

A first comprehensive guidance for
business sectors to start biodiversity
conservation activities

Let's Try Biodiversity!



The Biodiversity Working Group,
The 4 Electrical and Electronic
Industry Associations



This project is recognized as
part of the Double 20 Campaign
(Niju-maru project) which aims
to achieve the Aichi Biodiversity
Targets in Japan



This project is recognized
as a cooperative project
endorsed by the Japan
Committee for UNDB
(UNDB-J)

Introduction

The Biodiversity Working Group, the 4 Electrical and Electronic Industry Associations* (4EEIA) was established in May 2011 and has made various supportive efforts to promote biodiversity in the electrical and electronic industry, including the provision of an education and awareness-raising tool, “Let’s Study Biodiversity! (LSB)” and development of the action guideline in this industry. From 2015, we have conducted a questionnaire survey to collect and understand opinions and the condition of activities in the industry to reflect them to the Biodiversity WG’s activity. From the results of this survey, we have found that many business operators want to start biodiversity conservation activities, but they do not know where to start or what to do. In order to support business operators who have difficulties in activities for biodiversity, we have developed “Let’s Try Biodiversity (LTB), the first biodiversity conservation activity for companies.” In LTB, relatively easy activities are selected from a wide variety of biodiversity conservation activities and their specific methods are described (for example, setting up of bird boxes and compost piles for fallen leaves, employee education using LSB, etc.). The relations between these activities and the global targets such as the Aichi Biodiversity Targets and SDGs (see P. 27 for details) are also described in LTB. Why do not you start with activities that interest you or that are easy to start?

By positioning the biodiversity conservation activities as a part of business activities instead of positioning them as mere social contribution activities, these activities lead to the improvement of company value such as contribution to the achievement of the Aichi Biodiversity Targets and SDGs, and earning the appreciation and trust of stakeholders, including local communities.

We hope that LTB supports companies to take a first step of biodiversity conservation activities. Let’s Try Biodiversity!



How to use LTB

LTB contains practical reference information for conducting activities, including targets, methods, and tips for activities. Example activities can be searched from two perspectives.

(1) Finding an “Activity that Interests You”

You can find activities that interest you from various examples of activities classified by category.

(2) Finding an “Activity that You Can Do”

You can find activities that you can do according to the situation of your company, by using a flow chart.

After conducting activities using LTB, it is useful to share your activities on some data base (See P. 28 as an example).

*** The 4 Electrical and Electronic Industry Associations**

- JEMA: The Japan Electrical Manufacturers' Association
- JEITA: Japan Electronics and Information Technology Industries Association

- CIAJ: Communications and Information Network Association of Japan
- JBMIA: Japan Business Machine and Information System Industries Association

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Finding an Activity that Interests You

Find an example of an activity that interests you

Biodiversity activities are not just activities that protect nature. Here we have grouped into 7 categories, activities that companies can engage in through their business operations. Let's begin by engaging in activities that interests you!

Activities that survey biodiversity

By understanding your community's biodiversity, it is possible to set a policy and goals for future actions.



<Examples of Activities>

- Biological survey of your workplace ▶ P5
- Survey and identification of alien species ▶ P13



Activities that maintain the environment for creatures

By adding a twist with a biodiverse viewpoint, it is possible to create an environment where creatures gather.



- Installation of bird boxes ▶ P7
- Setting up compost piles for fallen leaves ▶ P9



Activities that protect the ecosystem

By nurturing locally native creatures, it is possible to protect the local ecosystem.



- Planting native species ▶ P11
- Extermination of invasive alien species ▶ P13

Activities that effectively use goods and locations

By modifying the use of goods and locations, it is possible to engage in activities that lead to biodiversity.

Food waste → Compost making



- Effective utilization of rainwater ▶ P15
- Effective application of food waste ▶ P15

Activities that collaborate with the community

By spreading the activities outside the workplace, it is possible to contribute to the improvement of the local biodiversity.



- Beautification activities for the community's green space ▶ P17
- Participating in local conservation activities ▶ P19

Activities that are possible through business operations

By connecting day to day work to biodiversity, it is possible to conserve biodiversity through business operation.



- Reduction of paper usage ▶ P21
- Usage of products certified as biodiversity-conservation product ▶ P21

Activities to learn about biodiversity

By understanding biodiversity, it is possible to feel the blessings of nature in your business operation and daily life.

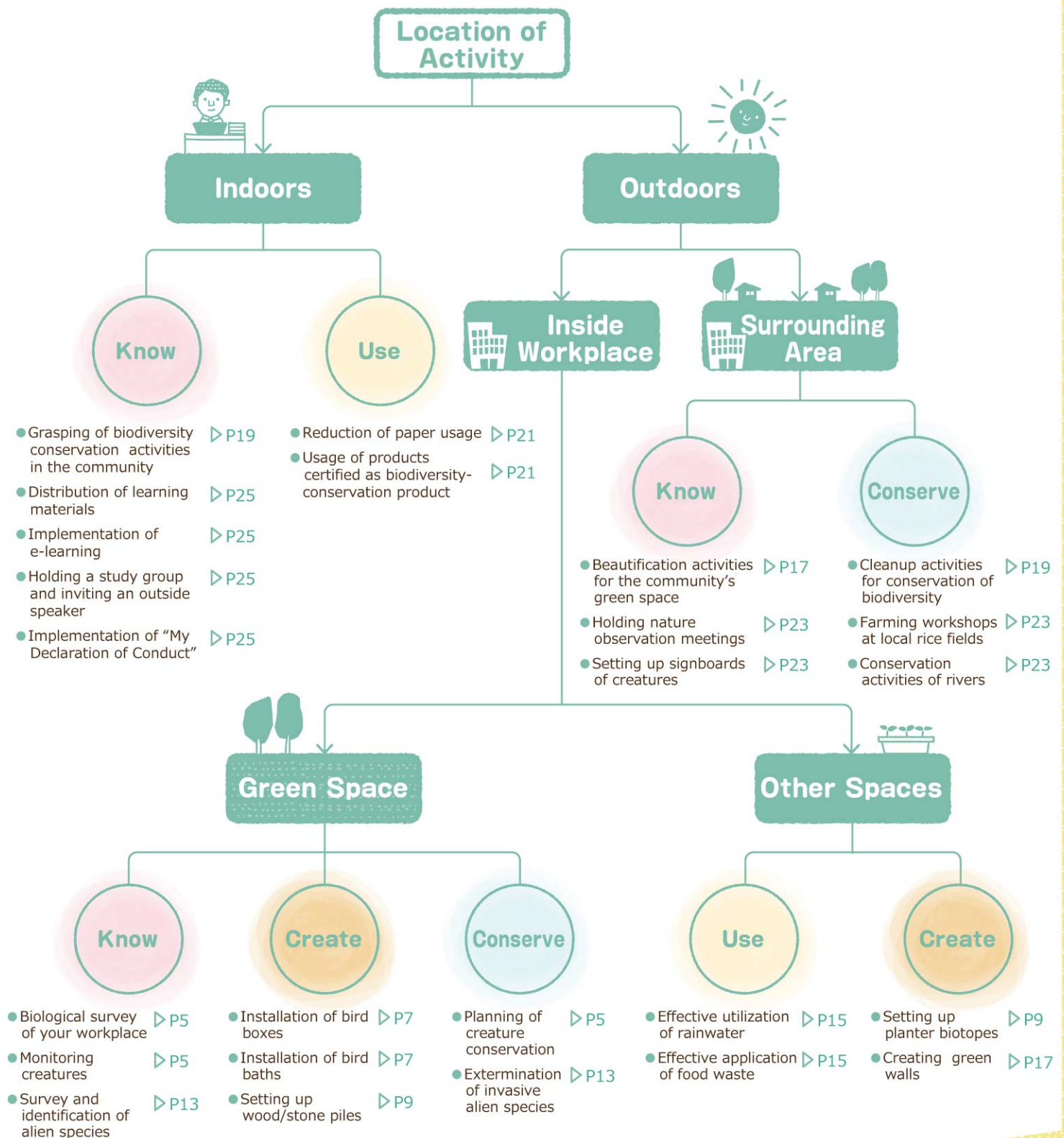
- Conservation activities of rivers ▶ P23
- Implementation of e-learning ▶ P25



Finding an Activity that You Can Do

Find an example of an activity from its location

Biodiversity activities are very diverse where some activities need an outdoor field and some can be done inside the office. That is why if the location of the activity is determined, then possible activities will also be clear. LTB has created a flow chart that allows you to find the activity that is possible for your location.



