Takahihogo-Shiibayama Mountainous Agriculture and Forestry System
- A Cradle of Japanese Mythology Nurturing Forests and Traditional Culture -

Plan for Conservation & Utilization of a Globally Important Agricultural Heritage System (Action Plan)

(Planning period: the five-year period FY2015-FY2019)

GIAHS Promotion Association of Takachihogo-Shiibayama
1. Introduction

This plan outlines approaches to be taken by the Takachihogo-Shiibayama Site (hereinafter referred to as "the Site") for conservation and promotion of the composite system of agriculture and forestry in the mountainous area of Takachihogo-Shiibayama, which is the subject of an application for registration as a globally important agricultural heritage system (GIAHS) under the Food and Agriculture Organization (FAO) of the United Nations.

The agriculture and forestry system in the Site is characterized by a both distinctive and sophisticated composite system of agriculture and forestry in mountainous terrain, the support it has provided to its populace by nurturing a distinctive traditional culture, and a cyclic operation directing resident agriculture, forestry, and conservation of forests, farmland, and other local resources.

Under the harsh natural conditions presented by the mountainous terrain, the people in the Site have continuously managed forests while striking a proper balance between their conservation and use, as evidenced by shifting (slash-and-burn) cultivation and mosaic-pattern forests. In addition, they have made effective use of the forests and resources derived from it (e.g., organic matter and water) as means for their livelihood in such forms as production of lumber, terraced rice-farming, production of beef cattle, and cultivation of shiitake mushrooms and tea, thereby forming the composite system of agriculture and forestry in the mountainous area. The Site contains many households who are engaged in the composite management of the agriculture and forestry business, which indicates the close connection between the agriculture and forestry. In addition, agriculture and forestry in the Site has provided a habitat for various rare plants and animal life living in forests and on farmland, produced the beautiful scenery of mosaic-pattern forests and rice terraces, and nurtured traditional culture as exemplified by kagura dances, which transmit ancient Japanese myths and folklore to the present. In fiscal 2013, kagura dancing was dedicated to the gods in 87 different locations, which is a remarkable number for an area with a population of approximately 27,000 people. As this indicates, agriculture and forestry nurture the precious traditional culture.

Nevertheless, the Site sees changes under way in the situation surrounding agriculture and forestry, as in many districts of Japan, such as a decrease in the population engaged in agriculture and forestry, falling birthrates, population aging, and progressing depopulation. These changes are making it increasingly difficult to conserve and manage forest and farmland, etc. in the Site.

This plan indicates the issues, current status, and specific approaches on how to pass the Site’s agriculture and forestry system on to future generations and, if it acquires GIAHS accreditation, how to use this certification for the development of agriculture and forestry and for contribution both inside and outside Japan.

Figure 1: Takachihogo-Shiibayama Mountainous Agriculture and Forestry System
2. Profile of the Takachihogo-Shiibayama Site

(1) Geographical outline

The Site is located in the northwestern part of Miyazaki Prefecture, in the Kyushu-Sanchi northern district. It is a mountainous area surrounded by steep mountains that make up Kyushu-Sanchi, including Sobosan (elevation of 1,756 meters), its main peak. It was called Takachihogo (Takachiho Town, Hinokage Town, Gokase Town and Morotsuka Village) and Shiibayama (Shiiba Village) of Usuki County of Hyoga Province from ancient times, and consists of three towns and two villages.

About 92% of the Site is forested, but about half of which is planted forest. Arable land accounts for only a scant share of the Site at about 3%, but distinctive agriculture is conducted, exemplified by the rice terraces built on the steep slopes. The steep mountains and forests covering them characterizing the Site combined with mountain streams engendered by this terrain and the scattered communities and rice terraces to create beautiful scenery. This scenic landscape was nurtured by the agricultural and forestry activities of the residents in the Site.

In particular, the vicinity of Morotsuka Village, which is situated in the Mimi River basin in the southern district of the Site, is the site of rich lumber production and shiitake mushroom cultivation, and consequently has forests of conifers (Japanese cedar and Hinoki cypress), deciduous broadleaf trees (such as Sawtooth oak, etc.), and evergreen broad-leaved trees. These forests are planted in a patchwork pattern and form the characteristic landscape of a so-called "mosaic-pattern forest." Along the Gokase River in the northern district of the Site is the Takachiho Gorge, whose cliffs range in height from 50 to 100 meters. The gorge has been designated by the Japanese government as a Scenic Spot and a Natural Monument. Rice terraces spread out above the gorge, and are irrigated with water drawn from sources deep in the mountains, far from the Gokase River, whose waters are difficult to be used because of the elevation difference. The fields and their irrigation works were built with a huge amount of labor. The slopes in the vicinity form a beautiful landscape, combined with cutting grasses to maintain the rice terraces and obtain roughage for livestock production.

Figure 2: Map of the Site
Due to its rugged mountainous terrain, the Site has very little flat land fit for farming. There is a scattering of relatively small communities surrounded by forests. More than 70% of these communities have no more than 30 houses. In this harsh environment, the residents work diligently and exercise their ingenuity to conserve and manage the forests. At the same time, they engage in agriculture and forestry while making the most of local resources such as water and organic materials.

1) Profile of agriculture

The types of agriculture practiced in the Site are suited to its mountainous environment. They include cyclic shifting cultivation, rice farming on terraces, cultivation of tea, vegetables, etc., on terraced fields, and production of beef cattle using roughage taken from the forests and grasslands on their periphery. At present, vegetables grown by taking advantage of the cool climate in summer, as well as beef cattle and rice are key pillars of agricultural production. The Site now also produces tea and other industrial agricultural products, flowers and ornamental plants, chestnuts, and fruit such as kumquats. Its agricultural production is fairly varied.

(Rice-farming on terraces)

In the Site, the land along rivers has a gorge-like terrain, and there is consequently a big difference of elevation between the farmland built on slopes and the river surface. This made it difficult to secure water and presented huge obstacles to rice-farming on terraces up to the end of Edo Period (1603-1868) in the mid-19th century.

In and after the ensuing Meiji Period (1868-1912), however, the ancestors of the current inhabitants sought water sources at high elevations deep in the mountains dozens of kilometers away, and set about the construction of irrigation canals and rice terraces. Today, the Site has more than 1,800 hectares of rice terraces (mainly in the towns of Takachiho Town, Hinokage Town and Gokase Town) and an irrigation network with an extended length of over 500 kilometers. Because this network was built with irrigation canals weaving along the steep mountainsides, it is called the "sanpuku" (mountainside) network. Some sections run through tunnels dug by hand, and attest to the spirit and diligence of the farmers who made them.

The rice terraces in the Site have been highly rated nationwide for their beautiful scenery. They account for a remarkable seven of the 134 terraces on the list of the most representative rice terraces in Japan.
(Beef cattle production)

Up to the end of Edo Period (1603-1868) in the mid-19th century, cattle were raised in the Site to assist labor in farming. In 1883, however, an improved species was introduced from outside the Site, for the purpose of developing the raising of cattle for beef. The cattle became a key support of agricultural income in the Site, which has little arable land, and the farmers endeavored to develop techniques for raising them and improving the quality of the meat.

At present, of the 3,928 farming households in the Site, 1,402 are involved in the production of beef cattle. They raised a total of 14,580 heads of beef cattle, which accounted for about 40% of the Site's total agricultural product. Beef cattle therefore occupy a major place in the Site's agriculture. The cattle-raising operations are on a comparatively small scale. Among the breeder farms (which raise cows and the calves born of them, and make a living by selling the calves), about 90% are small ones raising no more than nine head. Many of them are also engaged in crop cultivation and forestry in addition to cattle-raising. Part of their supply of roughage comes from forests and the grasslands on their periphery as well as Imperata cylindrica and Miscanthus sinensis growing wild on the slopes of the rice terraces. In some cases, the cattle are left to graze in the forests. The cattle-raising therefore makes good use of the bio resources in the Site.

