

Appendix 1

Management Plan applying to the nominated property

- 1-1 : Amami-Oshima Island, Tokunoshima Island, the northern part of Okinawa Island, and Iriomote Island Natural World Heritage Nominated Property Comprehensive Management Plan

**1-1. The Comprehensive Management Plan for
Amami-Oshima Island, Tokunoshima Island,
the Northern Part of Okinawa Island, and Iriomote Island
Nominated for Inscription on the World Heritage List
(English translation for World Heritage nomination)**

December 27, 2016

Ministry of the Environment / Forestry Agency / Agency for Cultural Affairs
Kagoshima Prefecture / Okinawa Prefecture
Amami City / Yamato Village / Uken Village / Setouchi Town / Tatsugo Town
Tokunoshima Town / Amagi Town / Isen Town
Kunigami Village / Ogimi Village / Higashi Village
Taketomi Town

Japan

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1. Introduction

The nominated property is part of the Ryukyu Chain to the south of Kyushu Island of Japan, a chain of islands extending from northeast to southwest in an arc over a length of approximately 1,200 km. The natural property, “Amami-Oshima Island, Tokunoshima Island, the northern part of Okinawa Island, and Iriomote Island”, is nominated for inscription on the World Heritage List as a “serial property” consisting of four component parts: Amami-Oshima Island, Tokunoshima Island, and the northern part of Okinawa Island of the Central Ryukyus and Iriomote Island of the South Ryukyus.

The essential value of this property consists in being an outstanding example representing unique biological processes in the evolution and speciation on the Central Ryukyus and South Ryukyus, which have different periods of isolation from the continent, reflecting the geological history of the Ryukyu Chain. Also, the nominated property contains extremely important and significant habitats for in-situ conservation of biological diversity, providing irreplaceable habitats for terrestrial species of flora and fauna, including 88 endangered species on the IUCN Red List such as the Iriomote cat (CR), the Okinawa woodpecker (CR), the Amami rabbit (EN), and the Okinawa rail (EN).

Amami-Oshima Island, Tokunoshima Island, the northern part of Okinawa Island, and Iriomote Island, which constitute the nominated property, are all small islands, inhabited by people who have been leading their daily lives up to the present. The natural environment inhabited by endemic species, endangered species, and so on are extremely close to, or in some cases partially overlap with, places of people’s daily life or livelihoods. Yet, this has given rise to cultures and livelihoods that harness local natural resources, and it is characteristic of this property that the Outstanding Universal Value has been maintained therein. Therefore, it is important to ensure both coordination with local communities and sustainable use for the conservation and management of Amami-Oshima Island, Tokunoshima Island, the northern part of Okinawa Island, and Iriomote Island, which are collectively nominated as a natural property for inscription on the World Heritage List.

In addition, the four regions comprising this “serial property” are geographically separated from one another, extending over many administrative territories involving two prefectures and 12 municipalities. Therefore, it is essential to set up a management mechanism to ensure coordinated conservation and management among individual component parts.

“The Comprehensive Management Plan for Amami-Oshima Island, Tokunoshima Island, the Northern Part of Okinawa Island, and Iriomote Island, Nominated for Inscription on the World Heritage List” (hereafter referred to as “this plan”) is hereby presented to recognize the natural environment of globally outstanding value on Amami-Oshima Island, Tokunoshima Island, the northern part of Okinawa Island, and Iriomote Island as heritage of common importance for all humanity and to pass it on to future generations in even better shape in light of specific local characteristics.

2. Basic Framework of the Plan

1) Objective of the Plan

This plan clearly sets out the basic policies concerning the enforcement of various instruments and the promotion of various projects in order to ensure that management organizations* in charge of various instruments related to the conservation and sustainable use of the natural environment in the property, buffer zone, and surrounding area should coordinate and cooperate closely with various stakeholders, including local residents, tourism businesses, farmers, foresters, fishermen, researchers, local groups, and visitors and thereby deliver proper and smooth conservation and management of the natural environment in these areas.

* Management organizations: Ministry of the Environment, Forestry Agency, Agency for Cultural Affairs, Kagoshima Prefecture, Okinawa Prefecture, Amami City, Yamato Village, Uken Village, Setouchi Town, Tatsugo Town, Tokunoshima Town, Amagi Town, Isen Town, Kunigami Village, Ogimi Village, Higashi Village, Taketomi Town

2) Scope of the Plan

The nominated property is a “serial property” consisting of Amami-Oshima Island and Tokunoshima Island of the Amami Island Group, the northern part of Okinawa Island of the Okinawa Island Group, and Iriomote Island of the Sakishima Island Group (Fig. 1). This plan deals with the buffer zone and the surrounding area as well as the nominated property in order to maintain the Outstanding Universal Value of the nominated property.

The areas covered by this plan are described below and shown in Figs. 2 to 5:

○ Nominated property:

- The area that contributes to the Outstanding Universal Value, including the conditions of integrity.
- The national government takes proper legal measures to ensure that the state of conservation at the time of inscription be maintained, enhanced, and passed on to future generations. This area is designated as a special protection zone or class I special zone of the national park or a preservation zone of the forest ecosystem reserve. In addition to these, designations as a national wildlife protection area and/or a natural monument are also made.

○ Buffer zone:

- The area directly adjacent to the nominated property, containing areas and attributes that have functions to support the property and its protection.
- Complementary controls of land use and development are put in place by means of legal and/or customary restrictions for the purpose of effective protection of the nominated property. This area is mainly designated as a class II special zone of the national park or the conservation and utilization zone of the forest ecosystem reserve.

○ Surrounding area:

- The area surrounding the nominated property and buffer zone (including the surrounding boat routes when necessary).
- Necessary measures are taken for maintenance, enhancement, conservation, and management of the property, including legal and/or customary restrictions for conservation and management, sustainable use, awareness raising about the conservation of the heritage area. Since the implementation of these spans over a wide area, the entire administrative territories of the relevant municipalities are basically treated as the surrounding area for Amami-Oshima Island, Tokunoshima Island, and the northern part of Okinawa Island and the entire island for Iriomote Island.

