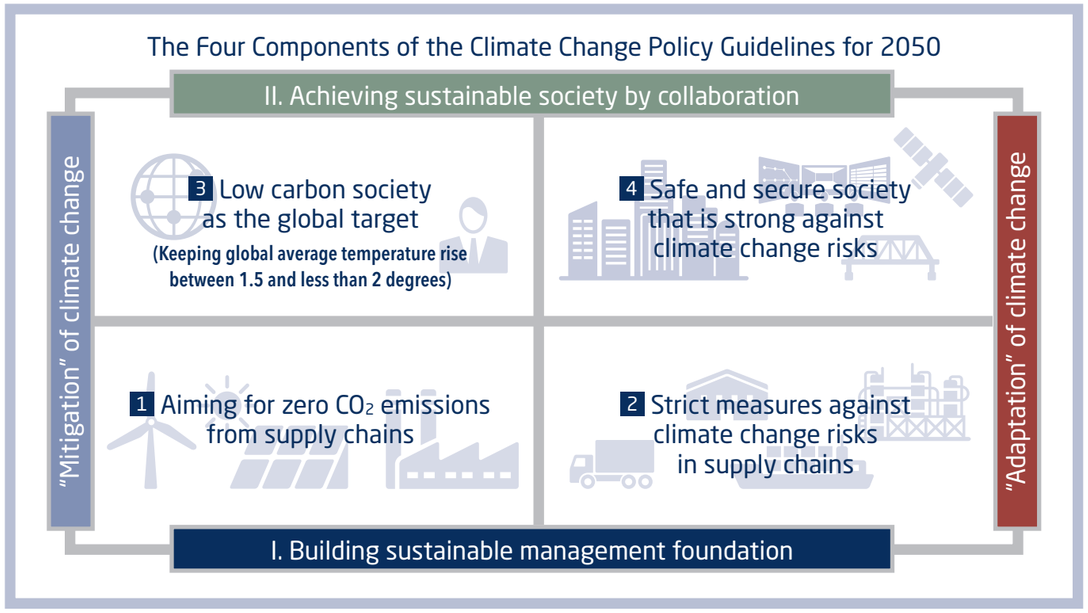
Promoting Environmental Management

The negative effects that are brought about by climate change cover a range of different circumstances, such as an increasing number of natural disasters caused by abnormal weather conditions, depletion of water resources, and effects on the supply of and demand for food.
NEC has set "environmental action with a particular focus on climate change" as one of its "materiality," the priority management themes from an ESG perspective. Since fiscal 2017, we have been focusing on measures to mitigate and adapt to climate change.

Strengthening Climate Change Countermeasures

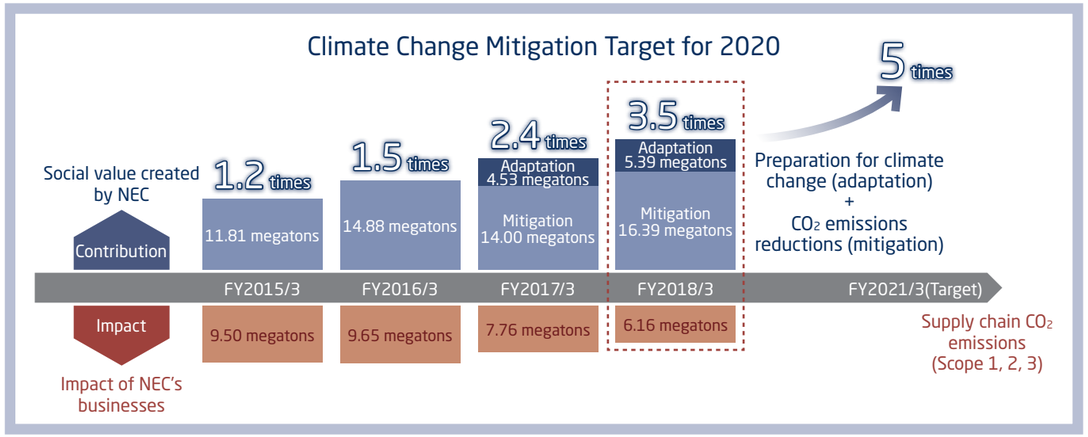
In fiscal 2018, NEC formulated guidelines on climate change measures from a long-term perspective up to 2050. Based on these guidelines, we aim to reduce CO_2 emissions linked to our business operations to effectively zero by 2050 as well as reduce CO_2 emissions from the whole supply chain by cooperating with suppliers and partners. Through these efforts, NEC is contributing to reductions in greenhouse gases on a global scale.



Furthermore, we are committed to achieving our CO_2 emission reduction targets by 2030 as Science Based Targets (SBT), and we are proceeding with the development of specific SBTs.