The cattle-raising in the Site has scored some impressive achievements. Its cattle were awarded the Prime Minister's Prize in the bull category in the National Competitive Exhibition of Wagyu in 2009, and helped the entries by Miyazaki Prefecture win the top prize for the second year in a row at the exhibition held in 2012. The Site has come to the fore for production of high-quality beef cattle thanks to its possession of sophisticated cattle-raising management know-how, despite the small size of many of these operations.

(Tea production)

Tea trees (yamacha) have been growing wild in the fields and mountains of the Site from ancient times. Traditionally called yabucha (bush tea) or yamacha (mountain tea), the beverage brewed from it has long been enjoyed in the home and on breaks from work outdoors. Of particular note is that the tea produced in the Site is called Aoyagi-sei kamairi-cha (pot-roasted tea). Due to its high quality, it was accepted and used by the medieval clans as tribute or taxes. Tea is still cultivated by many of the Site's farmers, and is distinguished by the following attributes: 1) many of the farmers grow it without use of agricultural chemicals, because the high altitude curtails the outbreak of disease and pests; 2) some farms use traditional techniques, such as spreading weed cuttings from the periphery around the base of the tea plants or between the rows as fertilizer; and 3) the production of a diversity of pot-roasted teas at each tea factory.

The yearly production of pot-roasted tea at the three towns of Takachiho Town, Hinokage Town, and Gokase Town alone is estimated at about 200 tons, the highest in Japan. The growers in the Site likewise boast a high level of tea-making know-how, and have made achieved good results in competitions. For example, Gokase Town took the growing district prize in the pot-roasted tea department at the fiscal 2014 installment of the annual National Tea Competition. The Site's tea has often been selected for awards presented by the Minister of Agriculture, Forestry and Fisheries and growing region prizes.
(Shifting cultivation)

In the shifting (slash-and-burn) cultivation in the Site, farmers mark out a block with an area ranging from about 0.5 to 1 hectare, clear it of trees, burn away the grasses (conduct *hire* (burning)), prepare cultivated land, and plant it with crops such as buckwheat, barnyard millet, adzuki bean, and soybean. After cultivation for about four years, they then let it revert to forest for around the next 20 or 30 years to revive its fertility, before starting the cycle over again. The logging and burning are held to a limited scale, and the land is given a long period of time to recover its fertility naturally, by reversion to forest after a short period of crop cultivation. Cultivation is resumed on the site only after the end of this period, and the system is therefore of a sustainable and cyclic character. The same type of shifting cultivation had been practiced in mountainous districts in other parts of Japan, but rapidly disappeared as a result of sweeping societal changes. In the Site as well, it was widely practiced into the 1950s and held an important position in the local agriculture, but swiftly tapered off thereafter. It is still being carefully passed on the Site, however. In the Shiiba Village, classes are held every year at local elementary schools for firsthand learning about shifting cultivation as practiced by a certain farm. This must be termed a rare case of shifting cultivation that still maintains the aforementioned characteristics, without parallel in the rest of Japan.

![Figure 4: The cycle of shifting-cultivation agriculture in Shiiba Village](image)

2) Profile of forestry

As described above, the vast majority (93%) of the land in the Site is occupied by forest. About 80% of this forest is privately owned. Of this privately owned forest, about 58% was planted mainly for the purpose of forestry. The major types of trees are conifers such as Japanese cedar and cypress, and broadleaf trees such as Sawtooth oak. The Site therefore is the site of extensive production of timber and cultivation of shiitake mushrooms.

The amount of raw timber (felled and hauled outside the Site in the form of logs) reaches about 230,000 cubic meters per year. The Site is one of the key timber-producing regions of Miyazaki Prefecture, which ranks second nationwide for timber production. Morotsuka Village, one of the villages in the Site, has traditionally been highly active in the cultivation of shiitake mushrooms that it is referred to as the cradle of such cultivation. The Site produces about 370 tons of shiitake mushrooms per year, and this is more than half of the total in Miyazaki Prefecture, which also ranks second nationwide for production of dried shiitake.

Historically, the Site was covered by forests of glossy-leaved trees such as Chinquapin and
Machilus thunbergii. These were felled by people to obtain lumber for construction, charcoal-making, and base logs for cultivation of shiitake mushrooms. The logged parcels were cleared and burned, and from them new seedlings sprouted from the remaining roots and stumps. The seedlings grew into new forests (through the coppicing process). The people therefore preserved and managed the forest of glossy-leaved trees by a kind of cyclic forestry.

Beginning in the 1950s, there surfaced great changes in the societal situation, such as the revolution in energy and rapid increase in the demand for housing in urbanized districts. The planting of forests of trees such as cedar was encouraged throughout the country. Under these circumstances, there was a certain switch to conifers in tree-planting in the Site, but most of the Site has found a good balance between forest conservation and lumber production while retaining the traditional forestry culture.

This well-balanced forestry management is best evidenced by the mosaic forest pattern visible particularly in the Morotsuka Village, in the eastern part of the Site. There is a patchwork arrangement of cedar and cypress conifers, deciduous broadleaved trees such as Sawtooth oak, and evergreen glossy-leaved trees. Morotsuka Village practices sustainable forest management which has been internationally approved; it was the first village in Japan to be certified under FSC-C012945, the forest certification of the Forest Stewardship Council®, which is headquartered in Germany. The village is served by roads that are used not only for forest management but also life activities. Their density averages about 62 meters per hectare, the highest in Japan. The logs of Sawtooth oak and oak hauled out of these carefully managed forests are used for cultivation of shiitake mushrooms, and Morotsuka Village was the first in the world to be certified under FSC-C001800, the FSC’s certificate for chain of custody (certification related to management of processing and distribution processes). Its approaches are among the most advanced even in the worldwide context.

![Photo 4: Mosaic forest landscape in Morotsuka Village](image)

(3) Profile of biodiversity

The man-made forests in the Site consist mainly of conifers such as cedar and cypress. As noted above, those in all areas of Morotsuka Village have been certified under FSC®’s forest certification FSC-C012945, and many in the Site are being properly managed by practices such as the cutting away of grasses and thinning at the right times. For these reasons, the related biodiversity is being preserved. Some of the man-made cedar forests are major wildlife habitats in Miyazaki Prefecture. More specifically, they are home to ten plant and animal species on the Miyazaki edition of

![Photo 5: Cypripedium japonicum](image)
the Red Data Book, including the Cypripedium japonicum and Calanthe sieboldii.

In addition, although the rice terraces in the Site and the "mountainside" irrigation canals supporting them are secondary natural elements constructed by human hands, they form habitats for many rare plant and animal species that have adapted to their environment, and particularly fish, amphibians, and water insects. The rice terraces farming has therefore helped to maintain biodiversity.

The Site also contains the Gokasho Highland and other upland grassland areas. These grasslands are maintained by the cutting of grasses to obtain roughage for livestock and by burning. They are likewise habitats for rare plant and animal species.

As for the traditional species in the agriculture, traditional crops of original strains are maintained in the Site through shifting cultivation include original strains of som(

The Site also produces Gokasho corn, which locals term yaune or yatsuriwase, as well as Sobosan beans and Asajiri beans.

(4) Profile of traditional agriculture and forestry culture

As the place where the grandson of the sun goddess descended to earth according to the Kojiki (Records of Ancient Matters) and the Nihon Shoki (Chronicles of Japan), the Site is the stage of many myths and legends. Many little shrines and Buddhist statues can also be found everywhere in the fields and mountains. The residents have strong religious sentiments, and the Site is permeated with a unique culture of agriculture and forestry. This cultural life may be exemplified by Shinto festivals with agricultural roots such as Shishikake festival and some of Japan's most beloved folk songs sung during farm work, such as the Kariboshikiri Song and Hietsuki bushi Song.

