



Conservation of Biodiversity

Concept of Conservation of Biodiversity

It is said that there are a wide variety of living organisms on the earth, which intertwine complicatedly to form an ecosystem which absorbs various external changes to restore the original state. Idemitsu Group recognizes that it is an important mission for a company to hand over this ecosystem to future generations and maintain an environment in which diverse living organisms can continue to live. For this reason, we pay attention to air, water, and soil, which are indispensable for living organisms, from the stage of designing our various production facilities.

Examples of Specific Initiatives

Establishment of Green Belts at Refineries

Our refineries developed and maintain significantly larger green belts than the area required by law when it constructed its refineries. This initiative is based on the recognition that we must coexist in harmony with society, including local residents, and minimize the environmental impact when operating its refineries.

Our initiative like this is highly evaluated by external organizations. Hokkaido Refinery and Aichi Refinery have received the highest grade of 5 (Superlative Stage) in the "Social and Environmental Green Evaluation System (SEGES)" organized by the Organization for Landscape and Urban Green Infrastructure.



Source: SEGES website (Japanese only) <https://seges.jp/>

Green belt of Hokkaido Refinery



Green belt of Aichi Refinery



Collaboration with External Institutions and Organizations

Since December 1996, Hokkaido Refinery has been using the Corporate Forest Program started by the Forest Agency, in which corporates participate in the upkeep of national forests to contribute to society and the environment. We named our watershed protection forest "Idemitsu Appenai Watershed Forest" and manage it appropriately. In addition, Aichi Refinery is a key active member of the "Inochi wo Tsunagu Project*" which aims to improve biodiversity and promote the formation of ecosystem networks.

Kunitomi Plant of Solar Frontier K.K. uses groundwater of Aya Town, Miyazaki Prefecture. Every year since 2012, the Plant has participated in the "Teruha no Mori Ongaeshi Project" which protects and restores the large laurel forest in Aya Town. The large laurel forest in Aya Town is home for many rare and endangered species, helping protect these animals and plants.

* "Inochi wo Tsunagu Project": An organization mainly comprising Aichi municipalities, companies, university students, and experts that aims to increase greenery and create easily habitable environments for wildlife

In addition, in the Tokyo area, we participate in the Public-Private Cooperation Forum for Tokyo Bay Restoration where we work on restoring biodiversity in Tokyo Bay by creating evaluation indicators for Tokyo Bay restoration and conducting surveys on water quality.

Idemitsu Appenai Watershed Forest



Teruha no Mori Ongaeshi Project



Providing Students with Opportunities for Environmental Education

General public access to our facilities is strictly restricted because our production bases, namely refineries and complexes, handle hazardous materials. This has allowed the green spaces in the facilities to become rich in biodiversity, function as sanctuaries for birds and other small animals, and in some spots, become ideal habitats. Hokkaido Refinery, Chiba Complex, and Aichi Refinery use these green spaces and natural parks to provide opportunities for environmental education to children and students of local elementary schools.

Wild bird watching (Hokkaido Refinery)



Nature observation (Aichi Refinery)



Conservation of Rare Species

Every time we install new equipment at our refineries and complexes, we conduct an environmental assessment to shelter any endangered plants species that have been identified through ecosystem surveys. Currently, at Aichi Refinery we are working to conserve the endangered plant species, "Salvia plebeia" (designated as a quasi-endangered species by the Ministry of the Environment), which was discovered when new facility construction was undertaken.

Conservation of Biodiversity

Ballast Water Measures in Ocean-Going Transportation

Our ocean-going tankers have undertaken various activities in accordance with the Ballast Water Management Convention (International Convention for the Control and Management of Ships' Ballast Water and Sediments), which came into effect on September 8, 2017, and guidelines of the IMO (International Maritime Organization) to prevent the ecosystem destruction induced by foreign species. Ballast water is water (seawater) used as weight for ship stabilization. The convention mandates the installation of ballast treatment systems within a certain timeframe. In line with this rule, tankers (VLCC) managed by Idemitsu Tanker are being installed with said systems. As of January 31, 2020, we finished installing electrolytic or filter/disinfectant treatment systems on APOLLO DREAM and APOLLO ENERGY.

To prevent disturbance of local ecosystem at ports of call, we use ballast water treatment systems to eliminate the harmful aquatic life and pathogens in ballast water. Or during transit our ocean-going tankers replace the seawater they take in as ballast water when leaving port with water from the open ocean, which has little impact on local ecosystems.

Land Use Change

Concept of Land Use Change

Soil, along with air and water, is an important element in considering the global environment. In recent years, along with world population growth, areas that used to be green belts have been developed and converted to agricultural land at an accelerated rate. The United Nations has pointed out the importance of initiatives related to Land Use, Land-Use Change and Forestry (LULUCF). These land-use changes will result in the loss of CO₂ sinks and have serious adverse effects from the perspective of climate change. In addition, nutrient-rich topsoil, which had been protected from wind and rain by forests, was lost due to deforestation, leading to desertification.

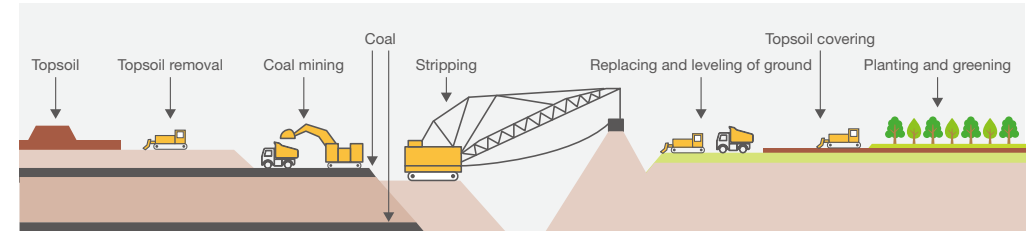
Idemitsu Group is actively engaged in projects to minimize the environmental impact of changes in land use.

Examples of Specific Initiatives

Rehabilitation of Coal Mines in Australia

We are engaged in coal mining business in Australia. At a mining site where mining has been completed, we are rehabilitating the mining site by replacing stockpiled topsoil and plants to restore its original and natural state. In addition, we have acquired around 11,000 ha of land surrounding our mines, and protects plants and animals to maintain biodiversity. These measures have minimized the impact of the land use associated with the coal mining project on the surrounding environment.

Rehabilitation of the mining site



* Prepared by Idemitsu based on data provided by Japan Coal Energy Center

State of rehabilitation