Activities that survey biodiversity

Biological Survey of Your Workplace

Related Aichi Targets



Awareness increased



Habitat loss halved or reduced



Knowledge improved, shared and applied

Related SDGs



15 LIFE ON LAND

Overview of Activities

By studying the creatures (animals and plants) of your workplace, the relation between green space of the workplace and the local ecosystem is clarified, which leads to reconfirmation of the workplace's value.

Examples of Activities

- ◆ Biological survey of your workplace
- ◆ Planning of creature conservation
- ◆ Monitoring creatures

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Why do it ?

Clarifies the current situation of creatures and their issues

By studying the creatures in your workplace, you will clarify what kinds of creatures there are.

Can be utilized for activities in green space and development of activity plans

The result of biological survey can be used for activities in green space and target setting for maintenance of green space.

For example

If problematic alien species are found, you can exterminate them under national circumstance. If wild birds living around the workplace are found within the premises, you can plant trees whose flowers and fruits they favor. In this way, reports of sightings of creatures can be utilized as basic information for various activities.

* See P. 13 for details of activities related to alien species

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How to do it ?

1 Decide the purpose, place, and time of survey

In the case of wild birds, for example, breeding season and migrating period are suitable for survey.

2 Decide the survey method

Decide whether the survey is to be commissioned to experts or simply conducted by company staff members.

3 Conduct survey and review the results

For example, clarify the presence of creatures to be conserved or alien species to be exterminated.

4 Reflect the survey results to the management plan of green space



Q Are there any surveys that are easy to conduct?

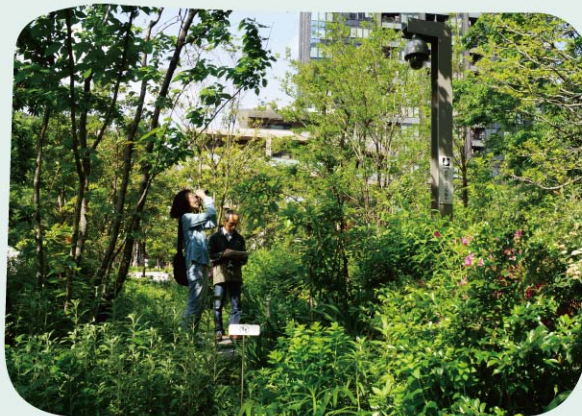
A One way is to make staff members look for creatures, take photos, and study them using picture books and the Internet. Even a simple survey can lead to unexpected discoveries. Another way is to hold observation events and summarize the creatures found in the form of a map.



Map that shows creatures that can be found

Q How much will it cost to outsource surveys?

A There is a wide range of survey costs from professional to simple ones depending on businesses. By conducting a survey focusing on trees and birds, for example, minimum information can be obtained at a minimum cost. It is also good to consult museums or local organizations.



Survey of natural environment

Q What is obtained by the survey?

A There was a case where a colony of some Japanese endangered species (ex. photos below) were found or some alien species were eliminated even in activities by company staff members who are not specialist.



Cephalanthera falcata



Cephalanthera erecta

Q Should the survey be conducted continuously?

A Continuous survey (monitoring) is needed to understand the changes in biodiversity and ecosystem effected by conservation activities. It becomes easy to continue surveys by having company staff members learn the survey methods and conducting activities that do not require excessive efforts.



Items to monitor

- ☒ Growth of introduced plants
- ☐ Invasion of alien species
- ☐ Arrival of insects and birds

Examples



Tips on promoting activity

- ① A key to continuation is positioning and conducting the activities as a part of facility management work.
- ② It is important to cooperate with research companies and green space management companies who understand the purpose of activities.
- ③ The survey results can be utilized as an opportunity to communicate with customers and local residents.
- ④ Survey manuals provided by some institutions or municipal organizations can be used as a reference for survey types and methods.

Activities
that maintain
the environment
for creatures

Provide Local Creatures with Places They Can Use

Related Aichi Targets



Habitat loss halved
or reduced



Pressures on
vulnerable
ecosystems reduced



Ecosystems and
essential services
safeguarded

Related SDGs



Overview of Activities

By preparing the environment in green space of the workplace so that creatures can visit, the population of local creatures is supported and an ecological network is enhanced.

Examples of Activities

- ◆ Installation of bird boxes
- ◆ Installation of bird baths

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Why do it ?

● **Contributes to the enhancement of biodiversity in the local area**

By making green space of workplace a base of migration or habitat of creatures, the local ecological network and biodiversity are enhanced. Thereby the value of the local area in terms of biodiversity can be enhanced.

What is an ecological network?

It is a network in which various places where creatures live or grow such as green space, parks, and farmland are connected as ecosystem. When creatures move from their bases of habitat or growth to other places of various sizes around them, those places become connected. Thereby the biodiversity of the entire local area can be enhanced.



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How to do it ?

1 **Decide the creatures to attract**

It is easy to attract birds and insects that fly.

2 **Decide the method to attract them**

3 **Implement the activity and monitor the creatures' visit**

Monitoring can be done by visual observation or by automatic camera, etc.



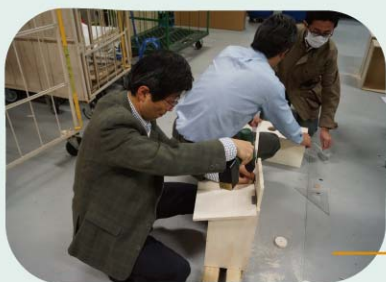
Q Which creatures are easy to attract?

A Wild birds which can be seen even in urban areas are easy targets for the activity. Also, by setting bird boxes and bird baths, birds will be attracted and eat harmful insects in green space, thereby reducing the burden of maintenance.



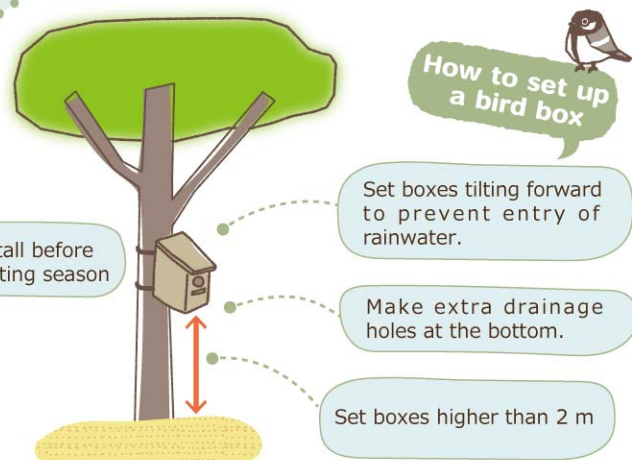
Q Isn't it hard to install bird boxes and bird baths?