Kunio Yanagita, the father of ethnological studies in Japan, made extensive mention of the folkways of the Site in his book "Nochi no Kari Kotoba no Ki" ("Record of Boar Hunting"), which came out in 1909 and is regarded as the first publication on Japanese ethnology. Life in the Site is still animated with precious customs to the extent that it is reputed to be the birthplace of Japanese ethnology.

One of the major common cultural elements of the Site is kagura, Shinto dancing performed as an offering in the hopes of fertile harvests of the five traditional grains. Mention of kagura dancing in the Site in ancient chronicles goes back to the 12th century, and this underscores its position as a cherished element of its traditional culture. Various styles of kagura dancing with long traditions remain in many of the communities. In fiscal 2013 alone, dances were performed at 87 locations. The styles may be exemplified by the Takachiho night kagura (designated by the national government as an important intangible folk cultural property), the Morotsuka kagura (designated by Miyazaki Prefecture as an intangible folk cultural property), and the Shiiba kagura (designated by the national government as an important intangible folk cultural property). The style of kagura therefore has different features even within the Site. Nevertheless, each style is a link in activities for mutual assistance to support the community life, and is maintained in a spirit of togetherness that was nourished through agriculture and forestry work.

As this above indicates, the Site still possesses a precious traditional culture intertwined with the wellsprings of Japan's mythological birth and the work of agriculture and forestry. As such, it has an extremely important place as a cultural and spiritual pillar of Japan as a whole.

3. Background of GIAHS application

(1) Characteristics of conservation and management of forest and rice terraces, etc.

One characteristic of agriculture and forestry in the Site is the close connection with forest conservation and management. Under the harsh environmental conditions of the mountainous terrain, the people of the Site have managed forests on a sustained basis while striking a proper balance.
between conservation and use of the forest. They have also made effective use of the forests and the organic materials and water deriving from them to produce lumber, grow rice in terraces, raise beef cattle, and cultivate shiitake and tea. In so doing, they have built a combined system of agriculture and forestry. Distinguished by the rice terraces spreading out around Takachiho Town, Hinokage Town, and Gokase Town as well as the mountainside irrigation canal network supporting this farming, the mosaic forest landscape in Morotsuka Village, and the shifting cultivation and glossy-leaf forest preserved in Shiiba Village, the landscape in the Site was formed by the operation of this system.

(2) Human resources development and community improvement aimed at a utopia utilizing the blessings of the forest

Forests are an underpinning of agriculture, forestry, and other local industry and life in the Site. They are also at the roots of various elements of traditional culture. The residents are making even more avid efforts to maintain and develop them. In 1988, they posted the Forestopia (Forest-Utopia) vision for creation of a more fulfilling life through effective use of the Site's abundant forest resources and the elements of traditional life and culture nurtured by them. This vision rests on the conservation of forest and the traditions they spawned, the creation of new cultural elements, and interchange between cities and rural communities. Efforts are being made for human resource development and community improvement aimed at its realization.

(3) Contemporary threats

Like those in other mountainous parts of Japan, the Site is experiencing a decrease and aging of its farming and forestry population.

The trend toward liberalization of the import of agricultural and livestock products is deepening, and the agriculture and forestry in the Site is being exposed to tough competition from inside and outside Japan. There are consequently mounting concerns about an increase in abandonment of farmland, irrigation canals, and forests because of an inability to obtain enough income to make the work a paying proposition.

Abandoned farmland, irrigation canals, and forests also pose major threats. For example, the neglect of planted forests leads to the atrophy of vegetation on the forest floor, which the sunlight no longer reaches. Besides jeopardizing biodiversity, this impoverishes the soil, which is formed by fallen leaves and grasses, and therefore can result in a decline in water-retaining capacity, erosion and runoff of topsoil, and toppling of trees. These effects pose a direct threat to the life of people living in the vicinity. There is also the problem of serious damage to crops by birds and animals, due to the resulting shortage of food in forests for deer, boar, and other animals inhabiting them.

It may also be noted that, besides being the wellsprings of the Site's traditional culture, agriculture and forestry are also the pride of its residents and the source of their vitality and energy for leading their lives. There are worries that the decline of its agriculture and forestry system would exert an adverse influence in a host of fields, including the local culture, education, tourism, and permanent residence by youth.

4. The Takachihogo-Shiibayama Site – issues and outlook

In response to the threats described above, the Site is taking various approaches on tasks such as conservation activities of forest and farmland, and support for employment by youth in agriculture and forestry. Based on the issues and these approaches, there are three basic orientations for action to be
taken by the Site, which has applied for GIAHS certification, in order to conserve its agriculture and forestry, and traditional culture and promote human resources development and community improvement in pursuit of the Forestopia vision, which are as follows.

(1) Promotion of agriculture and forestry, and fuller conservation and management of forests and farmland

Conservation of the traditional agriculture and forestry system at the core of the Site's application for GIAHS certification requires, first and foremost, the promotion of agriculture and forestry in the Site, and particularly the traditional practices described in the preceding sections. To this end, the Site must redouble its efforts for an increase in the value-added level of the agricultural and forestry products it has been promoting so far. It also must encourage the growth of senary industry by developing processed products made with the local agricultural and forestry products and nurturing the establishment of farmer restaurants and other related businesses.

Agriculture and forestry are industries that produce lumber and crops by using the production resources represented by forests, rice terraces, and water. They could not be termed sustainable without full conservation and management of these resources. While promoting agriculture and forestry, it is consequently also necessary to provide for full conservation and management of resources in the form of forests and farmland.

The Site has been striving to conserve and manage its forests, as evidenced by the mosaic pattern of its forests. The forestry workers, administrative authorities, and residents must unite in a site-wide, concerted effort to conserve forest reserves and other forests that must be protected. They also must improve the management of utilized forests by execution of proper thinning, etc.

The maintenance of rice terraces, mountainside irrigation canals, and other resources of agricultural production is becoming more of a struggle as the farming population ages. Along with promotion of production by steps such as the branding of rice grown on terraces, conservation activities must be undertaken through site-wide cooperation by farmers, administrative authorities, and residents. It would also be effective to apply revenue from mini hydropower systems to operation and maintenance costs, as is being done with the Nanaore irrigation canal. The Site therefore should endeavor to make extensive use of mini hydropower, biomass, and other renewable energy in its agriculture and forestry. This will be extremely worthwhile, because it will also enable contribution to the global environment with local resources.

The Site could take approaches that reconcile the aforementioned ends of industrial promotion and conservation of production resources. One conceivable option is the acquisition and expansion of forest certification, as has been done by the village of Morotsuka Village, to add value to its special forestry products, such as lumber and shiitake mushrooms produced while preserving the environment, and assist their sales. Another is publicity for and branding of agricultural products grown by environment-preserving methods, without the use of chemicals. The Site could also strive for branding of these types of environment-preserving agriculture and forest projects.

The practice of shifting cultivation is being carefully carried on in the Site around a particular farm. There is a need to provide further support for it, widen it, and make its conservation more secure. To this end, the administrative authorities in the Association could lead activities to support approaches and join with universities and research institutes in projects of research concerning the knowledge, technology, and culture of harmonization with nature inherent in the Site's shifting cultivation. The findings could be used for publicity about this cultivation as a model for the coexistence of forest conservation with agriculture and forestry. This would also be linked to a heightening of the added value of the crops produced by shifting cultivation and a firm rooting of efforts for its conservation.

Photo 8: Elementary school pupils learning about shifting cultivation
(2) Conservation of biodiversity and scenery

The Site has nurtured biodiversity thanks to the combination of primeval nature relatively untouched by human influence and secondary nature nourished through human efforts in agriculture and forestry.

