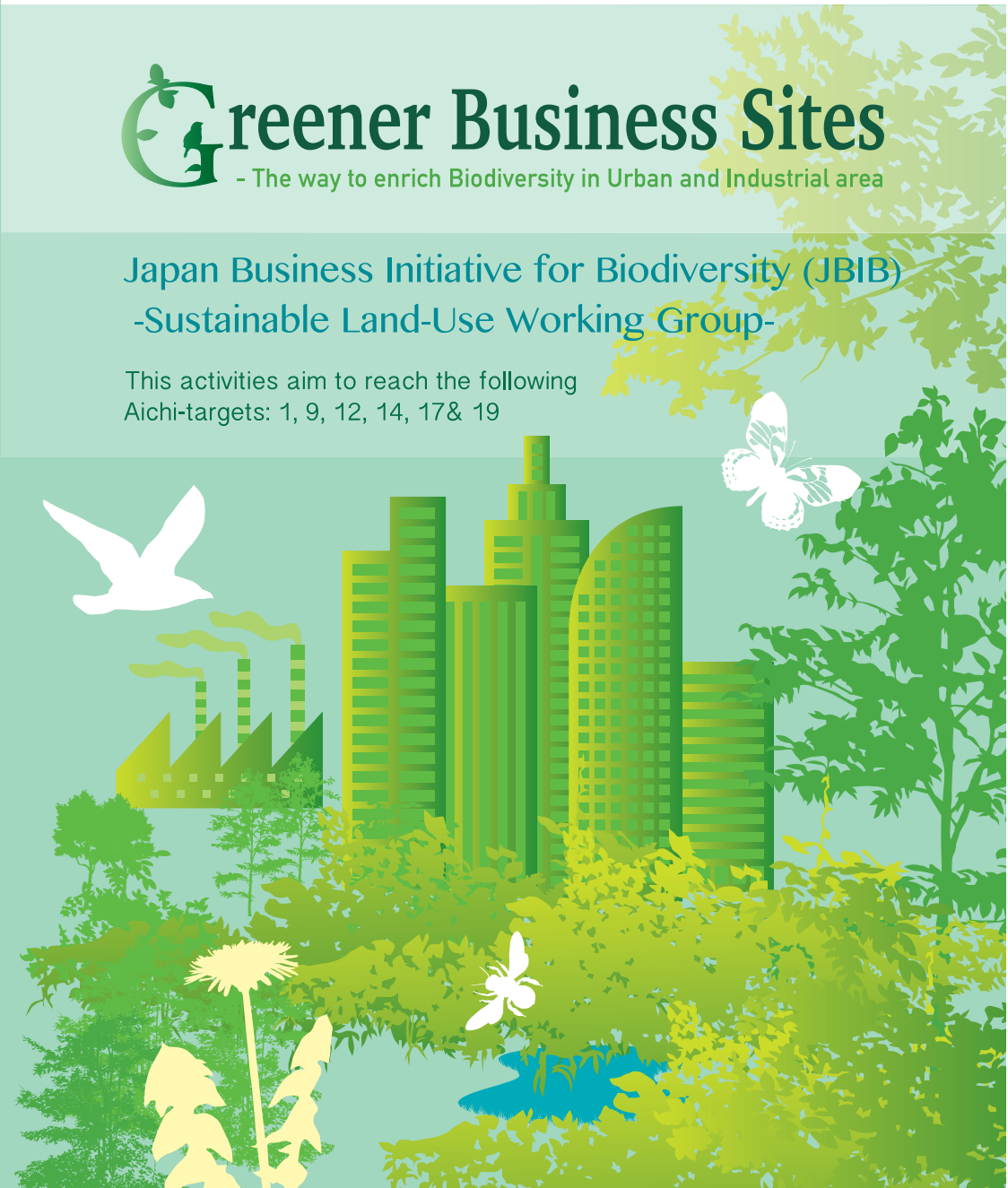
JBIB
Japan Business Initiative for Biodiversity

Greener Business Sites

- The way to enrich Biodiversity in Urban and Industrial area

Japan Business Initiative for Biodiversity (JBIB)
-Sustainable Land-Use Working Group-

This activities aim to reach the following
Aichi-targets: 1, 9, 12, 14, 17& 19



JSR Corporation / Ajinomoto Co., Inc.