A A bird box can be bought with reasonable costs and can be made easily. For a bird bath, put clean water in a shallow saucer and replace the water occasionally. It is also effective to make and install bird boxes and bird baths in collaboration with local elementary schools or as an event for participation of company staff members.



Q Where should we put bird boxes and bird baths?

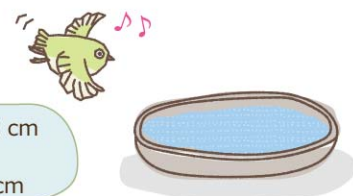
A Empty places with few people in green space of the workplace are suitable. In urban areas, there are wild birds that have difficulty in breeding due to lack of large trees with hollows. Also, since waterfront environments which wild birds can use are limited in urban areas, sometimes migratory birds can be seen.



- * Clean and check boxes before nesting season every year.
- * Consult specialists about the number and distance between boxes.

How to make a bird bath

Size: More than 30 cm in diameter
Depth: About 2-3 cm



Tips on promoting activity

- ① By cooperating with local workplaces and companies, it will be a more linked activity.
- ② For bird boxes, avoid places with no branches and leaves to cover the front hole of the box or with too much sunlight. For bird baths, avoid fluorescent materials or materials that reflect light such as metal. By devising a mechanism to make water move, birds will soon use the bird baths.
- ③ By setting automatic cameras at the front hole of bird boxes and bird baths, you can record how they are used.
- ④ When it is confirmed that those facilities are actually used, publicize the activity in and outside of company proactively.

Activities
that maintain
the environment
for creatures

Provide Local Creatures with Places to Live

Related Aichi Targets



Habitat loss halved
or reduced



Pressures on
vulnerable
ecosystems reduced



Ecosystems and
essential services
safeguarded

Related SDGs



15
LIFE
ON LAND

Overview of Activities

Enhance biodiversity of the workplace by providing creatures with a habitable environment where they can live continuously.

Examples of Activities

- ◆ Setting up compost piles for fallen leaves
- ◆ Setting up planter biotopes
- ◆ Setting up wood/stone piles

?



Why do it ?

● Enhances biodiversity in the workplace

By preparing an environment for creatures around us to hide and lay eggs, which is necessary for them to live and grow continuously, inhabitation and growth of various creatures are supported not only in the workplace but also in the local area.

For example :

Green spaces are generally developed focusing on use by people, and they tend to be simple spaces with greens, which are unfavorable for creatures. Planting various types and sizes of plants or preparing a variety of environments such as forest, grass field, and waterfront even in a part of a green space will achieve coexistence with creatures in places near us.

Environment maintenance
for wild birds



Black-backed wagtail flew in

?



How to do it ?

1 Decide target creatures

It is good to select target from creatures that can be found around the workplace.

2 Decide the place and method for environment maintenance

Consider the desirable environment such as forest, grass field, and waterfront based on target creatures.

3 Check how the maintained environment is used by creatures



Q How can we make compost piles for fallen leaves?

A Set up a framed box using wood waste, etc. to pool fallen leaves and put fallen leaves and pruned branches inside. A lot of creatures will gather at the compost pile. Also, fallen leaves become leaf mold in a few years, which can be used as compost for green space.



Inside of a compost pile for fallen leaves

Q What is a planter biotope?

A Waterfront biotopes can be made easily by filling containers such as planters with water and planting waterweeds. These are easy to make compared to general biotopes which are difficult to install and maintain. Plant native species in biotopes instead of alien species.



Planter biotope made of waste materials

Q What kind of creatures can live there?

A For example, by installing puddles of water such as planter biotopes in a sunny spot, dragonflies will come and lay eggs, which makes a habitat for dragonfly larvae. Also, birds can use them as watering places.



Q What are wood/stone piles?

A By piling up wood or stones at a single place, it becomes a habitat of grasshoppers and lizards. Also, wood piles can be habitats of larvae of longhorn beetle, etc. Waste materials in the workplace such as blocks can be used to build them.



Wood pile



Tips on promoting activity

- ① Compost piles for fallen leaves reduce the amount of waste to dispose of such as pruned branches, and lead to the decrease of disposal cost and environmental load.
- ② When the activity is implemented aiming at the conservation of rare or endangered species, it is recommended to get advice from experts such as curators of museums or researchers in universities.
- ③ By implementing the preparation of habitable places for creatures such as biotopes and observation after installation as events for participation by company staff members and their families, it is possible to publicize the activity and raise awareness by a lot of people about biodiversity conservation.
- ④ Explaining the contents and meaning of activity by putting signboards, etc. makes it easy to obtain understanding from local residents.

Activities that protect the ecosystem

Utilize Local Native Species

Related Aichi Targets



Habitat loss halved
or reduced



Pressures on
vulnerable
ecosystems reduced



Extinction prevented

Related SDGs



Overview of Activities

Conserve the local ecosystem by choosing native species suitable for the local area when new plants are planted in the workplace.

Examples of Activities

- ◆ Planting native species
- ◆ Raising seedlings in the workplace

?



Why do it ?

● Gives consideration to the ecosystem unique to the local area

Various creatures that constitute the ecosystem have adapted to the local climate and geographical condition, and inhabit with features and connections unique to the area. Planting local native species leads to ecosystem conservation such as providing local creatures that inhabit the area from old times with food and habitat.

● Creates communication with local community

Activities that utilize local creatures create chances for cooperation and communication with the local community.

Local endemism of plants

Japanese beech represents trees in cold-temperate regions and can be found in a wide area of Japan and it is known to have leaves of different sizes depending on the area where it grows. This difference is due to genetic differences, which are unique to each area. Since genetic diversity includes differences that cannot be recognized by sight, it is important to minimize the migration of creatures to protect genes unique to each area.

Difference in size of leaves of Japanese beech

Are sizes of leaves
different even between
Japanese beeches of
the same kind! ?



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How to do it ?

① Study local native species

Clarify plants that have grown in the area from old times and are adapted to the local climate.

② Decide the place to plant native species

③ Obtain seeds or seedlings of native species and sow/plant them

④ Check the growth of plants

If the plants do not grow well, consider transplanting them.



Q How can we select native species?

A Information of native species can be found in picture books and on the Internet. It is also good to consult experts in museums, seed dealers, or organizations. Native species are often found in trees in local historical places.



Forest in which native species remain

Q Where can we get seeds and seedlings?

A It is good to contact garden centers or seed dealers that sell seeds and seedlings. When you buy seeds and seedlings, confirm that they are native species and check their area of production. If no supplier is found, activities to raise seedlings from seeds such as acorns or to transplant small seedlings can be conducted. Seedlings raised in this activity can be utilized for activities in the local community such as providing them to community events where seedlings are planted.



Seedlings raised from seeds



Sowing

Q Where should we plant native species?

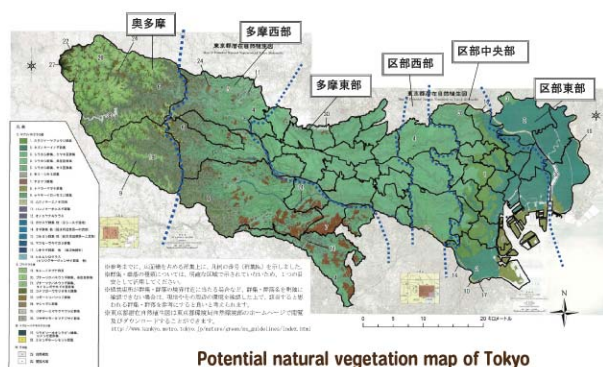
A Empty spaces in workplace will be fine, but another approach is to replace existing alien or garden species with native species. For example, Dogwood, which is often seen in towns in Japan, is the alien plant species.



