

Further Promotion of Environmental Management Contributing to the Realization of a "Sustainable Earth"



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In line with the seven themes of social value innovation under the "Orchestrating a brighter world" campaign, NEC is promoting co-creation with customers and gaining recognition from them for providing great value toward solving environmental issues. That value has come to be incorporated into our business thinking. The kind of "environmental management" we should strive for would not simply work to preserve the Company's environment, but would create a business on its own that contributes to the resolution of environmental issues. I believe we have come close to achieving this. Meanwhile, in 2015 the UN proposed its "Sustainable Development Goals (SDGs)," and a worldwide agreement on policy to combat climate change was reached in the Paris Agreement. In response to all of this, NEC aims to contribute to the realization of a "Sustainable Earth" as a sustainable company that is conscious of our coexistence with the planet. We have been working from 2016 on expanding value provided that focuses on measures to combat climate change.

Promotion of the "NEC Group Environmental Management Action Plan 2020/2030," the Key to Our Measures Against Climate Change

NEC has devised the "NEC Group Environmental Management Action Plan 2020/2030" as a medium- to long-term target, positioning climate change as a high priority theme (materiality) and working to resolve social issues pertaining to the environment. The three points on the right are our measures related to climate change.

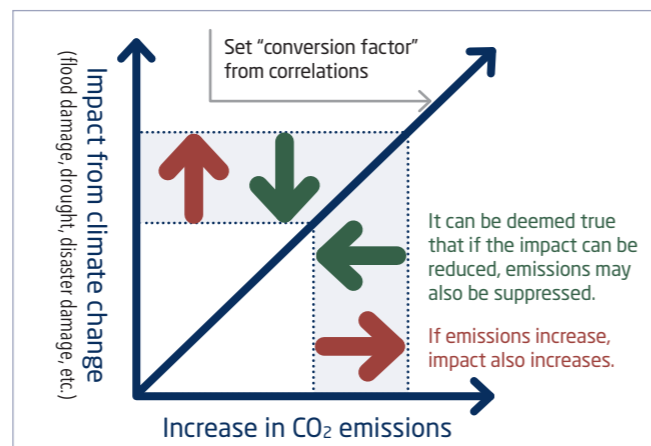
- 1. Contribution to "mitigation" of climate change**
 - Reduction in emissions of customers and society through the provision of IT solutions
 - Improvement in product energy efficiency
- 2. Contribution to "adaptation" to climate change**
 - Preparing for the impacts of climate change through the provision of Solutions for Society
- 3. Reduction of emissions from business activities**
 - Improvement in CO₂ emission through efficiency of energy use during business activities
 - Conversion to renewable energy

Developing an Original Method to Quantitatively Evaluate "Adaptation" to Climate Change

NEC is developing and providing systems that support safe and secure lifestyles, such as preventative measures against natural disaster risks that increase from climate change, and effective evacuation guidance for times when disasters strike. One example is our "Flood and Landslide Simulation System," which uses ICT such as NEC's unique sensing and Big Data technologies to "visualize" the risks of landslides or flooding. Additionally, in regard to issues such as overstocking and losses from waste, which could also be considered modern-day food problems, NEC's "Product Demand Forecasting Solution," based on its independently developed heterogeneous mixture learning technology, can greatly reduce defects, overstocking, and waste losses by eliminating mismatches between manufacturing, distribution, and sales.