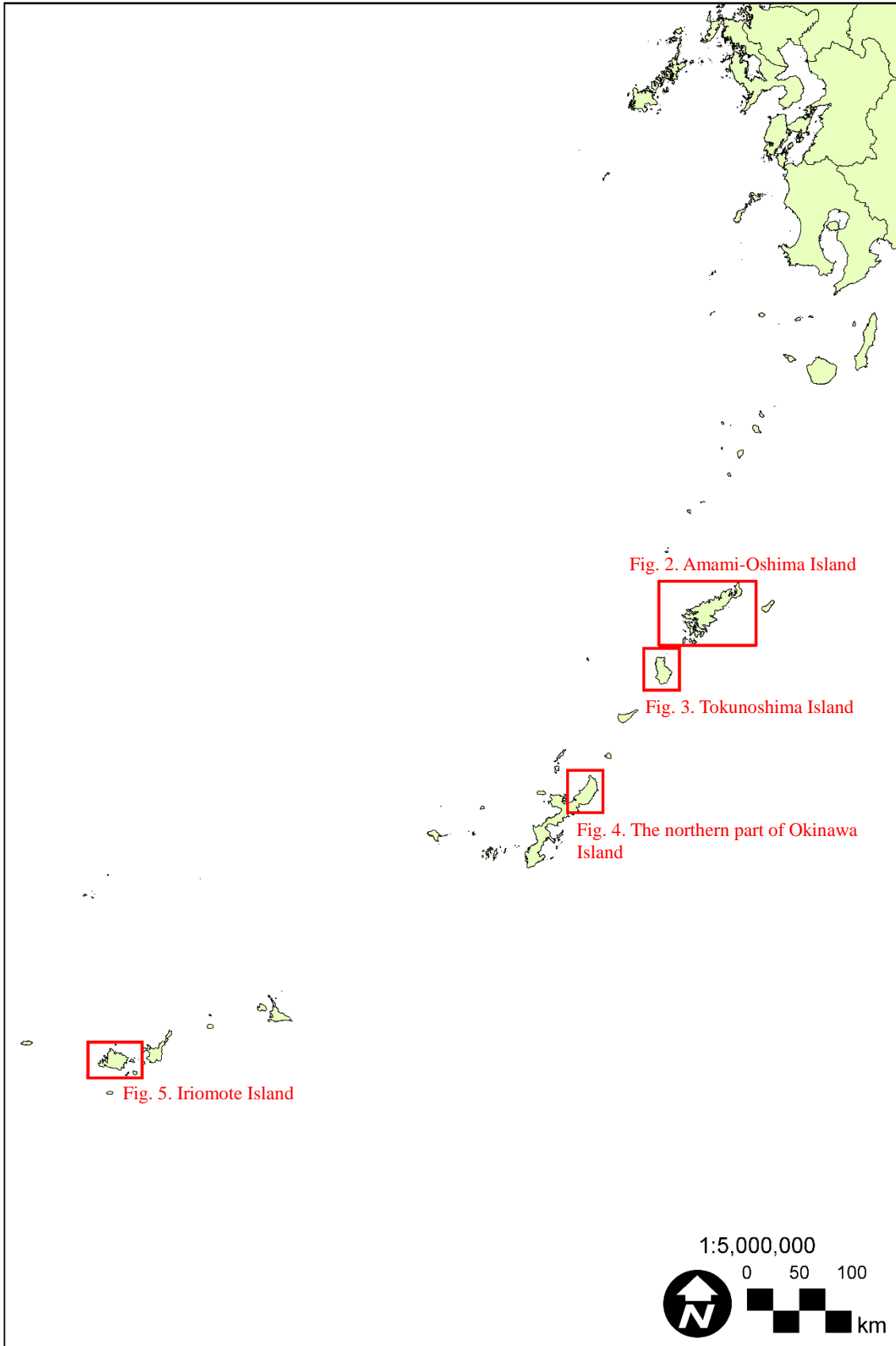


Fig. 1. Locations of the Component Parts of the Nominated Property

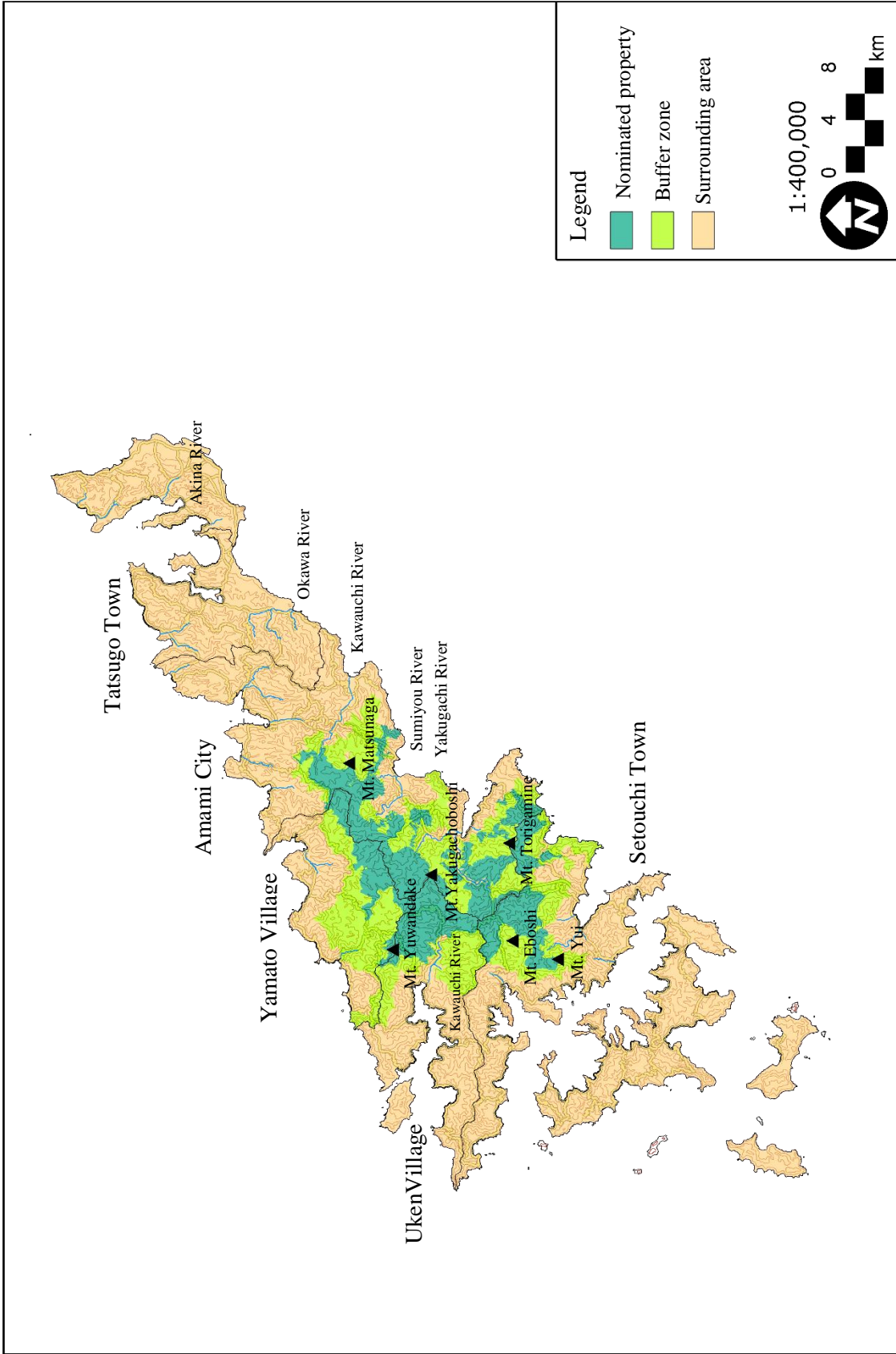


Fig. 2. Amami-Oshima Island

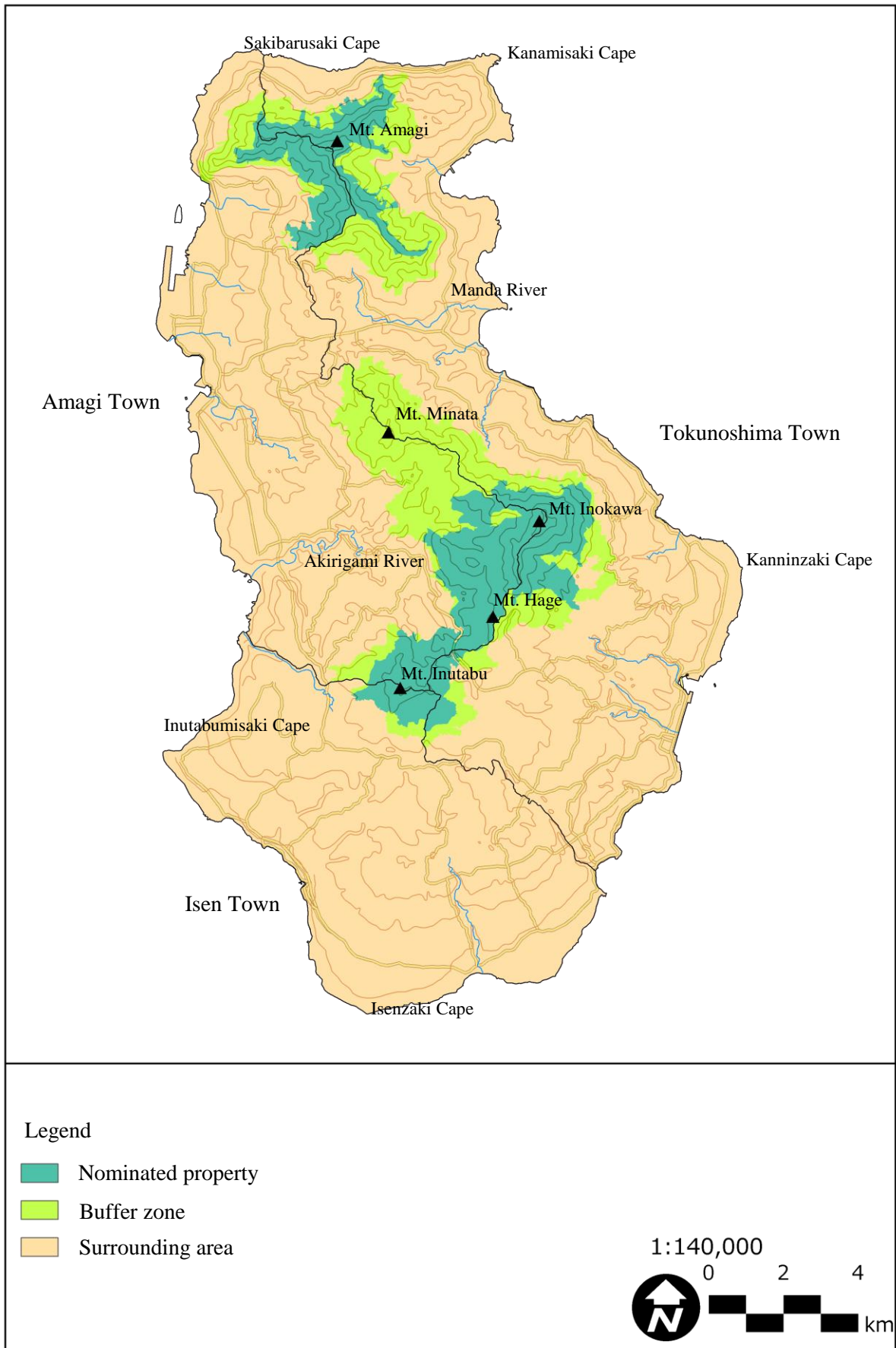


Fig. 3. Tokunoshima Island

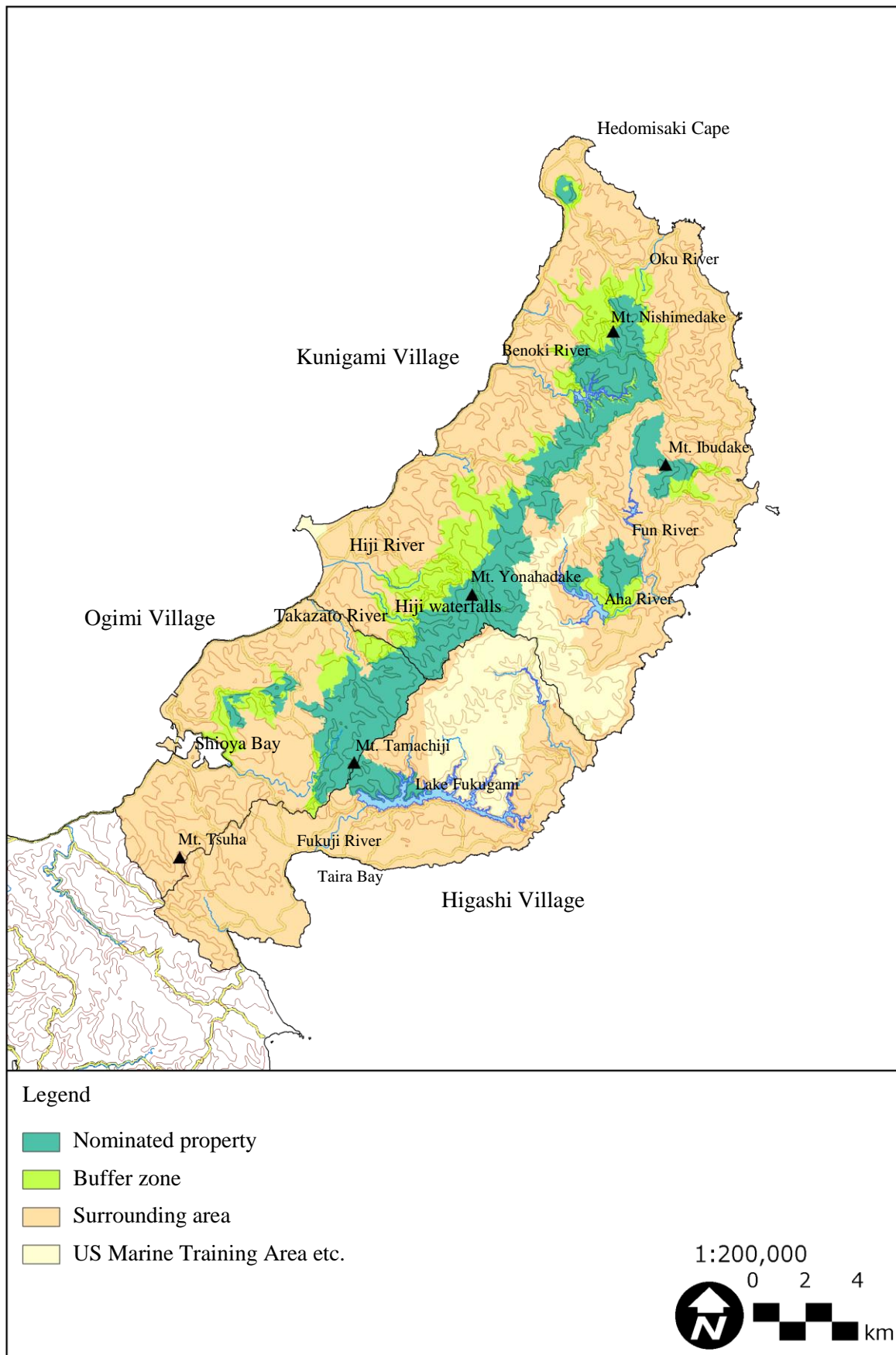


Fig. 4. Northern part of Okinawa Island

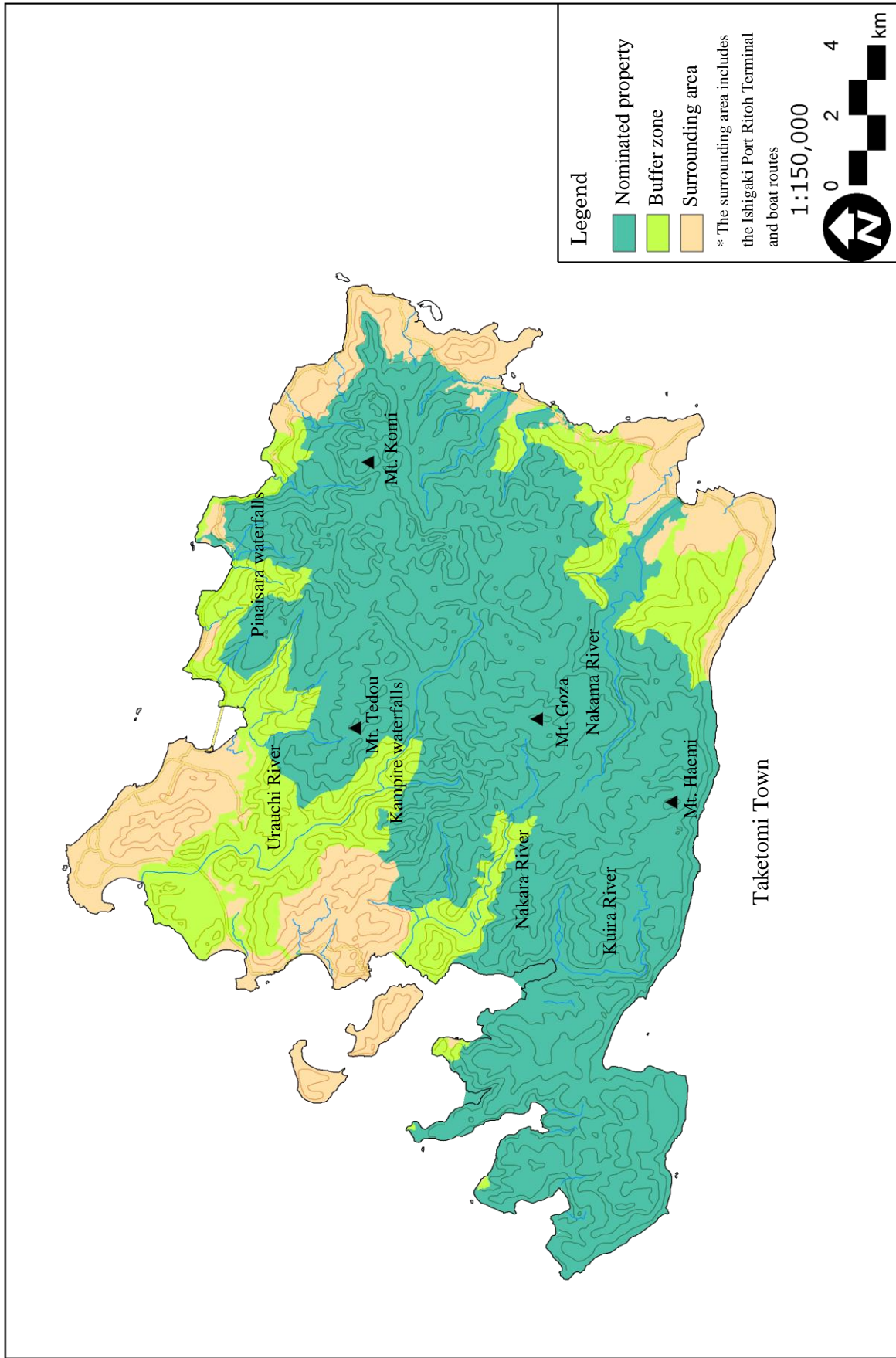


Fig. 5. Iriomote Island

3) Structure of the Plan

The component parts of the nominated property are distributed over four islands, spanning over many administrative territories that include two prefectures and 12 municipalities. Therefore, issues of conservation and management vary from place to place, depending on difference in the natural environment, local history and culture, and social condition. In addition, the protection of the area covered by this plan is delivered by multiple layers of instruments based on the individual domestic laws and regulations, such as designations of protected areas and national endangered species; it is necessary for the management organizations in charge of the individual legal instruments to ensure smooth enforcement of these instruments in mutual coordination.

In light of such circumstances, this plan sets forth an overarching target and basic management policies that commonly apply to the four regions, so that the management organizations can work together for effective conservation and management; in addition, action plans by region are to be developed under this plan (Action Plan for Amami-Oshima Island, Action Plan for Tokunoshima Island, Action Plan for the Northern Part of Okinawa Island, and Action Plan for Iriomote Island).

Each action plan by region identifies action items to be implemented in consideration of the specific characteristics and issues of each of the four regions and in compliance with the overarching target and basic management policies of this plan; the action plan sets out the concrete content, time line, division of roles, targets, evaluation indicators, etc.

Fig. 6 shows the relation between this plan and the action plans by region, together with the structure of each plan. Integrated management of the serial property comprising four regions is to be delivered by enforcing these plans in an integral, mutually interlinked manner.