The Site therefore must strive for fuller conservation of primeval nature and virgin forests occupying most of this nature, by steps such as designation as forest reserves and important habitats for rare plant and animal species. It may also be noted that the Site has many huge and ancient trees, such as the Yamura cedar, which is estimated to be about 800 years old. These trees symbolize the Site, which has been nurtured by its forests, and efforts to preserve them must be redoubled through concerted work by residents and authorities.

As for the secondary nature nurtured through agriculture and forestry, it is vital to promote conservation and management of forests and farmland in this work, in order to preserve biodiversity. For this purpose, the Site is going to pursue proper management of forests, grasslands, farmland, and irrigation canals, based on cooperation among farmers, forestry workers, authorities, and residents. It is also recommending environment-preserving methods in agriculture, such as little or no use of chemicals in cultivation. In improvement of the infrastructure of irrigation canals, forestry roads, and other elements essential for promotion of agriculture and forestry, it is going to take measures reflecting concern for the environment by, for example, executing environmental assessments and selecting environment-friendly methods. It is also going to show consideration for appearance and scenery.

The Site is also encouraging the participation of various other principals such as volunteers and non-profit organizations (NPOs) in plans to preserve biodiversity.

Traditional varieties of crops are one of the important types of biodiversity. The Site produces an original strain of somenom (buckwheat) that has been maintained through shifting cultivation as well as Gokasho corn (a distinctive variety referred to as yamune or yatsuriwase), Sobayama beans, and Asajiri beans. To preserve these varieties, it is promoting their production by measures such as the development of specialty articles using them.

The conservation and management of forest and farmland is also linked to conservation and improvement of scenery, as shown by the mosaic forest landscape produced by forest conservation and proper human management. The beautiful scenery is an important feature; it not only gives joy to the residents but attracts many people from other areas. For this reason, the Site will strive to preserve and manage the scenery through the conservation and management of forests and farmland, and also to preserve and improve appearances in community projects, etc. through cooperation between farmers, forestry workers, residents and the authorities.

(3) Development of human resources and communities for preservation of traditional culture and realization of the Forestopia vision

The Site is animated with a distinctive culture bred by agriculture and forestry. Its elements include various farming-related Shinto festivals and rites, folk songs such as the Kariboshikiri Song and Hietsukibushi Song, and many styles of kagura dancing cherished through the ages. The Site has striven to preserve this culture through activities such as the nationwide competitions in performance of the Kariboshikiri Song and Hietsukibushi Song held every year, and the work of groups organized to preserve kagura dancing. Nevertheless, preservation is being endangered by the further decrease in the Site's population of farmers and forestry workers especially. In response, besides the preservation activities conducted so far, it is vital for the Site to put a halt to the population decline by heightening its vitality and appeal through promotion of agriculture and forestry, in order to attract and keep people there.

Since 1988, the Site has been working for attainment of the Forestopia vision, which is aimed at the creation of communities offering peace of mind and a fulfilling life to residents in contemporary society with its increasing urbanization, through effective use of its abundant forestry resources and by creative and inventive incorporation of elements of tradition life and culture bred by these resources. In pursuit of the vision, farmers, forestry workers, other residents, and authorities have joined together
in efforts of human resource development and community improvement. The vision has prompted the preparation of various facilities for experience and interchange, and the development of "forest instructors" (guides to forest culture) and other principals to conduct programs of exchange between urbanites and farm villages. The Site has also established Forestopia Learning Forest Miyazaki Prefectural Gokase Secondary School, Japan’s first public school integrating the junior and senior high school levels. The Site is consequently working to develop human resources for exercise of leadership not only in its borders but also in all of Japan and, indeed, the rest of the world. These approaches have spawned lively activities in such forms as interchange between urbanites and local residents, in which the former stay at farms and experience farm and forestry work, and forest therapy programs.

Today, more than 20 years after formulation of the vision, we are witnessing the spread of economic activities across national borders (globalization) and increasing urbanization on a worldwide scale. Meanwhile, traditional knowledge, skills, and cultures are being lost around the world. This is behind the acceleration of activities to preserve them, such as the FAO GIAHS program.

The philosophy and various approaches under the Forestopia vision are genuinely forerunning even in the global context, and their importance is rising even higher. The Site is going to continue promoting the aforementioned approaches so far and further develop related human resources. At the same time, it intends to pursue further research and publicity for the local traditional culture in cooperation with the research arms of universities and other organizations while engaging in more interchange with urban communities, and otherwise striving to heighten the Site's appeal. Furthermore, its application for GIAHS certification will be at the core of efforts for coordination with events related to traditional culture, the holding of symposiums, and other activities for wider publicity about the Site.

Information provision and publicity are anticipated to result in an increase in the number of people visiting the Site for the purpose of interchange with its residents. Although it is important to reinforce arrangements for acceptance of these visits, it is also vital to assure their sustainability by seeing that they do not impose an excessive burden on the participating farms, while maintaining the quality of the interchange and experience. To this end, the Site will develop more partnership between the local groups involved in these interchange activities, with a view to raising the Site's appeal even higher, bolstering setups for visitor acceptance, and increasing the sustainability of the interchange activities between urban and rural communities.

5. Contribution to the world as a GIAHS site

GIAHS sites are certified as being important to all humankind. It is therefore necessary to publicize the knowledge and experience behind them to the whole world, and make a contribution to the coexistence between humankind and nature. These activities will also be linked to a further heightening of the Site's appeal.

The Site is a GIAHS candidate site in a developed country and an important model case of forest conservation and management. In light of this positioning, it is going to promote research with research organs in universities and other organizations on certain topics, and publicize the findings to the rest of the world. These topics include the achievement of both forest conservation and stable management of farm and forestry operations, based on composite management of agriculture and forestry as symbolized by the mosaic forest landscape, and the development of new business models such as the growth of senary industry making effective use of forests and traditional culture.

The Site also intends to partner with neighboring GIAHS sites such as the Aso site of Kumamoto Prefecture and the Kunisaki Peninsula Usa site of Oita Prefecture in holding tours for experience of GIAHS-class agriculture and forestry. Through such activities, it will provide
information on the importance of the GIAHS program and the value of traditional agriculture, forestry, and culture.


In light of the issues and outlook described above, the Site is going to take various approaches based on the eight-part Action Plan, in order to conserve sustainable agriculture, forestry, and traditional culture in its application for GIAHS certification. It is targeting four results: 1) better promotion of agriculture and forestry, and fuller conservation and management of forests and farmland; 2) conservation of biodiversity and scenery; 3) human resource development and community improvement aimed at preservation of traditional culture and realization of the Forestopia vision; and 4) contribution to the world as a GIAHS site.

Basically, the budget required for these approaches will be prepared by the members of the Association themselves in their respective fields of activity. For activities developed by the Association independently, expense burdens distributed among the local self-governing bodies making up the Association will be joined by application of provisions for national subsidies.

The Action Plan will run for a period of five years (after GIAHS certification), from fiscal 2015 to fiscal 2019. During this period, a monitoring conference will be held at least once every year to check implementation, and the Plan will be reviewed once every two years.
# Framework of Action plan

## Takachihogo-Shibayama
### Plans for conservation and use (Action Plan)

*Eight approaches for attainment of the Forestopia* *(Forest-Utopia) vision!*

The Association shall promote the following approaches in order to transmit the Site’s forests and the distinctive agriculture, forestry, and traditional culture bred by them as the subjects of the GIAHS application to future generations; attain the Forestopia vision utilizing these elements; and make a worldwide contribution as a model site.

