

Company Profile

Headquarters: Sapporo, Japan
Major products: Restaurant chain, food industry
Further information:
www.aleph-inc.co.jp/english_business/mission_en.html

Aleph Inc. was established 1968 in Morioka city, Iwate. The company manages about 300 restaurants all over Japan. The mainstay of Aleph's restaurant divisions is the hamburger steak restaurant chain "Bikkuri Donkey". It also operates seven factories that process materials to supply to its restaurants.

Aiming to provide high quality food with customers' safety, Aleph launched an experimental farm in 1988 and started to work on sustainable agriculture by decreasing chemicals in the procured materials. Through its business activities,

Aleph also contributes to building a recycling-oriented society, reducing energy consumption, decreasing waste, minimizing water use, recycling kitchen refuse and conserving biodiversity.

Challenges and How Aleph Takes Responsibility

No one can live without natural resources and companies are no exception. Restaurant management needs buildings, uniforms, tableware and of course "food". The food industry is connected directly with society's health and agriculture. As Aleph developed, the deeper the company went into agriculture and the more keenly it understood the importance of a balanced nature. Aleph is dependent on biodiversity for its business activity. Therefore, Aleph also considers the environmental load it has with its restaurant kitchen and factory refuse including used vegetable oil, gray water and other wastes. It strives to achieve a reduction in the company's impact on the biodiversity of the natural environment.



Monitoring the living things at contracted rice paddy

Experience of traditional harvesting



Fields of Action

- Sites and facilities
- Supply chains, commodities and materials
- Product
- Production and manufacturing processes
- Transport and logistics
- Personnel



Passing on the rice-growing culture: transplanting with Aleph employees in traditional costume with local people

Best Practice: Three Projects of Rice Farming with Procurement

The Issue

Aleph Inc. serves 6,000 tons of rice per a year to its restaurant customers. To reduce the environmental loads resulting from these business activities, Aleph has implemented three rice farming projects that enable a sustainable procurement of rice.

The Response

The "Less Agrochemical Rice" (Shou-nou-yaku-mai) project started in 1996 and is Aleph's private-label rice. It is produced with only one application of herbicides, and no other chemicals. Farmers are encouraged to use organic fertilizers so that nearly 80 % of fertilizer meets Aleph's strict specifications.

The company also initiated the "Living-Things-Friendly Rice Paddies" project that ensures sustainable production of rice paddies with an eye for safe environmental conditions for living organisms. This project promotes environmentally-friendly practices for irrigation in winter, biotopes, fishways, production without agrochemicals and chemical fertilizers.

Furthermore, Aleph started the "Eniwa Demonstrated Rice Paddies" project by using a method of winter-flooded rice paddies (Fuyumizu-Tambo). This method keeps paddies flooded and left as wetlands until spring and not dried out as

usual from the post-harvest. This method has been adopted in some regions for various reasons such as for creating habitats for valuable migratory birds, or for organic rice farming and other beneficial purposes. Winter flooding acts as a substitute for fertilizers, weed and pest control through an increased number of sludge worms (tubifex) as well as other living things. In its demonstration paddies in Eniwa, 3,500 people including Aleph's employees and local people have had experience with the sustainable rice farming. They participate in seeding, transplanting, harvesting, among other activities without harmful health risks. This facilitates a rice-growing culture and offers educational chances for those involved.

The Results

Within the "Less Agrochemical Rice" (Shou-nou-yaku-mai) project currently about 700 rice producers have signed up for Aleph's contracts. Since April 2006 Aleph has been able to serve its private-label rice in all "Bikkuri Donkey" restaurants. In 2011 the company was able to increase the farming area of "Living-Things-Friendly Rice Paddy" by 100 ha. (10 % of Aleph's current procurement volume). Starting in 2012 the company has begun serving its rice in 22 of its "Bikkuri Donkey" restaurants.

On these three types of rice paddies that use little or no agrochemicals, many living things have begun to thrive such as frogs, dragonflies, loaches and herons. Aleph considers the success of this project to be one step forward for its sustainable, low environmental impact business model.





Company Profile

Headquarters: Ostheim/Rhön, Germany
Major products: Non-alcoholic refreshment beverages
Further information: www.bionade.de

Ever since its origins in the 1980s, when the product BIONADE was invented, the company has embodied sustainable thinking and acting. BIONADE's roots are in the region and its headquarters is in the heart of the Rhön Biosphere Reserve in Germany. With a non-alcoholic refreshment drink, which is purely organically produced through fermentation and is of organic quality in accordance with the EU Eco-regulation, the company is aiming for a pioneering role in the refreshment beverage industry. On its path to international expansion, BIONADE also sees itself as an inspiration for other regions.

Challenges and How BIONADE Takes Responsibility

As a producer of ecologically sound refreshment drinks using natural organic raw materials, BIONADE is aware of the importance of maintaining and protecting biological diversity so that mankind can continue to live in an intact environment. Furthermore, biodiversity is crucial to the core business of the company to be able to use raw materials of high ecological quality in the longterm. Thus, the company takes responsibility for its actions and is taking steps to factor biodiversity into its business transactions. One step in helping BIONADE achieve its goals has been to sign the Leadership Declaration of the 'Biodiversity in Good Company' Initiative. As part of a continuous development process, the company has made and will continue to make improvements in this area. Current progress has yielded an environmental management system that has been successfully implemented, and with the help of experts and various studies conducted at BIONADE, a consistent biodiversity management system is being developed. It covers areas of activity in organisation, supply chain management and personnel. In addition, best practices examples from BIONADE reflect that sustainable development in terms of the Leadership Declaration is truly embodied at BIONADE.



Fields of Action

- Sites and facilities
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Best Practice: Regional Organic Farming – “Bio-Landbau Rhön”

The Issue

In its “Bio-Landbau Rhön” (Rhön Organic Farming) project, BIONADE combines ecologically sound actions with business activities for the benefit of biological diversity. Within this project, regional procurement is being optimised by the fact that the farmers producing elderberries for BIONADE grow these organically in the Rhön region itself.

The Response

When BIONADE and a regional organic farmer first had the idea for this project in 2005, they were entering completely uncharted territory. On the basis of long-term contracts, this

project ensures a permanent supply of locally grown organic raw materials for BIONADE, above all from the structurally weak Rhön region. This cooperation guarantees that the origin of the raw materials can be traced, their quality is guaranteed and extensive transport routes can be dispensed with. Moreover, the guidelines that BIONADE adheres to, such as those of Naturland e.V., are much stricter than those of the EU organic regulations.

The Results

Now, thanks to this project, BIONADE produces its high quality, organic refreshment beverages by procuring 100 % of its elderberries, malting barley and mint together with a portion of the quinces it needs from regional Rhön suppliers.





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Best Practice: BIONADE. We Plant Drinking Water.

The Issue

Drinking water is BIONADE's most important resource, however it is in shorter and shorter supply throughout the world. As BIONADE uses water for its products, the company aims to counteract this development on a long-term basis by regenerating the drinking water it uses for its refreshment beverages.

The Response

Therefore, with the project "BIONADE. We plant drinking water" BIONADE, in conjunction with the "Trinkwasserwald e.V." association, has transformed existing monoculture coniferous forests into natural deciduous forests, so-called "Drinking Water Forests". Based on a scientifically proven procedure, local deciduous trees have been planted in different areas of Germany. The water quality of deciduous

forests is considerably better than that of coniferous forests. They can generate an additional 800,000 liters of clean groundwater more than existing coniferous monoculture forests per hectare per year. This development is permanent. BIONADE is also able to create greater public awareness for environmental subjects among young people by having school classes participate in the planting events.

The Results

An area totaling 62.5 hectares has been transformed into "Drinking Water Forests" within the last four years already. This means that through several planting areas in Germany the amount of drinking water needed to fill the BIONADE refreshment beverage bottles has been compensated for.

Company Profile

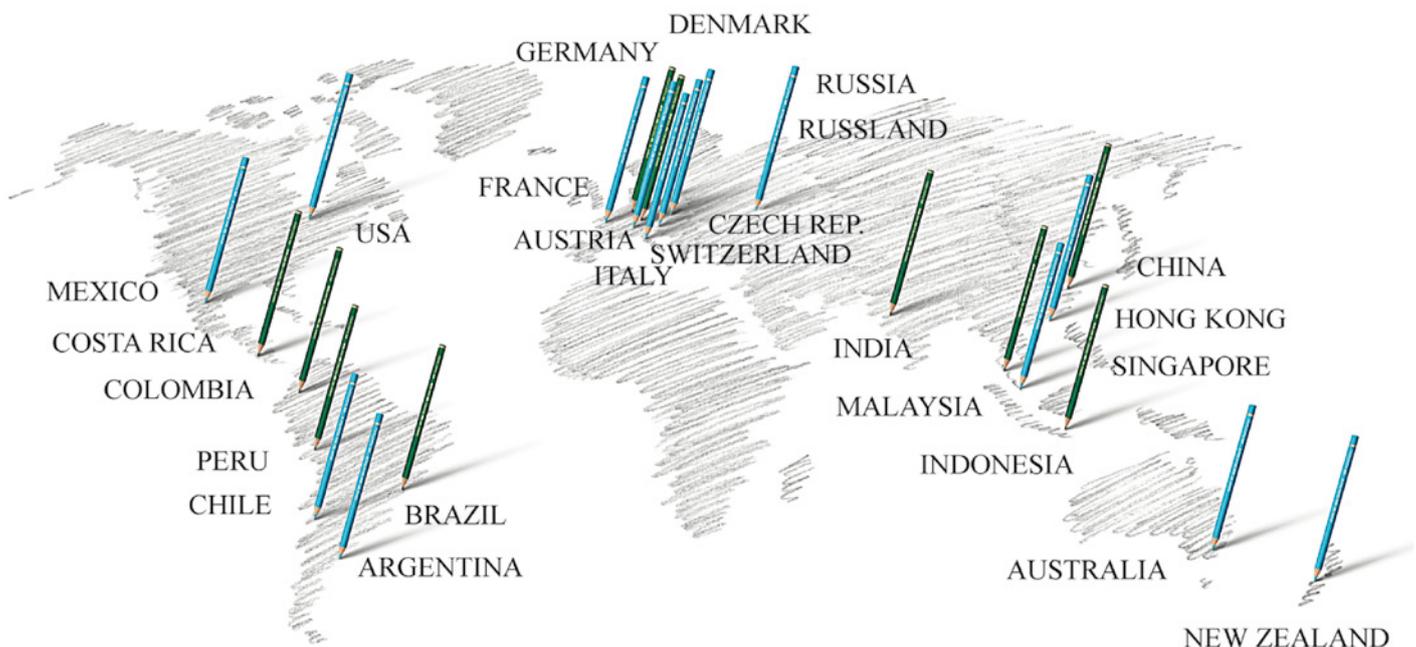
Headquarters: Stein, Germany
Major products: High quality writing and drawing implements
Further information: www.faber-castell.de

The Faber-Castell Group is one of the oldest industrial companies and family-owned businesses in the world. The story began in 1761, when cabinetmaker Kaspar Faber started manufacturing pencils at Stein near Nuremberg, and in so doing laid the foundations for the company of today. Now, under the management of Count Anton Wolfgang von Faber-Castell, it has been a family firm for eight generations and is one of the long-established companies not only to remain in family ownership, but also to be managed by a member of the family. Faber-Castell operates 15 production sites in 10 different countries and the Faber-Castell products are marketed in over 120 countries by a network of 24 sales companies.

Challenges and How Faber-Castell Takes Responsibility

A significant pillar of Faber-Castell's corporate philosophy is the social and ecological responsibility towards humans and the environment. The protection of biodiversity and the preservation of natural resources are important for securing Faber-Castell's long-term subsistence. In 2008, Count Faber-Castell assumed responsibility and signed the Leadership Declaration of the 'Biodiversity in Good Company' Initiative with the objectives to which the company committed itself.

"You do not have to be a visionary to understand that it is of the utmost importance for future generations to assure the resources for their living." Count Anton Wolfgang von Faber-Castell



Synopsis of the Faber-Castell production sites and sales companies worldwide
■ Production sites ■ Sales companies without production



Fields of Action

- Sites and facilities
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Best Practice: Reforestation Project in Brazil

The Issue

Ensuring a secure and planet-friendly supply of wood resources is a strategically important objective and one of the biggest future challenges facing the company. The reforestation projects have an important advantage for Faber-Castell for a sustained wood supply. This fact fits very well with the increasing environmental awareness of its consumers.

The Response

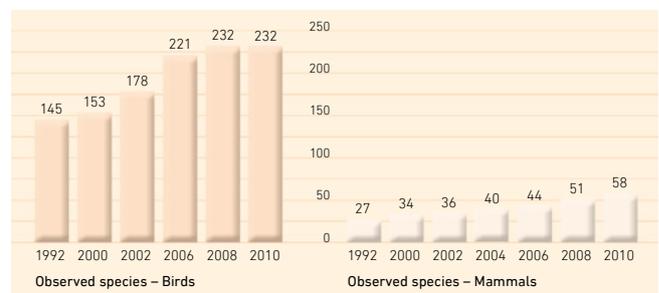
Almost three decades ago, Faber-Castell initiated a unique wood supply programme in Prata, in the state of Minas Gerais in south-eastern Brazil. Approximately 10,000 hectares of wasteland, over 2,000 km away from the Amazonian rainforest, were planted with millions of seedlings of *Pinus caribaea* – a tree species that flourishes in the dry, sandy soil of the Brazilian savannah. In this way, Faber-Castell grows about 20 cubic metres of wood every hour.

Furthermore, Faber-Castell has partnered with respected universities for its "Animalis" project that involves documenting, protecting and diversifying the range of species living in the Brazilian forests.



The Results

The 10,000 hectares of forest not only supply wood, they also help to protect ecosystems and biodiversity. Within the plantations, about 2,700 hectares have been left wild to provide habitats for a large number of animal and plant species, many of which are threatened with extinction. Video footage reveals that the 2,700 untouched hectares are home to about 232 bird species and 58 types of mammal, and that biodiversity has increased continuously since records began in 1992. Thirteen of the 504 recorded species are threatened with extinction – a discovery that makes the project one of national importance. With this project, Faber-Castell can ensure a secure and sustainable supply of wood resources.



In 1999, the Forest Stewardship Council awarded Faber-Castell's wood plantations in Brazil the FSC Forest Management certification for environmental, socially responsible and economically sustainable forest management. To ensure complete traceability from seedling to the packaged pencil, all Faber-Castell sawmills, production sites and sales organisations have been certified with the FSC-Chain of Custody certification. Ninety-five percent of all wood used by the Faber-Castell Group is now certified in line with the stringent requirements of the FSC.

