

**The Musashino's
Fallen Leaves Manure
Agricultural system
that is still alive
in the suburb of Tokyo
GIAHS Application**



October 2021

Proposal for Designation as Globally Important Agricultural Heritage System

Summary Information

Name of the proposed GIAHS site

The Musashino's Fallen Leaves Manure Agricultural system that is still alive in the suburb of Tokyo

Requesting Agency/Organization

- Group name

Promotion Council of Musashino's Fallen Leaves Manure Agricultural system for Globally Important Agricultural Heritage Systems

- Organizational structure

Kawagoe City, Tokorozawa City, Fujimino City, Miyoshi Town, Irumano Agricultural Cooperative, Kawagoe Agriculture and Forestry Promotion Center, Saitama Prefecture, Professor Emeritus of Dokkyo University Tadashi Inui, Chairman of Japan Soil Association Satoshi Matsumoto, Professor of Environmental Studies, University of Tsukuba Tamura Kenji

Responsible Ministry and contact information

Ministry of Agriculture, Forestry and Fisheries of Japan

Tel +813-6744-0250

Miyoshi Town (Promotion Council of The Musashino's Fallen Leaves Manure Agricultural system for Globally Important Agricultural Heritage Systems Secretariat)

Tel +8149-258-0019

Location of the site

- The proposed site name:

Musashino area, Saitama prefecture (Kawagoe City, Tokorozawa City, Fujimino City, Miyoshi Town)

- Explanation about the location of the proposed site

Agricultural area near Tokyo adjacent to Tokyo

- Geographic coordinates (35 ° 49'53 north latitude ” 139 ° 30'8 east longitude (Agricultural Center)



Accessibility of the site to capital city

- 60 minutes by train from Tokyo Station to Kawagoe Station

<ul style="list-style-type: none"> • 100 minutes by limousine bus from Haneda Airport to Kawagoe Station
<p>Area of coverage (expressed as “ha”) of the GIAHS site (core area)</p> <p>This system practicing farmers cultivated land area 139.79ha, upland forest 46.42ha</p>
<p>Agro-ecological zone</p> <p>Humid moderate soils</p>
<p>Topographic features</p> <p>The Musashino Plateau, which is covered with the Kanto Loam Layer, is the main production area.</p>
<p>Climate type</p> <p>Cfa (warm and humid climate) in the Köppen climate classification. The changes in the four seasons are clear, with high temperature and humidity in summer and low temperature and dryness in winter. The average annual temperature is 14.1 °C. The average temperature in January, which is the coldest, is 3.2 °C. The annual rainfall is 1,481 mm, and the northwest seasonal wind is strong from winter to early spring.</p>
<p>Approximate population (beneficiaries)</p> <p>Population: 840,557 (Kawagoe City 350,745, Tokorozawa City 340,386, Fujimino City 110,970, Miyoshi Town 38,456)</p> <p>Number of farmers agricultural management entities: 3,262 (Kawagoe City 1,964, Tokorozawa City 860, Fujimino City 204, Miyoshi Town 234)</p> <p>Farmers practicing this system: 71 farmers</p>
<p>Main source of livelihoods</p> <p>Service industry, wholesale / retail industry, manufacturing industry, agriculture</p>
<p>Executive summary</p> <p>The traditional agriculture, forestry and fisheries industry system in the Musashino area has a systematic arrangement of house area, upland fields and forest under extremely harsh natural conditions such as low nutrients and scarce water, and the upland. It is "The Fallen Leaves Manure Agricultural system" that manures the fallen leaves generated from the forest and plows them into the field to improve the soil, creating a highly productive field and enabling stable cultivation of agricultural products. In addition, it is important worldwide that this system is a sustainable agriculture that makes full use of ecosystem functions while being in the suburbs of Tokyo metropolitan.</p> <p>The history of this system goes back to the development of the Musashino Plateau in the Edo period in the 1600s. The cultivation of the Musashino Plateau was started in 1603 to make up for the food shortage caused by the rapid population growth of Edo, where the Tokugawa Shogunate was based. In addition to maintaining soil fertility by setting up upland forests, the entire village has been given multiple functions such as windbreak, soil scattering prevention, and groundwater recharge to establish sustainable agriculture and rural areas, and has responded to food demand. By maintaining the system to date, proposed site is still supplying vegetables in a stable manner as a suburban agricultural area that supplies vegetables to the capital of Japan, Tokyo. By continuing the system as a region, even though it is in the suburbs of Tokyo metropolitan, an area of building premises, upland fields and forest remains, and this connection has</p>

