

Initiatives to Promote Biodiversity in Nagoya Through Collaborative Partnerships -Results in the Ten Years Since COP10-



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City of Nagoya

Foreword

Nagoya, which hosted the 10th Conference of the Parties to the Convention on Biological Diversity (COP 10) in 2010, is one of Japan's three major cities. The city has developed as the cultural and industrial center of Japan's central region. Looking at Nagoya's natural environment, we see of a variety of ecosystems, including the distribution of endemic plants in the forests and green areas of the hills in the eastern part of the city, and in the southwest, Fujimae Tidal Flat, a wetland registered as a Ramsar Convention site.

Fujimae Tidal Flat, a crucial stopover for migratory birds, is one site that symbolizes Nagoya's environment. The city had planned to use the flats as a landfill waste disposal site. However, public opinions opposing the landfill steadily increased, and in 1999, Nagoya abandoned the landfill plan and instead declared "State of Emergency for Wastes" that called for significant reductions in waste. Following the declaration, the goal of reducing waste by 20% in two years was achieved thanks to a partnership of citizens, companies, and government, thus allowing the city to overcome the crisis.

In recognition of that achievement, this area was selected as the site for 2005's Aichi World Expo under the theme of nature's wisdom, and as the venue for COP10 in 2010 and the UNESCO World Conference on ESD in 2014, linking the partnership fostered by the State of Emergency for Wastes to the present day.

In the year following COP10, Nagoya established the "Nagoya Biodiversity Center" as a base for conserving and nurturing biodiversity within the city. In addition to the work of numerous residents in promoting efforts to conserve biodiversity, a number of civic groups, companies, educational institutions, and other organizations have also come up with a variety of superb initiatives.

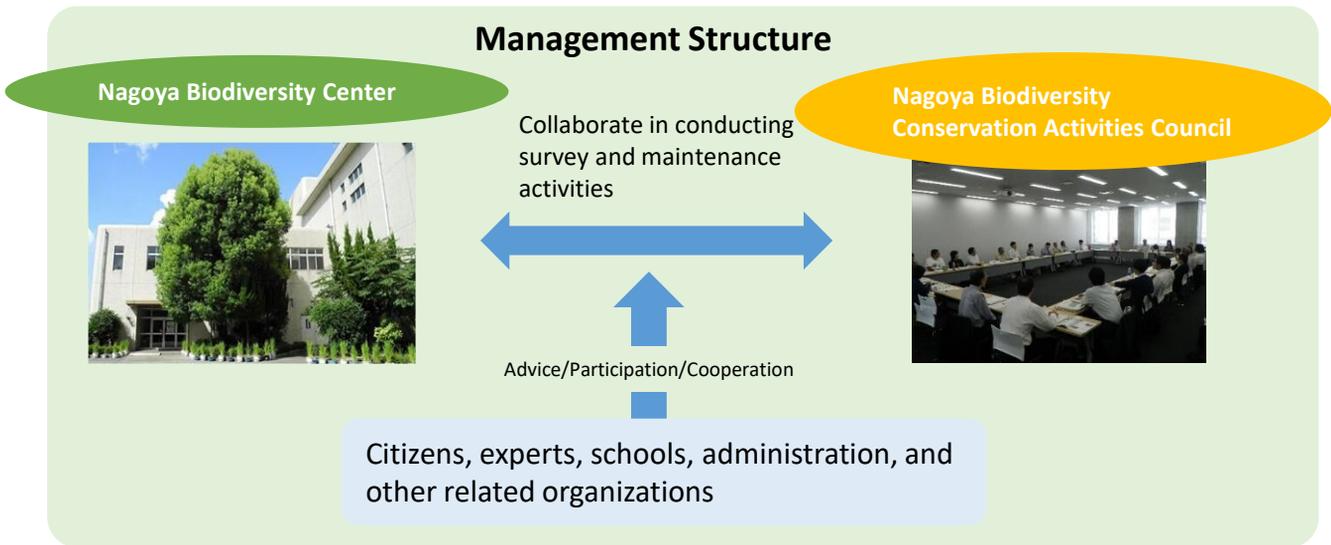
As we turn towards achieving our SDGs in 2030 and creating a society in harmony with nature by 2050, we see COP15 as an opportunity to renew our determination as we join together with residents and businesses in ensuring a city with a rich, sustainable life supported by diverse living things and ecosystems.



[Result 1]

The network and its base were established for the conservation and restoration of the neighboring nature, and research and conservation activities were promoted in cooperation with local residents.