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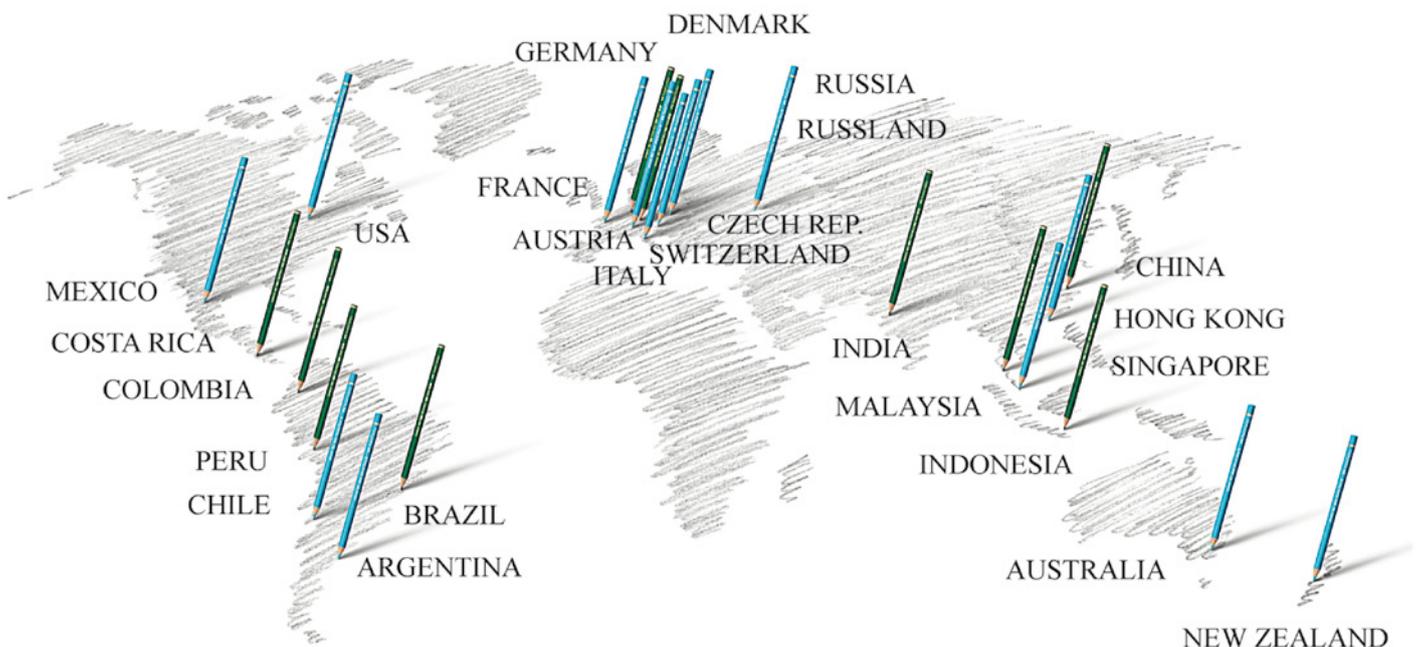
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Best Practice: Sustainable Forestation Project in Colombia



The Issue

Ensuring a secure and planet-friendly supply of the resource wood is a strategically important objective and one of the biggest future challenges facing the company. The reforestation projects have an important advantage for Faber-Castell for a sustained wood supply, a fact that fits in very well with the increasing environmental awareness of the consumers.

For Count Anton Wolfgang von Faber-Castell the new forestation project in Colombia is exemplary and not just from an ecological point of view. "I am very pleased that we can offer the farmers long-term prospects and create jobs in a region marked by severe unemployment", he says.

The Response

In the north of Colombia, in the El Magdalena region where the land has been spoiled by excessive animal husbandry, 67 farmers are currently planting and looking after 1,561 hectares of woodland as a source of timber for Faber-Castell. These farmers provided part of their land that had previously been mainly used for grazing cattle for timber use. Today, they receive an assured monthly income in return for taking care of the trees. The species planted is Gmelina arborea,

commonly known as "Melina", a quick-growing deciduous tree that originally came from Asia and is particularly suitable for making pencils. The trunks attain a girth of 20 to 25 cm after seven years. After felling, the farmers receive 30 % of the proceeds from the timber.

It is planned to extend the area of woodland to 3,000 hectares (30 km²) by 2014. The Faber-Castell forestry project is part of a large-scale restructuring programme in the municipalities along the Rio Magdalena that have been seriously affected by overgrazing and soil erosion.

The Results

Jean-Guérolé Cornet, a forest and climate expert at the Office Nationale des Forêts (ONF), a French state-owned concern, whose international subsidiary ONFI has been attempting to halt the progressive deforestation in Colombia since 2001, has confirmed the project is a unique approach to reforestation. "The municipalities along the Rio Magdalena were looking for a way out of the traditionally predominant cattle raising and its associated soil erosion that regularly leads to flooding and crop failures", he said.

The forestry project was one of the first to be registered by the UN "Clean Development Mechanism" programme (CDM) for environmentally compatible developments. The certification will entitle it to deal in emission certificates, as foreseen by the Kyoto Protocol to reduce world-wide emissions of carbon dioxide. Those are currently estimated by experts to be 33.5 thousand million tons of CO₂ annually, which if continued in the long term will lead to global warming of at least 6 degrees Celsius – with disastrous consequences for the Earth and its biodiversity. Starting in 2012, Faber-Castell is expected to become the world's first private corporation authorized to deal in CO₂ certificates from managed forests.

Company Profile

Headquarters: Bonn, Germany
Major products: Forest direct investments
Further information: www.forestfinance.de

The ForestFinance Group, with subsidiary companies in Germany, Panama, Vietnam, Peru and Colombia, disposes of many years of experience in the development of forest investments. The ideal symbiosis of profitable investments and ecologically meaningful activities is the underlying concept of all ForestFinance Group products. ForestFinance offers a variety of investment products, all related to reforestation and sustainable forest management. To date, more than 10,000 customers in Germany alone have placed their trust in ForestFinance's investment products and the company manages forest investments worth more than € 35 million. These investments amount to over 16,000 hectares of forest in Panama, Vietnam, Peru and Colombia.

ForestFinance's employees in its head offices in Bonn, Germany and Panama City, Panama are mainly responsible for customer service and contract handling. In addition, there are several hundred forest workers occupied with the afforestation and maintenance of the ForestFinance forests.

Challenges and How ForestFinance Takes Responsibility

One of the best ways to put a stop to the loss of plant and animal species and to fight climate change is to re-forest fallow land to restore ecosystems and habitats. However, simply planting trees is not enough. Monocultures destroy the hydrological balance and are no kind of forest at all. By contrast, sustainably managed forests have a direct, positive effect on biodiversity. Sustainable forest management means for example that plantations must consist of native tree species planted in mixed cultures, and that existing forest remnants are preserved. ForestFinance adheres to these principles, creating permanent, near-natural forests on formerly depleted grassland that provide new living space for many animals and plants.



Fields of Action

- Sites and facilities
- Supply chains, commodities and materials
- Product
- Production and manufacturing processes
- Transport and logistics
- Personnel



Best Practice: ForestFinance Forests

The Issue

Once primary forests and rainforests have been clear-cut they are irrecoverable and the habitats of numerous species are lost forever. Therefore, the few still-existing rainforests must be rigorously protected and new forests have to be planted. The production of certified, sustainably produced timber can take some of the trade pressure from primary forests and at the same time create new living space for endangered animals. However, timber plantations do not always benefit nature. Monocultures do more damage than good to the soil and biodiversity. This is why ForestFinance plants mixed forests and manages them in a sustainable way.

The Response

As a company engaged in forestry, ForestFinance adheres to strict ecological principles, planting and managing mixed forests consisting mainly of native tree species on fallow and pasture land. Sustainable forest management means that shrubs and other vegetation are not generally cut and that only selected trees are harvested without resorting to clear cuts. In this way, permanent, near-natural forests are created on formerly depleted grassland which provides new living space for many animals and plants and improves the overall soil quality. More than 15% of ForestFinance areas become natural reserves. Together with the reforested former pasture land, they form stepping stones for the recovery of many rare animal and plant species.

The Results

Studies from such institutes as the Technical University of Munich and the University of Panama have proven the positive influence of the ForestFinance forests on biodiversity. Scientists from these universities have identified ten plant species from Panama's Red List, amongst them eight orchids, in one of the oldest ForestFinance forests, the finca Los Monos. Among the observed animal species were fifteen Red List species, including an endangered monkey.

However, sustainable forest management also offers economic advantages. Mixed forests are less vulnerable to pests and diseases than monocultures. As a result, little or no pesticides are required in mixed forest cultures.

Moreover, investments in sustainably managed mixed forests provide additional benefits for investors: mixed forest cultures consisting of a great variety of different tree species can be handled more flexibly when it comes to selling timber on the market.



Company Profile

Headquarters: Tokyo, Japan
Major products: Manufacturing/sales of communication systems, information processing systems, and provision of related services
Further information: www.fujitsu.com

Fujitsu Limited operates in the ICT field. Alongside the provision of various services. Fujitsu is also involved in a total solution business that comprehensively provides development, manufacturing, and sales through to maintenance of cutting edge, high performance and high quality products and electronic devices.

Challenges and How Fujitsu Takes Responsibility

The human living environment functions precisely because of the blessings bestowed upon us by the Earth. Together with food and wood, nature fulfills untold functions for humans such as climate adjustment, water purification, and recreation. Recently, as the ecosystems on Earth deteriorate, the

protection of biodiversity has become a pressing topic in attempts to enable the sustainable provision of ecosystem services.

In addition to natural resources and energy, corporate activities are sustained by ecosystem services that form the basis of our society. In order to ensure the foundation of society is stable and continue corporate activities, it is necessary to make efforts towards the protection of the biodiversity that provides these ecosystem services in addition to reducing the burden on the environment.

In light of this situation, biodiversity protection has been raised as one of the targets in the mid-term environmental vision "Green Policy 2020" unveiled in July 2008 with the aim of promoting specific measures by 2020 for all targets set in the Leadership Declaration of the 'Biodiversity in Good Company' Initiative signed at the conclusion meeting of the 9th Convention on Biological Diversity. In addition to this and as an ICT company, Fujitsu is making use of its technology to proactively contribute to biodiversity preservation.



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Best Practice: KANTAN HEP for Facility Ecosystem Evaluation

The Issue

Ecosystems in urban areas are gradually deteriorating. When considering biodiversity protection activities for facilities in suburban areas, it is necessary to consider what action the facility should take from a regional ecosystem network point of view, including the area around the facility. In order to do this, it is necessary to regularly evaluate the state of the ecosystem in which the facility is located as well as the surrounding area. The Habitat Evaluation Procedure (HEP) is an example of a method for evaluating the ecosystems in an area. A high level of expert knowledge is needed for its application.

The Response

In order to construct an ecosystem network as a scheme for the improvement of ecosystems in urban areas, Fujitsu developed "KANTAN HEP" in collaboration with Professor Akira Tanaka of Tokyo City University (a leading authority in HEP research in Japan) and FUJITSU FIP CORPORATION as a method for evaluation. KANTAN means *easy* and *quick* in Japanese. This method uses a check sheet called a Habitat Suitable Index (HSI) sheet and, by recording the current state of an ecosystem in a given place on this check sheet, it aids in developing protection measures. This method is comprised of the steps listed below.

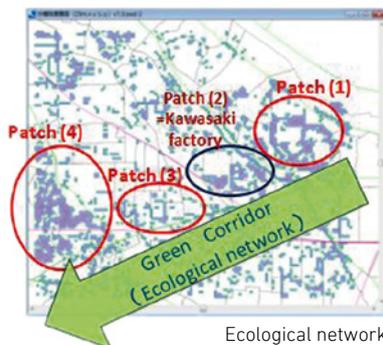
- I. Understanding the current state with a ground plan and flora map, etc.
- II. Establishing an objective for the grounds of the facility
- III. Selecting species that should be protected
- IV. Evaluating ecosystem network with the surrounding area
- V. Evaluating the facility grounds for adequacy as a habitat
- VI. Completing an overall evaluation

The Results

This "KANTAN HEP" has been applied to Fujitsu plants in Kawasaki, Numazu, and Kumagaya. As evaluation markers for wild species that should be protected at site facilities, the Japanese Tit, the Chinese mantis, and the Kingfisher have been selected and fixed volume evaluation performed with the HSI sheet. The evaluation results show how livable the woodland areas surrounding the facilities are. As a result, to evaluate (0.00 = poorly habitable – 1.00 = highly habitable) woodland livability on facility grounds for the Japanese Tit as an example, the Kawasaki plant scored 0.371, the Numazu plant scored 0.931, and Kumagaya scored 0.0.

| No. | Habitat factor | Check | Score |
|-----|---|-------|-------|
| V1 | Living situations of butterflies and bees that are the main food | | |
| a | Neither the butterfly, the moth nor the bee have been seen. | | 0 |
| b | Butterfly, moth and bee's imagos have been seen within one year. | ✓ | 0.2 |
| c | Butterfly, moth and bee's larvae and chrysalises have been seen within one year. | | 0.2 |
| d | Butterfly, moth and bee's imagos were seen in this investigation. | | 0.2 |
| e | Butterfly, moth and bee's larvae and chrysalises were seen in this investigation. | ✓ | 0.2 |

These values mean the Numazu plant offers a very livable environment for the Japanese Tit compared to the Kawasaki plant and the Kumagaya plant. At the Kumagaya plant the score for water places was also low. Therefore, the establishment of bodies of water can henceforth be considered to be a measure for protection. By applying this method in this way, it will be useful for biodiversity protection activities on facility premises, and it can also be useful for investigating specific measures for structuring regional ecosystem networks in cooperation with governments, NPOs, and other companies.