- Yokkaichi Plant [Chemical factory]
- Tokai Plant [Food processing factory]

I-5. HARMONY WITH AMBIENT SURROUNDINGS (CREATING A ECOSYSTEM NETWORK)

JSR Corporation and Ajinomoto Co.,Inc., neighboring with each other, work together to form business sites in harmony with the regional nature environment and to recover ecosystem networks in Yokkaichi City, Mie Prefecture. JSR tries to develop its green buffer zone into the landscape like "Satoyama." The Tokai Plant of Ajinomoto has the "Ajinomoto Bird Sanctuary", a biodiversity conservation area with a large natural pond of 5700m^2 in its centerpiece. In this "Sanctuary", many rare insects and wild birds are living. JSR and Ajinomoto jointly aim to create ecosystem networks where living organisms can move freely in similar environments in their neighborhood.

III-14. COORDINATION WITH THE COMMUNITY AND EXPERTS, III-15. DEVELOPMENT AND DEPLOYMENT OF HUMAN RESOURCES IN THE OFFICE

Ajinomoto Co.,Inc. challenges for conservation of biodiversity in collaboration with local governments of Mie Prefecture and Yokkaichi City.
JSR Corporation approve of this aim and wish to collaborate with Ajinomoto and their local governments.
They wish to spread their activities for conservation of biodiversity, including greening of their site, into regional level activities within Yokkaichi. They explained and conducted surveys for biodiversity by specialists in each site.

AEON CO., LTD. /AEON MALL CO., LTD.

- AEON MALL Toin [Shopping mall]

II-10. CONSIDERATION ON WATER CYCLE (EFFECTIVE USE OF RAIN WATER)

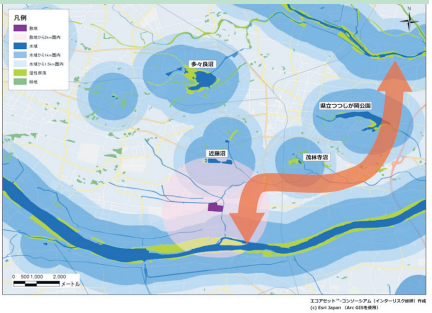
AEON MALL Toin tries to preserve ecosystem by circulating rainwater through underground as in the 2 ways below.

1. Rainwater from a roof disembogues directly into the underground without passing through drains.
2. Rainwater on the paved areas disembogues into the underground from cut curbstones.

Toppan Printing Co., Ltd. •Gunma Central Plant [Packaging material plant]

I-1. LARGE AREA OF HABITAT CONTRIBUTING TO BIODIVERSITY

Gunma Central Plant completed in April 2014, planted trees as windbreak forest to prevent northwest wind like a image of forest around the residence as a regional custom in this area. Also, considering the regional environment where wetlands are scattered around, several wetlands were placed in the site to create an ecological network spanning over a wide area. Planting 550 tall trees, 200 Mid-height trees, and 5,000 low trees mainly on native species. The plant created large area of habitat contributing to biodiversity by the size of 4.5ha, which is 30% of total area of the site.



II-10. CONSIDERATION ON WATER CYCLE (EFFECTIVE USE OF RAIN WATER)

The plant placed wetland garden considering the regional environment which consists of many lakes and ponds. The wetland garden also functions as a temporary storage for rain water to prevent damage of localized torrential downpour. Considering water conservation in the whole site, the plant minimized the pave- ment areas and ensured that approximately 50% of the site's area is permeable to water.

Mitsubishi Estate Co., Ltd. •Corporate wide guideline

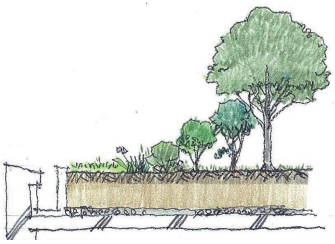
II-13. APPROACH TO ALIEN SPECIES

IIn Mitsubishi Estate, the “The manual corresponding to an alien species” based on the Invasive Alien Species Law is decided upon and employed.
Mitsubishi Estate is determined to thoroughly avoid such measures as planting plants that may invite the natural enemy species, which does not contribute to regional ecosystem and rather spoils it, or as neglecting aggressive species, including a specific alien species carried in artificially. A manual is prepared and utilized through monitoring, in order to contribute to continuous development of the area and preservation of the natural environment.

