

**Fujitsu**  
**Progress Report**  
**2013/2014**  
**On the Leadership Declaration of the**  
**'Biodiversity in Good Company' Initiative**

This progress report features activities that the Fujitsu Group has implemented in the last two years (2013/2014) and recognizes the seven points in the Leadership

Declaration cited below.

**Leadership Declaration**

All signatory companies acknowledge and support the three objectives of the international “Convention on Biological Diversity”:

1. Conservation of biological diversity
2. Sustainable use of its components
3. Fair and equitable sharing of the benefits that arise out of the utilization of genetic resources.

and commit themselves to:

1. Analyzing corporate activities with regard to their impacts on biological diversity;
2. Including the protection of biological diversity within their environmental management system;
3. Appointing a responsible individual within the company to steer all activities in the biodiversity sector and report to the Management Board;
4. Defining realistic, measurable objectives that are monitored and adjusted every two to three years;
5. Publishing activities and achievements in the biodiversity sector in the company’s annual, environmental, and/or corporate social responsibility report;
6. Informing suppliers about the company’s biodiversity objectives and integrating suppliers accordingly and step by step;
7. Exploring the potential for cooperation with scientific institutions, non-governmental organizations (NGOs) and/or governmental institutions with the aim of deepening dialogue and continuously improving the corporate management system vis-à-vis the biodiversity domain.

To demonstrate ongoing commitment, member companies will provide the Initiative with a progress report every two years.

## 1. Analyze the impact of corporate activities on biodiversity

### Activities

The Fujitsu Group analyzes ongoing the impact of corporate activities on biodiversity with a focus on business/product life cycles, land utilization, and the areas in which ICT (Information and Communication Technology) comes into play.

### Easy HEP for the Simple Evaluation of the State of and the Connection between Ecosystems Inside and Outside of the Facilities

As already pointed out in the last Progress Report 2011/2012 Fujitsu has analyzed the impact of corporate activities to biodiversity continuously.

The evaluation of biodiversity using easy HEP has been executed in the Kawasaki factory since 2011. HSI of which the indicator species was the great tit in the wood land was 0.307 in the investigation that had been executed in April, 2011. HSI did not have 0.307 changes in the similar investigation that had been executed in August, 2013 (Picture 1). This shows that easiness in the wood land in the factory to live was changeless for the great tit. Easy HEP shows the living easiness in the place of the indicator species by the numerical value by investigating the element of 12 like the breeding condition and the feeding condition, etc. The numerical value shows suitable for one 0 showing from 0 to 1, not living easily, and living. The numerical value of 0.307 shows easiness not to necessarily live so much (Figure 1).



Picture 1: Appearance of easy HEP investigation

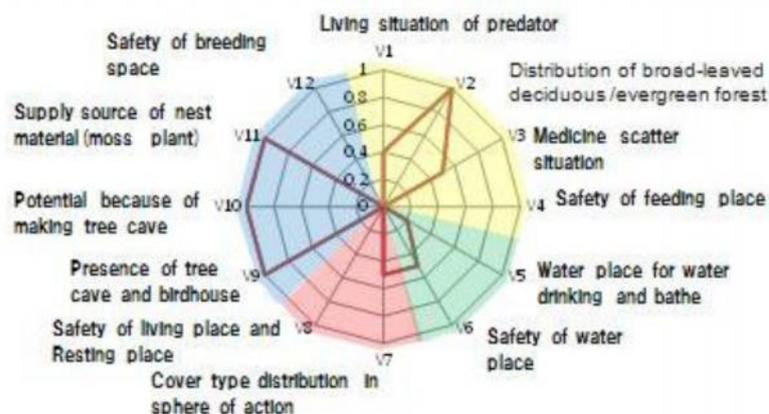


Figure 1 : Evaluation of great tit in wood land

## 2 . Develop a biodiversity index by incorporating biodiversity conservation into the Corporate Environmental Management System

