Interview

Head of Corporate Environmental Strategy Unit Discusses

Fujitsu's Environmental Management

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Toward a Company that Makes a Positive Impact on the Global Environment by Leveraging the Power of ICT

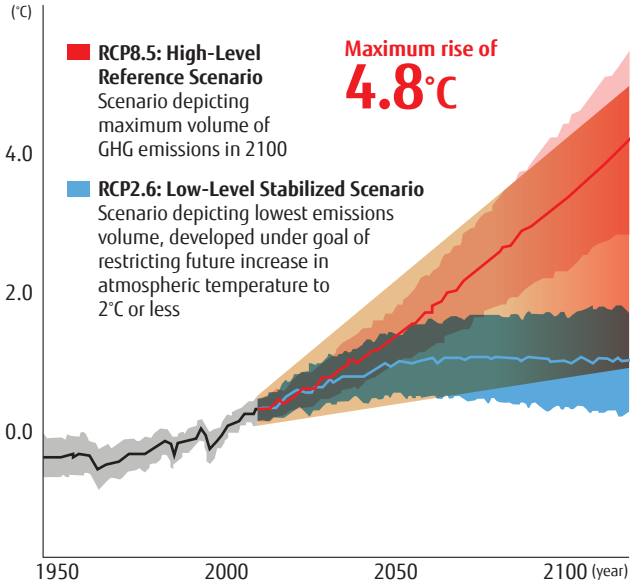
As Global Warming Continues Its Steady Advance, Climate Change, Natural Disasters, Destruction of Ecosystems, and Other Emerging Impacts Caused by Warming are Heightening Risks.
Amid the Complex Interaction of Consequent Social Issues Involving Energy, Food, Water, Health, and More, We Are Left to Wonder What Role ICT Will Fulfill.
The Fujitsu Group is Addressing These Important Themes Head-on to Contribute to the Resolution of Global Environmental Issues.





Q1 What Can ICT Do to Combat the Crisis Facing the Global Environment?

Change in Atmospheric Temperature from 1950 to 2100



* Forecasts from 2005 onward set an average value of 0.0°C for 1986-2005 forecast data, based on multiple climate forecast models
* The observed portion in black is calculated from the average of 42 climate forecast models, the red RCP8.5 from 39, and the blue RCP2.6 from 32
* Shading indicates the range of standard deviation in the yearly averages of individual models
* For each RCP scenario, gradation indicates values that exhibit a high probability of expressing the average for 2081-2100.

Source: IPCC Fifth Assessment Report 2013
Japan Center for Climate Change Actions website(http://www.jccca.org/english/)

A1 ICT Can Contribute not only through Mitigation of Global Warming but also through Adaptation to Its Effects.

Taking a look at current recognition of the global environment, the IPCC (Intergovernmental Panel on Climate Change) issued its Fifth Assessment Report from 2013 to 2014. The report stresses the undeniable reality of global warming, and foresees a 4°C rise in average atmospheric temperature by 2100. While companies have continued their efforts to reduce the emissions of greenhouse gases (GHG), these are unfortunately proving insufficient. There is a need to undertake fundamental and sustainable reduction of GHG emissions at global, national, corporate, and individual levels, and to make greater efforts to mitigate global warming.

The IPCC report further discusses the necessity of adaptation to effects of global warming that are already emerging. It is important that we consider and enact countermeasures against issues related to crop and water resource, natural disasters such as typhoons and flooding, health issues such as heat stroke and epidemics, and other impacts created by climate change.

While bringing convenience and comfort to society, ICT has also been able to promote the efficient use of energy and resources in lifestyles and industry by making work more efficient and making electrical power consumption visible, and by doing so has contributed to the reduction of GHG emissions.

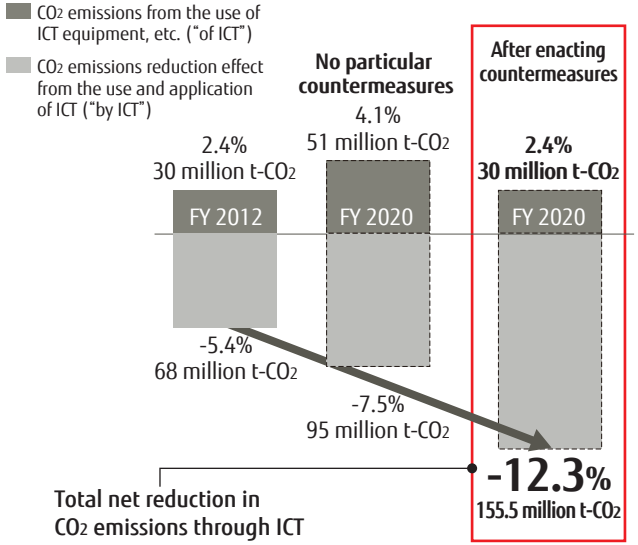
At the same time, we believe that ICT can also make great contributions in the increasingly important aspect of adaptation to effects of global warming. The widespread use and evolution of ICT enables fast collection and analysis of complex and voluminous information, providing support for the decisions and actions of people. In a broad range of domains, from the environment, energy, disaster prevention, and traffic to medical care, agriculture, education, and more, the potential for leveraging ICT is expanding.

As an example, simulating the impacts of typhoons and flooding with supercomputers and making use of the results to consider countermeasures, along with providing accurate and prompt information during disasters, can enable the control of damage to a minimum. Moreover, initiatives are moving ahead in fields such as agriculture, where the use of ICT has so far made less progress.