Mitsui Sumitomo Insurance Company, Limited
●Surugadai Building & Surugadai　New Annex　[Headquarter building]

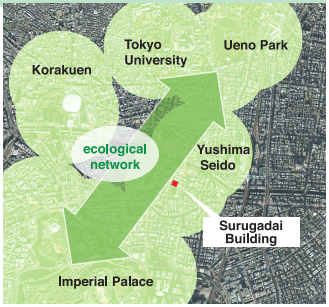
I-4. DENSITY THICKNESS OF SOIL SUPPORTING VEGETATION,
I-7. CREATION OF HIGH-QUALITY ROOFTOP GARDEN CONTRIBUTING TO BIODIVERSITY

Rooftop garden was planned from the beginning of Surugadai Building (completed in 1984). The structure was designed sturdy enough to bear the weight of soil which piles up to 1 to 1.5m. Due to the thick soil, the building enjoys big trees in the garden. The repair works in 2013 was aimed to give more consideration to biodiversity. Mitsui Sumitomo Insurance transplanted some evergreens to fruit trees which wild birds prefer, and installed bird-bath. Wall greening at northern sidewalk of Surugadai New Annex is 120m long, and are mainly composed of indigenous plants.



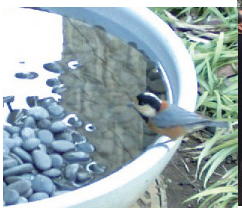
I-5. HARMONY WITH AMBIENT SURROUNDINGS (CREATING A ECOSYSTEM NETWORK)

Surugadai New Annex, as a green open space, creates an ecological network with green open spaces of the Imperial Palace and the Ueno Park.Connecting important habitats and creating an ecological network can conserve genetic biodiversity.



II-12. MONITORING OF INDICATOR LIVING SPECIES

To verify how effectively ecological network is functioning, Mitsui Sumitomo Insurance monitor indexed wild birds which inhabit in Imperial Palace in regularly basis. Bird-watching event is held twice a month in which workers of the company participate voluntarily, and a monitoring is led by workers with expertise.
They have recognized titmouses which prefers mountainous atmosphere.



I-6. CREATION OF NATIVE FLORA-BASED VEGETATION

Osaka Gas has created green spaces in the LNG Terminal consisting of laurel forests, ponds, grass fields and seaside vegetation which contain rare plants native to the area of Nishi Harima, Hyogo Prefecture. It is appropriately maintained to benefit not only for safety of the Terminal, but also for conservation of local biodiversity. The company selects plants suited for each section of green spaces in the Terminal among those growing from native seedings genetically adapted to the locality.

Examples are as follows:

1. Using seeds collected in the local mountain areas for growing trees in forest areas.
2. Using seedlings collected in the riverside of local rivers for growing herbaceous species in grass fields.
3. Using seeds collected in theTerminal for growing vegetation.

II-11. CONSIDERATION ON MATERIAL CYCLE (EFFECTIVE USE OF WASTE MATERIALS)

Osaka Gas is promoting "recycle-based green spaces", where "green wastes" such as fallen leaves and thinned woods are reused or recycled inside the terminal premises. For example, thinned woods are reused for fences and pickets in green spaces, as well as fallen leaves and grass are recycled as soil after composting treatment in compost piles.

III-14. COORDINATION WITH THE COMMUNITY AND EXPERTS, III-16. PARTICIPATION OF EMPLOYEES, III-18. CONSERVATION OF ENDANGERED SPECIES IN THE REGION

The company is pursuing possibilities of various efforts for conserving biodiversity at the Terminal by collaborative approaches with local universities, researchers of specialized museum and local government. One of such efforts is that utilization of green spaces as refuge for endangered species of which habitat is forced to shrink by road construction and river works. This effort is conducted through seeking advice from local researchers.

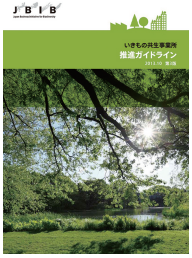
Thanks partly to its limited access of humans and animals to the premises, biodiversity of the LNG terminal is successfully maintained by appropriate conservation efforts, including those by some employees of the terminal volunteer to collect and replant endangered species making use of their days off.