### Activities

The Fujitsu Group developed the Fujitsu Group Biodiversity Total Index for quantitative assessment of the impact and contributions of corporate activities on biodiversity in 2010, and tried to apply the Index to the Sixth Fujitsu Group Environmental Protection Program (2010-2012), based on environmental management system ISO14001. The quantitative goals for the impact of key businesses on biodiversity were set in the Program and the results were disclosed in the Fujitsu sustainability report. It is available on this website;

<http://www.fujitsu.com/global/Images/fujitsureport2013-03021301-e.pdf>

And the results of these trial and effectiveness of Index were presented in the COP12 held in Korea in 2014. Presentation report is available on this website;

[http://www.business-and-biodiversity.de/fileadmin/user\\_upload/documents/Aktivitäten/CoP\\_12/Fujitsu\\_PresentationCOP12.pdf](http://www.business-and-biodiversity.de/fileadmin/user_upload/documents/Aktivitäten/CoP_12/Fujitsu_PresentationCOP12.pdf)

### Quantitative Assessment of the Impact and Contributions of Corporate Activities on Biodiversity

Quantitatively assessing the impact of corporate activities on biodiversity and setting specific goals to reduce it are key to conserving biodiversity. The Fujitsu Group, developed the Fujitsu Group Integrated Biodiversity Index to continuously reduce the impact of corporate activities and products on biodiversity, contribute more to biodiversity conservation through ICT, and assess improvements in biodiversity and the

effectiveness of conservation measures.

From FY2010 to FY2012, the Fujitsu Group tried to apply the Biodiversity Integration Indices to the Fujitsu group environmental protection program. We have set a target for the reduction of the impact of Fujitsu group total material consumption on biodiversity as one of targets. Target was to get 1.5% reduction by 2011, and 3% reduction by 2012, in level of impact compared to the 2009 impact as evaluated by the Biodiversity Total Index. Fujitsu had been making efforts in variety of material consumption to achieve this goal between 2010 and 2012. As results, we could achieve 4.6% reduction in FY2011, and 9.6% reduction in FY2012. Use in the next step is being examined now though the evaluation will be tried in three years of the Fujitsu Group Environmental Protection Program, Stage VI and effective was understood. In the future, we want to apply the integration indices to lower the impact of our corporate activities in various areas, and to contribute to society using ICT.

**Trial in Fujitsu Group Environmental Protection Program, Stage VI**

**[Reduce impact of company's operations on biodiversity]**

- Develop numerical indicators to measure impact of operations on biodiversity and build system to expand contribution of ICT to reducing that impact.

	<b>FY2010</b>	<b>FY2011</b>	<b>FY2012</b>
<b>Plan and Targets</b>	<b>Construction of the Fujitsu Group BD Total Index</b> to evaluate impact on biodiversity	<b>1.5% reduction in level of impact</b> (in main business areas) compared to FY2009 as evaluated by the BD Total Index	<b>3.0% reduction in level of impact</b> (in main business areas) compared to FY2009 as evaluated by the BD Total Index
<b>Results</b>	<b>Construction of the Fujitsu Group BD Total Index</b>	<b>4.6% reduction in level of impact</b>	<b>9.6% reduction in level of impact</b>

Table 1: Plan and results of Fujitsu Group BD total index

**3. Designate a representative who supervises all activities in the biodiversity sector and is responsible for reports to the board of directors**

**Activities**

As reported in 2011/2012 the Fujitsu Group's activities on biodiversity conservation are still conducted based on its environmental management system. They are supervised by

an environmental management representative (currently, the general manager of the Environment Department). An environmental management representative, meanwhile, is responsible for reports to the board of directors through the Environmental Management Committee.

**4. Set feasible and measurable goals that can be monitored and adjusted as needed every two to three years**

**Activities**

All targets concerning the biodiversity conservation that hung by the sixth Fujitsu Group Environmental Protection Program were able to be achieved (Table 2).