### Approaches and descriptions

| 1. Stable production and increase in the added value of agriculture and forestry products |
| 2. Conservation and management of forest resources, and promotion of forestry |
| 3. Conservation of agricultural resources and promotion of traditional agriculture |
| 4. Conservation of biodiversity and scenery |
| 5. Transmission of and publicity about traditional culture |
| 6. Expansion of interchange between urban and rural communities |
| 7. Human resource development and community improvement for attainment of the Forestopia vision |
| 8. Contribution to the world |

### Targeted results (outcomes)

- Promotion of agriculture and forestry, and full conservation and management of forests and farmland
- Conservation of biodiversity and scenery
- Human resource development and community improvement for preservation of traditional culture and attainment of the Forestopia vision
- Contribution to the world as a GIAHS site

*Independent approaches by the Association - Coordination of various events in the Site, holding of symposiums, and information provision and publicity*
### Action Plan

**Section (outcome): I  Promotion of agriculture and forestry, and full conservation and management of forests and farmland**

<table>
<thead>
<tr>
<th>Approach</th>
<th>Principals</th>
<th>Description</th>
<th>Implementation years (FY)</th>
</tr>
</thead>
</table>
| 1        | Stable production of agricultural and forestry products | • Concerned towns and villages, and prefectural government  
  • JA, forestry cooperative  
  • Land improvement district  
  • Local promotional groups in the Site  
  • Promotion of production of agricultural and forestry products that can be differentiated by those of other areas by making use of the topographical conditions  
  • Stabilization of the energy supply in agriculture and forestry by implementation of energy-saving measures and expanded use of renewable energy such as wooden pellets and mini hydropower systems  
  • Improvement of agricultural and forestry policies to help stabilize the business of farmers and forestry workers | 2015 | 2016 | 2017 | 2018 | 2019 |
| 2        | Increase in the value-added level of agricultural and forestry products | • Concerned towns and villages, and prefectural government  
  • JA  
  • Forestry cooperative  
  • Local promotional groups in the Site  
  • Aiming for higher value-added levels through certification of agricultural and forestry products produced with little or no chemicals or chemical fertilizers  
  • Promotion of sales of agricultural and forestry products at producer sales points, and of coordination among producer sales points, expansion of sales routes, development of new products, and local consumption of local products upon GIAHS certification | 2015 | 2016 | 2017 | 2018 | 2019 |
| 3        | Reinforcement of the soundness of agriculture and forestry management | • Concerned towns and villages, and prefectural government  
  • JA  
  • Forestry cooperative  
  • Land improvement district  
  • Recruitment and development of human resources for agriculture and forestry, and support for improvement of their capabilities  
  • Reinforcement of cost competitiveness of agriculture and forestry by intensification of work etc.  
  • Improvement of the agricultural infrastructure by conditioning of farmland and repair and improvement of the irrigation canal network  
  • Increase in forestry productivity by improvement of the network of forestry roads and effective use of high-performance forestry equipment | 2015 | 2016 | 2017 | 2018 | 2019 |
| 4        | Prevention of damage from birds and animals | • Concerned towns and villages, and prefectural government  
  • JA, forestry cooperative  
  • Local promotional groups in the Site  
  • Promotion of the conservation and restoration of broadleaf forests that serve as proper habitats and sources of food for birds and animals  
  • Development of "masters" in prevention of damage by birds and animals, and expansion of the distribution and consumption of the meat of boar and other game | 2015 | 2016 | 2017 | 2018 | 2019 |
| 5        | Development into senary industry | • Concerned towns and villages, and prefectural government  
  • JA, forestry cooperative  
  • Local promotional groups in the Site  
  • Support for evolution into senary industry through product development and sales by groups processing agricultural and forestry products  
  • Support for the growth of senary industry interlinked with programs for experience of the Site's agriculture and forestry, and with tourism | 2015 | 2016 | 2017 | 2018 | 2019 |
Section (outcome): 1  Promotion of agriculture and forestry, and full conservation and management of forests and farmland (continued)

<table>
<thead>
<tr>
<th>Approach</th>
<th>(2) Conservation and management of forest resources and promotion of forestry</th>
</tr>
</thead>
</table>

**Current status and issues**
- Productivity is low due to the harsh climatic conditions because of the high elevation and the terrain, which has slopes and defiles. There is also incidence of damage caused by the many birds and animals.
- The population of forestry workers is aging, and the number of successors is decreasing. There are mounting concerns about an increase in abandonment of planted forests.
- The demand for lumber is declining, and lumber prices are sagging.
- There is less contact with wood in urbanized lifestyles, and knowledge of rural life and culture that produces wood is in decline.

**Objectives**
- Stable production of forestry products through implementation of management measures, protection from damage by birds and animals, and improvement of the production infrastructure.
- Increase in the value-added level of forestry products and reinforcement of the industry's competitiveness.
- Development and recruitment of forestry workers.
- Stimulation of the lumber demand and increase in knowledge of mountain community culture.

<table>
<thead>
<tr>
<th>Approach</th>
<th>Principals</th>
<th>Description</th>
<th>Implementation years (FY)</th>
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</thead>
<tbody>
<tr>
<td>6</td>
<td></td>
<td></td>
<td>2015 2016 2017 2018 2019</td>
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<tr>
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</tr>
</tbody>
</table>
| Full conservation and management of forests | • Concerned towns and villages, and prefectural government  
• Forestry cooperative  
• Local promotional groups in the Site | • Improvement of functions for conservation of protection forests and other forests to be conserved  
• Proper thinning of planted forests and management of broadleaf forests that are the sources of shiitake mushrooms and other special forestry products, through use of the same  
• Conservation of forests with involvement of various principals in plans, including citizens, NPOs, and companies, for social contribution etc. |  |
| 7        |            |             |                          |
| Promotion of forestry | • Concerned towns and villages, and prefectural government  
• Forestry cooperative  
• Local promotional groups in the Site | • Promotion of production of lumber and special forest products such as shiitake mushrooms  
• Addition of value to forestry products through approaches such as direct supply of sawn lumber to housing construction sites, and publicity for mountain community culture  
• Efforts to expand use of lumber by promoting its use in public buildings and extensive use of wooden biomass resources  
• Development and recruitment of human resources to perform forestry work |  |
Section (outcome): 1  Promotion of agriculture and forestry, and full conservation and management of forests and farmland (continued)

<table>
<thead>
<tr>
<th>Approach</th>
<th>Principals</th>
<th>Description</th>
<th>Implementation years (FY)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Full maintenance and management of farmland, irrigation canals, etc.</td>
<td>Concerned towns and villages, and prefectural government</td>
<td>Promotion of measures for abandoned farmland</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Local promotional groups in the Site</td>
<td>Improvement of maintenance and management of farmland, irrigation canals, etc. by use of the MAFF system for grants to support the multifunctional roles of forests</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Maintenance and repair of the &quot;mountainside&quot; irrigation canals using the MAFF projects for improvement of agriculture and farm communities</td>
</tr>
<tr>
<td>9</td>
<td>Promotion of agriculture on rice terraces</td>
<td>Concerned towns and villages, and prefectural government</td>
<td>Promotion of production of value-added rice, such as rice produced with little use of chemicals, organic rice, and brand rice</td>
</tr>
<tr>
<td></td>
<td></td>
<td>JA</td>
<td>Promotion of production by support for assurance of roughage and for work consignments and other efforts</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Land improvement district</td>
<td>Promotion of extensive use of resources in the Site, such as use of abandoned farmland and forest areas for grazing</td>
</tr>
<tr>
<td>10</td>
<td>Promotion of beef cattle production</td>
<td>Concerned towns and villages, and prefectural government</td>
<td>Promotion of production of tea production accenting the Site's features, such as tea grown with little use of chemicals</td>
</tr>
<tr>
<td></td>
<td></td>
<td>JA</td>
<td>Promotion of production of traditional pot-roasted tea</td>
</tr>
<tr>
<td>11</td>
<td>Promotion of tea production</td>
<td>Concerned towns and villages, and prefectural government</td>
<td>Promotion of tea production accenting the Site's features, such as tea grown with little use of chemicals</td>
</tr>
<tr>
<td></td>
<td></td>
<td>JA</td>
<td>Promotion of production of traditional pot-roasted tea</td>
</tr>
<tr>
<td>12</td>
<td>Promotion of shifting cultivation</td>
<td>Concerned towns and villages, and prefectural government</td>
<td>Fuller activities for conservation of shifting cultivation and publicity for its culture to the rest of the world</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Local promotional groups in the Site</td>
<td>Conservation of traditional species through shifting cultivation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pursuit of research on shifting cultivation, including that in the Site</td>
</tr>
</tbody>
</table>
### Conservation of biodiversity and scenery