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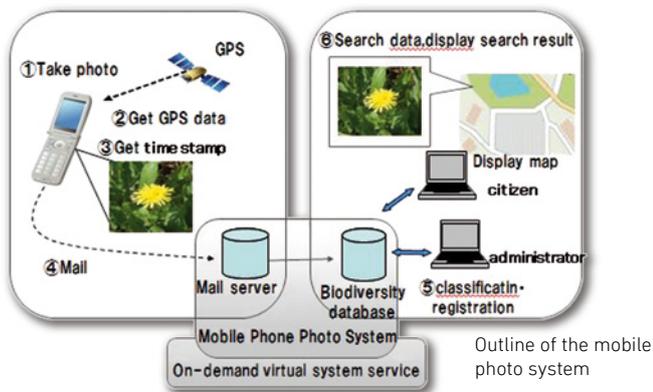
Fields of Action

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- **Product**
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Best Practice: Mobile Phone Photo System that Supports Citizen Participation in Ecosystem Studies

The Issue

A method for surveying an ecosystem exists, where the time and place that species are found are recorded on a mesh diagram and then mapped. Such a survey system demands expert knowledge, positional accuracy, and a massive number of man-hours to survey a large area. Many problems arise when attempting large-scale surveys as expertise is often limited, location mapping is weak and manpower is expensive. On top of this, general interest in the protection of biodiversity is often low. Therefore a new system for mapping and increasing awareness in society is required.



The Response

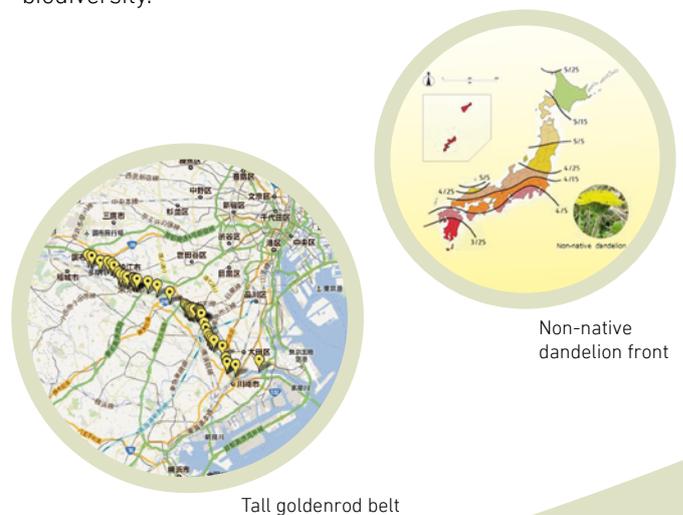
In order to solve this problem, Fujitsu developed a photo system for mobile phones. This system uses photos taken of animals or plants on a mobile phone that has a camera and GPS function and sends the photos with positional data and time information to a specified address by email. In the text of the email, a comment about the species can be entered. The mail is automatically forwarded to a species information database. A mobile system administrator confirms the species data, identifies it, and then registers it as published information. Published information can then be browsed in map or list form. It also specifies conditions regarding time and place of the plant or animal.

Mikio Watanabe, a researcher working on dandelions at Aichi University of Education, collaborated with this mobile photo system and used the information collected by city residents from across the Japan for a survey of dandelion distribution. Fujitsu's Kawasaki plant also cooperated with Kawasaki City and assisted with the Tamagawa river vegetation survey performed by an NPO.

The Results

In the national survey of dandelion distribution, data from over ten thousand dandelion areas was gathered from Okinawa in the south to Hokkaido in the north. As a result of this, a map was successfully created that showed indigenous dandelions and foreign naturalized dandelions, as well as the front line of the "Shirobana" dandelion that is said to be advancing northwards due to the effects of climate change.

In the Tamagawa river vegetation survey, three surveys were performed in the spring, summer, and fall of 2011. As a result, it was revealed that the Japanese radish, which prefers brackish-water regions, was distributed downstream, and the naturalized Canada goldenrod could be found over a region that extends from downstream to upstream. In addition to the streamlining of the ecosystem survey, the photo system enabled citizens to easily take part in the survey and the results of the survey to be checked on the Internet. It can be said that it has contributed to raising people's awareness and interest in the protection of biodiversity.



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Further information: www.fujitsu.com

Fujitsu Limited operates in the ICT field. Alongside the provision of various services. Fujitsu is also involved in a total solution business that comprehensively provides development, manufacturing, and sales through to maintenance of cutting edge, high performance and high quality products and electronic devices.

Challenges and How Fujitsu Takes Responsibility

The human living environment functions precisely because of the blessings bestowed upon us by the Earth. Together with food and wood, nature fulfills untold functions for humans such as climate adjustment, water purification, and recreation. Recently, as the ecosystems on Earth deteriorate, the

protection of biodiversity has become a pressing topic in attempts to enable the sustainable provision of ecosystem services.

In addition to natural resources and energy, corporate activities are sustained by ecosystem services that form the basis of our society. In order to ensure the foundation of society is stable and continue corporate activities, it is necessary to make efforts towards the protection of the biodiversity that provides these ecosystem services in addition to reducing the burden on the environment.

In light of this situation, biodiversity protection has been raised as one of the targets in the mid-term environmental vision "Green Policy 2020" unveiled in July 2008 with the aim of promoting specific measures by 2020 for all targets set in the Leadership Declaration of the 'Biodiversity in Good Company' Initiative signed at the conclusion meeting of the 9th Convention on Biological Diversity. In addition to this and as an ICT company, Fujitsu is making use of its technology to proactively contribute to biodiversity preservation.



Fields of Action

- Sites and facilities
- Supply chains, commodities and materials
- Product
- Production and manufacturing processes
- Transport and logistics
- Personnel



Best Practice: Rainforest Regeneration Project and Eco-Tour Activities for the Study of Biodiversity (Malaysia Eco-Forest Park)

The Issue

It is said that a quarter of all species exist in rainforests, and as such they are extremely important and necessary ecosystems. 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, the challenge is to sensitize people about how the protection of biodiversity is possible.

The Response

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, a rainforest regeneration project has been underway in Sabah, Malaysian Borneo since 2002 called "Fujitsu Group Malaysia Eco-Forest Park" with support from the Sabah Forestry Development Authority.

Also, since 2010, Fujitsu has been implementing the "Biodiversity Eco-Tour". The "Fujitsu Group Malaysia Eco-Forest Park" has been used as a biodiversity educational environment for employees and their families. In this eco-forest park visitors receive tours, where they learn about the regeneration of rainforests and can observe oil palm fields and primary forest as well as orangutan protection efforts. They also learn about the dangers biodiversity faces on Borneo.

The Results

In total, 37,500 indigenous dipterocarpaceae trees have been planted in an area of 150 hectares in the Fujitsu Group Malaysia Eco-Forest Park. These trees have entered the seedling tree growth phase, and maintenance work, growth surveys, and surveys of wild fauna are being implemented. For these trees to grow from seedlings to maturity, it will take a long time. The number of people involved in this project extends to 1,190, including employees and local residents. So that the eco-forest park once again becomes a place where a variety of species live, Fujitsu will continue maintenance and providing support. The park will continue to be used as a place for environmental education with the aim of increasing understanding about rainforest regeneration among employees and stakeholders.



Company Profile

Headquarters: Eschborn, Germany
Major products: Capacity building for sustainable development
Further information: www.giz.de/en

The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH operates in more than 130 countries worldwide. In Germany, GIZ maintains a presence in nearly all the federal states. Its registered offices are in Bonn and Eschborn. The services delivered by GIZ draw on a wealth of regional and technical expertise and tried and tested management know-how.

On 1 January 2011, the GIZ was established by combining the long-standing expertise of the German Development Service (DED), the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH and InWEnt – Capacity Building International. As a federally owned enterprise, GIZ supports the German Federal Government in achieving its objectives in the field of international cooperation for sustainable development. GIZ is also engaged in international education activities around the globe.

Challenges and How GIZ Takes Responsibility

The protection and promotion of biodiversity is of great importance for GIZ facilities in Germany and as part of its counseling services alike.

Biodiversity is the source of many products and services used by society. Millions of rural people depend on biodiversity for food, medicine, income, ecosystem services and cultural and spiritual needs. Currently, biodiversity provides essential inputs for diverse industries such as food, cosmetics and pharmaceuticals, among others. Market interest and demand for biodiversity products is growing, giving a comparative advantage to biodiversity-rich countries such as Ecuador. Therefore, GIZ is supporting efforts to implement sustainable management and protection of biological diversity on a local and an international level.

Best Practice: Raw Cocoa from Ecuador

Fields of Action

- Sites and facilities
- Supply chains, commodities and materials
- Product
- Production and manufacturing processes
- Transport and logistics
- Personnel

The Issue

Ecuador is one of 17 megadiverse countries in the world and has a large tradition in the production of cocoa beans. Ecuador's unique cocoa variety, known internationally as "Cacao Nacional" or Cacao "Arriba", is recognized by the industry for its outstanding organoleptic characteristics. Traditionally, cocoa is cultivated mainly by small holders, as for instance the Kichwas in the Amazon region of Ecuador. Gathered by a series of middlemen, the fermented and dried beans find their way to ports on the Pacific Coast.

Kichwas cultivate cocoa in traditional production systems called "chakras". This is not only an ancient practice, but is also an important support system used to maintain and enrich the local biodiversity. The problem is, such production systems do not allow a volume intensive production. Therefore, the Kichwa community has to find a market that recognizes the effort towards conservation of the natural resources and the maintenance of biodiversity.





The Response

To confront this challenge the GIZ supports income-increasing initiatives for the local population as measures towards enabling a sustainable use of biodiversity. The concept of value chain promotion "ValueLinks" has been specifically introduced in this region. This strategy is designed to improve the income of small-scale farmers and to ensure a more sustainable management of natural resources. The first step is to analyse the value chain and for all participants to agree on an upgrading strategy. This includes measures such as productivity increases, the introduction of quality standards and general quality enhancement, development of services, improvements to the legal framework and market access. An intervention strategy is then implemented in agreement with different value chain actors such as a local farmer's association, as well as with cocoa buyers and manufacturers. It is also carried out in collaboration with public partners like ministries, trade offices and other interested parties.

In the Amazon Region of Ecuador, GIZ began its support for the Kichwa organization KALLARI in 2005 after identifying a market opportunity for its raw cocoa production. The Swiss chocolate manufacturer Max Felchlin AG was interested in buying a relatively small amount of very good, fermented and dried cocoa beans. Therefore, GIZ supported the organization with training and technical assistance towards the improvement of their collection, fermentation and drying skills. Furthermore, GIZ supported the communication and marketing of KALLARI with the future buyer. In the years that followed, GIZ continued its technical assistance (e.g. in productivity and organic certification) by integrating other partners to support the initiative. A complete marketing



Raw cocoa,
Ecuador

strategy for the cocoa beans was developed and linked to the final chocolate products. Since 2008, the "Rio Napo" chocolate bar has been available on the German market. Today, GIZ continues support to the value chain through enhancing the communication among interested partners and providing assistance to the producers and final sellers. It facilitates the project by monitoring specific attributes related to cocoa, such as the promotion of the chakra production system and the conservation of the tropical forest.

The Results

The Kichwa initiative is only an example of the approach applied by GIZ in order to improve incomes of small cocoa producers using sustainable production methods. KALLARI now has more than 1,200 members, and they profit from a long-term market agreement with a Swiss chocolate manufacturer, whose market demands high-end, quality chocolate and is willing to pay a premium price for exclusive cocoa produced in ancestral production systems by Kichwa families living in the tropical rainforest. These families have been able to increase their income from cocoa by more than 65 % since 2006, when they first started exporting cocoa.

Between 2002 and 2012 GIZ has supported more than 25,000 small farmers in Ecuador with various products to access markets and increase their incomes while protecting the regional biodiversity. More than 10,000 hectares of cultivated area (with coffee, cocoa, and tropical fruits) are being produced under sustainable systems.

Company Profile

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Challenges and How GIZ Takes Responsibility

Conserving the diversity of ecosystems, genes, and plant and animal species is one of the major challenges worldwide. GIZ helps its partner countries implement the objectives of the Convention on Biological Diversity. To this end sustainable strategies for the conservation of biodiversity must be developed, which promote economic development without endangering biological diversity.

GIZ wants to implement this aim in its own company as well. Therefore, GIZ takes environmental and biodiversity aspects into account for its facility management, staff restaurants and procurement.



Solar Geyser at
GIZ Office in Pakistan



Fields of Action

- Sites and facilities
- Supply chains, commodities and materials
- Product
- Production and manufacturing processes
- Transport and logistics
- Personnel



Best Practice: GIZ Environmental Strategy

The Issue

The protection and promotion of biodiversity is of great importance for GIZ facilities in Germany and as part of the GIZ counseling services alike. In 2010 the energy consumption in the German GIZ offices amounted to 22,000 MWh. In addition, the staff had a paper consumption of about 15 million sheets and travelled 62 million miles on business trips through flying alone. Both have a great impact on biodiversity. Mobility (commuters and business trips) and energy consumption are the main environmental impacts of office operations. The climate impact caused hereby has an indirect influence on biodiversity. Whereas the canteen, paper consumption and furniture as well as the facility management can have a direct impact on biodiversity.

The Response

The GIZ has developed a strategy for carbon neutrality in order to keep the direct environmental impacts as low as possible. Avoidance (e.g. energy efficiency), substitution (use of renewable energies) and compensation through its own Gold Standard CDM project are the essential elements of this strategy.

As an administrative operation the GIZ has developed a location-related environmental concept. The Environmental Strategy includes, amongst others, the procurement of office supplies, the procurement of furniture, the cafeteria and maintenance of outdoor facilities.

The Results

The GIZ Environmental Strategy has already resulted in some positive outcomes.

Only FSC-certified office furniture is used in the GIZ. In addition, the paper used in its offices is from recycled paper certified with the Blue Angel (a German certification for products and services that have environmentally friendly aspects) or labeled by the Forest Stewardship Council (FSC). In its canteens, the GIZ ensures agricultural biodiversity by offering regional and seasonal dishes as well as a selection of traditional crop varieties.

For outdoor installations, GIZ has developed a concept that foresees implementing a programme of planting native trees, establishing beehives and utilising urban gardening practiced by employees. This allows the employees to take matters into their own hands and actively customize their surroundings to suit personal preferences by planting seeds brought from home.

Also, at major events it is important to pay attention to environmental impact and especially biodiversity aspects. When considering the Eschborn Dialogue in 2011 for example, the external catering was chosen according to the GIZ internal food standards and the emissions caused by the arrival of guests were compensated by climate certificates from a Ugandan forest project.

Supporting the abovementioned Ugandan reforestation project offsets emissions by combining climate, environmental and social benefits and by serving as an example for sustainable development in the heart of East Africa. To protect rare species and regenerate natural habitats the project has set aside over 20% of its area for conservation purposes. Animals such as antelopes, monkeys and countless bird species have found a refuge there. It also provides timber for local markets, thereby playing a role in reducing illegal cross-border logging activities in natural forest areas in Uganda, Congo and Sudan.