Expected Role of Corporate Green -Our Solutions-

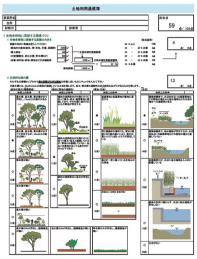
Biodiversity-conscious use of business sites can improve the quality of the regional ecosystem.
The following are three main roles on which business sites can contribute to biodiversity.

1. Contribute to conservation of regional biodiversity
2. Contribute to sustainable use of the ecosystem service
3. Serve as contact point to facilitate peoples' awareness of coexistence with nature

We have worked on picking out important tips to consider biodiversity in its land-use and have developed a tool kit of the following 3 items to promote the tips.



Guidelines for Sustainable Business Sites



Land Use Score Card

Monitoring Sheet

★GUIDELINES FOR SUSTAINABLE BUSINESS SITES

The reader can immediately gain an understanding of the basics of the sustainable land use. It includes detailed explanation of the evaluation criteria (see below).

★LAND USE SCORE CARD

The Score Card is a method to evaluate land use from a sustainability perspective. It contains indicators to evaluate the current sustainability status of a business site.

★MONITORING SHEET

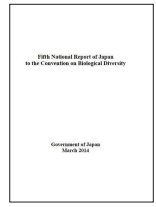
Employees with no previous biodiversity knowledge can use this sheet to make an inventory of living organisms inhabiting the site.

EVALUATION CRITERIA OF LAND USE SCORE CARD

I. CREATING AN ENVIRONMENT CONTRIBUTING TO BIODIVERSITY	1	Large area of habitat contributing to biodiversity
	2	Structure of the green space
	3	Integration of green spaces
	4	Density thickness of soil supporting vegetation
	5	Harmony with ambient surroundings (creating a ecosystem network)
	6	Creation of native flora-based vegetation
	7	Creation of high-quality rooftop garden contributing to biodiversity
	8	Consideration on habitats and migration path for animals
II. PROMOTION OF THE SUSTAINABLE MAINTENANCE AND MANAGEMENT UTILIZING THE NATURAL CYCLE	9	Appropriate management of the use of chemical substances
	10	Consideration on water cycle (effective use of rain water)
	11	Consideration on material cycle (effective use of waste materials)
	12	Monitoring of indicator living species
	13	Approach to alien species
III. COMMUNICATION WITH STAKEHOLDERS	14	Coordination with the community and experts
	15	Development and deployment of human resources in the office
	16	Participation of employees
	17	Promotion of environmental education programs for external stakeholders
	18	Conservation of endangered species in the region

EXPANDING ACTIVITIES TO RELATED STAKEHOLDERS

Sustainable Land-Use Working Group has expanded the scope of its activities.
In response to the requests from companies other than JBIB members, we have opened, since March, 2011, training sessions of the tool kit to business facility managers, construction project managers, construction engineers, landscape designers, environmental NGO staff, governmental officials and so on, with the assistance of ABINC (see below). More than 200 people have completed the sessions as of now.
In September 2012, the tool kit was mentioned in the section of "Promoting biodiversity-friendly activities by businesses" of "the National Biodiversity Strategy of Japan 2012-2020". Furthermore, the Japanese government referred to our activities and a new certification system (see below) in "Fifth National Report of Japan to the Convention on Biological Diversity" issued in March 2014.
The tool kit was introduced or recommended in several documents as follows:
-Eco4Biz (WBCSD, 2013)
-CASBEE* for Market Promotion (IBEC, 2013) *a green building tool developed in Japan
-Some local biodiversity action plans.



ABINC CERTIFICATION OF CONFORMITY TO JBIB GUIDELINES

ABINC (Association for Business Innovation in harmony with Nature and Community) has established a certification system for sustainable land use of business facilities. ABINC board consists of authoritative figures in the fields of ecology, landscape and business and biodiversity and is involved in the certification process. In January 2014, ABINC issued the certifications, for the first time, to 9 office buildings and 2 shopping centers, which include not only facilities under development but also existing ones. Those green spaces can improve the quality of the regional ecosystems and contribute to the construction of ecological networks.
ABINC validates the conformity of facility's landscape documents to "Guidelines for sustainable business sites" which were developed and issued by JBIB.

ABINC
Association for Business Innovation in harmony with Nature and Community

certification logo

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