#### Approach (4) Conservation of biodiversity and scenery

<table>
<thead>
<tr>
<th>Current status and issues</th>
<th>Objectives</th>
</tr>
</thead>
</table>
| The Site is home to many rare plant and animal species inhabiting the secondary nature formed by its agriculture and forestry. It has been working to protect these species by steps such as designation of districts as important habitats and development of personnel to promote natural protection. It nevertheless faces many threats, including an increase in farmland and forests that are under-managed due to a decrease in the farming and forestry population. Many approaches have been taken to preserve scenery, such as the enactment of scenery ordinances by the local governments and designation as a district for conservation of important traditional structures by the national government. These measures must be solidly applied. | - Promotion of monitoring of plants and animals, and protection of rare species. Development of personnel to promote natural protection and promotion of protection activities in the Site to this end.  
- Promotion of measures for environmental protection in agriculture and forestry, and efforts to preserve traditional species and promote their production.  
- Conservation of the community's natural setting, and conservation and improvement of the Site's scenery. |

<table>
<thead>
<tr>
<th>Approach</th>
<th>Principals</th>
<th>Description</th>
<th>Implementation years (FY)</th>
</tr>
</thead>
</table>
| 13 | Conservation of the natural environment and protection of rare plants and animals | • Concerned towns and villages, and prefectural government  
• Local promotional groups in the Site | • Monitoring of the situation as regards plants and animals, by steps such as fact-finding surveys of their habitats  
• Implementation of projects for protection of wildlife, including designation as important habitats  
• Development of personnel for promotion of natural protection and other steps to further promote protection activities in the Site | 2015 2016 2017 2018 2019 |
| 14 | Conservation of biodiversity in forests and farmland | • Concerned towns and villages, and prefectural government  
• JA  
• Forestry cooperative  
• Local promotional groups in the Site | • Promotion of environment-preserving measures in conditioning of irrigation canals, forestry roads, and other parts of the agriculture and forestry infrastructure  
• Promotion of environment-preserving types of agriculture  
• (Re-posting) Aiming for higher value-added levels through certification of agricultural and forestry products produced with little or no chemicals or chemical fertilizers  
• (Re-posting) Promotion of the conservation and restoration of broadleaf forests that serve as proper habitats and sources of food for birds and animals | 2015 2016 2017 2018 2019 |
| 15 | Maintenance of traditional crop varieties | • Concerned towns and villages, and prefectural government  
• JA  
• Local promotional groups in the Site | • (Re-posting) Conservation of traditional species through shifting cultivation  
• Conservation and expanded consumption of traditional varieties (Gokasho corn, Sobosan beans, etc.) | 2015 2016 2017 2018 2019 |
| 16 | Conservation of scenery | • Concerned towns and villages, and prefectural government  
• Local promotional groups in the Site  
• Tourism associations | • Promotion of approaches to formation of scenery through partnership among residents, businesses, authorities, etc.  
• Support for the scenery-preserving activities of NPOs etc.  
• Conservation of the appearance of the natural setting  
• Promotion of efforts for formulation of scenery-related ordinances by local governments in the Site | 2015 2016 2017 2018 2019 |
Section (outcome): III  Human resource development and community improvement for preservation of traditional culture and attainment of the Forestopia vision

<table>
<thead>
<tr>
<th>Approach</th>
<th>Principals</th>
<th>Description</th>
<th>Implementation years (FY)</th>
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<tbody>
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<td></td>
<td></td>
<td></td>
<td>2015 2016 2017 2018 2019</td>
</tr>
</tbody>
</table>
| 17       | Maintenance and improvement of the spirit of mutual aid in the Site and transmission of *kagura* dancing | • Concerned towns and villages, and prefectural government  
• Local promotional groups in the Site  
• Tourism associations | • Promotion of support for activities of self-government and mutual aid in the Site, such as support for local community centers  
• Promotion of activities for the transmission and preservation of *kagura* dancing | |
| 18       | Preservation and transmission of elements of traditional culture, such as *Kariboshikiri* Song and *Hietsukibushi* Song | • Concerned towns and villages, and prefectural government  
• Local promotional groups in the Site  
• Tourism associations | • Implementation of research on traditional culture in the Site  
• Support for activities to preserve traditional culture  
• External publicity for traditional culture | |
| 19       | External publicity for traditional agricultural and forest culture | • The Association | • Implementation of comprehensive surveys and research on traditional agriculture and forestry in the Site and its culture, and publication of the findings (holding of GIAHS symposiums) | |
Section (outcome): III  Human resource development and community improvement for preservation of traditional culture and attainment of the Forestopia vision (continued)

<table>
<thead>
<tr>
<th>Approach</th>
<th>Current status and issues</th>
<th>Objectives</th>
</tr>
</thead>
</table>
|          | There are lively programs for stays at farms and experience of agriculture and forestry in the Site, but the scale of such activities is relatively small. This point to a need for enhancement of partnership and capabilities among the different groups involved. | Promotion of programs for stays at farms and experience of agriculture and forestry, and linkage of these programs to revitalization of the Site.  
Holding of training by different groups promoting the programs for stays at farms and experience of agriculture and forestry in the Site, to improve their capabilities and strengthen partnership.  
Development of human resources and preparation of centers for forest therapy programs, to lay the foundation for program activities, while executing and expanding external publicity about them. |
|          | It is also necessary to bolster setups for acceptance of visitors within the feasible scope, while maintaining the quality of the farm stays and experience of agriculture and forestry offered by the Site. | |
|          | The Site is preparing forest therapy centers making use of its rich assortment of forest resources, but the number of users has leveled off in recent years. | |

<table>
<thead>
<tr>
<th>Approach</th>
<th>Description</th>
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</table>
| 20       | Promotion of programs for stays at farms and experience of agriculture and forestry  
Promotion of programs for experience of agriculture and forestry adapted to different age groups, for elementary, junior high, and high school students  
Conditioning of the environment for the above steps (by local governments etc.)  
Holding of training sessions by different groups involved in the programs for stays at farms and experience of agriculture and forestry in the Site, and other measures to improve their capabilities and strengthen partnership among them |
| 21       | Support for the development of forest instructors  
Preparation of forest therapy centers and promotion of their use  
External publicity for forest therapy and other programs for experience of forests |

<table>
<thead>
<tr>
<th>Approach</th>
<th>Implementation years (FY)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2015</td>
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<tr>
<td>20</td>
<td></td>
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<td>21</td>
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</tbody>
</table>
Section (outcome): III  Human resource development and community improvement for preservation of traditional culture and attainment of the Forestopia vision (continued)

Approach (7) Human resource development and community improvement for attainment of the Forestopia vision

Current status and issues

- Since 1988, the Site has striven to develop human resources and worked for the preservation and advancement of forest resources, agriculture and forestry, and its traditional culture, in keeping with the Forestopia vision.
- Over the quarter-century since the launch of activities under the vision, substantial achievements have been made on the task of human resource development. These may be exemplified by the establishment of the Forestopia Learning Forest Miyazaki Prefectural Gokase Secondary School, which was Japan's first public school integrating the junior and senior high school levels (1994), and the education of forest instructors to provide information about forest culture. However, the Site's population is shrinking.
- On the task of community improvement, there are activities for mutual aid by residents themselves and learning under the setup of local community centers, but these are threatened by the decline in population.