As an ICT company, Fujitsu is expected to communicate changes that may occur in the world in an easily understood way. While the technology to make data visible through analysis and processing has advanced, this has not been expressed in a way that can be understood by all people, including children and seniors. If means exist to let people perceive data through their eyes, ears, and sense of touch, then we believe that everyone will be able to sense changes arising across the globe as "their own."

Q2 On the One Hand ICT Contributes to Reducing Environmental Impacts, but doesn't ICT also Exhibit Negative Impacts?

CO_2 Emissions Volume of the ICT Sector Overall, and the CO_2 Reduction Effect of the Use and Application of ICT



About 125 million t-CO_2 (10% reduction compared with 1990)

Prepared from Ministry of Internal Affairs and Communications ICT Policy Task Force for a Global Era, 5th Global Issues Study Group materials, and Year 2020 CO_2 Reductions through ICT (Environmental Issues Working Group)

A2 This Is the Reason for a Need to Take Action from the Two Standpoints of "by ICT" and "of ICT."

Through the lowering of network costs and the spread of ICT devices, the global population of Internet users now exceeds 2.7 billion people. The age of the Internet of Things (IoT), in which automobiles, appliances, wearable devices, and all manner of things in the world connect over networks, is said to be upon us, and the number of things connected worldwide over the Internet is predicted to increase from 10 billion in 2013 to 50 billion in 2020. Amid these conditions, ICT is expected to play a role in empowering the human creativity that will change the nature of lifestyles, business, and society for the better. We believe that there is considerable potential for the birth of new innovation that leads to the resolution of environmental issues.

At the same time, ICT cannot operate without electrical power, and its continued expansion will increase the amount of energy used. Even if the amount of energy used by individual devices is small, if their number is large, the energy usage will be enormous. Furthermore, energy is required to operate the networks and datacenters that connect devices. Datacenters operate efficiently, aggregating customers' servers and other equipment, and thus contribute to reducing the overall energy usage of society. However, it is expected that the arrival of the IoT era will further increase the number of datacenters.

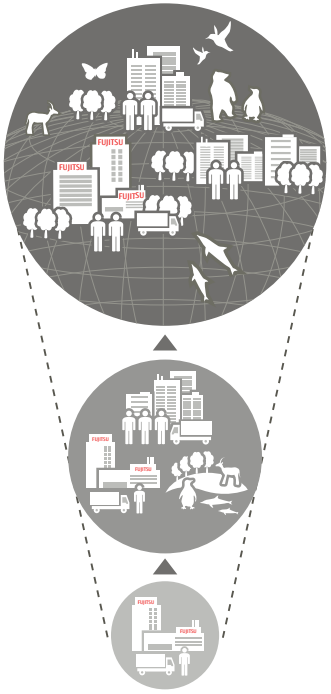
What is required during this phase is that we assess and reduce total environmental impacts. We must advance the use and application of ICT to contribute to the reduction of environmental impacts in society overall ("*by* ICT") and expand positive effects. At the same time, through the provision of environmentally considerate products, we must reduce the energy consumption that accompanies the use of ICT devices ("*of* ICT") and minimize negative effects. The Fujitsu Group has taken an early lead in basing initiatives on the two standpoints of "*by* ICT" and "*of* ICT."

In the same way, 50 billion devices connecting in the world of the IoT will create a need for a corresponding number of sensors and components. How will we secure the resources to build these, and handle the waste after their use? How will we secure the energy needed for the networks and systems to run the devices? We have to consider these issues together.

I believe that from here on out, we will have to quantitatively assess both positive and negative aspects, and engage in dialogues with society as we sketch a vision for Fujitsu Group's environmental management.

Q3 What Are the Key Points of the Environmental Action Plan (Stage VII)?

Changes in the Fujitsu Group Environmental Action Plan



Stage VII
(FY 2013-2015)
Expansion of our contributions to customers and society

Stage VI
(FY 2010-2012)
Promotion of environmental management centered on the three pillars of contribution to customers and society overall, further reduction of our own environmental impacts, and preservation of biodiversity.

Stage I-V
(FY 1995-2009)
Thorough enhancement of the Fujitsu Group's own consideration of the environment

A3 The Plan Clarifies the Contributions to Customers and Society through Our Business Activities.

The Fujitsu Group launched the Environmental Action Plan (Stage VII) in FY 2013. During Stages I-V, the Fujitsu Group worked to thoroughly enhance its own consideration of the environment, while Stage VI centered on the three pillars of contributions to customers and society, further reduction of our own environmental burden, and preservation of biodiversity.

In the Stage VII plan, we have made the contributions of our business activities more clear, reaffirming that our business contributes to reducing the environmental burden of customers and society and thus contributes to sustainability of the planet, while also reaffirming that our contribution is great in comparison with the impacts we place on the environment.

In particular, as the use of ICT cannot be separated from the use of electric power, the impact of Fujitsu Group's business on the environment, whether negative or positive, is most dependent upon energy consumption and the subsequent emission of GHGs. For that reason, we emphasize the importance of reducing GHG emissions in our Environmental Action Plan (Stage VII), and are focusing on providing solutions able to contribute to the reduction of GHG emissions by customers and society, as well as on developing and providing energy-saving and resource-saving products. We will of course continue reducing our own environmental burden, and in particular will strengthen our initiatives to save energy in datacenters.

To realize a sustainable society, we must work toward not only energy conservation but also creation of technologies and solutions to address the host of social issues brought about by climate change, population increase, the aging of society, and other changes. The Fujitsu Group is convinced that, by providing ICT solutions that empower people to be innovative , we can stand by and support the people who will undertake the innovation for overcoming social issues.