In order to expand this kind of value in a controlled, goal-oriented manner, NEC has worked with the Waseda Environmental Institute to jointly develop a quantitative method for considering the reduction of

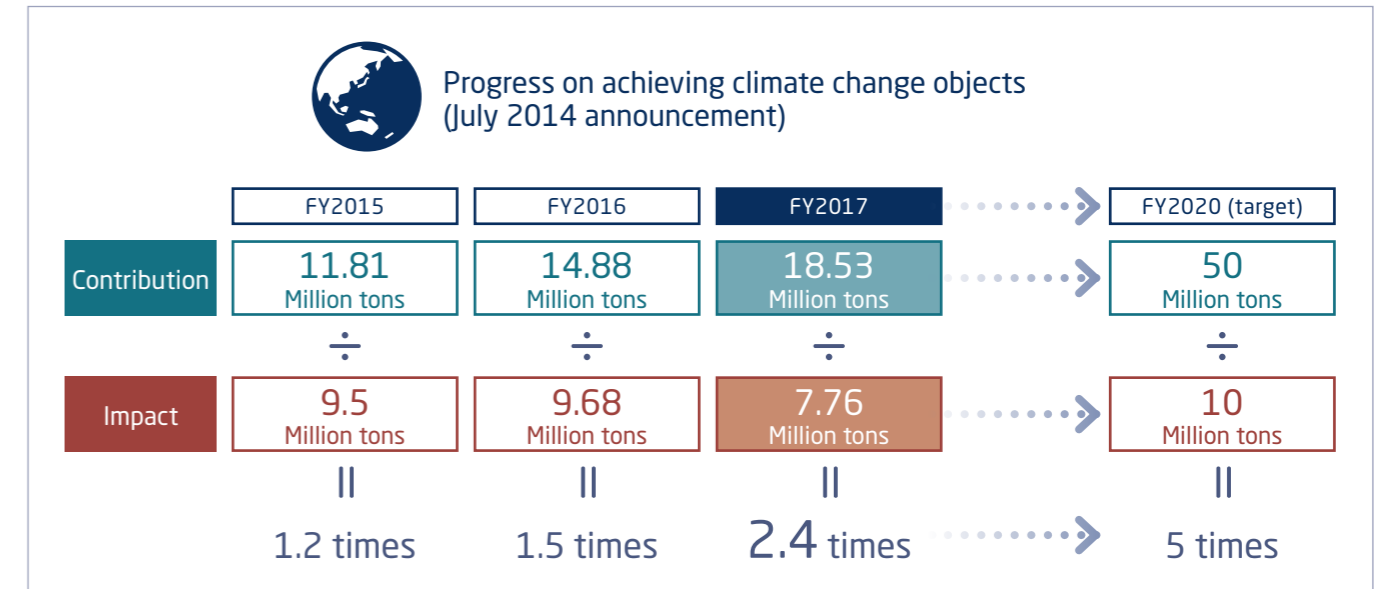
impact from climate change through IT solutions as equivalent to suppression of CO₂ emissions. By propagating these kinds of ideas, we are helping to further accelerate our "adaptation" to climate change.



Aiming for Five Times the Value Provided Against Environmental Burden

By using these kinds of quantitative methods, NEC hopes to provide five times more value against the environmental impact of its supply chain by 2020. The results for fiscal 2016 were that we increased the

value we provided up to 2.4 times our environmental burden. We will continue to aim for our goal, promoting greater value provided and reducing the environmental impact of our supply chain.



Improvements to Environmental Management through Dialogue with Our Stakeholders

Holding Meetings on ESG with Institutional Investors

In response to an increasing need among investors for ESG information, we are promoting greater understanding of our efforts in non-financial areas. As we grasp the ESG information requested by investors, we are aiming to improve our disclosure of information, and in July 2016, we held an IR meeting specializing in the "E" (environment) of ESG. 15 institutional investors from 13 companies participated in the meeting, leading to lively discussion with questions such as a request to more clearly show the connection between environmental activities and the management index, or what our future plans are for expanding the scale of our businesses related to SDGs. We received comments from participants that indicated they were better able to understand after hearing explanations in the directors' own words, and that their impression of NEC improved after the meeting. We also received positive feedback expressing interest in participating in the next meeting.