Dogwood flower
Cornus florida

Greening guidelines for native species in Tokyo

The Tokyo metropolitan government is promoting greening with consideration to creatures' habitat and native creatures, and developed the "Guidelines for Selecting Native Species for Greening" in 2014. This guideline classifies land to be planted based on potential natural vegetation of the area (vegetation which would be established in the area if there were no human interference at all) and microtopography, and helps you to find native species suitable for the area. This is a convenient tool for selecting native species.



Potential natural vegetation map of Tokyo and the surrounding region



Tips on promoting activity

- ① When you plant trees in factories, workplaces, or green spaces where conservation activities are conducted, select local native species.
- ② Before introducing native species and deciding their management method, consult the organization to which management of the green space is commissioned.
- ③ Since there is a limit on activities that a single company can conduct, it is important to cooperate with the local community and other companies. It is also good to plant trees with local residents and children.
- ④ Avoid using alien species or species brought from other regions as much as possible.

Prevent the Expansion of Alien Species

Related Aichi Targets



Awareness increased



Invasive alien species
prevented and controlled



Extinction prevented

Related SDGs



Overview of Activities

Among the alien species (creatures that are originally non-native to that certain area), maintain the community's healthy ecosystem by exterminating Invasive Alien Species that will create a harmful impact on Japan's ecosystem and society.

Examples of Activities

- ◆ Survey and identification of alien species
- ◆ Extermination of invasive alien species

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Why do it ?

● Prevents harmful effects on native species and damage towards agricultural products

There is a possibility that the invasion of alien species could change the local ecosystem or have a direct impact on biodiversity (such as genetic disturbance or extinction of rare species). That is why by preventing the expansion of alien species, especially invasive alien species, it is possible to prevent any harmful effects on native species that make up the ecosystem and damages towards agriculture, forestry, and fisheries.

● Leads to the conservation of the local ecosystem

When planting flowers and trees at the factories and offices, by selecting native species and avoiding alien species as much as possible, it will lead to the conservation of the local ecosystem.

* See P.11 for the native species

What is Invasive Alien Species?

Alien species refers to species that were originally foreign to a certain area, but were brought in to that area by human activity. Among the alien species, those that are classified as "invasive" requires caution. Invasive alien species are species that could have a large impact on the local biological environment and as a result threaten the ecosystem. In the case of Japan, invasive alien species are determined by Japanese Invasive Alien Species Act, and they are species that could damage the ecosystem, human life/body, agriculture, forestry, and fisheries.



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How to do it ?

1 Check the distribution status of invasive alien species

2 Check the appropriate method of extermination

Try to research a method that prevents diffusion and that does not re-flourish.

3 Conduct extermination

4 Check the results of extermination

If there are signs that the species have re-flourished, conduct extermination once again.

Q How do you exterminate invasive alien species ?

A If it is a plant, search online for methods of extermination depending on its type. If it is an invasive alien species, contact your local administration representative because it is necessary to use the appropriate method that is determined by the law.

[Example in Japan]



Red-eared Slider



Red Swamp Crawfish



Burr Cucumber

Q What are the methods to promote activity ?

A It is important to promote public awareness. The issue of alien species is sometimes not understood, so it is necessary to correctly inform the employees and workers who are involved in the activity. Also, make sure to explain the countermeasures for alien species when maintaining green space.

When transporting alien plant species

In the case of Japan, Japanese law forbids the transport or storage of live alien plant species. However, if the transport is to dispose of the species, it is possible to transport the species by notifying in advance of the transport and by taking measures to prevent escape. Since under these circumstances temporary storage is allowed, it is possible for small scale volunteer groups to conduct these activities.

Q When should extermination be conducted ?

A In the case of plants, it is efficient to exterminate before the seed fully grows. If there is a characteristic in the flower, by aligning the extermination with the timing of the flowering period, it is easier to find the targeted plant and efficiently remove it.

[Example in Japan]



Lanceleaf tickseed flower

Flowering Period: May-July



Pull it out from its root

Q How do you exterminate alien plant species ?

A When exterminating alien plant species after having a learning session within the workplace to educate and share with the members on the issue, conduct routine patrols and exterminations. By sharing the activity using the company's internal website or newsletters, it is possible to encourage members not just at other workplaces, but members in subsidiary companies and dormitories to conduct their own independent patrol and extermination.



Extermination of Alien Plant Species



Tips on promoting activity

- ① It does not mean that all alien species should be exterminated.
- ② It is necessary to exterminate them in accordance with laws and regulations related to invasive alien species.
- ③ Alien species to be exterminated may be designated by local governments or specified by laws.
- ④ As extermination of alien animal species is often careful, please consult with local governments.

Activities
that effectively use
goods and locations

Effective and Sustainable Use of Resources

Related Aichi Targets



Related SDGs



Overview of Activities

Effectively use the benefits of ecosystem services, which support our life, and conserve them to achieve sustainable use.

Examples of Activities

- ◆ Effective utilization of rainwater
- ◆ Effective application of food waste



Why do it ?

● Reduces wastes from the workplace and reuses them as resources

This activity transforms wastes generated in workplace such as rainwater and food waste, which are simply discarded, into precious resources with little time and effort, and achieves sustainable use.

What is ecosystem service?

Our lives are connected with various creatures and the natural environment. Water, food, stable climate, culture and tradition, etc. are supported and nurtured by the benefits of nature, which is called ecosystem service.

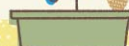
Business activities of companies are also conducted with the benefits of ecosystem services such as raw materials and energy. Sustainably utilizing these benefits and protecting them for the future are essential for the continuation of business activity and are important social responsibility of companies.



How to do it ?

【Effective utilization of rainwater】

- 1 Decide the method of rainwater utilization
- 2 Decide the location of rainwater tank
It is convenient to install the tank close to the place where water is used.



【Effective application of food waste】

- 1 Clarify the amount of food waste generated
- 2 Decide the usage of compost made from food waste
- 3 Decide the place to make compost
Since suitable places vary depending on the type of compost, it should be confirmed.

Q Does the utilization of rainwater contribute to the ecosystem ?

A Letting rainwater permeate the ground instead of draining into sewerage conserves the groundwater, which is a part of ecosystem services. Controlling the outflow of rainwater also contributes to the mitigation of flooding caused by torrential rain in an urban area.



Q What is the merit of conducting the activity as a company ?

A Reducing the use of water leads to reduction of cost. By storing rainwater, it can be utilized for watering of plants. Also, in the event of a disaster, it can be used as emergency water for domestic use.



Utilization of rainwater tank

Q What is the merit of composting ?

A Food waste generated from the company cafeteria costs a lot to dispose of properly. By utilizing the food waste as a resource, disposal cost can be reduced.

Q What should we do after composting ?

A Vegetables that are raised using the compost can be served in the company cafeteria or sold at a store, which achieves resource recycling within the workplace centered on food. Also, by using the compost for green space in the workplace or distributing it to employees or local residents, the activity will be connected to a lot of people.

[Example in Japan: Compost using cardboard box]



Tips on promoting activity

- ① Consumption of clean water can be reduced by installing rainwater tanks near green space to be watered.
- ② Disseminating the activity to employees is also a key to promote the use of rainwater.
- ③ Permeation of rainwater into the ground can also be enhanced by greening a part of parking area.
- ④ In order to make good compost, it is important to gain understanding about food waste separation and cooperation of the company that operates the cafeteria.

Activities
that effectively use
goods and locations

Create Space Where People Can Interact with Plants and Soil

Related Aichi Targets



Awareness increased



Ecosystems and essential
services safeguarded

Related SDGs



Overview of Activities

Create space where people can feel familiar with biodiversity and provide space to learn about ecosystem services (See P. 15 for details) through sensing the comfort and benefits of nature.