HEIDELBERGCEMENT

Company Profile

Headquarters: Heidelberg, Germany
Major products: Building materials
(aggregates, cement and concrete)
Further information: www.heidelbergcement.com

In more than 40 countries across the world, the name HeidelbergCement stands for competency and quality. Heidelberg Cement is the global market leader in aggregates and a prominent player in the fields of cement, concrete, and other downstream activities, making it one of the world's largest manufacturers of building materials. In 2011, Group revenue amounted to €12.9 billion. Around 52,500 employees in more than 2,500 locations make sure that HeidelbergCement's slogan "for better building" is brought to life.

Challenges and How HeidelbergCement Takes Responsibility

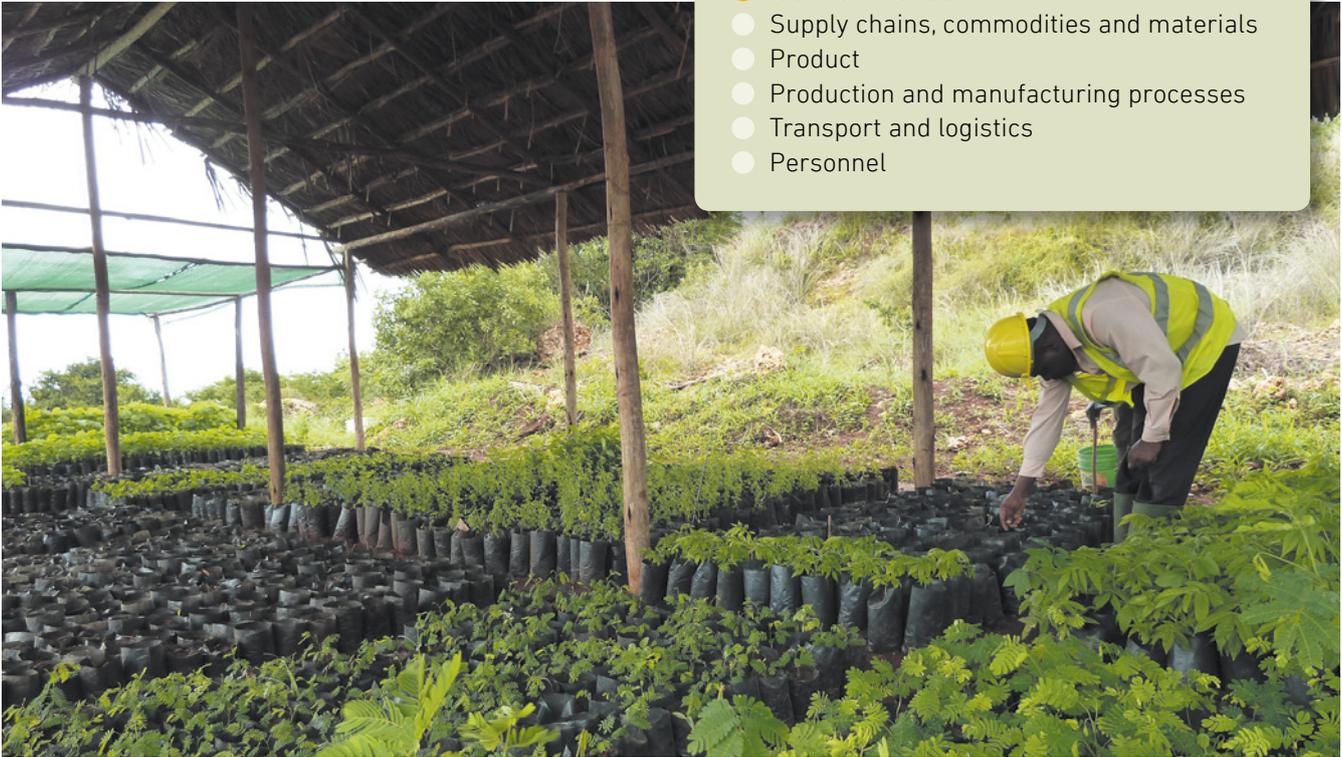
Quarries and gravel pits completely transform the existing landscape, destroy local habitats and alter the morphology of the surrounding area. Therefore, HeidelbergCement develops feasible approaches for minimising its interventions and offsetting subsequent consequences. Moreover, the Group adheres to a complex permit process before it opens a new quarry or expands an existing one. This process includes an environmental impact assessment and specialised biodiversity studies.

HeidelbergCement's business operations are based on having long-term local access to mineral raw materials. Therefore, the Group views the proper securing of raw materials as a central strategic task, and places great value on long-term planning, sustainable quarrying and subsequent utilisation of extraction sites. This is its license to operate.



Fields of Action

- Sites and facilities
- Supply chains, commodities and materials
- Product
- Production and manufacturing processes
- Transport and logistics
- Personnel



Best Practice: Sustainable Land Management

The Issue

Deforestation and mismanagement of land is a very serious challenge for the Dar es Salaam region in Tanzania, Africa. Dar es Salaam is Tanzania's commercial hub and one of the fastest growing cities in the country. The majority of inhabitants depend largely on charcoal as the primary source of household energy. Surrounding forests have been nearly destroyed by this activity and reforestation and recultivation have not yet become a priority.

The Response

In order to promote sustainable land management around the mining sites of its subsidiary Tanzania Portland Cement Company (TPCC) in the region of Dar es Salaam, HeidelbergCement initiated a Public Private Partnership project together with the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). The establishment of a tree nursery in the former quarry is at the centre of the project. It produces plant material for rehabilitation of the old extraction site, which currently covers approximately 73 hectares.

The project started in October 2010 within the framework of the German program for development partnerships (develoPPP.de), where the GIZ and private companies jointly design, finance and implement projects that benefit all parties involved.

The Results

The tree nursery is run by local staff and supports the creation of an urban forest in the periphery of Dar es Salaam, serving for future production of fire wood and lumber, as well as recreational purposes.

Additional foresting contributes to the reduction of surface erosion and the formation of new ground water. Furthermore, trees are being distributed to smaller settlements near the cement plant, in order to promote the greening of the landscape. Seed and seedlings are sold, for instance, to other companies. The tree nursery will have produced 100,000 plants and sold 50,000 seedlings by 2013; 50,000 trees will have been planted in the new urban forest by 2013 as well.

In the future, both the new urban forest and the surrounding areas of the extraction site will serve as nature parks for education or recreation, as a habitat for endangered fauna and flora and as an example of sustainable land management. Parts can also be used for sustainable cultivation and production of firewood and lumber.

In order to ensure the transfer of knowledge about sustainable land management and quarry rehabilitation, workshops and training sessions on sustainable land-use are offered for stakeholders such as universities, schools, NGOs as well as national and local authorities.



Das Beste aus der Natur.
Das Beste für die Natur.

Company Profile

Headquarters: Pfaffenhofen, Germany
Major products: Baby food, baby care products
Further information: www.hipp.de

For more than 50 years, HiPP has been producing organic baby foods of top quality. HiPP suppliers comply with stringent guidelines, many of which by far exceed the statutory requirements for organic produce. As an 'organic pioneer', HiPP has been setting the trend since as far back as the 1950's, at a time when organic was still largely unheard-of and crops were grown with a heavy use of chemicals. HiPP went against the flow, thus setting totally new standards in baby food. The roots of HiPP's success lie in its high quality and safety requirements. The company's mission, "To produce top-quality healthy foods in harmony with nature", guarantees the highest purity possible and a zero-tolerance approach to pollutant residues. In addition, its organic seal testifies to ecological production. Production at the Pfaffenhofen plant is entirely carbon-neutral.

Challenges and How HiPP Takes Responsibility

As a leading baby food producer, HiPP is particularly committed to its responsibility towards future generations. Finding a balance between sustainable use and the protection of biodiversity is a key task of HiPP's environmental management. HiPP has been involved in the 'Biodiversity in Good Company' Initiative from the outset, aiming to make a dedicated contribution to the protection of biodiversity, not only within the company itself but also involving the public by promoting open dialogue between business, politics and society. HiPP's key goal is ecological and sustainable business management. It has set up a company biodiversity project, a model production operation – supported by scientists and NGOs – designed to show suppliers how to integrate biodiversity protection into their daily farming routine.



Insect house at HiPP's farm in Pfaffenhofen



Wild flowers at HiPP's farm in Pfaffenhofen



Prof. Claus Hipp at tree-planting event in Pfaffenhofen

Birdhouse at HiPP's farm in Pfaffenhofen



Fields of Action

- Sites and facilities
- Supply chains, commodities and materials
- Product
- Production and manufacturing processes
- Transport and logistics
- Personnel



Greening HiPP's farmhouse facade in Pfaffenhofen

Best Practice: HiPP's Biodiversity Programme for Food Producers

The Issue

To promote biodiversity, sustainability, environmental protection and economic success equally, competitiveness and ecology must be compatible. As an ecologically oriented company, HiPP advocates better framework conditions for implementing a sustainable business and environmental policy based on free will and personal responsibility, flexibility for the involved companies, efficiency and practicability.

Until now, biodiversity protection has primarily been a matter left to state authorities and nature conservation organisations. German companies still give this issue little attention. HiPP therefore aims to take a pioneering role and develop a biodiversity management system to achieve goals including the ambitious establishment of a model manufacturing operation designed to show suppliers how to integrate biodiversity protection into their daily farming routine.

The Response

In line with HiPP's corporate philosophy, environmental protection, sustainable business management and the preservation of biodiversity are core parts of its corporate mission. In addition to recent achievements, its further goals include developing a paradigmatic biodiversity programme for food producers. HiPP is also working with the Association of Ecological Food Producers (AoEL) on a project to define entrepreneurial indicators to preserve biodiversity. To stop

the widespread use of genetic engineering, a growing threat in every way, HiPP has promoted the school edition of "Leben außer Kontrolle" (Life out of Control) which the Bayerische Lehrerverband e.V. (Bavarian teachers' association), the Bund Naturschutz in Bayern (BN, Bavarian Nature Preservation Association) and Bund Umwelt- und Naturschutz Deutschland (BUND, German Environmental and Nature Protection Association) can use to inform students about agro-genetic engineering. HiPP views it as a special duty to prevent the extreme loss of species and varieties caused by genetic engineering and its dramatic impacts on biodiversity.

The Results

The HiPP paradigmatic biodiversity programme is supervised by scientists and NGOs and will deliver long-term consolidated findings for growers and food producers on protecting biodiversity in farming. HiPP also continues to promote biodiversity by acting to protect the two most endangered habitats in the world: the tropical rain forests against deforestation and the seas against overfishing. For this reason HiPP exclusively uses paper and packaging from recycling paper (2008 award as "Germany's most eco-friendly office") and, where possible, sources fish for production and company canteens from organic or MSC-certified stocks. HiPP's sustainability efforts for environmental protection and biodiversity have a high public profile and are very well received. The list of awards won by HiPP for its environmental commitment is correspondingly long.

Company Profile

Headquarters: McLean, USA
Major products: Petcare, chocolate, food
Further information: www.mars.com/global/home.htm

Mars, Incorporated is a private, family-owned company founded in 1911 and employing more than 65,000 associates at over 230 sites, including 135 factories, in 68 countries worldwide. Headquartered in McLean, Virginia, U.S.A., Mars, Incorporated is one of the world's largest food companies, generating global revenues of more than \$28 billion annually and operating in six business segments: Chocolate, Petcare, Wrigley Gum and Confections, Food, Drinks, and Symbioscience.

Challenges and How Mars Takes Responsibility

For Mars, biodiversity is a business imperative because ingredients such as cocoa used are only able to thrive long-term in a biologically diverse environment. Food and agricultural production methods have to take into account biodiversity. In the case of cocoa, Mars has responded to the loss of biodiversity and habitats by supporting initiatives that focus on the environmental, economic and social aspects of cocoa cultivation to secure responsible cocoa production and the future supply of the crop. The loss of ecosystems, species and genes threatens the sustainability of future business activities – Mars acknowledges this intrinsic connection and recognizes the importance of biodiversity and ecosystem services for its future operations.

Best Practice: The Case of Cocoa

Fields of Action

- Sites and facilities
- Supply chains, commodities and materials
- Product
- Production and manufacturing processes
- Transport and logistics
- Personnel

The Issue

Global warming may dominate headlines today – ecosystem degradation will do so tomorrow. Left unchecked, this degradation jeopardizes not just the world's biodiversity, but also its businesses. There are both economic and ethical reasons for including the topic of biodiversity into business operations. The global cocoa sector may suffer a future shortfall because of increasing economic and environmental pressures on cocoa farms around the world. Yet, the long-term business of Mars depends on a sustainable supply of high quality cocoa. While cocoa provides the key ingredient that sustains the chocolate industry, it provides also a living for over 6.5 million smallholder families and their communities and a significant source of revenue for a small number of tropical countries.

Only cocoa plants that grow in a species-rich environment are really productive – plants thrive better when tall palm trees cast shadow on them. What's more, plant biodiversity keeps the soil healthy and fertile. While a rich bio-diverse environment has a positive impact on cocoa farming, bio-diversity itself in the cocoa farming regions can be affected through numerous aspects, for example the expansion of cocoa plantations into highly bio-diverse adjacent regions and the use of non sustainable farming practices.





The Response

A combination of certification, research and technology transfer is the best tool to reach as many farmers as possible around the world and provide them with the material support, organization and market access that will enable them to be successful.

How Advanced Farming Methods Assist in the Protection of Biodiversity

Aging cocoa trees grown from inferior planting material combined with exhausted soils have caused a steady decline in the amount of cocoa many farmers are able to produce, and untreated pests and diseases, a lack of good agricultural practices and poor access to agricultural inputs like fertilizers have worsened the situation. If farming systems can be designed that are more resilient, the economic advantages of more sophisticated farming operations might be an incentive to change existing farming practices. Principles that might guide those farms feature both biological and genetic diversity and operate on biological synergies.

Biodiversity – Involving Local Populations

Most cocoa farmers are unable to make significant investments in their businesses in order to break this cycle of decline. In 2003, Mars launched a programme in Indonesia which has enabled cocoa farmers to more than double their yields and incomes. A steady increase of incomes decreases the pressure to farm on juvenile, often highly bio-diverse adjacent lands. This has been done by encouraging them to adopt 'good agricultural practices' – taking into account biodiversity considerations such as agroforestry approaches, and the use of high-yielding varieties. Crucial to the success of the project have been the institutional arrangements trialled and tested by Mars and the local farmers, first in Sulawesi, later in other parts of Indonesia. Farmers learn about new production techniques through demonstrations at the Mars Cocoa Development Centres, which in turn support a network of Village Cocoa Clinics. Such has been the success of the project in Indonesia that Mars decided to adopt a similar approach in Côte d'Ivoire, the world's largest cocoa producer, in collaboration with the World Agroforestry Centre. The Mars Vision for Change programme was launched in 2010. Mars believes that this unique public-private partnership will raise yields and quality, significantly improve the welfare of rural families and ensure that negative impacts on the biodiversity of adjacent lands be limited.