IR Meeting

Participation in SPEAR, a joint development project for a next-generation electricity network in Singapore

Along with Space-Time Insight, which has delivered numerous data analysis and visualization solutions, mainly to major European and US power companies, NEC and NEC Asia Pacific are participating in the Singapore Power Energy Advanced Research and Development (SPEAR), a next-generation power grid joint development project promoted by Singapore Power, which is Singapore's largest electricity company. In this project, we are investigating efficiency improvement of capital investment and maintenance based on big data analysis, real-time visualization and analysis of power failures, and advanced power failure management that accurately predicts expected recovery time.

Taking advantage of the experience we gain through this collaborative project, we will accelerate the creation of new technologies and solutions that combine ICT and energy, and will continue to further expand the smart energy business in the Asia-Pacific region.



Commemorative photo of participants

Trial using flood and landslide simulation system in Thailand

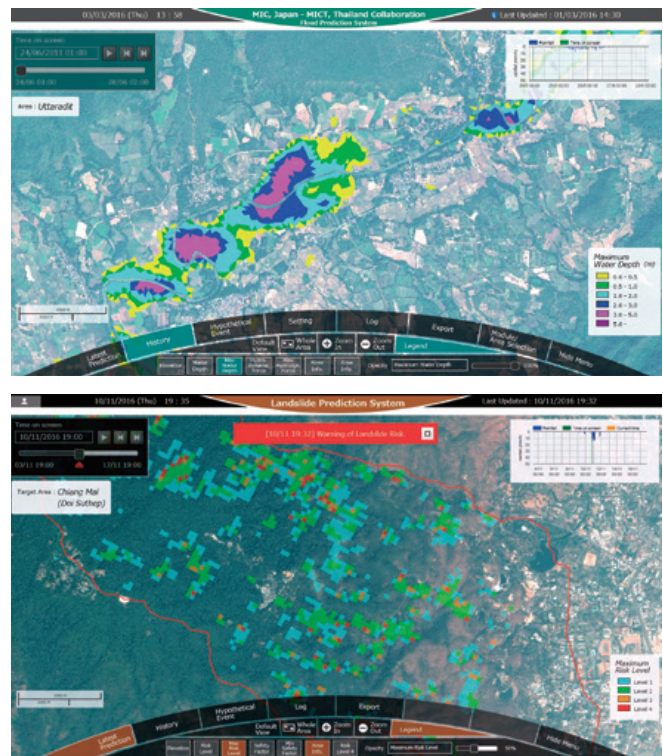
In collaboration with the National Disaster Warning Center (NDWC), NEC conducted a trial of its system to predict inundation areas and landslide hazard areas.

Thailand is a country where floods are frequent. The flood of the Chao Phraya River in 2011 was a particularly damaging event, resulting in extensive damage to many industrial parks and urban areas, including Bangkok. This caused severe disruption of the global supply chain, and had a major impact not only on the Thai economy but also on the world economy. Further, landslides caused by heavy rain are also a frequent occurrence in Thailand, and because of the extensive human suffering and material damage they cause and their negative impact on logistics due to road closures. For these reasons, countermeasures to mitigate damage from floods and landslides have become critical issues.

In these trials, NEC ran simulations based on various data such as weather, topography, river, and soil conditions to predict inundation areas, maximum flood levels, levels of landslide risk etc., for up to 7 days in advance, and then confirmed the effectiveness of the system.

Going forward, NEC will continue to promote the advancement and utilization of disaster prevention ICT for floods and landslides in Thailand, and utilize the experience and know-how gained from these trials to proactively engage in the proposal of this system to other Asian countries that frequently suffer damages from floods and landslides.

This trial is NDWC's first disaster prevention cooperation project between Thailand and Japan. NEC conducted this trial in collaboration with the Embassy of Japan in Thailand as part of the "Research and study for the development of a flooding simulator in Thailand" project commissioned by Japan's Ministry of Internal Affairs and Communications, and the "Research and study for the development of a landslide simulator in Thailand" project.



Simulation screen