Examples of Activities

- ◆ Creating green walls
- ◆ Beautification activities for the community's green space

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Why do it ?

● Provides opportunities for people to interact with nature

In order to promote biodiversity conservation activities, the first step is to have many people such as employees and local residents interact with and feel nature.

● Enhances the understanding of biodiversity

By growing flowers and vegetables using green space or empty space in the workplace, it can be utilized as place for employees' comfort and communication during break time, recreation, experiences in nature, and learning.

Surugadai Building Green Space

Mitsui Sumitomo Co.Ltd, holds "harmony with the surrounding environment" as one of the principles for its headquarters building and has established a vegetable garden section in the rooftop green space. The garden is open to the local residents to enjoy growing flowers and vegetables. The company is providing the local community with a space where they can touch the soil in an urban area where there are few farmlands. This leads to a new form of communication with the local community.



Vegetable Garden

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How to do it ?

1 Decide plants to grow

By choosing edible plants to grow, the harvest can also be enjoyed

2 Learn how to grow the plants

3 Devise the activity so that many people can contribute



Q What kinds of plants are easy to grow ?

A Green walls using vines and seasonal plants are recommended. It is fine to use planters, but planting in the ground is the best way to grow plants. By using polystyrene foam boxes as planters, the increase of the soil temperature is suppressed due to the insulation effect, which is good for the growth of plants.



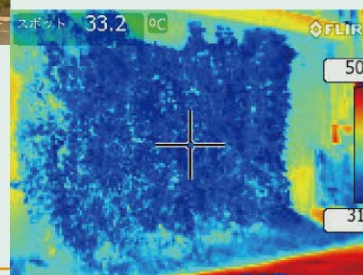
Inside green walls

Q What is the effect of green walls ?

A By planting in spring, green walls will be completed before summer. Since the green walls block the sunlight, the efficiency of air-conditioning is improved, which leads to the reduction of CO₂ emissions.



Measurement of the effect using infrared thermography



【Effects of green walls】

- ①Block the sunlight from windows
- ②Cool the temperature by the transpiration effect of plants
- ③Suppress the surface temperature around them

Q What kinds of effect can we expect by the beautification of the community's green space ?

A By improving local places that have problems such as illegal dumping of waste, they can be the places for employees and the local residents to relax and can be utilized for communication with the local community. Also, by planting flowers and plants that can be the source of nectar, insects will be attracted.



Planting



A bee visiting the green space



Tips on promoting activity

- ① If you use rainwater and compost made from food waste to grow plants, the activity becomes more effective as a biodiversity conservation activity.
- ② Avoid alien species as much as possible, since seeds of alien species in flowerbeds can be transported to other places and become wild species. It is good to plant various native species for each season.
- ③ The key is to implement an activity such as selection of plant species while communicating with local residents.
- ④ A key for the active communication among employees and local resident is to touch the soil and work together.

Activities that collaborate with the community

Conserve Biodiversity in Cooperation with Local Community

Related Aichi Targets



Awareness increased



Biodiversity values
integrated



NBSAPs adopted
as policy instrument

Related SDGs



17 PARTNERSHIPS
FOR THE GOALS

Overview of Activities

Promote communication with the local community by conducting biodiversity conservation activity in green space around the workplace in cooperation with relevant parties and organizations in the local area.

Examples of Activities

- ◆ Grasping of biodiversity conservation activities in the community
- ◆ Participating in local conservation activities
- ◆ Cleanup activities for conservation of biodiversity

?



Why do it ?

- **Enhances the company's value in the local community and promotes the understanding of its business activity**

In order to continue business activities steadily, it is important for the workplace to win the local community's understanding and trust. Learning local nature and contributing to improvement of the local environment promote cooperation and a sense of unity with the local community, improvement of company's value, and understanding of its business activities.

- **Nurtures employees' knowledge and experience**

Employees' knowledge and experience about biodiversity can be nurtured through the activity.

What is Local Biodiversity Strategy?

In Japan, prefectural governments and municipals draw up biodiversity strategies in order to avoid various types of danger related to local biodiversity and achieve sustainable utilization. Since the condition of biodiversity differs among communities depending on natural and social conditions, each strategy describes in detail current regional conditions, issues, and efforts for solution.

?



How to do it ?

1 Study local activities

There are various biodiversity conservation activities, such as conservation of rare species and the maintenance of Satoyama green space.

2 Decide activities to cooperate in

3 Collect participants for the activity



Q What is the merit of participating in local activities ?

A It is a merit for companies that they do not need to organize activities by themselves. At the same time, local organizations can expand their activities by companies' participation, which leads to many achievements. Also, it generates communication between the workplace and the local community, enhances the company's value in the local community, and promotes the understanding of business activities.



Activity in cooperation with local organizations

Q How can we find local activities for biodiversity conservation ?

A Local activities are conducted in various units such as prefectural governments and municipalities. Local activities are implemented in various units such as prefectural governments and local municipalities.

In Japan, there are institutions which promote environmental partnership among various entities such as NGOs/NPOs, companies, and public administrations while giving out information on them. You can make an inquiry to these institutions.



Q Can cleanup activity in local community contribute to biodiversity conservation ?

A By varying an existing activity a little bit, it can become a biodiversity conservation activity. For example, during a river cleanup activity, the extermination of alien species can be conducted or you can explain to the participants that plastic waste can become microplastics, which is a threat to marine biodiversity. Try combining the existing activities with those aiming at biodiversity conservation.

Q What can we inquire ?

A Tell them the purpose of the activity, the place where you want to implement it, etc. They have various information on the activities of the prefectural governments and local municipalities. Ask them to introduce the activities in which your company can participate.



Tips on promoting activity

- ① You can support biodiversity conservation indirectly by providing organizations or municipalities that are conducting activities for local biodiversity conservation, with financial support or things which can be used in the activities (such as seedlings, your company's product, etc.).
- ② Communication with public administrations is also important, such as reporting the results of activities or studies and exchanging information.
- ③ In Japan, there are prefectural governments and municipalities which may have their own environmental basic plans, local biodiversity strategies, or environmental white papers. Inquire at the nearest public administrations of the area whose biodiversity information you are interested in.

Activities that are possible through business operations

Conserve Biodiversity Through Consumption

Related Aichi Targets



Related SDGs



Overview of Activities

By reducing the consumption of things used in business activities or choosing biodiversity-friendly products, biodiversity in the place of production can be protected.

Examples of Activities

- ◆ Reduction of paper usage
- ◆ Usage of products certified as biodiversity-conservation product



Why do it ?

Indirectly conserves biodiversity in the place of production

In the case of products made from biological resources such as wood, the smaller the amount of products used, the smaller the effects on biodiversity. Also, by purchasing raw materials that are produced with consideration for biodiversity, you can indirectly conserve habitat environments for creatures.

Supports business operators who contribute to biodiversity

By purchasing products certified for consideration for biodiversity in choosing raw materials or distribution process, you can support not only domestic business operators but also those around the world who contribute to biodiversity conservation.

Certification system related to biodiversity

A certification system is a system that enables consumers to identify products that are produced with sustainable resource use, production, and distribution. There are certification systems related to biodiversity. Try to find those logos when you buy things.



FSC® Certification
(Forest conservation)



MSC Certification
(Certification program for sustainable fisheries and seafood)



Rainforest Alliance Certification
(Support for sustainable agriculture with consideration for biodiversity)



How to do it ?

- 1 Clarify the consumed amount of paper and products derived from biological resources
- 2 Understand the certification system
In many systems, proper management in the stage of material procurement is required for obtaining the certification.
- 3 Proactively purchase certified products
- 4 Raise public awareness of certified products



Q What kinds of products are derived from biological resources ?