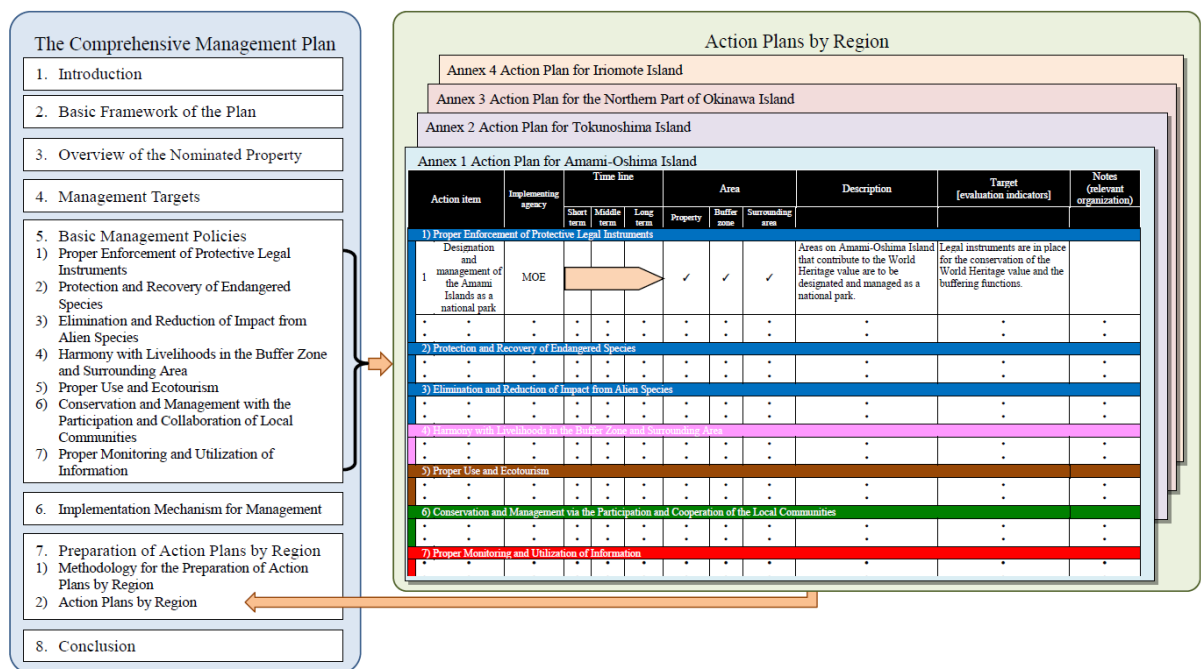


Fig. 6. Structure of the plan

4) Planning Period

This plan covers a period of approximately ten years.

Action plans by region also cover a period of approximately ten years, but their implementation periods are divided into three stages: short term (within three years), middle term (approx. four to six years), and long term (approx. seven to ten years).

5) Progress Management and Revision of the Plan

This plan will carry out intermediate and final evaluations of achievement vis-a-vis the overarching target and zone-specific targets shown in “4. Management Targets” five years after initiation and at the end of the planning period, respectively, and make revisions based on the evaluation results.

With regard to the action plans by region, periodical reviews will be conducted every year and revisions will be made as needed, based on the implementation status of activities identified in the action plans for Amami-Oshima Island, Tokunoshima Island, the northern part of Okinawa Island, and Iriomote Island and the results of monitoring of targets and evaluation indicators by action item.

The mechanism for progress management and revision is provided in “6. Implementation Mechanism for Management”.

3. Overview of the Nominated Property

1) Location

The nominated property is located between 24°20' N and 28°19' N, and is part of the Ryukyu Chain comprised of islands scattered in an arc, approximately 1,200 km long, lying between the south end of Kyushu and Taiwan. It consists of four regions: Amami-Oshima Island and Tokunoshima Island in the Amami Island Group, the northern part of Okinawa Island of the Okinawa Island Group, and Iriomote Island in the Sakishima Island Group. The area of the nominated property is 37,946 ha.

2) General Information

The nominated property comprises four regions, Amami-Oshima Island, Tokunoshima Island, and the northern part of Okinawa Island in the Central Ryukyus and Iriomote Island in the South Ryukyus. The four islands containing the nominated property are members of the Ryukyu Chain at the southern tip of the Japanese Archipelago aligned in an arc shape along the eastern rim of the Eurasian Continent. Influenced by the Kuroshio Current and the Ogasawara High (subtropical high cell) that sits over the west part of north Pacific Ocean, it has a warm and humid subtropical climate and is covered mainly with evergreen broadleaf subtropical rainforests.

Since the separation from the Eurasian Continent, the Ryukyu Chain has been divided into the North Ryukyus, the Central Ryukyus, and the South Ryukyus by deep straits that run between the islands and by the Kuroshio Current. Some neighboring islands became connected and separated repeatedly according to fluctuations in the sea level. These changes in the distribution of land and water provided unique opportunities for speciation and endemism to the terrestrial creatures of the Central and South Ryukyus in which the nominated property is included. Moreover, the terrestrial biotas of the Central and South Ryukyus show different patterns of speciation and endemism stemming from the difference in the distance and timing of separation from the continent. As a result, an exceptionally large number of endemic species and subspecies can be observed in the nominated property.

The nominated property is home to 1,808 vascular plant species (including subspecies, varieties, and hybrids), 22 terrestrial mammal species, 394 bird species, 36 reptile species, 21 amphibian species, 267 inland water fish species, 6,148 insect species and 47 freshwater decapod crustacean species, including 88 threatened species listed on the IUCN Red List (2016). It can be well said that the nominated property provides a home and habitat for many endangered species and endemic species and contains extremely important natural home and habitat for in-situ conservation of biological diversity.

The nominated property is designated by the Ministry of the Environment, the Forestry Agency, and the Agency for Cultural Affairs as belonging to protection zones (national parks, natural monuments, forest ecosystem reserves, and national wildlife protection areas), and conservation of rich biological diversity showing the process of evolution is secured.

3) Natural Environment

(1) Geology and geography

The nominated property is part of the Ryukyu Chain comprised of islands scattered in an arc, about 1,200 km long, lying between the south end of Kyushu and Taiwan. Located at the boundary of the Eurasian Plate and the Philippine Sea Plate, the Ryukyu Chain is thought to have been generated by tectonic deformation associated with the subduction of the Philippine Sea Plate under the Eurasian Plate in Ryukyu Trench that happened sometime after the late Miocene (Machida et al. 2001; Hase 2010). The Tokara Strait and the Kerama Gap divide the

Ryukyu Chain geological structurally and are known to be effective as the boundaries of biogeography as well (Mizutani 2009). From geological, geomorphological, and biogeographical perspectives, the Ryukyu Chain can be divided into three areas: the North Ryukyus, the Central Ryukyus, and the South Ryukyus (Toyama 2014). The nominated property consists of Amami-Oshima Island, Tokunoshima Island, and the northern part of Okinawa Island, which are located in the Central Ryukyus, and Iriomote Island, which is located in the South Ryukyus. In addition, the nominated property belongs to a non-volcanic uplifted area of an outer arc ridge and consists of mountains and hills of relatively high elevation, which indicates the islands were formed in older days.

(2) Climate

The nominated property belongs to subtropical climate, which has hot summers like those in tropical climate and relatively mild winters. Subtropical climate is characterized by the fact that it is controlled by subtropical high-pressure belts and tropical air masses derived from them, roughly covering the area between 20–30°N and 20–30°S. It is further classified into humid climate and dry climate depending on precipitation. Much of the subtropical part of the world is in the mid-latitude dry zone with low precipitation. Its vegetation is mostly dry, including monsoon forest, savanna, steppe, and desert (Shimizu 2014).

The nominated property is located in the subtropical area, but its climate is called subtropical marine climate, which has precipitation of more than 2,000 mm per year, influenced by the warm Kuroshio Current flowing nearby and monsoons. This makes the area a globally rare place where rainforests are found in the subtropical zone.