Category	Performance (FY 2010)	Performance (FY 2011)	Targets (FY 2012)	Performance (FY 2012)
<b>Reduce impact of company's operations on biodiversity</b>				
Develop numerical indicators to measure impact of operations on biodiversity and build system to expand contribution of ICT to reducing that impact.	Completion of numerical indicator development	4.6% reduction in level of impact (in main business areas) compared to FY 2009 as evaluated by BD integration index	3% reduction in level of impact (in main business areas) compared to FY 2009 as evaluated by BD integration index	9.6% reduction in level of impact (in main business areas) compared to FY 2009 as evaluated by BD integration index
Promote procurement from business partners that work to preserve biodiversity.	60.9%	99.2%	100%	100%

Category	Performance (FY 2010)	Performance (FY 2011)	Targets (FY 2012)	Performance (FY 2012)
<b>Contribute to community-building that conserves biodiversity</b>				
Build case studies that contribute to biodiversity through ICT in all major offices by end of FY 2012.	Survey implementation	Pilot project based on survey results	Development at main business sites	Development at main business sites
Conduct biodiversity preservation/education programs in all offices by end of FY 2012.	Japan: Implemented at all business sites	Japan: Implemented at all business sites	Japan: Once a year	Japan: Implemented at all business sites
	Internationally: Implemented at 30% of business sites	Internationally: Implemented at 41% of business sites	Internationally: Once every three years	Internationally: Already implemented at all business sites as of the end of FY 2012

Table 2. Promoting efforts to preserve biodiversity

The Seventh Fujitsu Group Environmental Protection Program (FY 2013–2015) set goals for biodiversity conservation.

The Seventh Fujitsu Group Environmental Protection Program

The Fujitsu Group Environmental Protection Program (FY 2013–2015) was adopted in April 2013 in accordance with the Green Policy 2020.

The following goals are in place to promote biodiversity conservation activities.

This means the capital, the technology, and talent, etc. are supported to the group that

promotes biodiversity as a company.

#### **Corporate Citizenship: Social Challenges**

Support initiatives that address the complex social and environmental challenges, e.g. biodiversity conservation

### **5. Publishing all activities and achievements made in the biodiversity sector on annual, environmental, and CSR reports**

#### **Activities**

The Fujitsu Group has been regularly posting key activities and achievements made in the biodiversity sector on its social and environmental report since the Leadership Declaration was signed in FY2008 with the details updated on its website (<http://www.fujitsu.com/global/about/environment/>).

The Fujitsu Group Sustainability Report 2014 is available here:

<http://www.fujitsu.com/global/documents/about/resources/reports/sustainabilityreport/2014-environmentalreport/fujitsureport201401-e.pdf>

### **6. Informing suppliers about the Fujitsu Group's biodiversity objectives and integrating suppliers accordingly and step by step**

#### **Activities**

The Fujitsu Group was held seminars on biodiversity conservation continuously in 2012 for suppliers and made efforts with suppliers to conserve SATOYAMA (secondary forest) in order to penetrate and promote biodiversity conservation activities in supply chains.

#### **Approaches to supply chains**

The Fujitsu Group has been promoting biodiversity conservation in cooperation with suppliers since FY 2010, making it one of the green procurement requirements.

Fujitsu drew up an original activity evaluation index for supplier's activities situations (Figure 2) and request them to recognize the significance of biodiversity conservation and to carry out the activity announcement at Stage1.

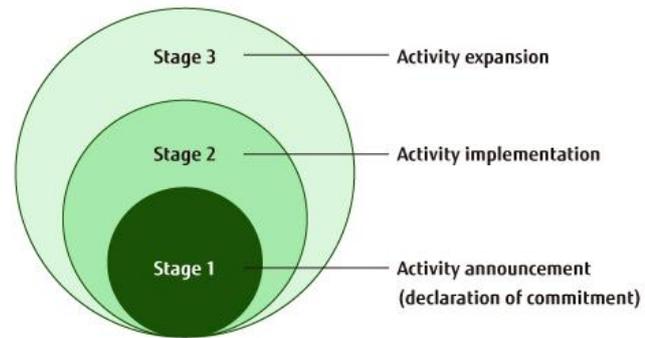


Figure 2: stage of activities

Specifically, the Fujitsu Group compiled “Biodiversity Guidelines for suppliers” and it has been available free of charge since June 2010 to help suppliers promote their activities. The latest information of the society trend etc. is reflected, has been revised to "Biodiversity guideline" that is our customer limitation opening to the public up to now, and general has been opened to the public now (<http://www.fujitsu.com/jp/Images/bd-guide-1.2.pdf>, in Japanese only).