A The major example among everyday items in offices is paper, which is made from forest resources. As for foods used in the company cafeteria, most of them are biological resources.



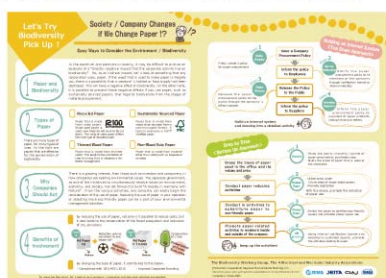
Q How can we reduce our consumption ?

A First, simple visualization of consumption and encouraging its reduction will be effective. Further, in the case of paper, we can promote the use of the back side of paper, double-sided printing, or electrification, and in the case of food, we can review the menu or the number of servings.

Society / Company Changes If We Change Paper!?

The Biodiversity WG has marshaled specific activities for each stage of activity from the relation between paper and biodiversity to methods of biodiversity conservation activities using paper and summarized them into a document, "Let's Try Biodiversity Pick Up!"

Please download it and use it as a reference.



http://www.jema-net.or.jp/English/businessfields/environment/data/LTB_E-ver_paper.pdf

Q Where should we start ?

A First, start with visualizing the types, amounts of consumption, and purchase prices of products derived from biological resources which are used in offices or company cafeterias.



Indications that can be visualized

- ☒ Consumption of paper
- ☐ Consumption of water
- ☐ Emission of food waste

Example

Q What is the merit for companies ?

A The reduction of tap water or paper consumption leads to reduction of cost. Since the reduction of paper leads to reduction in CO₂ emissions and forest conservation, it can be used for publicizing of activity such as responding to the ESG* survey for investors. Also, the activity can make opportunities for employees to be aware of environmental problems starting with small things around us.

* ESG stands for environmental, social, and governance. ESG activities lead to the enhancement of company value. The recognition that business strategy with the consideration for ESG is necessary for the long-term development of companies is now spreading to the world, including investors.



Tips on promoting activity

- ① Cost reduction can be achieved not only by the reduction of consumption but also by the reduction of corresponding waste.
- ② By incorporating the activity into the environmental management system, target setting and confirmation of the effect can be conducted regularly.
- ③ By formulating the policy for raw material procurement with consideration for biodiversity (such as paper procurement policy), it becomes easy to obtain the understanding and consent of clients, customers, and employees.
- ④ Serving biodiversity-friendly agricultural products in the company cafeteria, can also contribute to biodiversity conservation.

Activities to learn about biodiversity

Learn Biodiversity Through Outdoor Activities

Related Aichi Targets



Awareness increased



Knowledge improved, shared and applied

Related SDGs



Overview of Activities

By participating in outdoor biodiversity conservation activities with company staff members and their families, helps many people to deepen their understanding and recognition of biodiversity.

Examples of Activities

- ◆ Holding nature observation meetings
- ◆ Setting up signboards of creatures
- ◆ Farming workshops at local rice fields
- ◆ Conservation activities of rivers

?



Why do it ?

● Lets us understand biodiversity from real experiences

Through the experiences in outdoor activities, we can actually experience and understand the beauty and benefits of nature, and what biodiversity is.

● Promotes public understanding of biodiversity

By not leaving activities just for employees but developing them into activities in which employees' families and the local residents can participate, it is possible to make opportunities for many people to recognize the beauty and importance of biodiversity.

For example

Companies can participate in activities held by municipalities and organizations, such as nature observation meetings, farming workshops in rice fields with no agricultural chemicals, water quality surveys, and biological surveys.

Also, companies can develop creature maps or set up a signboard based on the results of the activities.

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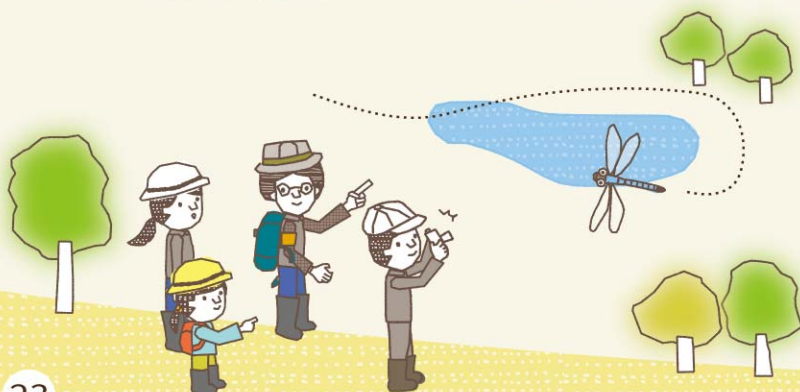


How to do it ?

1 Decide whether your company will participate in the local activities or plan activities inside your company

2 Decide the contents of activity

Activities such as nature observation meetings and farming workshops can be conducted.



Q Where can we conduct activities ?

A By preparing activities in which employees' families can participate, it is possible to make opportunities for many people to learn about biodiversity. By holding activities in various places such as the workplace, local mountains, rivers, and parks, it is possible to provide opportunities to learn about various aspects of biodiversity.

Q How can we find information about activities such as nature observation meetings ?

A The easiest way is to search the Internet with key words such as "nature observation meeting + (name of a city)." Also, it is good to consult local governments or look for web sites of local organizations.

* See P. 20 for how to find the local activities

Q How much will cost if we hold an activity ?

A In Japan, if we commission an activity to a local organization, the cost will vary depending on the contents and the scale of the activity. In one case, the cost may only be the actual expense such as documents and insurance, while in another case the cost may include the preparation of programs and labor, which is about several tens of thousands of yen to over a hundred thousand yen. It is important to proactively participate and cooperate instead of leaving the entire activity to an outside organization.

Farming workshop



Biological survey of a river



Biological survey in workplace

Q What should we do after participating in activities ?

A Publicize the activity through the company web site or in-house newsletters to have many employees recognize the biodiversity conservation activities. By doing so, further expansion of activity can be expected. In the case of an activity in the company's premises, it is also effective to set up signboards aiming at raising public awareness, such as those with explanation of creatures or endangered species that can be found.



Signboard to protect endangered species and raise public awareness.



Tips on promoting activity

- ① When you prepare signboards or pamphlets, avoid technical terms and use simple expressions to make them easy for anyone to understand.
- ② By utilizing the results of biological survey, employees' awareness of biodiversity can be enhanced.
- ③ It is important to start activity. Even beginning with participating in a small activity will do.

Activities to learn about biodiversity

Learn Biodiversity in the Office

Related Aichi Targets



Awareness increased



Knowledge improved, shared and applied

Related SDGs



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



13 CLIMATE ACTION



15 LIFE ON LAND



17 PARTNERSHIPS FOR THE GOALS

Overview of Activities

Deepen employees' understanding and recognition of biodiversity through learning activities about biodiversity that can be done in the office.

Examples of Activities

- ◆ Distribution of learning materials
- ◆ Implementation of e-learning
- ◆ Holding a study group and inviting an outside speaker
- ◆ Implementation of "My Declaration of Conduct"

?



Why do it ?

- **Cultivate human resources who understand the relation between business activities and biodiversity and promote biodiversity conservation activities**

By recognizing the connection between business activities and biodiversity, you can see items to be considered for biodiversity conservation during the business activities. This understanding leads to the cultivation of human resource who makes proactive efforts for the conservation of biodiversity.

- **Make people understand the worldwide condition of biodiversity**

Understanding and taking action for the worldwide movement related to biodiversity such as SDGs lead to high business evaluation from investors and stakeholders.