(3) Vegetation

The dominant natural vegetation of the nominated property is mountainous forests—evergreen broadleaf forests developed in the humid subtropical zone. Trees dominating the upper layer include oaks, Ryukyu Pines (*Pinus luchuensis*) (Pinaceae), and camphor trees (Lauraceae); its vegetation landscape is similar to that of evergreen broadleaf forests in the warm temperate zone north of Yakushima Island (Soba 2011). However, it has diverse tree species, including tree ferns, *Lasianthus japonicus* and related species, some *Ardisia* species growing as tall as semi-tall trees, strangler figs, and palm trees, which are different from those found in forests in the warm temperate zone. On the other hand, the coasts of this area are home to tree species of coastal vegetation in tropical and subtropical regions, including mangroves, Tahitian screwpines (*Pandanus odoratissimus*), tropical almonds (*Terminalia catappa*), *Argusia argentea*, powder-puff tree (*Barringtonia racemosa*), and *Hernandia nymphaeifolia* (Hotta 1974; Kira 1989).

Mt. Yuwandake (694 m) on Amami-Oshima Island is the highest peak in the nominated property, and Tokunoshima Island has Mt. Inokawadake with an altitude of 644 m. The forests of these mountains that are located at the height of 500–600 m or more constitute cloud belts, where sunlight is limited and air humidity is high (Suzuki 1979; Miyawaki (edit) 1989; Onishi et al. 2012) and *Arisaemato heterocephali-Castanopsietum sieboldii* is found (Suzuki 1979; Miyawaki (edit) 1989). On the slopes located at an altitude of 450 m+ of Mt. Yonhadake (503 m), the highest peak on Okinawa Island, there are cloud forests whose abundant annual precipitation exceeds 3,000 mm, constituting the *Microlepis hookeriana-Castanopsis sieboldii* community (Niino 2015). Near the peak of Mt. Komidake (469.5 m), the highest peak on Iriomote Island, the *Woodwardia harlandii-Pleioblastus linearis* community is found.

As for the vegetation of mountain stream zones where the riverbed and riverbank are periodically flooded, in the northern part of Okinawa Island and Iriomote Island, the *Lindsaea odorata* var. *japonica-Salvia pygmaea* community is known, in which small and short grasses stick to somewhat shaded rocks. At the upstream and midstream of the Sumiyo River in Amami-Oshima Island are communities dominated by *Rhododendron scabrum* on the rocks.

In the nominated property, many rheophytes grow, including *Salvia pygmaea* Matsum, *Solenogyne mikadoi*, *Lysimachia liukuensis*, and *Viola amamiana*.

(4) Flora

The four regions containing the nominated property*¹ are home to 1,808 indigenous species of vascular plants (including subspecies, varieties, and hybrids; hereinafter the same), consisting of 300 species of ferns and 1,508 species of seed plants (calculated based on Kagoshima University (2012) and Nature Conservation Division, Department of Environmental Affairs, Okinawa Prefecture (2014)). The flora of these regions is considered to have the historical backgrounds and components, including: (1) Ryukyu-indigenous components that have been in existence since before the formation of the islands, (2) Components originated from the southeastern part of the Eurasian Continent, (3) Components of Palearctic origin, (4) Components originated from Malaysia, (5) Components originated from the Pacific Islands, and (6) Components originated from Australia, reflecting their geological history, climate changes in the past, and geographic conditions such as how the islands are positioned relative to ocean currents (Hatsushima 1975). It is believed that the mountain flora of the regions has a high degree of affinity to those of the Eurasian Continent and the main islands of Japan, whereas the flora found in the regions' forest floors, lowlands, and coastal areas are closely related to those found in tropical Asia (Tateishi 1998). Meanwhile, because of their location in a subtropical zone; i.e., in between tropical and temperate zones, the regions are the southern and northern limits of many species (Hotta 2003).

Out of a total of 1,808 species of vascular plants, 185 species (10%) are endemic. In the Central and South Ryukyus, which were an eastern margin of the Eurasian Continent and hence inherited the rich flora of the continent, some of the inherited species have survived only in the regions under isolation (relict endemism) or differentiated into an entirely new endemic species (new endemism) (Hotta 2003). Among the vascular plant species found in the nominated property, 24 species are listed as globally threatened on the IUCN Red List (2016).

*1 "The four regions containing the nominated property" refer to the whole area of Amami-Oshima, Tokunoshima, and Iriomote Islands, and three Yambaru villages in the northern part of Okinawa Island (Kunigami Village, Ogimi Village, and Higashi Village). Each region includes the nominated areas, buffer zone, and surrounding areas.

(5) Fauna

From the biogeographic viewpoint, the Watase Line, which coincides with the Tokara Strait, has been proposed as a boundary between the Palearctic and Indomalaya ecozones for the distribution of mammals, reptiles, and amphibians (Tokuda 1969), while the Hachisuka Line at the Kerama Gap has been proposed as a boundary for the distribution of birds (Yamashina 1955). Thus, from a phylogeographical point of view, the nominated property is located in-between the two areas that retain very different faunas and can be defined as a geographical transition zone (Motokawa 2000; Ota 2000; Takagi 2009).

Out of the 22 species of terrestrial mammals found in the nominated property, 13 species (59%) are endemic, including Amami rabbit (*Pentalagus furnessi*) and Ryukyu long-haired rat (*Diplothrix legata*). When endemic subspecies such as the Iriomote cat (*Prionailurus bengalensis iriomotensis*) are included, there are a total of 23 species and subspecies, of which 18 (78%) are endemic to the nominated property, showing a very high rate of endemic species.

A total of 394 species of birds from 71 families and 22 orders are recorded as inhabiting the four regions containing the nominated property. With those accounting for 62% of all avian species in Japan, a total of 633 species from 81 families and 24 orders, it is fair to say that the nominated property can be described as having a very rich avifauna (calculated based on the Ornithological Society of Japan (2012) and Nature Conservation Division, Department of

Environmental Affairs, Okinawa Prefecture et al. (2015)). Japan has a total of 11 endemic species of birds (Takagi 2007) and five of them inhabit the nominated property.

The nominated property is home to 36 species (38 species and subspecies) of terrestrial reptiles, or 50% of the national total, serving as a major habitat for terrestrial reptiles in Japan. The nominated property is very rich in endemic species of terrestrial reptiles. Out of the total 36 species of terrestrial reptiles distributed in the nominated property, 23 species (64%) are endemic. The nominated property hosts extremely rich endemism with a total of 33 species and subspecies (87%) endemic to the nominated property.

The nominated property is home to 21 species (22 species and subspecies) of amphibians, or 30% of the national total. Amphibians inhabiting the nominated property show extremely high endemism with 18 species (19 species and subspecies) or 86% of the total species being endemic to the nominated property.

A total of 567 indigenous species of fish from 99 families and 25 orders have been recorded as inhabiting the inland waters of the four islands containing the nominated property^{*2} (Yoshigo 2014). Among the inland water fish inhabiting the four islands containing the nominated property, six species and subspecies are listed on the IUCN Red List (2016) as globally threatened species.

A total of 6,148 species (6,447 species and subspecies) of insects inhabit the four islands containing the nominated property (calculated based on Azuma et al. (eds.) (2002), excluding species for which the specific island to which the species are distributed is not provided (For example, simply stating the Amami Island Group, the Okinawa Island Group, or the Yaeyama Islands Group, etc.) Therefore, actual numbers of species are greater than that listed above.). Among the insect fauna, the order Coleoptera (beetles) has the largest number of indigenous species totaling 1,924 species (2,122 species and subspecies), followed by the order Lepidoptera (moths and butterflies) at 1,221 species (1,239 species and subspecies), together accounting for roughly half of the total indigenous species. There are some insect groups that are yet to be studied taxonomically, while some areas remain unsurveyed and offer only limited information. Thus, the number of insect species in the nominated property is expected to increase as relevant studies make progress.