Objectives

- Continuous promotion of Forestopia research
- Development of human resources to lead the Site
- Assistance of activities for Site promotion by local groups and NPOs
- Promotion of UIJ turns and permanent residence by youth

<table>
<thead>
<tr>
<th>Approach</th>
<th>Principals</th>
<th>Description</th>
<th>Implementation years (FY)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>22</strong> Promotion of Forestopia research</td>
<td>Concerned towns and villages, and prefectural government</td>
<td>Promotion of research (on Forestopia) related to forests and the agriculture, forestry, and traditional culture using them, in partnership with the research institutes of universities and other organizations, and promotion of related learning in schools in the Site</td>
<td>2015</td>
</tr>
<tr>
<td><strong>23</strong> Development of human resources to lead the Site</td>
<td>Concerned towns and villages, and prefectural government, JA, forestry cooperative, Local promotional groups in the Site</td>
<td>Development of human resources to lead local agriculture and forestry, and community improvement</td>
<td>2015</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Promotion of learning activities by local residents at local community centers</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Re-posting) Recruitment and development of human resources for agriculture and forestry, and support for improvement of their capabilities</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Promotion of activities for experience of agriculture and forestry by local residents (especially students), and development of workers to carry on the local agriculture and forestry culture</td>
<td></td>
</tr>
<tr>
<td><strong>24</strong> Implementation of measures for Site promotion using local resources</td>
<td>Concerned towns and villages, and prefectural government, Local promotional groups in the Site</td>
<td>Support for approaches to the unearthing and utilization of local resources</td>
<td>2015</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Support for the activities of groups working to revitalize the Site and local promotion by NPOs etc.</td>
<td></td>
</tr>
<tr>
<td><strong>25</strong> Promotion of UIJ turns and building of sustainable communities</td>
<td>Concerned towns and villages, and prefectural government, Local promotional groups in the Site</td>
<td>Promotion of UIJ turns and encouragement of permanent residence by youth</td>
<td>2015</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Conditioning of the life environment</td>
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</tbody>
</table>
Section (outcome): IV  Contribution to the world as a GIAHS site

Approach  (8) Contribution to the world

Current status and issues
- Forest resources are in decline worldwide. By provision of knowledge about proper conservation and management of forest resources through its composite system for the same, the Site could help to halt this decline.
- As a developed-country GIAHS site, the Site will work on agenda such as conservation and management of forest resources, advancement of environment-friendly agriculture and forestry, and preservation of traditional culture. Through such activities, it may be expected to serve as a model for promotion of mountain communities around the world.
- The Site is near the GIAHS sites in Aso in Kumamoto Prefecture and the Kunisaki Peninsula Usa site in Oita Prefecture. Valuable effects could be anticipated by involvement in publicity campaigns and experience programs in partnership with them about the GIAHS philosophy and the importance of traditional agriculture and forestry.

Objectives
- Promotion of research concerning the model for composite management of agriculture and forestry, which conserves rich forest, and publicity for the same worldwide.
- Partnership with other GIAHS sites (e.g., the Aso site and the Kunisaki Peninsula Usa site), and implement of activities for enlightenment about the importance of traditional agriculture and forestry, and importance of local resources.
- Contribution to conservation of forest resources and mountain community promotion worldwide through these activities.

<table>
<thead>
<tr>
<th>Approach</th>
<th>Principals</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>26</td>
<td>* The Association</td>
<td>* Promotion of research on models for composite management of agriculture and forestry to keep forests rich, with the cooperation of research institutes&lt;br&gt; * Support for knowledge related to agriculture and forestry management and local promotion in the Site</td>
</tr>
<tr>
<td>27</td>
<td>* The Association</td>
<td>* Partnership with other GIAHS sites (e.g., the Aso site and the Kunisaki Peninsula Usa site) in activities for enlightenment on the importance of traditional agriculture and forestry, and conservation of local resources</td>
</tr>
<tr>
<td>28</td>
<td>* Concerned towns and villages, and prefectural government</td>
<td>* Temporary acceptance of evacuees and implement support such as material supplies in the event of large-scale disasters</td>
</tr>
</tbody>
</table>
7. The targeted four results (outcomes) and indices for them

During the period of the Action Plan (FY2015 - 2019), an assessment will be made of the state of attainment of the four results (outcomes) targeted in it. For this purpose, the Association determined indices to be utilized in the assessment and the related target for each targeted result, as shown in the following table. These indices and targets will be applied in monitoring activities.

Result target (1) Promotion of agriculture and forestry, and full conservation and management of forests and farmland

The targets will be expansion of the certified forest area, increase in the number of certified senary industry cases, and maintenance of the agricultural and forestry industrial production amount

<table>
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<th>Index</th>
<th>Current status</th>
<th>Target (FY2019)</th>
<th>Source etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Certified forest area</td>
<td>13,583ha (2014)</td>
<td>15,000ha</td>
<td>Area of forest certified by the FSC and SGECC</td>
</tr>
<tr>
<td>(2) Number of senary industry cases</td>
<td>28 cases (2012)</td>
<td>43cases</td>
<td>Data from Miyazaki Prefectural Government</td>
</tr>
<tr>
<td>(3) Agriculture production amount</td>
<td>7.2 billion yen (2012)</td>
<td>Maintenance</td>
<td>Trial calculation of the agriculture production amount of each city, town, and village by the Agriculture and Fisheries Department, Miyazaki Prefectural Government</td>
</tr>
<tr>
<td>(5) Farmland area</td>
<td>4,059ha (2010)</td>
<td>Maintenance</td>
<td>Census of world agriculture and forestry, MAFF</td>
</tr>
<tr>
<td>(6) Area burned under shifting cultivation and number of traditional crop varieties*</td>
<td>About 100 acres/year 4 traditional varieties (2014)</td>
<td>Maintenance</td>
<td>Area burned under shifting cultivation in Shiiba Village and traditional varieties: buckwheat, barnyard millet, adzuki beans, and soybeans</td>
</tr>
</tbody>
</table>

*Shifting cultivation requires consideration for harmony with the environment, is highly susceptible to the influence of weather, and fluctuates in respect of the area of practice every year. For these reasons, emphasis will be placed on its continuation every year.

Result target (2) Conservation of biodiversity and scenery

Besides the maintenance of rare plant and animal species and their habitats, the target will be expanded application of the MAFF systems for direct grant payments to mountainous areas and payments for the multifunctional role of agricultural use of land. These systems furnish support for the efforts to conserve and manage farmland, agricultural irrigation, and other resources as well as to preserve and improve rural community scenery, based on area collaboration.

<table>
<thead>
<tr>
<th>Index</th>
<th>Current status</th>
<th>Target (FY2019)</th>
<th>Source etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Number of rare plant and animals species in the Site</td>
<td>353 species (2010)</td>
<td>Maintenance</td>
<td>Miyazaki Prefecture Red Data Book</td>
</tr>
<tr>
<td>(2) Number of important habitats designated by the prefecture</td>
<td>3 places (2014)</td>
<td>Maintenance</td>
<td>Designated by Miyazaki Prefectural Government</td>
</tr>
<tr>
<td>(3) Area covered by the MAFF systems for direct grants for mountainous areas and by the MAFF agreement concerning the multifunctional role of agricultural use of land</td>
<td>2,730ha (2013)</td>
<td>3,730ha</td>
<td>Studies by Miyazaki Prefectural Government and the Association</td>
</tr>
</tbody>
</table>
Result target (3) Human resource development and community improvement for conservation of traditional culture and attainment of the Forestopia vision

The Site will work for the maintenance of Shinto \textit{kagura} dancing, which is a key pillar of traditional culture in the Site and also plays a crucial role in mutual assistance among its residents. It will also develop human resources to conduct programs in experience of agriculture and forestry, and take aim at an increase in the number of houses offering stays for experience of agriculture, forestry, and fishery, and at an expansion of the number of people on interchange (number of stays at farms and number of tourists).

