ESG strategies | Initiatives for Sustainability

We have established the CSR policy in the spirit of our corporate philosophy. We define CSR as:
• Engaging in corporate activities that incorporate concern for the environment and initiatives to ensure social fairness and contribution to the community
• Fulfilling the duty of accountability to stakeholders
• Working to improve corporate activities not only in the economic aspect, but also in environmental and social aspects.

In 2014, we established the CSR Headquarters to strengthen our groupwide CSR activities. In November 2019, we established the Rules for Managing Sustainability Promotion Activities with the aim of promoting CSR activities (hereafter, sustainability activities) to meet the expectations of society toward the realization of a sustainable society. At the same time, we developed the function of the former CSR Committee and established the Sustainability Committee.

Establishment of the Sustainability Committee

Recently, due to factors such as the increasing damage caused by climate change, CSR (Corporate Social Responsibility) activities have placed more emphasis on not only social fairness but also measures for resolving social issues through business activities and contributing to the realization of a sustainable society. Therefore, we developed the function of the former CSR Committee (established in 2006) in November 2019 and newly established the Sustainability Committee. The committee is chaired by the Executive Officer in charge of CSR Headquarters, and consists of the general managers of ESG-related divisions. The former CSR Committee deliberated on issues and measures to effectively promote CSR activities. In addition to previous activities, the Sustainability Committee clarifies key issues that the Group must resolve through its business activities and sets specific targets for addressing SDGs, and develops business activities based on resolutions made at Board of Directors.

Organisation Chart

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<th>Sustainability Committee</th>
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| **Chairperson**: Executive Officer
| **Secretary**: Corporate Value Promotion Department
| **Members**: Departments in charge of sustainability management
| • Identifying Materiality
| • Amendment/Abolition of corporate philosophy system/CSR policy
| • Sustainability Activity Plan

Promoting Sustainability Activities

United Nations Global Compact

We endorsed the United Nations Global Compact (an international initiative for developing a global framework for sustainable worldwide growth) in 2015. Under the UN Global Compact, we support ten principles in the four areas (hereafter, GC10 principles) of human rights, labour, environment, and anti-corruption. We have also joined the Global Compact.

Initiate identification of materiality

In formulating our 3-Year Medium-Term Management Plan, which will begin in fiscal 2021, we are identifying materiality in fiscal 2020 as our preparation for future growth. In addition, we will set targets for achieving SDGs and incorporate them in our business plans.

Value offered to society (outcome)

SDGs

Sustainable Society Using Natural Energy

Implementation of Long Distance Wireless Transmission Experiments between Bases for building disaster mitigation and surveillance systems using renewable energy and IT

On November 7th 2019, NTN conducted long distance wireless transmission experiments between bases at the Suita Campus of the National University Corporation Osaka University (hereafter, Osaka University) as part of joint research on disaster prevention and monitoring using IT. We have installed three independent power supply units, “NTN Green Power Stations,” which generate the electricity from wind and solar power, assuming the area around the building of the Graduate School of Human Sciences in the Suita Campus of Osaka University as a disaster area, and the Tsukumodai Elementary School of Suita City as a relief headquarters. We used long a distance wireless system to transmit and receive information on an assumed disaster situation. In the experiment, we communicated the disaster situation via application software by using independent power supply units installed in front of the building of the Graduate School of Human Sciences. A message was sent to the relief headquarters, which was about 1.5 km away from the campus, via two antennas and the two independent power supply units in the campus, and we also checked the damage status by monitoring footage from cameras.

In recent years, natural disasters have frequently occurred, causing power outages and communication interruptions in a wide area over a long period of time, making it difficult to understand the situation of the disaster and conduct relief activities. Establishment of a communication system that utilizes renewable energy is a solution to this kind of situation. The system can be used not only in the event of a disaster, but also in daily life for monitoring local children by equipping surveillance cameras and other equipment with the system. NTN will continue to contribute to the safety and security of local communities by building a system that will help to promote disaster prevention, disaster mitigation, and monitoring of the local community.

Value offered to society (outcome)

SDGs

Sustainable Society Using Natural Energy

Mass production of Wrist Joint Module “i-WRIST™”

We mass produce “i-WRIST™” wrist joint modules for use in appearance inspections. The “i-WRIST™” modules use a special link mechanism that allows the associated device to be more compact and space-efficient, and move over a wider range of movement. The modules enable minor changes in positions (angles) to be made at high-speeds like a human wrist. The operating range has been expanded, which allows appearance inspections of complex shapes or hemispheric surfaces conducted by humans to be replaced with “i-WRIST™”. Appearance inspections of 60 areas can be completed in just 8 seconds, depending on the shape and size of the workspace and the speed of the image processing system. As the working population continues to decline in Japan, the demand for automation is expected to grow with regard to appearance inspections that have so far relied on manual work. NTN is focusing on automation and labor-saving technologies for such manufacturing sites, and continues developing products that further increase productivity and quality. We will create a work environment in which people can enjoy their jobs, and will contribute to society.