Moreover, the explanation concerning the biodiversity conservation is executed in the briefing for suppliers. It attended about 660 customer companies in 2013 (cf. 56 suppliers in 2011 and 2012). They were briefed on what biodiversity is, its relation and significance to corporate activities and specific conservation measures and how to advance the meaning and the concrete action that the enterprise works on something, biodiversity, and relations and biodiversity with undertaking activities explained biodiversity (Picture 2) .



Picture 2: The Biodiversity Seminar (Aug 2013)

Additionally, Fujitsu thought it is essential for the company to have opportunities to experience biodiversity to understand the significance of it and working on its conservation, Fujitsu has held a SATOYAMA conservation program with help from an NPO since FY 2011 to encourage suppliers to participate in it. In this program in FY 2013, a total of 18 representatives from 10 suppliers mowed Azumanezasa (*Pleioblastus chino*) and removed fallen trees to get first-hand experience in biodiversity conservation (53 people per 30 suppliers in total from 2011) (Picture 3).

Because the dengue had become popular in 2014, SATOYAMA conservation program was put off.

The Fujitsu Group will continue to work on biodiversity conservation in cooperation with suppliers in order to make the public aware of its significance.



Picture 3: Working participants and a group photo in a SATOYAMA conservation program (Nov 2013)

**7. Cooperate with scientific institutions and NGOs to communicate with a wider range of people and improve the biodiversity management system**

**Activity**

A scheme is in place to leverage ICT in conserving biodiversity in cooperation with universities, scientific institutions, and NGOs. And the Fujitsu Group has implemented in 2002 a project in Malaysia for the protection and regeneration of rainforests.

**ICT-based biodiversity conservation**

As pointed out in the Progress Report 2011/2012 the Fujitsu Group gives high priority to conserving biodiversity, leveraging its ICT products and services.

ICT is a system that can collect, analyze, and assess large amounts of data in an efficient manner, the results of which can be used to optimize work processes and social systems. Accordingly, it is expected to contribute to preventing or reducing the loss of biodiversity while maintaining and improving it by collecting and analyzing complex and diversified information.

Specific approaches include remote sensing of organisms, temperature and humidity; identification of organisms through image analysis; collection of biological and environmental information through mobile devices; assessment of the impact on organisms and ecosystems and of habitats; creation of a database on biological information (species, population, habitats, etc.) and gene information; monitoring and observation of environmental changes and biobehavior; network communication

technology; and promotion of biodiversity conservation through image transmission technology (Figure 3).

ICT is also an effective tool to conserve biodiversity, contributing to improving economic activities, environmental considerations, and productivity in the primary industry (agriculture, fishery, forestry, etc.), which is directly engaged in ecosystem services.