Among 73 species of inland water decapod crustaceans originated from Japan, the four islands containing the nominated property harbor 47 species of them, accounting for 64% of the national total (calculated based on Kagoshima University (2014)), 15 species or 32% are endemic. In particular, those of the family Potamidae are endemic, which inhabit freshwater and land, are unable to disperse through the sea because their eggs and larvae cannot survive in seawater (Shokita 1996), and thus all of the 10 species (100%) belonging to this family are endemic.

*2 “The four islands containing the nominated property” refer to the whole area of Amami-Oshima, Tokunoshima, Okinawa, and Iriomote Islands including the nominated areas, the buffer zone, and surrounding areas.

(6) Geological History and Speciation of Terrestrial Fauna

The terrestrial biota of the nominated property has two characteristics. The first is the richness of its relict endemic species that have ancestor species once widely distributed across the continent and the mainland of Japan, but which can now be found only on the Ryukyu Chain. Their speciation reflects the nominated property’s geological history of being formed as continental islands. There are also the new endemic species that have further speciated after having been isolated on the Ryukyu Chain. The second characteristic is the difference in the pattern of endemism between the Central Ryukyus and the South Ryukyus on individual islands or island groups.

It is considered that the terrestrial fauna of the Central Ryukyus became isolated from those of the Eurasian Continent, the North Ryukyus, and the South Ryukyus at least by the Late Miocene (11.63–5.33 Ma) during the course of the transformation of the continent's eastern periphery into a group of islands, and continued to remain in the isolated state (Okamoto 2017). In the fauna of the Central Ryukyus, some species and their closely-related species, which had initially been distributed on the continent and neighbouring areas, gradually became extinct due to the emergence of new predators and competitors and other reasons, making the remaining species endemic to the Central Ryukyus. These species are relict endemic species, in that they do not have any conspecific or congeneric species in the neighboring Northern and South Ryukyus, but only in remote places such as the Eurasian Continent. This relict endemism is particularly evident in flightless terrestrial animals such as the Amami rabbit, Ryukyu long-haired rat, and Namie's frog. In addition, it is considered that climate changes and associated sea surface changes from around the Late Pliocene (3.6-2.58 Ma) to the Pleistocene (2.58–0.012 Ma) caused repeated connections and separations of the neighboring islands, resulting in a divided distribution of organisms and advances in speciation on individual islands which facilitated evolution to relict endemic and new endemic species and subspecies, such as genus *Tokudaia* and genus *Goniurosaurus*.

The terrestrial fauna on the South Ryukyus appear to have been formed after having been isolated from their counterparts in Taiwan and the Eurasian Continent during the Pliocene (5.33–2.58 Ma) after the South Ryukyus was separated from the Central Ryukyus in the Late Miocene (Okamoto 2017). This explains the reason why the South Ryukyus' fauna, which are represented by the Iriomote cat, does not have their relatives on the Central Ryukyus but have very closely-related species and subspecies mostly in Taiwan and the eastern part of the continent (Ota 1998, 2012; etc.).

In addition, new endemic lineage species are observed in all the regions due to advancement of endemism and speciation of common ancestor species, which were distributed from the Central Ryukyus to the South Ryukyus as well as Taiwan and the entire Eurasian Continent, in each region according to separations and isolations of the islands (Okamoto 2017).

(7) Adaptive Evolution of Animals in Island Ecosystems

In the nominated property, the Central and South Ryukyus have certain differences in the existence of high-level predators as a component of the islands' ecosystems.

High-level predators, such as medium- and large-sized carnivorous mammals and large-sized resident raptors, have not existed at all or been absent for a long period of time on Amami-Oshima Island, Tokunoshima Island and northern Okinawa Island of the Central Ryukyus. The biological communities, which contain a number of relict endemic species, have created a unique ecosystem topped by Habu, large-sized snakes, with animals having evolved in an adaptive way to the ecosystem.

On the other hand, Iriomote Island of the South Ryukyus has Iriomote cats, the only carnivore on the nominated property, and they have significantly expanded their habitat environments and feed resources. The scale of the Island's environment is considered to be too small to allow medium-sized carnivores to live for a long period of time, but it is observed that the cats have evolved to adapt to such a small-scale island environment.

4) Social Environment

(1) Economic activities

All of the four regions containing the nominated property have a low percentage of workers in primary industry relating to the use of natural resources. A large percentage of the workers in

the regions engage in the tourism industry. (For sightseeing, refer to (4) below.) In the primary industry, agriculture has the largest share of workers across all the islands.

The percentage of arable land differs among the regions: 2.6% (2,172 ha) for Amami-Oshima Island (including Kakeroma Island, Uke Island, Yoro Island and other surrounding islands), 27.8% (6,882 ha) for Tokunoshima Island, 4.0% (1,371 ha) for the northern part of Okinawa Island, and 2.3% (654 ha) for Iriomote Island.

In the Central and South Ryukyus, firewood has long been used in daily life, and for industry for the production of salt, sugar, dried bonito, etc., with forestry producing timbering, railroad ties, and charcoals for shipment and, more recently, wood chips and construction materials such as structural materials and laminated woods. *Castanopsis* (*Castanopsis sieboldii*), which characterizes the region's subtropical rainforest, has a great capacity for sprouting and regeneration, and enables to balance forestry with conservation of landscapes and biodiversity and to maintain homes and habitats for endangered species and endemic species.

Forestry was developed primarily in private forests in Amami-Oshima Island and wood chips have been produced since the 1960s, leveraging natural regeneration of evergreen broadleaved trees, which takes place on a 35- to 45-year cycle. The timber production, however, has decreased by one half (about 0.1 million m³) after peaking (about 0.2 million m³) in the early 1970s, with no logging conducted on a large scale since the mid-1990s (Yoneda 2016).

Agriculture was active on Tokunoshima Island, where wood chips had been produced between the 1960s and 1970s. However, no industrial forestry is conducted on a large scale today.

In addition to logging and timber production, seedling raising and afforestation were carried out on Okinawa Island. In recent years, harvested and logging areas have decreased to about one-seventieth of those in the postwar years of recovery, and the forest accumulation has increased about threefold compared with that at the time of return to the mainland.

For the most part, forest resources are used in the daily lives of local communities. With no industrial forestry, Iriomote Island remains largely intact with rich natural surroundings (Kagoshima University 2013).

(2) History

The Ryukyu Chain was first populated by mankind in the Paleolithic, or 30,000 years ago, at the latest. The Shell Midden Period apparently started some 6,000 years ago, under the influence of the Jomon culture. The Shell Midden people are considered to have had the ability of using earthenware and ground stones. They seem to have followed a lifestyle similar to that of the Paleolithic Age, sourcing their food from nature, including seafood from coral reefs and plants and animals from the land (Hokama, 1986; Takara, 1993). At least by the middle of the Shell Midden Period (some 3,000 years ago), groups of settlements had been established at many locations of the Ryukyu Chain (Asato and Doi 1999; Hayaishi 2011).