In September 2011, the "Nagoya Biodiversity Center" was established as a base for the development of civic activities to protect and nurture the neighboring nature. These initiatives increased following the COP10 held in Nagoya in 2010. In addition, more than 40 citizens' groups and experts have formed the "Nagoya Biodiversity Conservation Activities Council" to engage the citizens in various conservation activities.



Accumulation and Dissemination of Information on Living Things in Nagoya [A Base for Information Gathering and Sharing]

With the establishment of the base facility, we can now gather information about living things more efficiently. In addition to the results of the survey conducted with citizens, we also receive various information from residents on a daily basis. These reports exceed 500 per year.

This information is posted on the "Living Things Information Portal Site" and published as the "Nagoya Biodiversity Guidebook" to provide citizens with easy-to-understand information.

We also prepare and store specimens to preserve evidence of their existence.



Portal Site for Living Things

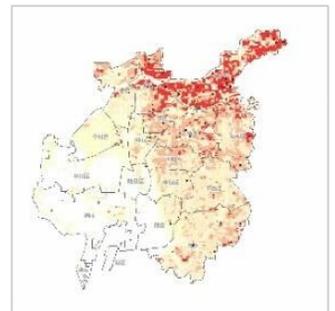


Image of GIS (Raccoon's Preferred Environment)

[Red List /Red Data Book]

Since 2002, the city of Nagoya has compiled a Red List of endangered wildlife, updated once every five years.

The Red List's information on rare species has been used for environmental assessment.

The number of listed species is increasing slowly due to environmental degradation, changes in habitats caused by plant succession, and the discovery of new species through research.



Rare species: Callery Pear (*Pyrus calleryana decne.*)



Red Data Book

Survey and Conservation in Cooperation with Citizens

[Citywide Survey of the Living Things in Nagoya]

Every year since 2011, we have selected species to be surveyed in various parts of the city, with the aim of encouraging citizens to take an interest in the nature and living things around them. More than 3,000 citizens have participated in surveys of ants, land snails, cicadas and other species. As unidentified species in the city have been discovered through the survey, it also serves to expand our knowledge of Nagoya's ecosystem.



Citywide Survey of the Living Things in Nagoya

[Invasive Alien Species Control]

Many alien species inhabit Nagoya City. As some of them pose a threat to existing ecosystems, we are taking measures to control these species.

We have been working with citizens' groups and researchers toward the standardization of a capturing method for red-eared sliders. This initiative was introduced as an advanced case in the "Guide to the Control of Red-eared sliders" issued by the Ministry of the Environment, and these traps are being used all over Japan.



Control of Red-eared Sliders

To prevent the expansion of this species' habitats, we have made a leaflet summarizing effective control methods, and distribute it to park management citizen's groups. In addition, we hold weeding events with citizens while raising awareness of invasive plant species. The number of lance-leaved coreopsis has decreased to less than 20% of the peak period, particularly in areas where countermeasures and intensive weeding have been carried out.



Pulling Lance-leaved Coreopsis

[Draining of a Reservoir]

Draining of a reservoir is a traditional Japanese method of maintenance manmade pond for agriculture by removing accumulated mud, and repairing revetments. In recent years, it has been increasingly used to restore ecosystems. There are more than 100 reservoirs in Nagoya, which serve as a foothold for the urban ecosystem. However, due to the increasing number of alien species such as fish and turtles that have been introduced, the Nagoya Biodiversity Center has facilitated the drying of reservoirs with the aid of citizens' groups and local residents in various places throughout the city, with the participation of more than 4,000 citizens.



Draining of a Reservoir

Cooperation, Exchange, and Networking

The "Nagoya Biodiversity Center Fair" is held every year with the aim of promoting initiatives by citizens' groups, businesses, research and educational institutes, experts, and others for the sake of biodiversity conservation. We promote mutual cooperation and exchange by showcasing the results of our daily activities at booth exhibition, and by organizing stage presentations by biology clubs from high schools and other groups. We also provide opportunities for citizens with the goal of fostering an interest in the natural environment and living things.



Nagoya Biodiversity Center Fair

[Results 2]

Greenery city planning has progressed through the partnership

Due to the cooperation of citizens, businesses and government, initiatives to preserve and create greenery is progressing towards the creation of a lush green cityscape, and many citizens are involved in greenery city planning activities.

Maintaining Greenery in the City

In 2008, Nagoya was the first city in Japan to establish the "Greening District System," which requires the greening of buildings that are of a certain scale.