Relation between business activities and biodiversity

The "Guidelines for Private Sector Engagement in Biodiversity, Second Edition," which is prepared by the Ministry of the Environment, describes items to be considered for biodiversity conservation at each stage of business activities for each industry. In the case of the manufacturing industry, consideration is needed in 8/9 stages: (1) Raw material procurement, (2) Usage of biological resources, (3) Production and processing, (5) Distribution, (6) Research and Development, (7) Transportation, (8) Land use, and (9) Land holding management. The first step is to consider the activities according to the stage.

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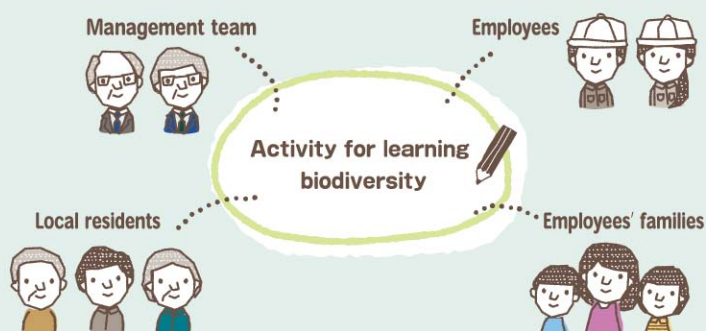
How to do it ?

- 1 **Decide the purpose of learning**
Decide who is going to learn and what is going to be learnt.
- 2 **Decide the method of learning**
- 3 **Conduct the learning activity and clarify the effects**
Clarify the effects using questionnaire, etc.



Q Who should we target ?

A To start biodiversity conservation activities in your company, it is good to first give an explanation to the management team to obtain consent. If you want to get the understanding from people who actually conduct the activity, general employees are to be the target. If you are aiming at contributing to biodiversity conservation through raising public awareness of biodiversity, it is good to target local residents and employees' families.

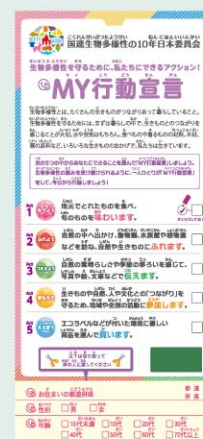


Q What kinds of learning methods are there ?

A Examples include distribution of documents, e-learning, My Declaration of Conduct, study groups, and seminars with outside speakers. Also, it is good to hold events such as panel exhibitions or photo exhibitions focusing on creatures. For explanatory documents and e-learning, "Let's Study Biodiversity!*" prepared by the Biodiversity WG can be utilized.



Photo exhibition



My Declaration of Conduct

Q What kinds of outside speakers should we invite ?

A Choose a speaker according to your purpose and the intended participants. Consult local governments, museums or organizations.



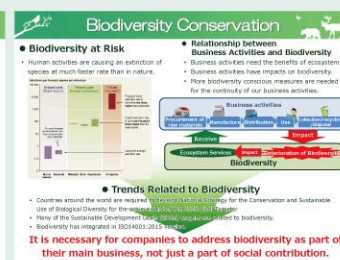
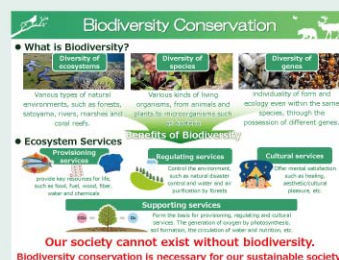
Giving lectures

*What is Let's Study Biodiversity! (LSB)?

As an education and awareness-raising tool, the Biodiversity WG has issued LSB (See P. 28). Also, an excerpted version has been released, which also can be utilized.

[Lineup of LSB]

- LSB English version (52 pages)
- LSB Employee training essential English version (4 pages)

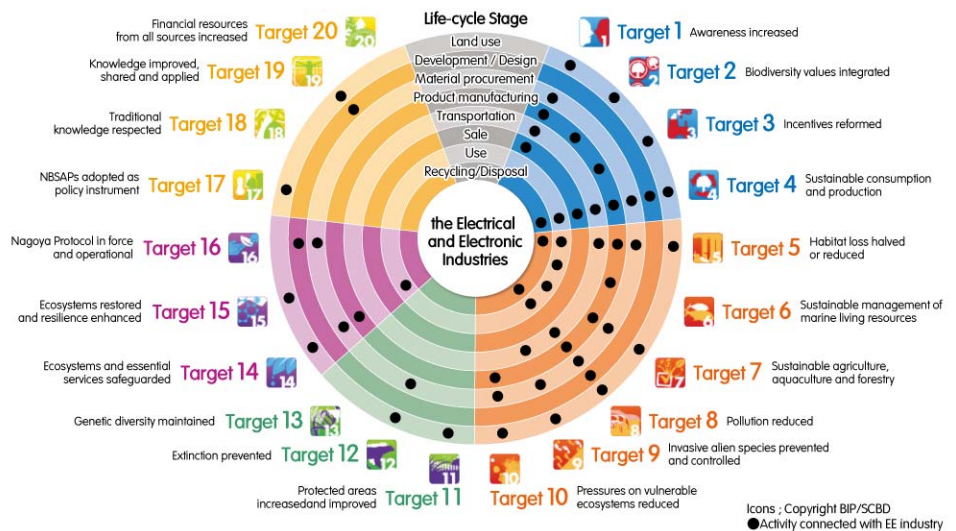


Tips on promoting activity

- ① By putting an activity in existing systems, it can be conducted more efficiently. For example, for the management team, the activity can be put in other matters to be reported, and for employees, it can be positioned as a part of environmental learning.
- ② After the activity is conducted, it is important to clarify the effects using questionnaires, etc. and reflect them in the next activity.
- ③ Compared to global warming or waste problems, biodiversity has the problem of lack of awareness.

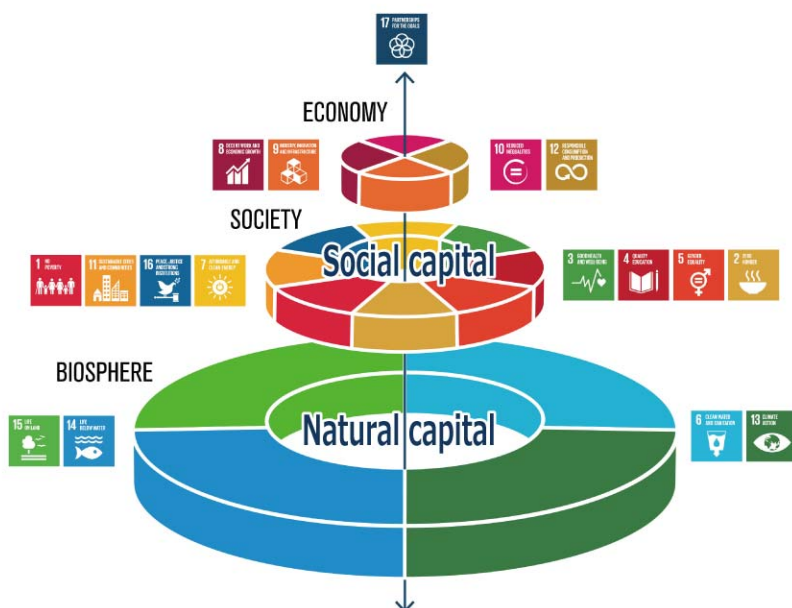
Aichi Biodiversity Targets

In the “10th Meeting of the Conference of the Parties to the Convention on Biological Diversity (CBD-COP10),” held in Nagoya, Aichi in 2010, “The Strategic Plan for Biodiversity 2011-2020 (so-called Aichi Biodiversity Targets),” which is a new target for biodiversity, was adopted. The Aichi Biodiversity Targets has set 20 goals to be achieved by 2020 in the field of biodiversity. To achieve these goals, various entities such as local governments, research organizations, companies, and civil groups as well as countries and governments need to cooperate to tackle issues of biodiversity.