Progress on "Environmental Management Action Plan 2020/2030"

In accordance with the Environmental Management Action Plan 2020/2030, NEC has set a goal of attaining a level of CO_2 reduction for society that is five times the total volume of CO_2 emissions from its entire supply chain through the provision of NEC products and services by 2020. In fiscal 2018, NEC's contribution to reducing CO_2 emissions was 21.78 megatons, 3.5 times its impact of 6.16 megatons.



Improvements to Environmental Management through Dialogue with Our Stakeholders

NEC holds dialogues with stakeholders, aiming to promote deeper understanding of its efforts in non-financial areas. We also seek to improve future initiatives and information disclosure by ascertaining opinions from external experts and the ESG information required by investors.

IR Meetings related to ESG

Continuing from fiscal 2017, NEC held an IR meeting specializing in the "E" (environment) of ESG. A total of 13 institutional investors from 12 companies participated.

At the meeting, we gave an explanation of our progress on mid-term environmental management targets as well as our newly formulated guidelines on climate change measures looking ahead to 2050. We received wide ranging feedback and proposals, such as requests to clearly indicate how environmental activities connect with business competitiveness, or how we are trying to connect them. Looking ahead, we will hold regular IR meetings related to ESG to improve our ESG initiatives.

Dialogue with External Experts Regarding Climate Change

NEC conducted a dialogue between our personnel responsible for environmental management promotion and in charge of demand-supply optimization solution business promotion, and external experts with perspectives on sustainable management and the environment. The experts mentioned with regard to NEC's desired environmental management, KPIs for environmental targets, and initiatives to connect these with operations, that "NEC should strategically conduct environmental management to find ways of connecting environmental issues to sales and increased brand value, and ways of developing human resources to achieve this," and that "NEC needs to take a wide perspective, such as driving innovation by envisaging a future of limited electric power availability." The knowledge that we obtained through these dialogues will be reflected in our initiatives on environmental management.

Examples of Providing Environmental Value through Business

DMIC logistic visualization solution in India

NEC and DMICDC*1 have established a joint venture company, DMICDC Logistics Data Service Limited. Since July 2016, it has provided the information service basis to visualize distribution infrastructure and to perform real-time searches based on positional information of containers being transported.

The joint venture company affixes RFID tags to shipping containers being loaded and unloaded at ports of Mumbai. It has also installed RFID reader/writers at locations such as port entrances and exits, toll plazas on the expressway, and inland container depots where customs inspections are carried out. The information is uploaded to the cloud and shared with other logistics systems.

By this service, consigners and freight forwarders could obtain accurate positional information of their container in transit along the 1,500 km stretch between Delhi and Mumbai on a near real-time basis, just inputting the container number.

As the result, this service shortens shipping lead times, reduces inventory levels, improves the accuracy of production plans and also contributes to reduce the consumption of fossil fuel by realizing efficient transportation.

NEC approved this service as "ECO Symbol Star*2" since we expect that the service will reduce approximately 170,000 t-CO_2e emission annually in addition to shortening shipping lead times and to reducing shipping cost.

RFID easily attachable to container using magnets

Energy efficiency in mobile phone base stations in India

The number of base stations is expanding rapidly due to the sharp increase of mobile phone subscribers nationwide in India. However, there are many regions in India with fragile power supplies that suffer from frequent power outages and regions that are not supplied with power at all. In such regions, mobile telecom operators use diesel generators during power outage to operate base station continuously, therefore the burden of diesel fuel cost of the generator becomes a big financial problem.

Since the Indian government requests for green-industry, mobile base station companies in India are required to reduce fuel consumption by diesel generators, operation cost and CO_2 emissions simultaneously on the viewpoints of both business management and environmental issue.

These issues were taken up for the energy related discussion between the governments of India and Japan (the India-Japan Energy Dialog), and the demonstration project by Japan's New Energy and Industrial Technology Development Organization (NEDO) opened to the public in 2013.

As the result of NEC's application for the project, NEC was selected by NEDO to implement the demonstrational operation from September 2013 to March 2017. Through this operation, the energy management systems, which consisted of photovoltaic generation systems, lithium-ion rechargeable battery systems, remote monitoring of whole EMS systems, operation planning and battery charging/discharging control, were installed into 20 mobile phone base stations in India. Since the systems were confirmed to be able to reduce the annual CO_2 emissions to about 40% of their original level by the most suitable operation plan using the data acquired by the system itself, NEC approved this EMS system as "ECO Symbol Star."

Through the 2-year-operation on the actual sites, we could acquire know-how needed as a business, like various knowledge for the operation. We are going to link these findings to develop specific business in India where more than 400,000 mobile phone base stations exist.

Demonstration Project for Telecom Tower Sites in India

*1 DMICDC: Delhi Mumbai Industrial Corridor Development Corporation Limited.
*2 Eco Symbol Star: Assigned to NEC hardware, software, and service products that are environmental top runners. These products meet NEC's self-defined standards such as reducing CO_2 emissions by 50% or more compared to conventional products.

For further information, please refer to Sustainability Report 2018, "Environmental Management Initiatives" "Dialogue Sessions on Materiality with Experts"