Investment in Agricultural Research – Technology Transfer

The transformative research Mars conducts assists farmers to increase their income through more productive agricultural practices and higher quality, more disease-resistant plants and thus decreasing the pressure on utilising lands, which has so far not been used for farming. Because Mars understands that it cannot succeed alone, collaboration between farmers, manufacturers, governments and NGOs is being supported. Mars collaborates with numerous organizations in the screening, breeding and selection of pest- and disease-resistant varieties. At the Mars Centre for Cocoa Science in Brazil, Mars focuses on creating best post-harvest practices, improving the quality and performance of cocoa plants and developing new methods to control pests and diseases. In 2010, Mars, IBM and the US Department of Agriculture completed a two-year effort to sequence the cocoa genome. This research will lead to more accurate breeding and allow farmers to plant better-quality trees that produce more cocoa and are more resistant to pests and disease. The genome was made public through the Public Intellectual Property Resource for Agriculture (PIPRA) and thus the gene sequence cannot be patented.

The Results

Mars has already joined the international 'Biodiversity in Good Company' Initiative in 2008 and has contributed to the CBD COP 10 in Nagoya in 2010. Furthermore, Mars was the first major chocolate manufacturer to pledge to buy 100% certified sustainable cocoa by 2020, the current certification partners are Rainforest Alliance, UTZ Certified "Good Inside," and Fairtrade International.

Mars has launched some of the first consumer products which took biodiversity considerations into account, such as the Rainforest alliance certified Galaxy bars in the UK and the Utz Ballisto campaign in 2011, being among the major first consumer companies relating the issue of biodiversity directly to the consumers.



Company Profile

Headquarters: Tokyo, Japan
Major products: Urban redevelopment, real estate leasing and management, culture, art and town management
Further information: www.mori.co.jp/en

Established in 1959 as a general developer, Mori Building is involved in urban redevelopment, real estate leasing and management, and cultural, artistic, and town management businesses. Major redevelopment projects include Ark Hills, Roppongi Hills, and the Shanghai World Financial Center.

Challenges and How Mori Building Takes Responsibility

Mori Building focuses on the importance of biodiversity in the city, because it is aware of several issues including the fragility of nature in urban areas, the risk of urban disasters, and the needs of urban residents. It has been recognized, that the amount of nature in each greened area is not sufficient and of low quality. Therefore, the company began its activities in the conviction that biodiversity is the basis of a sustainable city.





Fields of Action

- Sites and facilities
- Supply chains, commodities and materials
- Product
- Production and manufacturing processes
- Transport and logistics
- Personnel

Vision in the sky | Gardens on the ground | Fun down unter

Best Practice: Contributing to Biodiversity in the City

The Issue

Mori Building promotes its project the "Vertical Garden City" as its ideal for urban development. This concept involves constructing high-rise buildings that provide the required urban functions while at the same time providing significant open space at the site to create a water and greenery surrounded urban area that coexists with nature. Not only is a large quantity of greenery provided, but biodiversity is also taken into consideration to create high-quality greenery, offering an environment where people can interact with a wide variety of organisms.

The Response

The ARK Hills Sengokuyama Mori Tower is an urban redevelopment project spanning 2 ha that was completed in August 2012. Based on the concept of "a life surrounded by nature in the heart of the city", Mori Building is aiming to build an appealing urban area that is very cosmopolitan and has abundant culture. It combines residential, retail, and business functions to a high standard. A central part of this project created a landscape that contributes to biodiversity by creating a forest where the Japanese pygmy woodpecker can live. Features of this landscape project are restoring the local ecosystem and improving the environment for organisms while creating a network with surrounding green areas.

The Results

The degree of contribution to biodiversity was measured using a quantitative evaluation method called "Japan Habitat

Evaluation and Certification Program" (JHEP) developed by a Japanese NGO, "Ecosystem Conservation Society-Japan". Applying this method, Mori Building received the highest ranking of 'AAA' for its project. The landscape around the Japanese pygmy woodpecker has improved the "livability for animals" and the "characteristics of local nature" by contributing to a better biodiversity in the area. Mori Building was the first company in Japan to receive the highest ranking 'AAA' evaluation. This is part of Mori Building's "City and Biodiversity" initiative and it paves the way for "urban greening" going forward.

Mori Building's approach has created an opportunity to think about the relationship between the city and biodiversity. This has generated concern and interest in biodiversity with redevelopment partners (landowners and the developer) and further had an impact on the activities of institutional investors and other private sector developers, general contractors, and others in terms of breadth and depth.

According to a survey by a financial institution, there has been a generally favorable reaction among office workers to working in an environment surrounded by abundant nature and filled with life. Mori Building thinks this is proof that the value of a natural environment in urban areas leads to improved real estate value, which contributes to attracting tenants and leads to many investors wanting to invest in such projects and to favorable investment conditions.

Company Profile

Headquarters: Munich, Germany
Major products: Publications, communications services
Further information: www.oekom.de

oekom verlag is the leading publisher for sustainability topics in German-speaking countries. Its eight journals, its rapidly growing booklist, its numerous brochures as well as its online media bring together more than 2,500 authors, cooperation partners and promoters of all groups of society. With its unique network and its professional team the publisher concentrates specialist know-how and potential in order to realize sustainable initiatives and ideas.

Challenges and How oekom verlag Takes Responsibility

According to its principle 'From Knowledge to Action', oekom has made it its business to lead by example with its own management practice. Its main focus lies hereby on the protection of biodiversity, supporting sustainable forest management and climate protection. As a leading innovator among publishing houses, oekom assures ecological production of all its publications. To further support its efforts in this area, oekom uses the 'Biodiversity in Good Company' Initiative as a resource to help it audit and optimize its environmental protection activities concerning the aspect of biodiversity conservation according to the Initiative's Leadership Declaration. oekom's Sustainability Representative, working side by side with the Business Management Department, is responsible for safeguarding sustainability and is in control of the impacts the oekom's business activities have on biodiversity.

Best Practice: Green Publishing – Use of Recycled and Forest Stewardship Council (FSC)-Certified Paper

Fields of Action

- Sites and facilities
- Supply chains, commodities and materials
- Product
- Production and manufacturing processes
- Transport and logistics
- Personnel

The Issue

As a company that relies on wood, oekom is aware of the fact that the depletion of tropical forests and climate change will irretrievably destroy the habitat of many animal and plant species. Thus, the publishing house has positioned itself in a pioneering role, stressing its concern of protecting biodiversity, not only within its own business but also by enhancing "Green Publishing" within the whole media industry.

Supply chains, commodities and materials are one important field of action. Products (e.g. e-books), production and manufacturing processes (e.g. recycling, printing processes and regional production chains) can be mentioned as another key aspect of "Green Publishing." Moreover, measures in regard to the field of personnel (e.g. office supplies, lodging and waste separation) have been established.





The Response

With its initiative "Green Publishing – New environmental standards for the media industry" („Nachhaltig Publizieren – Neue Umweltstandards für die Verlagsbranche“) advocated by the Federal Environment Ministry, oekom examines the media industry's whole supply chain – from paper production to the printed book – in order to identify potentials for ecologically sound production. It does this in cooperation with the Institute for Energy and Environmental Research Heidelberg (ifeu), the Institute for Ecological Economy Research (IÖW) and the Frankfurt Book Fair.

oekom regards its role in the dissemination of information as part of its sustainable management. Thus, the publisher has initiated this project to make the findings accessible to the whole publishing sector. Its focus lies hereby on the production of paper and the print processes, to find answers to the following questions: How is it possible to reduce the demand for paper? Is there any ecological alternative to paper made of virgin fiber? What are reliable labels for sustainable forest management and paper supply? Which ecological criteria should be considered for the print processes?

The Results

Within the publishing branch, oekom helps to set universal business standards in preserving the environment. The measures arranged as practical recommendations are located in the fields of paper, print, distribution and office management. Furthermore, communication within the media industry with regard to entrepreneurial responsibility

and in terms of environmental protection is a very important approach of "Green Publishing". oekom verlag's highest priority is purchasing recycled paper (if possible Blue Angel eco-labeled) and FSC-certified paper. Its publications are all locally printed by an FSC- and ISO-certified printing press. Being Germany's first climate neutral publishing house, oekom contributes actively to climate protection and therefore to the conservation of biological diversity by avoiding, reducing and compensating for harmful emissions.

The "Green Publishing" project has been met with positive reception in the industry. During the opening event at the Frankfurt Book Fair, oekom received much positive feedback. The project was invited to introduce itself and its (previous) results at several important media industry events: Media-Mundo, drupa2012, and the venerable conference of production managers in Irsee.

The results of the project are regularly discussed within different forums with a large audience of specialists and will be published by the end of 2012. Thus, the project contributes to sensitizing a branch with crucial impacts on the preservation of (primary) forests and thereby on the sustainment of biodiversity due to its high consumption of paper. The Federal Environment Ministry is planning to extend the project, in order to evaluate environmental impacts in the fields of distribution and logistics of publications. oekom is aware of its role as a pioneer in and disseminator for sustainable management within the media industry and therefore includes these results into the continuous revision of its environmental standards.



Company Profile

Headquarters: Hamburg, Germany
Major products: Multichannel retail, services,
financial services
Further information: www.ottogroup.com

The Otto Group, based in Hamburg, Germany, is a global corporate group of retailers and retail-related service providers with over 120 associated companies located in Europe, Asia and North America and more than 53,000 employees. The Group operates in the segments multichannel retail, financial services and services. Within the multichannel retail segment, e-commerce represents a major focus in the Group's growth strategy. To achieve its aims and secure its own future the Otto Group follows sustainable business practices. Responsibility towards people and nature is the foundation of its economic actions and therefore a leading philosophy of the Group's corporate vision.

Challenges and How the Otto Group Takes Responsibility

As a Group comprising of retailers and commercial service providers, biodiversity considerations – particularly in terms of product assortment and advertising materials – play a central role. Textiles are one of the most important product categories in the Otto Group. Accordingly, the consumption of resources such as cotton is high. Negative effects from conventional cotton production like single-crop farming and high levels of chemical use have an impact on biodiversity. In order to ensure long-term access to cotton the Otto Group has a stake in and an interest in conserving biodiversity and the sustainable use of its components. To improve the conservation of biodiversity, measurable and realistic aims were set as a part of the 2010–2013 CR Strategy. These measures apply particularly to the area of sustainable products (e.g. articles made from organic cotton, sustainable cotton or FSC-certified timber).

Due to the importance of cotton, the Otto Group continues its efforts in the area of sustainable cotton and addresses the issue with a strategic long-term approach. The goal is to phase out conventional cotton and replace it with sustainable cotton by 2020.



Fields of Action

- Sites and facilities
- Supply chains, commodities and materials
- Product
- Production and manufacturing processes
- Transport and logistics
- Personnel



Best Practice: 100 % Sustainable Cotton by 2020

The Issue

Conventional cotton production is associated with enormous negative effects on people and nature. Artificial fertilizer, pesticides and insufficient training of cotton farmers causes loss of soil fertility and soil salinization, water pollution, negative long-term effects on water balance as well as poisoning of people. And due to the tremendous water consumption in cotton production, scarcity of drinking water and soil desertification occur in cultivation areas. For these reasons biodiversity is threatened by the extensive farming of conventional cotton.

The Response

In order to reduce these negative effects the Otto Group focuses on two approaches for sustainable cotton supplies: organic cotton and African cotton from the Cotton-made-in-Africa Initiative (CmiA). Experiences show that these methods have been successful on a small scale. Sustainable cotton will continue to be an important issue and therefore the Otto Group's top management has decided to support these growing methods on a larger scale by using 100% sustainable cotton by 2020 for all Group associated companies with a relevant amount of cotton products. For the time being this applies only to Otto's private brands. In doing so, the Otto Group expects to achieve economies of scale and a reduction in price for sustainable cotton.

The utilisation of non-degradable chemical and synthetic pesticides, insecticides and fertilizers is prohibited in the cultivation of organic cotton. Likewise the use of genetically modified organisms is also not permitted. Organic cultivation respects annual crop rotation in the fields, pests may only be removed by natural methods and only organic fertilizer may be used. These measures avoid monocultures and protect biodiversity in cultivation areas.

The Results

The CmiA initiative of the Aid by Trade Foundation supports sustainable cotton production in Africa and thereby makes an important contribution to poverty reduction and environmental protection in Africa. Cotton farmers learn how to use modern, efficient growing methods, with awareness for pesticide use (i.e. using a minimum amount of pesticides). Additionally, rain fed cultivation and crop rotation are used.

Impacts on biodiversity that are connected with cotton production and therefore with the Otto Groups business activities shall be reduced by striving towards 100% sustainable cotton by 2020. By that, not only nature and people will benefit but also the Otto Group. The Group meets the expectation of its stakeholders to take responsibility for people, nature and biodiversity and thereby reduces reputational risks. The Otto Group will also be able to ensure access to important resources, develop long-term supplier relationships and remain competitive in the future.

Company Profile

Headquarters: Cologne, Germany
Major products: Retail and tourism
Further information: www.rewe-group.com/en

The cooperative REWE Group is one of the leading trade and tourism groups in Germany and Europe. In 2011, the company generated a total external turnover in excess of € 48 billion. The REWE Group, founded in 1927, operates around 15,700 stores with 323,000 employees in 13 European countries. In 2011, around 222,000 employees generated a turnover totalling € 35 billion in over 11,000 stores in Germany.

Challenges and How the REWE Group Takes Responsibility

Acting responsibly, in line with the interests of the community, is an integral part of the corporate culture of the REWE Group. Within the framework of its Sustainability Strategy, four topics have been given top priority: a sustainable product range policy; resource and climate protection; satisfaction and involvement of employees plus social responsibility. In this context, addressing the issue of biodiversity is vital for the REWE Group.

The REWE Group is convinced that quality goes further than the primary properties of the products and also encompasses ecological and social aspects. Conserving biological diversity is an essential component of the ecological quality of products. Tourism is another field where biodiversity plays a central role, because only a sound environment can lead to sustainable tourism in the long term.