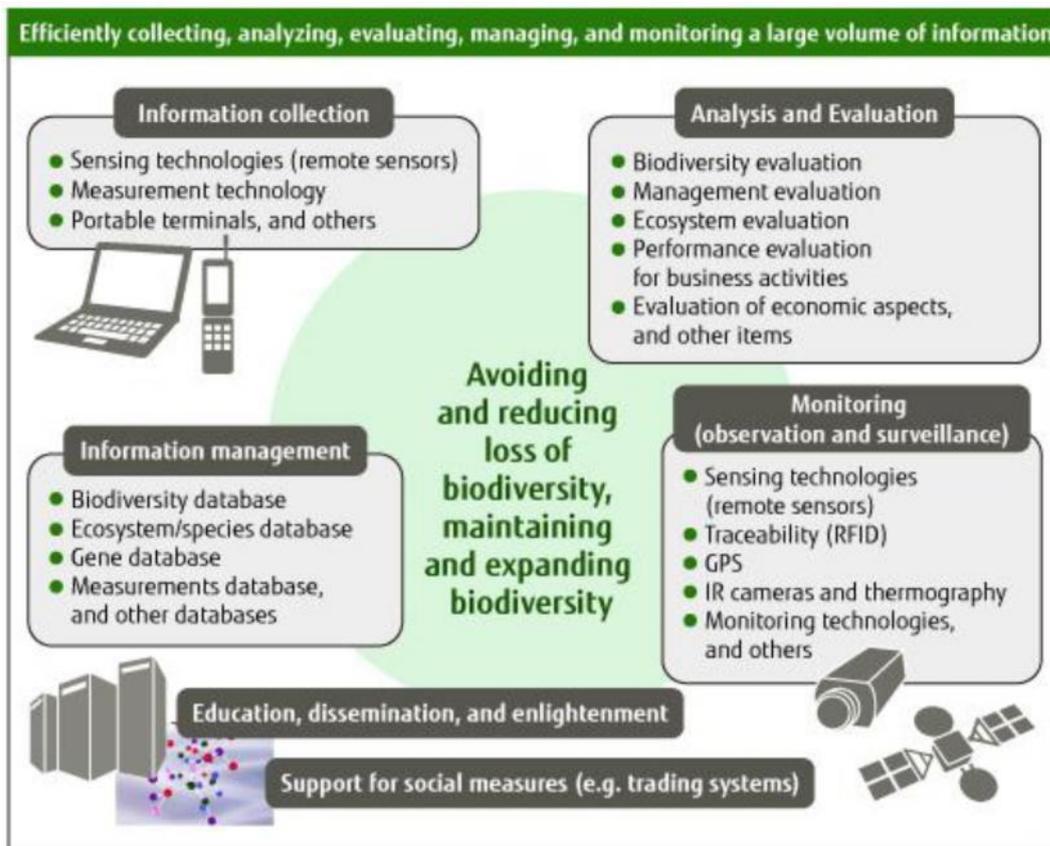


Figure 3: The Possibility of Conserving Biodiversity through ICT

### **Smartphone Photo System and Cloud Services**

It is essential that animals and plants inhabiting the areas under survey be kept track of in order to discuss and examine biodiversity conservation measures. This usually involves field surveys by experts, where they draw maps—a practice that requires much time and effort to be converted into digital data.

Beginning April 2013, the Fujitsu Group started providing the smartphone photo system and cloud services to automate and streamline such surveys, which involve recording and drawing of distribution maps.

The smartphone photo system is designed to send images taken with GPS-enabled smartphones via email, which are then stored in a database to be put on a map that is

accessible on the Web. It is providing free of charge to research institutions, educational institutions, NPOs, municipalities, etc., to promote biodiversity conservation.



Figure 4: Outline of Smartphone Photo System

This service has aimed to support promotion of the activity to contribute to the biodiversity conservation that the municipality, research laboratories, and NPO, etc. execute. This service was used for the period of fiscal year 2014 from fiscal year 2013 per 13 as the university, the municipality, and NPO, etc. group. The investigation of the bumblebee of Tohoku University is shown here as a typical case.

#### **Census of bumblebees engaged in pollination**

In the Graduate School of Life Sciences, Tohoku University, this service has been used to conduct a census on bumblebees (Picture 4) engaged in pollination. While it is fairly difficult to carry out this survey by delegating expert investigators nationwide, use of mobile phones or smartphones allows the general public to participate in the survey and to work as investigators, which makes the nationwide survey possible. Even if a participant does not know about bumblebees, the experts can identify them based on the picture of the bees sent by the lay investigators.



Picture 4 : Bumblebee

Bumblebees are primary pollinators not only for wild plants but also for many crops. They are a significant means of pollination for human beings. Nevertheless, a global decrease in the bumblebee population has been reported recently due to a series of factors including a change in human land use, decrease of resource plants, use of pesticides, and infectious diseases. In Japan, settlement of exotic species (*Bombus terrestris*; common names are buff-tailed bumblebee or large earth bumblebee) in wild environments impacts the native bumblebee species. Some investigators have pointed out that a decreasing trend was observed for bumblebees even in regions where there was not impact from exotic species. Therefore, it was imperative to promptly establish a monitoring system nationwide. While ecological distribution surveys for bumblebees have been conducted in the Hokkaido and Tohoku areas so far, it was necessary to understand the current status of each sub-species of bumblebee on a nationwide basis to identify their entire ecology. To be specific, it was necessary to identify the nationwide distribution of bumblebee sub-species and find out which sub-species had a changing or decreasing distribution. To address these tasks, Tohoku University started to use this service to develop a prediction-based nationwide distribution map of bumblebees in collaboration with Yamagata University.