created an expanse of agricultural land and green areas, and even now. It maintains the characteristic appearance at the time of pioneering.

In the suburbs of Tokyo metropolitan where development pressure is high, the traditional agricultural system in the development which is a new reclamation upland agricultural in the Edo period, which utilizes the fallen leaves of the upland forest artificially created integrally with the agricultural land, still remains with the expansion of the area. In Japan, which has a warm and humid climate with clear changes in the four seasons, it is an agricultural system that was cultivated by utilizing the fallen leaves caused by temperature differences, and in terms of maintaining the soil fertility of upland fields, it is in contrast to this region worldwide. Considering that there are some areas that are strongly dependent on manure obtained from livestock, there are no other cases, and it can be said that proposed site is a rare area in the global.

【Features unique to the proposed site created by the system】

With the system, a wide variety of agricultural products are still produced in the large field at the time of cultivation and shipped to the market. The agricultural products produced by the system are also processed, and in collaboration with other industries, they have expanded to related industries. Forest floor management such as gathering the fallen leaves of the forest and manuring of fallen leaves, which are carried out every year to maintain the system, produce abundant spring plants, create habitats for various birds and insects, and even more. It also produces a variety of soil microorganisms. In this way, the circulation of the system creates abundant biodiversity. It is not just the traditional culture, values and social organizations of the region that support and sustain the system. In proposed site, there are also modern social organizations that make use of the suburb of Tokyo metropolitan to interact with urban residents. The landscape, which is a set of building sites, upland fields and forest created by the system, still remains even though it is located in the suburb of Tokyo metropolitan within 30 km from the Japanese capital, Tokyo. Since it is located in the suburb of Tokyo metropolitan, the landscape of the system is maintained while efforts and ingenuity are being made for coexistence with strong development pressure.

【Global importance of the proposed site】

The system realizes a "low-carbon society," "environmentally-friendly society," and "society in harmony with nature," and contributes to the United Nations Sustainable Development Goals (SDGs). In addition, this system is carried out by family labor, which is consistent with international efforts such as "The United Nations Decade of Family Agriculture." As a proof of the global importance of this system, the region has accepted a wide range of inspections from overseas, from developing countries to developed countries, and this system is nowadays applied through the Japan International Cooperation Agency (JICA) in Chile, South America. It can be mentioned that it is utilized for measures against deferrization and environmental conservation. In this way, this system is packed with global issues and wisdom and ingenuity that can serve as a model for agriculture in the big cities around the global, and is the most important region that contributes to the global as a traditional and advanced model.

Landscape Features

A strip-shaped land division that consisted of house area, upland field and upland forest that still remain in the suburb of Tokyo



Agro-Biodiversity

Diversity of agricultural products
Maintenance and preservation of rare species
Biodiversity in upland forest
Developed aggregate structure and fungi, microorganisms



Cultures, Value Systems and Social Organizations

Substitute attendance
Literary calendar, Fork performing arts
Participation of various actors



One land allocation about 5ha

Upland Forest about 2ha



Fallen leaves in upland forest



Upland Field about 2.5ha



Manured fallen leaves



House Area about 0.5ha



Local and Traditional Knowledge System

Overcoming harsh natural conditions
Stable agricultural production



Gathering fallen leaves by city residents

Food and Livelihood Security

A major production area that produces high-mix open-air vegetables
Vegetables blessed with fallen leaves manure



Food supply to the Metropolitan

Within 30 km from the capital Tokyo
Agricultural Heritage suburb of Metropolitan

Tokyo Metropolitan