Fields of Action

- Sites and facilities
- Supply chains, commodities and materials
- Product
- Production and manufacturing processes
- Transport and logistics
- Personnel

Best Practice: PRO PLANET Apple Project

The Issue

Apple trees in modern orchards grow in orderly rows. Today, wild flowers and other flowering plants, as can be found in traditional fruit orchards, are virtually absent. However, these plants are an essential food source for insects. Although apple trees provide insects sufficient food in spring, the insects suffer from a lack of food during the flowerless



season between June and September. The situation for insects that visit flowering plants, especially honeybees and wild bees, is steadily worsening as the supply of nectar and pollen has consistently decreased over the last years.

The Response

As initiated by the REWE Group through its PRO PLANET label, fruit farmers between Friedrichshafen on Lake Constance and Hamburg have been looking for ways to provide new habitats for insects and create sufficient food supplies for them during the summer months. To do this, they plant flowering hedgerows and provide flowery meadows, as well as nesting aids for wild bees. Not only insects but also fruit farmers benefit from these initiatives: as honeybees fly from blossom to blossom, they pollinate the apple trees.

The Results

The REWE Group cooperates in this project with the Lake Constance Foundation, the Nature and Biodiversity Conservation Union (NABU), Birdlife Austria and the apple producers. Following a pilot phase with ten fruit farmers in the Lake Constance region in the spring of 2010, producers from all growing areas are now taking part in the project. The farmers regularly test various methods to maintain biological diversity in their respective regions as well as additional actions to make fruit farming more nature and environmentally friendly.



Company Profile

Headquarters: Osaka, Japan
Major products: Health and hygiene products and services
Further information: www.saraya.com

Since its foundation in 1952, Saraya has developed and sold hand hygiene products that display high cleaning efficiency, prevent skin irritation and are highly biodegradable. As the first company in Japan to use plant-based resources in the manufacturing of dish detergent, Saraya has been known throughout Japan as the natural choice in hygiene and sanitation products. The company has always complied with OECD regulations, which state that OECD products must include at least 60% of highly biodegradable ingredients. Saraya currently provides health and hygiene solutions for household care, medical infection prevention, food preparation hygiene, and public hygiene. Each market segment is a key element in expanding its use of sustainable innovations.

Challenges and How Saraya Takes Responsibility

- Develop and distribute products that have a reduced impact on the environment.
- Maximize the use of key raw materials that function favourably with the environment and initiatives that foster biodiversity preservation, such as active participation in the Roundtable on Sustainable Palm Oil (RSPO) and committing to use RSPO certified palm oil.
- Support NPOs, NGOs and local organization activities that promote sustainable development of palm oil plantations in harmony with biodiversity preservation needs.
- Communicate environmental issues to stakeholders.
- Promote sustainable industrial, healthcare and food hygiene approaches as well as sustainable lifestyles to consumers.

Best Practice: Commitment to Sustainable Palm Oil

Fields of Action

- Sites and facilities
- Supply chains, commodities and materials
- Product
- Production and manufacturing processes
- Transport and logistics
- Personnel

The Issue

Malaysia is a major source of Saraya's palm oil and palm kernel oil, and the state of Sabah on the island of Borneo, Malaysia is part of the area's largest and oldest rainforests. The development of palm plantations in Borneo is a major threat to elephants, orangutans and other iconic local wildlife. Because of Saraya's relationship to the supply chain, in 2004 it began working towards directly reducing the environmental burden of its products.





The Response

Saraya joined the Round Table of Sustainable Palm Oil (RSPO) in 2004. As an early member, Saraya proposed the addition of creating a Green Corridor along the Kinabatangan River into the criteria for sustainable palm oil and the long-term goals of the RSPO. The proposal was not ratified. In response, however, Saraya organized three symposiums in Japan to promote the use of sustainable palm oil in Japan. The company has also concentrated its efforts into a more organized project with long-term goals to establish the Borneo Conservation Trust (BCT). The BCT's goal is to secure a green corridor along the Kinabatangan River that will allow wildlife to traverse the island while avoiding human civilization and plantations as they move from one wildlife preserve to the next. This should allow for coexistence and the successful continuation of Borneo's rich diversity. Regarding further nature conservation actions, Saraya began working with the Sabah Wildlife Department to provide assistance to young elephants that have been injured by snare traps set for small game.

Saraya donates one percent of its palm based detergent sales to the BCT, and President Yusuke Saraya serves as a board trustee. A chapter of the BCT also functions out of Japan, to bring awareness to Japanese consumers and educate the people on how the BCT is working to facilitate preserving biodiversity. Some of the projects include collecting used fire hoses to create bridges for orangutans in the Borneo jungle to cross rivers and also sponsoring consumers to visit Borneo and bring back knowledge and awareness to spread throughout Japan. Half of the financial funds used to support the Borneo Conservation Trust come from Saraya, and BCT's Japan office is located at Tokyo Saraya. These facts reflect how much the BCT relies on Saraya's support and its importance to the long-term goals of the company. The land secured by the BCT's green corridor project has been extended by 30 hectares. Saraya owns naming rights to 10 hectares. There is an abundant reserve of funds to purchase more land in Borneo for when the proper kind of land can be located.

The Results

In May 2012, Saraya released its first RSPO certified oil based products, only two years after the certification process began. Saraya has made further innovations and valued added products with sustainable palm oil. By using a unique fermentation process of "segregated" certified palm oil, Saraya developed Soforo, a highly biodegradable and effective detergent for households. WWF evaluated Saraya and gave it the highest possible score on the Palm Oil Buyers Scorecard in 2011. This scorecard measures the performance of 132 major retailers and consumer goods manufacturers in 4 separate areas to determine just how responsibly these companies act.

Saraya is an active participant in biodiversity preservation through its membership in the RSPO and the innovative use of RSPO certified palm oil within the chemical manufacturing industry in Japan. Other companies have followed suit in this field, but the food industry, which consumes four times more palm oil than the chemical manufacturing industry, has not taken any action on behalf of biodiversity preservation thus far. Another concern is that out of the annual 47 million tons of palm oil produced worldwide, only 4.72 million tons (as of July 2011) were RSPO certified. Moreover, the demand for palm oil in recent years has tended to surpass the supply, which has reduced the level of stock available and is putting pressure now more than ever on biodiversity in palm oil plantation areas. But rather than low production of RSPO certified palm oil, the main issue is low demand for such oil, and the situation has not improved substantially. Saraya understands that educating consumers and bringing them on site to raise awareness about the need for biodiversity preservation is vital.

Company Profile

Headquarters: Tokyo, Japan
Major products: Retail financial services,
wholesale
Further information: www.smth.jp/en

Since its foundation in July of 1925, the Sumitomo Mitsui Trust Bank has grown into a bank employing more than 13,000 employees at 153 branch offices in Japan and nine offices overseas. Its total assets constitute 33,303.2 billion yen, while its total loans add up to 21,246.5 billion yen (combining banking a/c and principal guaranteed trust a/c). Currently, Sumitomo's capital amounts to 342.0 billion yen and it offers services in retail banking, wholesale banking (corporate loans, syndicated loans, real estate non-recourse loans, project finance, buyout finance, asset securitization arrangements, etc), asset management and administration (asset management, asset administration, stock transfer agency service, etc), real estate management and consulting services.

Challenges and How Sumitomo Mitsui Trust Bank Takes Responsibility

In general, financial institutions have not taken biodiversity and ecosystem services (BES) seriously because they do not have a direct impact on each other, nor are they dependent upon them. However, financial institutions have become increasingly aware of the indirect impact, which BES can have by manifestly affecting stock prices, corporate credits and insurance premiums. Sumitomo Mitsui Trust Bank noticed this development very early and therefore launched its 'Action Guidelines for Preserving Biodiversity' in 2008 while promoting related businesses. With these guidelines, Sumitomo Mitsui Trust Bank addresses five challenges:

- Implementing measures and providing support for biodiversity preservation
- Providing biodiversity preservation related products and services
- Collaborating with stakeholders
- Educating and training
- Disclosing information

In this context, Sumitomo Mitsui Trust Bank became a signatory to "The Natural Capital Declaration" which the United Nations Environment Programme Finance Initiative (UNEP FI) launched in June 2012 at the United Nations Conference on Sustainable Development "Rio+20".



Fields of Action

- Sites and facilities
- Supply chains, commodities and materials
- Product
- Production and manufacturing processes
- Transport and logistics
- Personnel

Receiving the Nikkei Veritas Award for Superiority at the 2010 Nikkei Superior Products and Services Awards Ceremony

Best Practice: Financial Products and Services

The Issue

Biodiversity and ecosystem services represent both a new challenge for financial institutions as well as a new market to create products that support biodiversity protection. Stakeholders need to be informed of potential direct and indirect impacts financial services have on the environment to create awareness and positive action towards protecting nature.

The Response

Sumitomo Mitsui Trust Bank's characteristic is to develop BES-related financial products and services in diverse markets. This has earned the company a good reputation as a financial institution that helps clients solve their problems from the financial side in terms of BES.

The Results

Biodiversity-Responsible Investment Fund

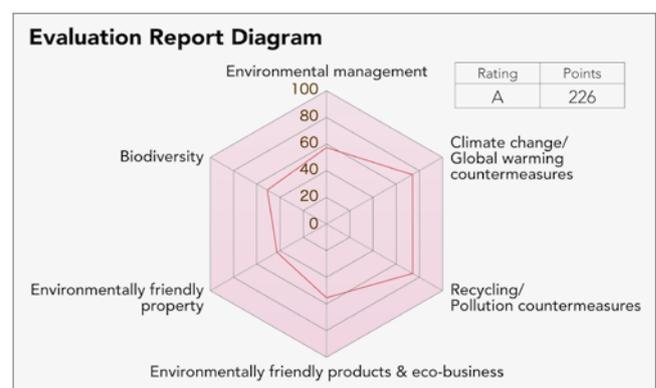
In August 2010, Sumitomo Mitsui Trust Bank began selling the world's first Biodiversity-responsible Investment Fund, which invests in Japanese companies actively working to protect biodiversity. As the world's first asset-management initiative to analyze corporate risk and opportunity from the perspective of biodiversity, this fund has attracted international attention and has been referred to in various reports such as "CEO Briefing—Demystifying Materiality" published by the UNEP FI in 2010. The fund won one of the 2010 Nikkei Superior Products and Services Awards organized by Nikkei Inc.

Biodiversity Evaluation for Environmental Rating Loans

In February 2010 Sumitomo Mitsui Trust Bank launched environmental rating loans, which include a biodiversity assessment. In the belief that biodiversity will be a materiality element (a significant factor influencing corporate finances) for corporations in the future, Sumitomo Mitsui Trust Bank is formulating its own ratings criteria, with biodiversity efforts specified as an important assessment item.

Companies that obtain an environmental rating loan can raise capital at a low rate of interest. They can also expect the advantage of having an enhanced reputation as a company whose outstanding initiatives meet Sumitomo Mitsui Trust Group's rating criteria for environmental issues.

Sumitomo Mitsui Trust Bank also provides a service, which reports on the company's comprehensive evaluation, each item's point rating, evaluation content and issues. The borrowing company can use this for understanding and analyzing its own strengths and weaknesses.



Social Contribution Donation Trust

Sumitomo Mitsui Trust Bank launched a Social Contribution Donation Trust in April 2011 as a new trust product for the purpose of making donations to organizations engaged in activities that contribute to society. Clients deposit the donated amount in a trust fund, and once each year one-fifth of the original trust principal is donated. Sumitomo Mitsui Trust Bank has designated the Ecosystem Conservation Society - Japan as one of the donation recipients. The society purchases trust land to safeguard the habitats of rare species at risk of being destroyed by development.

In fact, the society has purchased the habitat of the Amami rabbit in Amami Oshima, Kagoshima Prefecture; the habitat of the Tsushima leopard cat in Tsushima, Nagasaki Prefecture; and land in Japan's northernmost beech forest, in Kuromatsunai-cho, Hokkaido as trust land.

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Fields of Action

- Sites and facilities
- Supply chains, commodities and materials
- Product
- Production and manufacturing processes
- Transport and logistics
- Personnel

Best Practice: Environmentally-Friendly Development and Construction Consulting

The Issue

Sumitomo Mitsui Trust Bank believes that recovering BES in highly developed urban areas requires repeated efforts and should be tackled at the level of individual parcels of land.

The Response

Based on this concept, Sumitomo Mitsui Trust Bank encourages clients to give consideration to the local ecosystem in the green areas on their property, as part of the bank's eco-friendly development and construction consulting work. Sumitomo Mitsui Trust Bank also advises clients on how to obtain third-party certification, specifically, the Japan Habitat Evaluation Procedures (JHEP).

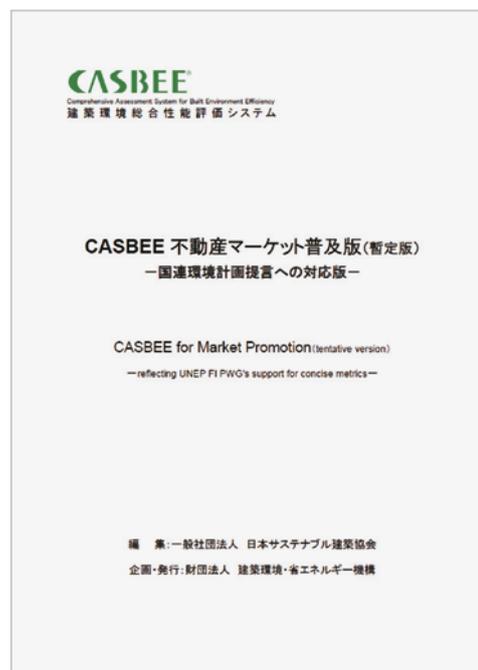
The Results

Sumitomo Mitsui Trust Bank has acted as a consultant for environmentally-friendly construction for TOYO SEIKAN KAISHA, LTD., on the Osaki Forest Building in Shinagawa Ward, Tokyo. Sumitomo Mitsui Trust Bank recommended taking into consideration the local ecosystem when planning on the exterior of the building and advised them to obtain JHEP.



Toyo Seikan Kaisha,
Ltd.'s new HQ building
(conceptual drawing)
Provided by
Takenaka Corporation

In the meantime, Sumitomo Mitsui Trust Bank has taken the initiative to develop a new benchmark for environmentally-friendly buildings considering BES as an evaluation index. The private industry, government, and academia, under the leadership of the Ministry of Land, Infrastructure, Transport, and Tourism have jointly developed the Comprehensive Assessment System for Built Environment Efficiency (CASBEE) as a mechanism to appraise architectural environmental performance. Believing that this system (an evaluation index) should also be used widely in the real estate market, Sumitomo Mitsui Trust Bank made a proposal that led to the start of discussions of the 'CASBEE for Market Promotion'. It was launched in April 2012. Sumitomo Mitsui Trust Bank was successful in not only developing a market-oriented benchmark, but also introducing BES as one of its five evaluation indices.