Relevance of the Biodiversity Conservation Activities by the Electrical and Electronic Industries to the Aichi Biodiversity Targets

Relation Between SDGs and Biodiversity



Wedding cake of SDGs

Source: A figure by the Stockholm Resilience Center (illustrated by Johan Rockstrom and Pavan Sukhdev, 2016), which was partially edited by 4EEIA.

In the United Nations Summit in 2015, the “2030 Agenda for Sustainable Development,” centering on “Sustainable Development Goals (SDGs),” was adopted. SDGs consist of 17 goals and 169 targets. The figure on the left is prepared to make it easy to understand the relation between 17 goals and natural capital. From this figure, we can see that the conservation of natural capital including biodiversity is necessary for a sustainable economy and society. SDGs are the common goals for international society by 2030, and the entire society needs to make efforts to achieve them.

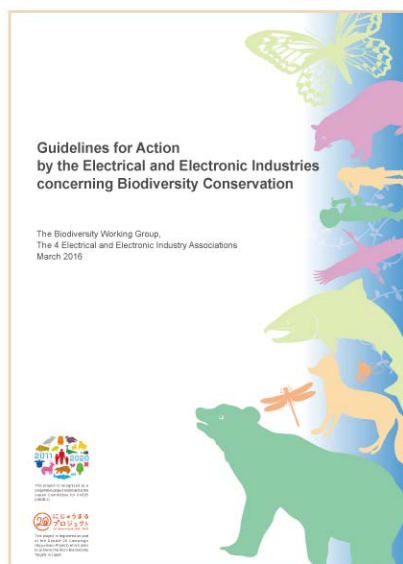
The Biodiversity Working Group, the 4 Electrical and Electronic Industry Associations

The Biodiversity Working Group has been making various efforts for the promotion of biodiversity conservation activities in the electrical and electronic industry. Some examples are shown below.

【Web Site】 <http://www.jema-net.or.jp/English/businessfields/environment/biodiversity.html>

Guidelines for Action by the Electrical and Electronic Industries concerning Biodiversity Conservation

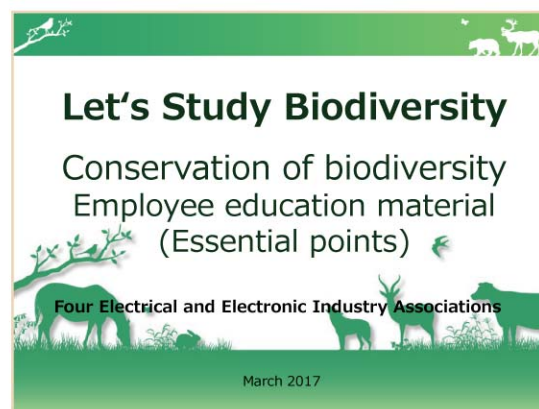
From the 20 targets of the Aichi Biodiversity Targets, 8 targets were extracted as items which are strongly connected to this industry and are to be proactively promoted. Also, for each target, directions are described for member companies to contribute.



<http://www.jema-net.or.jp/English/businessfields/environment/data/GforBC.pdf>

Let's Study Biodiversity! (LSB)

It is an education and awareness-raising tool in the form of a Power Point presentation for the promotion of understanding the relation between business activities and biodiversity and its conservation activities. It is open to member companies for free. Two types of contents in which elements of LSB are extracted are also available: one is for the management team and the other is for employee training. They can be utilized according to needs.



<http://www.jema-net.or.jp/English/businessfields/environment/biodiversity.html>

Database of Biodiversity Conservation Activities (Japanese only)

A case data base related to the biodiversity conservation activities conducted by member companies has been established and released. Cases can be searched in three ways: "Search by area of activity," "Search by Aichi Biodiversity Targets," and "Search by Text."

http://bio.jema-net.or.jp/Japanese/env/biodiversity_db/



List of Example Activities

Example activities described in LTB are shown below. Each activity is listed with related Aichi Biodiversity Targets and SDGs. Since these activity cases are examples, use them as references and promote your own activities.

◆ [Activity] page

| Example Activities | Related Aichi Targets | Related SDGs |
|--|--|---|
| ◆ 【Biological Survey of Your Workplace】..... 5 | | |
| <ul style="list-style-type: none"> ● Biological survey of your workplace ● Planning of creature conservation ● Monitoring creatures |    |  |
| ◆ 【Provide Local Creatures with Places They Can Use】..... 7 | | |
| <ul style="list-style-type: none"> ● Installation of bird boxes ● Installation of bird baths |    |  |
| ◆ 【Provide Local Creatures with Places to Live】..... 9 | | |
| <ul style="list-style-type: none"> ● Setting up compost piles for fallen leaves ● Setting up planter biotopes ● Setting up wood/stone piles |    |  |
| ◆ 【Utilize Local Native Species】..... 11 | | |
| <ul style="list-style-type: none"> ● Planting native species ● Raising seedlings in the workplace |    |  |
| ◆ 【Prevent the Expansion of Alien Species】..... 13 | | |
| <ul style="list-style-type: none"> ● Survey and identification of alien species ● Extermination of invasive alien species |    |  |

Example Activities

Related Aichi Targets

Related SDGs

◆ **[Effective and Sustainable Use of Resources]** 15

- **Effective utilization of rainwater**
- **Effective application of food waste**



Sustainable consumption and production



Ecosystems and essential services safeguarded



SUSTAINABLE CITIES AND COMMUNITIES



RESPONSIBLE CONSUMPTION AND PRODUCTION

◆ **[Create Space Where People Can Interact with Plants and Soil]** ... 17

- **Creating green walls**
- **Beautification activities for the community's green space**



Awareness increased



Ecosystems and essential services safeguarded



RESPONSIBLE CONSUMPTION AND PRODUCTION



LIFE ON LAND

◆ **[Conserve Biodiversity in Cooperation with Local Community]** 19

- **Grasping of biodiversity conservation activities in the community**
- **Participating in local conservation activities**
- **Cleanup activities for conservation of biodiversity**



Awareness increased



Biodiversity values integrated



NBSAPs adopted as policy instrument



PARTNERSHIPS FOR THE GOALS

◆ **[Conserve Biodiversity Through Consumption]** 21

- **Reduction of paper usage**
- **Usage of products certified as biodiversity-conservation product**



Sustainable consumption and production



Habitat loss halved or reduced



Financial resources from all sources increased



RESPONSIBLE CONSUMPTION AND PRODUCTION



LIFE BELOW WATER



LIFE ON LAND

◆ **[Learn Biodiversity Through Outdoor Activities]** 23

- **Holding nature observation meetings**
- **Setting up signboards of creatures**
- **Farming workshops at local rice fields**
- **Conservation activities of rivers**



Awareness increased



Knowledge improved, shared and applied



CLIMATE ACTION



LIFE BELOW WATER



LIFE ON LAND



PARTNERSHIPS FOR THE GOALS

◆ **[Learn Biodiversity in the Office]** 25

- **Distribution of learning materials**
- **Implementation of e-learning**
- **Holding a study group and inviting an outside speaker**
- **Implementation of "My Declaration of Conduct"**



Awareness increased



Knowledge improved, shared and applied



RESPONSIBLE CONSUMPTION AND PRODUCTION



CLIMATE ACTION



LIFE ON LAND



PARTNERSHIPS FOR THE GOALS



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Published by :
The Biodiversity Working Group,
The 4 Electrical and Electronic Industry Associations

URL: <http://www.jema-net.or.jp/English/businessfields/environment/biodiversity.html>

Production cooperation : Regional Environmental Planning, Inc.