#### **Rainforest Regeneration Project and Eco-Tour Activities for the Study of Biodiversity (Malaysia Eco-forest Park)**

It is said that a quarter of all species exist in rainforests, and as such they are an extremely important and necessary ecosystem. However, the destruction of these rainforests is advancing at a great pace and the protection and regeneration of the remaining rainforests is a sizable challenge.

Furthermore, in order for the protection and sustainable use of biodiversity to make inroads into society, it is important to raise people who put this into practice, so the spread and promotion of the protection of biodiversity in society is a challenge.

To make efforts towards the protection of biodiversity on a global level as a global company, Fujitsu started a project in 1998 centering on South East Asia for the protection and regeneration of rainforests. In addition to activities in Thailand and Vietnam, since 2002 a rainforest regeneration project has been underway in Sabah, Malaysian Borneo called “Fujitsu Group Malaysia Eco-Forest Park” with the support of the Sabah Forestry Development Authority.

Also, since 2010, Fujitsu has implemented the “Biodiversity Eco-tour”, and the “Fujitsu Group Malaysia Eco-forest Park” has been used as an educational environment for

biodiversity for employees and their families. In this Eco-forest Park, as well as activities for the regeneration of rainforests for experience, observation of oil palm fields and primary forest as well as the orangutan protection is included, making it a tour for learning about the dangers faced by biodiversity on Borneo.

37,500 indigenous dipterocarpaceae trees have been planted in an area of 150 hectares in the Fujitsu Group Malaysia Eco-forest Park in five years from 2002 to 2007. These trees have entered the seedling tree growth phase, and maintenance work, growth surveys, and surveys of wild fauna are being implemented, but for these trees to grow from seedlings to maturity will take a long time. The number of people involved in this project meanwhile extends to 1600 (number of people involved in Progress Report 2011/2012: 1190), including employees and local residents, and so that the Eco-forest Park once again becomes a place where a variety of species live, Fujitsu will continue maintenance and provide support. At the same time, for a range of stakeholders that includes Fujitsu employees, it will be used as a place for environmental education with the aim of an increase in the number of personnel who understand rainforest regeneration.



Picture 5: Working participants in the Eco-Tour in a Malaysia Eco-forest Park (Nov, 2013)

**The promotion of environmental education in elementary and junior high schools is supported with ICT.**

Environmental education electronic teaching material "To live by as many as 1 piece in the earth, -the idea from the ecological footprint -." that assumed the ecological footprint to be a theme was jointly developed, and the delivery class of environmental education that used this teaching material began with WWF Japan in elementary and junior high schools in the Japanese whole country from April, 2014. The employee of the Fujitsu

group executed the class to the school by the proceeding coming and the end of December in 2014 for 28 places and 1561 students.

This class thinks about the connection with our destruction of life and tropical forests, uses the note and the pencil by us, and gets wisdom from tropical forests might bundle off the living thing that lives to the edge of extinction. It is said that as many as 2.3 pieces in the earth are necessary when people all over the world do the same living as the Japanese now. It thinks how to do for children to use one tablet PC, and to live from the ecological footprint by as many as 1 piece in the earth, and the class assumed to be a chance to rush into action. This class was specified for the business for the recognition of Japan Committee for UNDB.



Picture 6: Appearance of class that uses tablet PC

Ecological footprint :

It is a numerical value where the load that the man activity gave the environment was shown by the index that shows the environmental carrying capacity of the earth as the area necessary for the reproduction of the resource and the purification of waste. It is shown as an area of the land and the waters per person necessary to maintain life usually.