CASBEE for Market Promotion

Company Profile

Headquarters: Helsinki, Finland
Major products: Integrated bio and forest (biofore) industry (energy and pulp, paper, engineered materials)
Further information: www.upm.com/en

As the frontrunner of the new forest industry, UPM is leading the integration of bio and forest industries into a new, sustainable and innovation-driven future. UPM creates value from renewable and recyclable materials. Cost leadership, change readiness, engagement and safety of its people form the foundation of UPM's success.

UPM comprises of three business groups: energy and pulp, paper, and engineered materials. In 2011, UPM's sales exceeded €10 billion. UPM has production plants in 16 countries and it employs approximately 24,000 people worldwide. Its shares are listed on the NASDAQ OMX Helsinki stock exchange.

The current line of products includes paper, pulp, labels, energy, timber, plywood and forest services. UPM sees future opportunities in biofuels, composites and biochemicals.

Challenges and How UPM Takes Responsibility

UPM products are based on renewable and recyclable raw materials and are produced with due care for resources, eco-systems and local communities. UPM has established a series of 11 principles covering the three pillars of economic, social and environmental responsibility.

The basis of UPM's business is the raw material of wood. Safeguarding biodiversity is a key part of sustainable forest management; therefore UPM has developed a global biodiversity programme that aims to maintain biodiversity in forests.

Sustainable commercial forestry is one of the solutions to the big questions on earth. Global forest loss is a driving factor behind species extinctions and global warming. Sustainable forestry significantly alleviates both of these problems.

Best Practice: UPM's Global Biodiversity Programme

Fields of Action

- Sites and facilities
- Supply chains, commodities and materials
- Product
- Production and manufacturing processes
- Transport and logistics
- Personnel

The Issue

The Convention on Biological Diversity was one of the key agreements adopted at the Rio World Summit in 1992. This pact sets out commitments for the conservation of biological diversity, which are implemented by governments, land-owners and companies like UPM through national biodiversity strategies and action plans.

Safeguarding biodiversity is a key part of sustainable forest management. Forests are one of the earth's most valuable resources. Forests provide a source of shelter, food and energy for both wildlife and human beings, playing a key role in biological diversity and climate.

The challenge was to create a biodiversity programme that would be comprehensive and meaningful on all continents and forest management approaches.

The Response

UPM has a global biodiversity programme that aims to maintain biodiversity in forests as well as promote best practices in sustainable forestry and wood sourcing. UPM has integrated the program in its everyday forest management through its Forestry and Wood Sourcing Rules.

A multinational team of experts drew up UPM's biodiversity programme. To translate the programme into everyday action has been a huge challenge in a big organization like UPM. In addition to reviewing the rules and instructions, it has been a big training exercise. The other challenge has been to create a monitoring system for implementation.

The programme is a crosscutting approach that covers all UPM's forest management on all continents, under all conditions. The key elements and the global targets of the programme are translated into operational instructions. Implementing it has resulted in the continuous training of personnel and a number of new development activities.

UPM's biodiversity programme has six key elements with global targets that are important for forest biodiversity:

| Key element | Global target |
|---------------------|---|
| Native tree species | Maintain and promote native tree species and their natural composition. |
| Deadwood | Manage deadwood quality and quantity to enhance biodiversity. |
| Valuable habitats | Protect valuable habitats and manage them for their biodiversity value. |
| Forest structure | Manage variation in forest structure at landscape and stand level. |
| Water resources | Maintain open water bodies and wetlands, secure high water quality. |
| Natural forests | Implement plan for remnants of natural forests. |

UPM has set global targets for each key element. Forestry in each country is different, not just in terms of forest type but also in terms of the history of utilization and local forest legislation. This is why the implementation of UPM's biodiversity programme is based on country level targets and local action plans.

The great majority of original forest biodiversity is safeguarded by UPM's operational practices. Native tree species are the keystone species of forest ecosystems, providing food and habitats for the majority of other forest species, i.e. ground vegetation, herbivores, predators and parasites. Maintaining healthy trees further strengthens the positive impact on biodiversity by creating structural variation in the forests. By leaving retention trees and dead trees in the forests, favourable conditions are created for thousands of saproxylic species.

Still, a number of specialised species need a stable habitat with a minimum level of disturbance. In total, some 102,000 hectares of valuable habitats have been defined as areas set aside in UPM's forests for such species. The protected habitats range from habitats of a fraction of a hectare to

large protected areas covering a wide range of different habitats and totaling nearly 30,000 altogether. The area in hectares by countries is: Finland 77,000, USA 18,000, UK 2,000 and Uruguay 5,000.

The flagship of UPM-owned protected areas is the 'Griffin Forest' with an area of 1,400 ha. It is located next to the state owned Repovesi National Park. Together they make an exceptionally large, 2,900 ha protected area in southern Finland.

Most of the areas dedicated to preserving biodiversity do not require any human activity. These areas develop slowly over time into natural forests. Some areas, however, benefit from human interaction.

The Results

As the implementation of the programme is mostly channeled via everyday forestry actions the benefits to biodiversity accrue slowly. For this reason, it is difficult to definitively prove that the better state of biodiversity is caused by UPM's programme.

Therefore UPM has made a cooperation agreement with the International Union for Conservation of Nature (IUCN) according to which the IUCN carries out a review of the approach and the implementation of UPM's programme in Finland and in the UK.

The results of this review will be available by the end of 2012.



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Best Practice: UPM's Black Grouse Projects in the United Kingdom

Fields of Action

- Sites and facilities
- Supply chains, commodities and materials
- Product
- Production and manufacturing processes
- Transport and logistics
- Personnel

The Issue

UPM's black grouse projects are implemented in locations where black grouse (*Tetrao tetrix*) are found, one of the most threatened bird species in the United Kingdom. They can be found in several locations in England, Wales and Scotland.

UPM Tilhill manages around 170,000 hectares of land in the United Kingdom and is the only privately owned forestry company in the UK to employ an ecologist. UPM Tilhill is committed to maintaining and enhancing biodiversity within all the properties they manage in the UK. Through ecological audits each property is assessed, surveyed and evaluated in the interest of conservation. These properties include some key black grouse habitats.

The Response

The cycle of cutting, planting and thinning in managed forest gives excellent opportunities to improve and create new forest that provide good habitats for black grouse and other wildlife. At UPM, long-term forest plans and well-designed second forest rotations are the key factors in improving forest biodiversity.





As a part of the UPM global biodiversity programme, UPM Tilhill has been actively involved in several initiatives aimed at reversing the decline of black grouse populations by conserving and creating suitable habitats.

The Welsh Black Grouse Recovery project based in Llandegla, North Wales is the most successful project in which UPM Tilhill has been involved. UPM Tilhill owns or manages 650 hectares of land in the area where the project takes place. Therefore UPM Tilhill has played a significant role in providing a home for the area's most important black grouse population.

UPM Tilhill's property in Argyll was the site of a pilot project for black grouse habitat management. The key elements of this project were the maintenance and conservation of the black grouse habitats and monitoring them for future reference. Dr Steve Petty evaluated the property and advised on how existing crops should be managed in order to maintain dwarf-shrub heath communities, how to create habitat corridors and how to grade the forest edges into moorland.

In Inverness-shire, UPM Tilhill produced ecological audits on three of its properties that were the key areas of black grouse at the time. These audits will form a part of the application for grant aid from the UK Forestry Commission for running similar management prescriptions, such as has been done in the Argyll pilot project.

In Dumfries and Galloway together with black grouse project officers from the Royal Society for the Protection of Birds (RSPB), UPM Tilhill produced several long-term forest plans to cover positive management for black grouse. The management plans were based on information provided by the RSPB black grouse project officers concerning data on numbers and locations of the birds. The work onsite near the key lekking grounds of black grouse was completed in 2004.

UPM has worked closely with the Dumfries and Galloway Black Grouse Project also in Lanarkshire at a site called Lochlyoch where it has undertaken efforts to improve the forest for black grouse including survey work, edge treatments and the establishment of broadleaves.

Additionally, UPM Tilhill ecologist John Gallacher has also been involved with projects to remove coniferous plantations in order to restore native broadleaf trees to encourage black grouse in Durham Dales and in Yorkshire Dales, North England.

The most important project partner has been the RSPB. The society has been a stakeholder in most of the black grouse projects that UPM Tilhill has been involved with. In the Welsh Black Grouse Recovery project together with RSPB, UPM also jointly worked with the Countryside Council for Wales and the Game and Wildlife Conservation trust.

The UPM Tilhill staff has taken part in training to better protect black grouse in the UK, organized by the RSPB.

The Results

The project in Wales has been very successful and it has proven to exceed the 2009 national biodiversity plan's target to have 101 male black grouse on the Llandegla Moor and Ruabon Mountain by 2010. Current sightings report 117 male black grouse in the area. The publicity gained from other projects has also been very positive. For example the project site in Argyll has been used as a demonstration site of good practice by the Argyll black grouse project manager, who is partly funded by the RSPB.

Company Profile

Headquarters: Helsinki, Finland
Major products: Integrated bio and forest (biofore) industry (energy and pulp, paper, engineered materials)
Further information: www.upm.com/en

As the frontrunner of the new forest industry, UPM is leading the integration of bio and forest industries into a new, sustainable and innovation-driven future. UPM creates value from renewable and recyclable materials. Cost leadership, change readiness, engagement and safety of its people form the foundation of UPM's success.

UPM comprises of three business groups: energy and pulp, paper, and engineered materials. In 2011, UPM's sales exceeded €10 billion. UPM has production plants in 16 countries and it employs approximately 24,000 people worldwide. Its shares are listed on the NASDAQ OMX Helsinki stock exchange.

The current line of products includes paper, pulp, labels, energy, timber, plywood and forest services. UPM sees future opportunities in biofuels, composites and biochemicals.

Challenges and How UPM Takes Responsibility

UPM products are based on renewable and recyclable raw materials and are produced with due care for resources, eco-systems and local communities. UPM has established a series of 11 principles covering the three pillars of economic, social and environmental responsibility.

The basis of UPM's business is the raw material of wood. Safeguarding biodiversity is a key part of sustainable forest management; therefore UPM has developed a global biodiversity programme that aims to maintain biodiversity in forests.

Sustainable commercial forestry is one of the solutions to the big questions on earth. Global forest loss is a driving factor behind species extinctions and global warming. Sustainable forestry significantly alleviates both of these problems.

Best Practice: Sampling Mycorrhizal Fungi Across Habitat Types on UPM-Blandin Forestlands

Fields of Action

- Sites and facilities
- Supply chains, commodities and materials
- Product
- Production and manufacturing processes
- Transport and logistics
- Personnel

The Issue

Mycorrhizal fungi are essential components of forest ecosystems and play multiple roles in sustaining forest health. Almost all plants, including most tree species, form long-term, beneficial associations with mycorrhizal fungi. These associations are necessary for both the plant and the fungus. Plants deprived of these fungi often display reduced growth and signs of nutrient deficiencies.

Mycorrhizal fungi grow around and through living plant roots and contribute to water absorption and uptake of nutrients, including nitrogen and phosphorous. In certain cases, mycorrhizal fungi also protect roots from pathogens and can make plants more resistant to droughts. In return for these benefits, plants transfer carbohydrates and sugars produced in the leaves to the below ground fungus.

Mycorrhizal fungi were surveyed across a range of habitat types on UPM-Blandin forestlands from 2002 through 2007.





The Response

The objective of this project was to complete an evaluation of the ectomycorrhizal fungal communities associated with particular habitat types on UPM-Blandin forestlands. Surveys of this type are useful for characterizing the relative abundance and importance of mycorrhizal fungi within particular stands. In addition, by surveying fruiting bodies, the data is limited to species capable of successfully reproducing in these stands. This information can then be used to help identify the particular fungal species that are important in maintaining forest health and vigor on particular habitat types.

Surveys of this nature require multiple years of data to establish links between the ectomycorrhizal fungal community and different habitat types. The surveys accomplished for this project were some of the most ambitious ever carried out for ectomycorrhizal fungi in the midwestern United States. Based on literature surveys, this study represents the longest systematic survey of mycorrhizal fungi ever conducted in Minnesota.

UPM's Blandin operation will continue to manage the forest under its unique Smart Forestry System, which is designed to enhance productivity and support economic and environmental sustainability. The land is certified to comply with the International Sustainable Forestry Initiative. At 76,000 hectares, it defines what is meant by "un-fragmented forest" and stitches together over 9,000 square kilometers of public lands to create a vast area for wildlife to roam and water to flow.

The Results

In total, 221 species of mycorrhizal fungi were found within the 25 plots. After six years of sampling, the average plot was found to support 20.3 species of ectomycorrhizal fungi, while the average subplot contained 5.8 species. On any given year, an average plot contained 4.2 species of ectomycorrhizal fungi, with 1.2 species per subplot.

During the course of this study, many interesting species were encountered, including many rarely collected species, many species that may be unnamed and new to science, as well as many well-known edible and poisonous species.

Ectomycorrhizal fungi present many interesting management challenges. These species contribute significantly to forest health and appear to have their own set of habitat requirements. While it is difficult to determine whether ectomycorrhizal species occur on particular sites because of particular tree species, or whether particular tree species occur on sites because of particular fungal species, it is clear that both partners are needed to sustain healthy and productive forests.

Ectomycorrhizal fungi are integral parts of forest ecosystems, yet many species remain relatively unknown and some species may have populations that are at risk or threatened. In particular, species that are desirable edibles or that have specific habitat requirements could be at greatest risk from factors such as human disturbance or climate change.

More information is needed to better assess the diversity and population dynamics of ectomycorrhizal species in north central Minnesota. Surveys such as this will hopefully provide baseline data for future work that integrates mycorrhizal fungi into forest management and sustainability guidelines. Without further investigation, many of these interesting and important fungi may be lost before their roles in forest health are fully understood.

Company Profile

Headquarters: Wolfsburg, Germany
Major products: Vehicles
Further information: www.volkswagenag.com

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Fields of Action

- Sites and facilities
- Supply chains, commodities and materials
- Product
- Production and manufacturing processes
- Transport and logistics
- Personnel



Best Practice: Think Blue. Factory.