Since the system's inception and through 2020, 531.5 hectares of green land has been maintained and contributed towards improving the city's living environment.

In addition, we incentivize the greening of private land by recognizing and showcasing excellent examples.



Examples of Greening on Private Lands

Creating Lush Forests in Nagoya

With the cooperation of its citizens, we have been developing the "Nagoya Forest" to pass on to the next generation by means of preserving and cultivating the city's woodland environments, as well as promoting contact with nature in the city's forest and wetland areas.

Since the 2000 fiscal year, Todagawa Ryokuchi, located in the southwest of Nagoya, has been promoting a "western forest revitalization," which aims to grow a rich, vibrant forest by planting young trees with the cooperation of citizens, businesses and administration. We will continue to make efforts in tree-growing activities such as thinning, pruning, and weeding in order to pass this rich forest onto the next generation.



Changes in Forested Site by Western Forest Revitalization Project (Left: FY2001/Right: FY2018)

[Results 3]

Increased civic movement results in Nagoya being awarded fair trade town status and expanding their activities.

Promoting Fair Trade with the Earth

After a citizens' movement launched around 2011 to make Nagoya a fair trade town and five years of grassroots campaigning, Nagoya won recognition as the second fair trade town in Asia/Japan in 2015.

With Nagoya having a broad grasp the concept of fair trade, we aim to be fair not only to developing countries, but also to our own regions and the global environment as the entire city promotes fair trade with the slogan "Fair Trade with the Earth!"



Fair Trade Town Nagoya Support Logo



Fair Trade Fashion Show by High School Students

High School and University Students Initiatives

Students' efforts have been a major driving force in promoting fair trade in Nagoya. Student groups are enthusiastically engaged in activities to spread fair trade in various locations, collaborating with local communities and businesses in programs to develop and promote fair trade products.



Fair Trade Products Developed by High School Students

[Results 4]

Environmental education and public awareness has progressed through cooperation.

Initiatives for environmental education and public awareness have progressed through cooperation from people in various fields and positions towards mainstreaming biodiversity.

Nagoya Open University of the Environment

The Nagoya Open University of the Environment was established in 2005 at the time of the World Expo held in Aichi Prefecture. The university is a unique collaborative learning network within Japan that operates with the collaboration of citizens and their associated groups, businesses, educational institutions, and administration. Since its establishment, the university has so far held over 2,200 courses and seminars with people from various fields and positions as instructors, and over 270 thousand people have participated in these courses and seminars. Various courses are also held each year in the field of biodiversity, and volunteer groups continue to study and research alien species and neighboring nature in the city after the courses were over.



Nature Observation Course at Satoyama



Workshop

[Results 5]

Collaboration on upper river basin and Nagoya has progressed.

Nagoya has been blessed with natural materials such as wood and drinking water from the Kiso Three Rivers basin (namely Kiso River, Nagara River and Ibi River) from the past. At the same time, people have interacted with great enthusiasm and resources have been actively exchanged. Collaboration on the river basin deepened further when reconstruction began on Nagoya Castle Honmaru Palace and COP10 was held.

Nagoya Castle Honmaru Palace Restoration Project: "Reforestation by Residents"

Numerous hinoki cypress trees from the Kiso region—"Kiso hinoki"—were used in the restoration of Nagoya Castle Honmaru Palace, which fully opened in June 2018.

The Kiso and Ura-Kiso areas once used to be the territory of the Owari-Tokugawa clan. Continued large-scale logging to supply construction of the castle town in the 17th century had led to serious depletion of the forests' resources. In order to protect those forest resources, logging was prohibited plantings of hinoki and other trees species also helped regenerate the forest, and the recovery continues to this day.

Tree plantings have been conducted by Nagoya residents since 2008. Efforts include the "Reforestation by Nagoya Residents" program and steps to ensure that the natural environment and forest resources protected by our predecessors can be passed on to future generations. In 2019, a lecture program describing the wood's origins was held at Nagoya Castle.



Nagoya Castle Honmaru Palace



Forestation by Citizens

Kiso Three Rivers Basin Municipality Partnership Meeting: Life Connected by Water

Prompted by the occasion of COP 10, the Kiso Three Rivers Basin Municipality Partnership Meeting was established in 2011 with the theme of "Life Linked by Water." As of April 2020, there were 46 local governments in four prefectures participating.

This promotes direct visits by mayors of the various municipalities to other municipalities in the river basin, a Three Rivers Basin Municipality Summit where participants can exchange views on various issues, business meetings providing a venue for talks between producers from the river's upper and middle reaches and buyers downstream, visits by basin residents to the source of the river, tree plantings and other activities to preserve the watershed, and other projects.