<table>
<thead>
<tr>
<th>Index</th>
<th>Current status</th>
<th>Target (FY2019)</th>
<th>Source etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>① Number of \textit{kagura} dance performances</td>
<td>87 locations per year (FY2013)</td>
<td>Maintenance</td>
<td>Study by the Association</td>
</tr>
<tr>
<td>② Number of people newly employed in agriculture and forestry (yearly)</td>
<td>31 (FY2013)</td>
<td>47</td>
<td>Study by Miyazaki Prefectural Government</td>
</tr>
<tr>
<td>③ Number of houses accepting visitors for stays to experience agriculture and forestry</td>
<td>45 (FY2012)</td>
<td>64</td>
<td>Study by Miyazaki Prefectural Government</td>
</tr>
<tr>
<td>④ Number of people staying overnight at farms (yearly)</td>
<td>1,024 (2013)</td>
<td>1,200</td>
<td>Study by the Association</td>
</tr>
<tr>
<td>⑤ Number of tourists (yearly)</td>
<td>2,114,000 (2012)</td>
<td>2,250,000</td>
<td>Results of a statistical survey on incoming tourists to Miyazaki Prefecture by the Miyazaki Prefectural Government (Tourism Division)</td>
</tr>
</tbody>
</table>

Result target (4) Contribution to the world as a GIAHS site

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<th>Target (Implementation of the following initiative by 2019)</th>
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<td>① Research on and support for the model for composite management of agriculture and forestry etc.</td>
<td>Implementation of research projects with academic institutions etc.</td>
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<td>② Partnership with other GIAHS sites</td>
<td>Holding of symposiums and other events in partnership with other GIAHS sites</td>
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Aside from the indices noted above, assessments will be made through monitoring of the nature and details of approaches posted in the Action Plan framework, under the headings for targeted results and approach descriptions using publicized materials, data, etc.
8. Action Plan implementation and management setup

The Association for Promotion of Takachihogo-Shiibayama as a Globally Important Agricultural Heritage System (hereinafter referred to as the "Association") was organized in March 2014 with a membership of towns and villages in the Site, Miyazaki Prefectural Government, agriculture- and forestry-related groups, business groups, and local promotional groups. It is engaged in activities aimed at the conservation and advancement of the Site's traditional agriculture and forestry system and culture, and at its acquisition of GIAHS certification.

If the Site acquires GIAHS certification, the Association shall hold conferences for its promotion at least once a year, manage the progress of the Action Plan, and pursue approaches for stimulation of agriculture, forestry, and the Site life by making the most of its certification. The membership will unite in concerted efforts on tasks such as the provision of support in the aspects of policy and financing by the concerned towns and villages and Miyazaki Prefectural Government, with advice from the national authorities (the Ministry of Agriculture, Forestry and Fisheries) as well as technical assistance and advice from the University of Miyazaki, the United Nations University Institute for the Advanced Study of Sustainability (UNU-IAS), and other academic institutions.

(Action Plan progress and management setup)
As for the budget required for implementation and monitoring of the aforementioned Action Plan, in general, the members of the Association shall make budgetary appropriations of their own in their respective fields. However, activities implemented independently by the Association shall be funded not only by the distribution of expense burdens among local governments that are members but also by use of available national subsidies etc.

9. Roles of national & local governments and the groups that are members of the Association

(1) Role of the national government

The Japanese government will promote initiatives related to the Site's Action Plan in the aspects of policy on agriculture and the environment. These initiatives are based on the Basic Plan on Food, Agriculture and Rural Areas (determined by the Cabinet on March 30, 2010) and the National Strategy for the Conservation and Sustainable Use of Biodiversity 2012 - 2020 (determined by the Cabinet on September 28, 2012).

The government will assist promotion of sustainable agriculture, forestry, and traditional culture bred by conservation and management of forests in the Takachihogo-Shiibayama Site. Specifically, in the context of initiatives related to agriculture and forestry, it will provide support for the promotion of agriculture, forestry, and fisheries with an emphasis on biodiversity, sustainable agriculture reflecting consideration for mitigation of environmental burden, and the development of senary industry targeting an increase in the value-added level of agricultural and forestry products.

In addition, the government will support efforts to encourage permanent residence and the programs for interchange between urbanites and rural residents making effective use of the Site's agriculture, forestry, and traditional culture. This support will be based on legislation such as the act for promotion of permanent residency and inter-regional interchange in order to revitalize agriculture, forestry, and fishery communities (enacted on May 16, 2007).

(2) Role of local governments (concerned towns and villages, and Miyazaki Prefectural Government)

The concerned towns and villages in the Site (towns of Takachiho Town, Hinokage Town, and Gokase Town, and the villages of Morotsuka Village and Shiiba Village) and Miyazaki Prefectural Government are striving to support measures for the promotion of its agriculture and forestry, and the preservation of its traditional culture, and will continue to implement the current initiatives to this end. Once the Site acquires GIAHS certification, they will take proactive steps for community revitalization keyed by this certification.

Miyazaki Prefectural Government is pursuing activities for the protection of rare plant and animal species and conducting surveys and research on them. It designates important habitats and has prepared a red data book of its own. The concerned towns and villages have likewise taken vigorous action to protect rare wildlife species and preserve biodiversity. Besides continuing to promote the conservation of biodiversity, they are going to work with farmers, forestry workers, and other local residents on the tasks of proper conservation of forests and farmland, and formation of beautiful scenery.

(3) Role of other Association members

The Association includes administrative organs, agriculture- and forestry-related groups, tourism/business groups in the Site, and local promotional groups. These groups will cooperate in the promotion of measures based on the Action Plan, toward achievement of the agenda of promotion of agriculture and forestry, full conservation and management of forests and farmland, conservation of biodiversity and scenery, human resource development and community improvement aimed at preservation of traditional culture and attainment of the Forestopia vision, and contribution to the world as a GIAHS site.
10. Conclusion

In Takachihogo-Shibayama Site, to work and live as a farmer or forestry worker was accompanied by much hardship, owing to the topographical conditions of the Site, which is ringed by steep mountains.

Today, however, the Site is a trove of agriculture- and forestry-related treasures, such as some of the most stunning rice terraces in all Japan, the "mountainside" network of irrigation canals, carefully managed forests, high-quality beef cattle, some of Japan's best pot-roasted tea, and Japan's only continuing practice of shifting cultivation with a long-term cycle.

These treasures are the fruits of the blood and sweat shed by our ancestors, who prayed and diligently worked for the improvement of their lives and the prosperity of their descendants. The various agriculture-related Shinto festivals and ceremonies, traditional culture, and kagura dancing performed as a part of rites for the Site's peace and safety have a long history, and their careful transmission right to the present might be ascribed to the intensity of these prayers.

The Association is earnestly hoping for the continued transmission of the Site's cherished agriculture and forestry to coming generations, and for the further advancement of this agriculture and forestry as well as the Site as a whole. To this end, it is committed to acting as a link among the many concerned parties (farmers, forestry workers, other local residents, administrative authorities, local promotional groups, etc.) and a platform for the respective involvement of each as a principal in the Site's improvement and development.

The Association will devote itself to activities aimed at making the Site one in which the residents engaged in agriculture and forestry, will be able to make a living at work that fills them with a sense of pride and accomplishment, and will make them happy to be living and working there, that is, the "sustainable livelihood" at the core of the GIAHS spirit.

Toward attainment of the Forestopia vision for leading a happy life while passing the ideals of our ancestors on to the next generation!