Volkswagen's path towards increased efficiency
in all brand factories around the world

The Issue

As Europe's largest car producer, Volkswagen has a particular responsibility for the environment. Using the "Think Blue." campaign, Volkswagen wishes to convey that car making and environmental interests are not mutually exclusive and in doing so, encourage a change in the attitudes and behaviour amongst consumers. The goal is to merge ecology and economy in a sensible manner. The "Think Blue. Factory." can provide an example of how this is to be done. The brand is setting an example for environmentally-friendly production using its sustainable factories. Continuously reducing impacts on the environment will ensure that efficient vehicles are produced in ecologically-efficient factories.

The Response

The "Think Blue. Factory." is a shared project developed together with Volkswagen's factories that is now being implemented at all Volkswagen sites around the world. The initiative combines all measures for increasing efficiency and for reducing emissions. It brings about more efficient use of energy, materials, water and reduced CO₂ emissions and pollutants. Its results speak for themselves: At the Emden plant, solar and wind energy plants produce electricity from natural resources; a biomass combined heat and power system produces heat and at the same time an insulating system ensures that the heat is used efficiently. While an existing factory in Germany was converted

into a beacon of resource efficiency, a new factory was constructed in Chattanooga, USA using Volkswagen's knowledge and experience. Owing to its use of energy-saving LED bulbs, rainwater supply, and a paint shop which saves approximately 190 million litres of water over a period of ten years, the "Think Blue. Factory." was the first automobile factory to receive platinum certification with the prestigious LEED® seal of quality from the US Green Building Council. In keeping with the "Think Blue." theme, the "Think Blue. Factory." thrives on communication and open dialogue. Development will be sped up because the factories can implement their own ideas and measures. In addition, systems development and process improvements create new knowledge that is always flowing into production technology through the catalogue of measures.

The Results

The point is to significantly reduce the impact of Volkswagen's factories on the environment. In this way, Volkswagen wishes to reduce energy and water needs, the amount of waste generated, the amount of solvent emissions and the amount of CO₂ emissions based on 2010 values by the year 2018. Experiences in the factories to date show that this is achievable. Climate change is one of the main drivers of biodiversity loss. Therefore, the reduction of CO₂ emissions contributes to biodiversity conservation.

The "Think Blue. Factory." is bringing Volkswagen closer to reaching its goal of becoming the leader of economy and efficiency in the automobile industry by 2018.

Company Profile

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Fields of Action

- Sites and facilities
- Supply chains, commodities and materials
- Product
- Production and manufacturing processes
- Transport and logistics
- Personnel

Best Practice: Green Fleets

Volkswagen Leasing GmbH and the German Conservation Society methods – intelligent linking of climate and nature protection

The Issue

The goal of the Volkswagen Leasing GmbH's environment programme is to encourage the development of CO₂-friendly fleets and to support climate protection projects. Approximately 60 % of newly-registered cars in Germany are used for commercial purposes. This is an important market to introduce energy-efficient and climate-friendly passenger vehicles immediately.

The Response

The Green Fleets programme links support from fleet managers in the implementation and operation of CO₂-optimised vehicle fleets with Volkswagen's wide selection of vehicles. Fleet managers, who choose to lease environmentally-friendly vehicle with CO₂ emissions of 120g per km or less through Volkswagen Leasing GmbH, take part in an environmental programme by default. In this way, CO₂-limits for the environment programme have been reduced on an annual basis and the company donates a contribution to the Nature and Biodiversity Conservation Union (NABU). This contribution is used for financing environment and climate protection projects such as the restoration of the moors "Theikenmeer" and "Großes Moor". Moors carry out an important climate and environment protection function, namely CO₂ reduction. Restoring moors helps develop the environment programme towards becoming a complete chain of efficiency.

The programme is rounded off by optional extras including customer support when implementing environmentally-friendly Car Policy, ECO driver training (potential to save 10-20 % on fuel) and extensive CO₂ reporting via the online system "Fleet cars". This allows reductions in CO₂ emissions to be measured.

The Results

The first moor to be saved through Volkswagen's efforts was the Theikenmeer, a raised bog in the hills of the Hümmling at the edge of the Emstal. Even though the main area of the Theikenmeer has been under protection since 1936, the moor was considered to be dead. It was leached out through drainage and industrial peat extraction and polluted by over-fertilisation from surrounding farmlands. With Volkswagen's support, the 240-hectare Thiekenmeer is now a species-rich habitat. In the same manner, since 2011 the similarly ecologically poor "Große Moor" in southeastern Lower Saxony, with nearly 150 animal species and 40 vascular plants in danger and 11 dangerously close to completely disappearing, is being restored with financial support from Volkswagen's environment programme.



The Green Fleet Award

The company, together with NABU, grants the „DIE GRÜNE FLOTTE“ award (The Green Fleet Award) to recognise ecologically-responsible fleet management. The 2011 award in figures: 77 participating companies with 9,200 fleet vehicles have saved 630,000 litres of fuel and 1,650 tonnes of CO₂ emissions. These quantities would allow a 1.6 TDI BlueMotion Passat to travel around the earth 366 times. One hundred fifty hectares of forest would be necessary to absorb the tonnes of CO₂, which were spared, a space corresponding to 300 football fields. A filler nozzle would have to run non-stop for 11 days at a filling station to administer the number of litres saved. The environment programme has proven successful. For this reason, Volkswagen is looking into the option of a roll-out in the United Kingdom, Poland and Russia. The environment programme was granted the ÖkoGlobe Award in Germany in 2010.

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Fields of Action

- Sites and facilities
- Supply chains, commodities and materials
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Best Practice: Biodiversity Risk Analysis at Volkswagen Sites

The Volkswagen way to learn more about its impacts on ecosystems and species

The Issue

Industrial growth inevitably has an impact on biological diversity, which is the basis for healthy food, clean water and a balanced climate. Volkswagen identified this conflict of objectives at an early stage. This is why the challenges of species protection and nature conservation are not merely a temporary project for Volkswagen, but have long been an established element of its environmental management.

The Response

Conservation of biodiversity is therefore discussed at the Group's regular regional conferences, and necessary measures are laid down in resulting action plans. Activities designed to increase biodiversity require a basis of accurate information about land take, environmental impacts of individual manufacturing locations and protectable species within their sphere of influence. Since 2010, Volkswagen has teamed up with external partners in the scientific and insurance sectors to prepare risk analyses that identify the emission risks arising from the company's operations, such as exhaust air,

wastewater, waste, noise or vibration. Volkswagen then sets them against the potential adverse effects on water, soil and biodiversity in the local environment and evaluates them. This analysis has not only resulted in much better information about the ecological integration of the factories in their individual landscape settings, but has also made for improvements in efficiency and savings in costs.

The Results

In 2010, the first step was to appraise the Volkswagen and Audi factories in Emden, Wolfsburg, Braunschweig, Hanover, Kassel, Chemnitz, Zwickau, Dresden, Ingolstadt and Neckarsulm. This was followed in 2011 by the European factories in Poland, Slovakia, the Czech Republic, Portugal, Spain and Belgium. These will be joined in 2012 by more Volkswagen AG locations and also Bentley, Bugatti and Lamborghini facilities in Germany, the United Kingdom, France and Italy. Moreover, Volkswagen do Brasil has launched the "Fauna Monitoring and Preservation Program" to protect domestic species in that country. One of the biggest nature conservation projects is the reforestation of the "Izta-Popo" mountain region in Mexico. In Germany, Volkswagen is initiating and pursuing numerous projects relating to ecological upgrading and interlinking of forests and waters – for example the River Aller close to the main factory in Wolfsburg.

Company Profile

Headquarters: Wolfsburg, Germany
Major products: Vehicles
Further information: volkswagenag.com

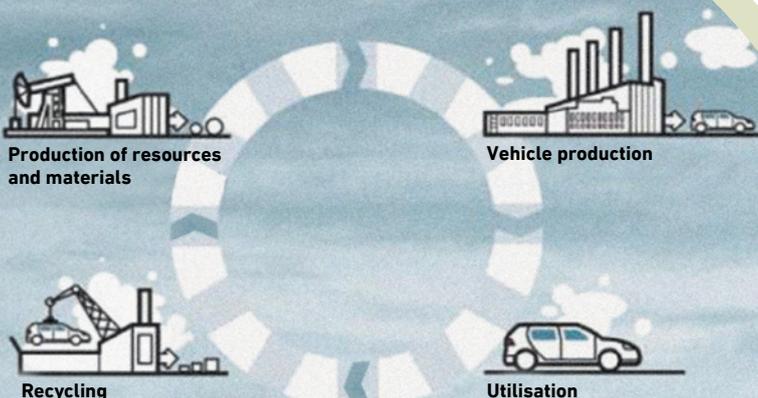
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Fields of Action

- Sites and facilities
- Supply chains, commodities and materials
- Product
- Production and manufacturing processes
- Transport and logistics
- Personnel

Best Practice: Environmental Commendations and Life Cycle Assessments

The Volkswagen way of showing stakeholders how product ecological footprints are reduced

The Issue

Volkswagen's objective is to develop vehicles in such a way that, in their entirety, they present better environmental properties than their predecessors. To document the environmental performance of its vehicles and technologies, Volkswagen uses Environmental Commendations.

The Response

Volkswagen's Environmental Commendations provide its customers, shareholders and other stakeholders inside and outside the company with detailed information about how the company is making its products and production processes more environmentally compatible and what Volkswagen has achieved in this respect. Biodiversity is indirectly affected in

many ways. The Commendations certified by TÜV Nord are primarily based on detailed Life Cycle Assessments (LCA) in accordance with ISO 14040/44, which have been verified by independent experts. As part of an integrated product policy, the LCA considers not only individual environmental aspects, such as the driving emissions of the vehicle, but its entire life cycle. This means that all processes from manufacturing via service life to recycling and disposal are examined. Since 1996, Volkswagen has been drawing up Life Cycle Assessments of its vehicles and individual components with the aim of enhancing their environmental compatibility.

The Results

In 2011, apart from the new Volkswagen up!, new Environmental Commendations based on this concept were issued for the highly economical Passat BlueMotion and Passat EcoFuel models from Volkswagen. In the case of the Environmental Commendation for the up!, for example, it was shown that greenhouse gas emissions were reduced by 21 percent compared with the Volkswagen Fox, which served as the reference model. Climate change is one of the main drivers of biodiversity loss.

Comparison of impacts on global warming potential

CO₂ equivalents in t





WERNER & MERTZ

Company Profile

Headquarters: Mainz, Germany
 Major products: Washing and cleaning products for private consumers and professional users
 Further information: www.werner-mertz.de/english

Werner & Mertz is a family-owned limited company that was founded in 1867 as a factory for wax products. Today, as a chemicals company, it is a manufacturer of brand-name products for private consumers and industrial users. Werner & Mertz' core competencies are to offer cleaning and caring products, while maintaining value for the consumers. In total 897 employees work for Werner & Mertz at its headquarters in Mainz, Germany and its factory in Hallein, Austria. It offers the following brands and products:

- Erdal, Búfalo (shoe care)
- Frosch, Rainett, Froggy, Frosch Oase, tarax, tofix, rorax, ratzfatz, Glänzer, emsal, tuba (household cleaner and detergents)
- Tana (professional cleaners)

Challenges and How Werner & Mertz Takes Responsibility

Protecting resources, pursuing sustainability and preserving biodiversity have always been the green focus of Werner & Mertz - and not just since the launch of its "Frosch" range of products in 1986.

Werner & Mertz recognizes the urgency surrounding the topic of biodiversity and therefore aims to emphasize this in its existing environmental management system. This has been certified in accordance with the stringent EMAS guidelines issued by the EU. To this end Werner & Mertz has created a sustainability management staff unit and entrusted its managers with the monitoring and controlling of the activities that impact biodiversity.

The Werner & Mertz Group regularly features its biodiversity protection aims and successes in its sustainability report, which have been partly achieved in cooperation with environmental protection agencies such as NABU and WWF.





Fields of Action

- Sites and facilities
- Supply chains, commodities and materials
- Product
- Production and manufacturing processes
- Transport and logistics
- Personnel

Best Practice: Frog for Frogs!

The Issue

Local and regional habitats and ecosystems are in need of restoration due to interference from humans and businesses. Natural bogs, rivers and wetlands have been altered, reducing habitats for frogs and other amphibians as well as reducing the regional ecosystem capacities for natural CO₂ reduction. Werner & Mertz has used this realization to actively work on projects that benefit the environment.

The Response

Together with NABU and WWF, Werner & Mertz sponsors the preservation of natural riverscapes and moors. Using the motto "Frosch for frogs!" for instance, the company is sponsoring a project aimed at preserving the Rhine River's water meadows, a major habitat for amphibians. Similar projects are also underway in Austria and France.

Werner & Mertz is also active in Germany's Rhineland-Palatinate cooperating with NABU to protect bogs. The protection of bogs is essential as they act as CO₂ sinks, or large areas that absorb CO₂ from the air, and are at the same time a habitat for many rare animals and plants. Werner & Mertz is proud that its can support CO₂-compensation projects that have dual benefits.

The Results

By engaging in measures aimed at restoring the Rhine River water meadows in the Mainz area, it has been possible to reintroduce the local tree frog, a principal species for this particular biotope, and stabilise stocks of existing amphibians. The regional NABU branch Naturschutzzentrum Rheinauen carries out all these activities with financial support from Werner & Mertz. The cooperation project "Frosch for frogs!" with the tree frog as "mascot" is not only promoted at the nature conservation centre, but also within the scope of various exhibitions, e.g. at the Museum of Natural History in Mainz. For Werner & Mertz' cooperation project with WWF, measures are being taken for the restoration of ponds, hollows and old river arms in the March-Thaya wetlands, one of the major river wetlands in Austria. With this project the company is also able to contribute to environmental education in this region.

The reclamation of old areas of moor and the creation of new areas such as in Mürmes in the Eifel region of Germany not only preserves the valuable habitats of many rare animals and plants, but also secures tracts of moorland as huge CO₂ sinks for the long-term. These and other sponsored projects also help communicate information about the environment to local residents, for instance through exhibitions or high visibility recognition of committed conservationists in the region.

At the Mürmes in Eifel the original water level is being restored and the original moorland is being developed once again. With these habitat protection measures new or revitalized bogs are secured to substantially reduce CO₂-emissions on a long-term basis.

Frosch
Recycling First
NEW RECYC PET
 > 65% recycled material
 100% recyclable
Frosch thus helps:
 - spare resources (crude oil)
 - reduce energy consumption
 - reduce CO₂ emissions
 - create new recycling systems