Business Meeting

Aichi-Nagoya Biodiversity Best Practices

In summarizing biodiversity conservation and sustainable use initiatives geared towards achieving the Aichi Targets and to promote further efforts, we solicited examples of initiatives carried out in Aichi Prefecture and Nagoya City following COP 10.

Of the 160 cases submitted, 20 especially superior initiatives were selected and awarded by the selection committee as "Best Practices," with 143 excellent cases selected and commended as "Good Practices."

Here we introduce the initiatives selected as Best Practices winners implemented in Nagoya.

Civic Groups and NPOs

Fujimae Ramsar Society

Efforts to protect Fujimae Tidal Flat, a crucial stopover for migratory birds, started in 1984 in response to plans to fill in the tidal flat as part of a Nagoya City waste disposal site. The Fujimae Ramsar Society played a major role in preserving the tidal flat by holding symposiums, conducting biological surveys to verify its capacity to purify water, as well as other activities. Currently, the group is addressing the issue of defaunation, training guides for Fujimae Tidal Flat, and implementing programs to ensure that the area will be protected for future generations.



Nature Watching at Tidal Flat

Yamazaki River Green Map, Aichi Sea Green Map

Development and urbanization of the city over the 70 years since the end of World War II has led to the extinction of many living creatures. However, almost no scientific evidence remains about those extinct species. We compiled materials from elementary and junior high school students' interviews of local elderly people about the creatures that they encountered in their childhood in the Yamazaki River flowing through central Nagoya, and in the sea around Aichi Prefecture.



Interviews with Local Elderly Citizen

Fujimae Tidal Flat Clean-Up Campaign Executive Committee

In the 2000s, the Fujimae tidal flat was covered with plastic bottles and other household waste from the river basin. In 2004, four citizens' groups conducting activities along the rivers flowing into the tidal flat launched a cleanup program called the "Fujimae Tidal Flat Clean-Up Campaign." In 31 outings conducted over approximately sixteen years, 37,770 participants including local residents, individuals from businesses and government, and others have collected a total of 46,082 45-liter bags of garbage.



Cleaning Activity

Companies

Sango Co., Ltd.

Aiming to help create a society that coexists in harmony with nature, automobile parts manufacturer Sango Co., Ltd. is expanding the company's tree-planting program to its factories both in Japan and abroad. The company has created a wooded area and biotope at the site of a former factory in Nagoya's central area, providing an invaluable urban oasis where local children can come to engage with nature.



ECO 35 Forest and Biotope

Team YMO

(Public Interest Incorporated Foundation Nagoya Greenery Association, YAMADAGUMI, K.K., OHBA&CO.)

For twenty years, local citizens, businesses, and governmental entities have collaborated in planting and cultivating trees at Todagawa Ryokuchi Nogyo Bunka-En in the southwestern part of Nagoya, creating a forest and biotope inhabited by a variety of plants and animals. This urban "satoyama" provides protection for rare species and acts as a space for environmental education courses in which parents and children can participate.

YAMADAGUMI, K.K.

The company continues to be involved in creating sites in the northeastern part of Nagoya to practice biodiversity-focused, environment-friendly agriculture and enable people to experience urban farming. For example, through a combination of physical and biological control measures using almost no pesticides or herbicides, they can cultivate fruit trees and develop organic fertilizers, arrange work experience for people with disabilities, and provide local residents with opportunities to experience farming and nature.



Observation of Waterside Life



Activities at the Farm

Educational Institutions

Aichi Commercial High School UNESCO Club

The Aichi Commercial High School UNESCO Club has been keeping bees on the school building rooftop as a way to contribute to sustainable community development. The honey harvested there is made into the products we planned and developed with local companies. The club has been planning and managing events to solve social issues under the theme of SDGs (Sustainable Development Goals) involving the community from the perspective of high school student.



Beekeeping

Aichi Prefectural Nanyo Senior High School "Nanyo Company Club"

Nanyo High School has established an extracurricular activity in cooperation with local communities and companies to help achieve SDGs through the regular act of shopping. One program, for example, features sales of handicrafts made by local residents in the Philippines, a location that is connected to Fujimae Tidal Flat by migratory birds, with a portion of the proceeds being donated to mangrove tree planting activities. 1,270 trees have been planted thus far.



Developed Product

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SUSTAINABLE DEVELOPMENT GOALS

