made the green belt at the Chita Plant based on the JBIB Guidelines for Sustainable Businesses Sites. As a result of these activities, the Chita Plant was granted ABINC certification by the Association for Business Innovation in Harmony with Nature and Community.

In fiscal 2017, we plan to conduct two biodiversity surveys of the biotope.



A butterfly skimmer visiting the biotope

Improvements to the Green Belt at the Negishi Refinery

At the Negishi Refinery, activities for the conservation of biodiversity are carried out using the green belt (approximately 60,000 square meters) at the center of the premises.

Ecosystem studies started in fiscal 2013, and from fiscal 2016, activities such as laying of trails (wooden paths) and installation of bird-watching sheds are taking place over a span of three years.



ABINC certification mark



Biotope established in the green belt



Ecosystem study



A spot-billed duck visiting the biotope



A bird-watching shed

Forest Stewardship and Forestation Activities

Group companies of the JXTG Group are involved in forest stewardship activities contributing to biodiversity conservation.

JXTG Nippon Oil & Energy is involved in forest stewardship activities called ENEOS no Mori at eight locations across Japan, in partnership with local governments and the National Land Afforestation Promotion Organization (NLAPO).

Since 1998, JX Nippon Oil & Gas Exploration has conducted forest stewardship activities of the JX Nakajo Forest, a group of pine forests located on and around the site of its Nakajo Field Office in Niigata Prefecture.

JX Nippon Mining & Metals is working to conserve biodiversity by continuing to plant vegetation, clear underbrush, and conducting other necessary work to maintain and improve the natural environment at locations such as closed mines.



Tree planting in ENEOS no Mori



Afforestation in JX Nakajo Forest



Tree planting in Nikko Ryuju Forest in Nanyo City, Yamagata Prefecture

◆ Overseas Initiatives

Initiatives Involving Ocean Tankers

Measures for Ballast Water (Sea Water)

Oil tankers from Japan bound for oil producing countries carry ballast water (sea water) as weight to maintain stability for unloaded voyages.

However, this ballast water contains microorganisms and plankton that are carried to the waters of oil producing countries, where, if released, they can disturb the balance of the local ecosystem.

Since 2004, the JXTG Nippon Oil & Energy Group has replaced this ballast water while still on the open ocean and installed water treatment systems*1 for ballast water on its new vessels in an effort to avoid disturbing the coastal waters of oil producing countries.

*1 A system that keeps the amount of aquatic life in ballast water below certain predetermined standards prior to release.

Use of Environmental-Hormone-Free Ship Bottom Paint

It was pointed out that the tributyltin used in our ship bottom paint may be an endocrine-disrupting chemical.

We have therefore switched to zinc-based paints, despite their being somewhat less effective, in an effort to protect the marine ecosystem.

Initiatives at the Caserones Copper Mine

Of the total 385 square kilometers (38,500 hectares) of land owned by the JX Nippon Mining & Metal Group's Minera Lumina Copper Chile (MLCC), MLCC has designated 0.87 square kilometers (87 hectares) as an area to be protected from the impact of construction of the mining equipment for Caserones Copper Mine and other such activities. MLCC takes steps to preserve biodiversity by protecting the animals and plants in this area.

Under the guidance of experts, plants in a wetland plant zone spanning 9,400 square meters of the Caserones Valley were transplanted to the nearest location with a suitable habitat. The vega plant, one of the protected plants at the Caserones Valley site, was then confirmed to have taken root at the transplant site.



Transplanted vega plants take root

TOPICS

Plenary Session for Biodiversity Conservation at the Negishi Refinery

JXTG Nippon Oil & Energy's Negishi Refinery has the largest site of any refinery in Japan, with an area of 2.2 million square meters, and a perimeter of approximately 12 kilometers. Many animals and plants live within the premises, and refinery operations impact the local ecosystem.

Therefore, in fiscal 2016, the refinery established a plenary session for biodiversity conservation for personnel in charge of the environment to discuss environmental studies, as well as maintenance policies and measures, for its premises.

During the first plenary session in fiscal 2016, it was decided to develop the area around the three artificial ponds within the refinery's premises into biotopes over the next three years. To this end, initiatives such as studies and maintenance of the ponds and thinning of wooded areas were promptly carried out.



Plenary session