On Okinawa Island, the Ryukyu Kingdom was established in 1429. The Ryukyu Kingdom placed Amami-Oshima Island and Tokunoshima Island under its control by 1447 A.D., and Iriomote Island by 1500 A.D. However, in the 1600s, the Amami Island Group was separated from the Kingdom and belonged to the Satsuma Domain.

From 1944 to 1945, Okinawa Island became a World War II battlefield. After the War, the Amami Island Group and Okinawa Prefecture were placed under the administrative authority of the US military. It was in 1953 when the administrative rights were returned to the Amami Island Group and in 1972 to Okinawa Prefecture (Government of Japan 1996; Oshima Branch Office, Kagoshima Prefecture 2014). The US military bases in Okinawa Prefecture underwent a phased reorganization and consolidation process after the Prefecture's return to Japan.

However, by 2013, only approximately 20% of the area occupied by the US military as of 1972 had been returned. As of March 2013, the US military bases within Okinawa Prefecture cover an area of 23,176.1 ha, which accounts for 10.2% of the prefecture's total land area. In particular, the US military installations in Kunigami Village and Higashi Village, located in the north of Okinawa Island, occupy an area of 4,485.4 ha (23.0% of the village's land) and 3,394.4 ha (41.5% of the village's land), respectively. Much of the areas, or 7,824.2 ha, is used for Camp Gonsalves (also known as Northern Training Area) (Military Base Affairs Division, Executive Office of the Governor, Okinawa Prefecture 2016). After the return of the Amami Island Group and Okinawa Prefecture to Japan, promotion, development, and growth projects were undertaken under special measures acts and plans based thereon, in light of its historical background, the gap with the mainland arising from its geographical and natural constraints, as well as its societal circumstances.

(3) Culture of coexistence between nature and people

The forests of the nominated property include only small areas of pure primeval sub-tropical rainforests, and most of them have been exposed to a certain level of human interference since old times. Still, they provide nurseries and habitats for a number of highly-endemic, rare species of plants and animals. The factors making this possible are local residents' recognition about nature and landscape, which they have fostered, over a long period of time, by making use of natural resources including endemic plants and animals in their daily lives, their way of interacting with nature based on the recognition, and their lifestyle and culture they have developed therefrom and handed over from generation to generation (Environmental Agency, 1999; Kagoshima Prefecture, 2003; Kagoshima University, 2013).

Traditionally, people in the Central and South Ryukyus led their lives in a close relationship with the surrounding nature. Their villages were unable to be separated from the sea and surrounding mountains in the sense that a village served as the basis of villagers' activities. They caught fish and shellfish in the sea in front of the village, washed things and caught Tanaga (a dialect of Tenaga-ebi, or freshwater prawn), cultivated land in the fields and mountains behind the village, and collected firewood and lumber therefrom as a way of living.

People believed that, beyond the sea, there was a paradise where gods lived (called by different names depending on the region, such as Neriya-Kanaya, Nirai Kanai, Ryugu, etc.), and the gods brought fertility and disaster to the people. During the age of the Ryukyu Kingdom, the "Noro" system was established. A Noro (which means a priestess) was in charge of performing rituals, farming rites, and annual events to welcome gods and send them back. Various types of events and performing arts that are presumed to have been created in that era remain as the village's tradition, although they have been affected by the phenomenon of depopulation associated with the ageing of the local population and the declining number of young people. These traditional events and arts constitute a culture that is deeply rooted in the natural environment and is still prevalent.

In addition, religious beliefs have also influenced the structure of villages and formed a sacred space and a space (landscape) of their village as an integral part of the ocean in front of it and mountains behind it. A village's lands have been used rationally for different purposes, divided into the cultivation area, the fuel wood area, the building materials area, and the undeveloped remote headwaters area, which were placed in a concentric circle centered on the village. Such land use is based on a space concept focused on the protection of headwater areas. Taboos and rules were designed to control access to a sacred domain, and created myths about encounters with holy spirits (called by different names depending on the region, such as Kenmun, Kijimunah, Bunagaya, etc.) and gods of mountains, as well as the existence of divine spaces. These myths have been handed down and protected among villagers in a variety of forms.

In this way, on the Central and South Ryukyus, people recognize that all the surrounding mountains, forests, and the sea are part of their sphere of life and this natural environment plays an integral role in their lives.

(4) Tourism

Of the nominated property Amami-Oshima Island, Tokunoshima Island, and Okinawa Island have regular flight and ferry services from the mainland, and also have a road network in place, including highways on Okinawa Island, for traveling from the airport or seaport. In the case of Iriomote Island, there are regular flight and ferry services from the mainland as well as from Okinawa Island to Ishigaki Island, an island located in its vicinity, from where regular ferry service to Iriomote Island is operated.

There is a substantial difference between the Amami Island Group, which contains Amami-Oshima Island and Tokunoshima Island, and Okinawa Prefecture, which contains the northern part of Okinawa Island and Iriomote Island, in terms of circumstances associated with tourism. In the Amami Island Group, the number of inbound visitors and travelers in 2015, including local residents and business travelers, was approximately 760,000 for the island group as a whole, about 420,000 for Amami-Oshima Island, and about 130,000 for Tokunoshima Island (Oshima Branch Office, Kagoshima Prefecture 2016).

Meanwhile, tourism is positioned as a key industry in Okinawa Prefecture, with the number of inbound tourist visitors to the prefecture in 2015 marking an all-time high of approximately 7.76 million (Okinawa Prefecture Tourism Policy Division 2016). There is no accurate statistical data on how many of those tourists visited the northern part of Okinawa Island (three Yambaru villages); it is estimated that approximately 8% of inbound tourists to Okinawa Prefecture (around 600,000 to 700,000) visited the three Yambaru villages in the northern part of Okinawa Island (Okinawa Prefecture Department of Culture, Tourism and Sports 2015). The number of tourists who visited Iriomote Island in 2015 totaled about 390,000 (Taketomi Town Commerce and Tourism Department, 2016).

Although tourism that offers round tours to tourism spots and facilities is the main form in all of the four regions, ecotourism and other forms of tourism characterized by hands-on experience and extended stays that take advantage of their resources, such as abundant nature and indigenous culture, have been promoted in recent years.

*The content of this chapter is based on the content of the recommendation document. For details of the nominated property and the literature, refer to the recommendation document.

4. Management Targets

1) Overarching Target

The management organizations and stakeholders share the common goal of maintaining and strengthening the Outstanding Universal Value quoted below from the nomination dossier in delivering the conservation and management of the nominated property, the buffer zone, and their surrounding area.

○ Criterion (ix) Ecosystems

The Central Ryukyus and the South Ryukyus where the nominated property is located were once part of a continent and thus had common terrestrial wildlife with the continent. But as the islands have been repeatedly separated and combined due to separations from the continent and changes in straits and the sea surface, species have differentiated, generating endemism in many different evolutionary lineages in the process of formation of small island chains. The nominated property consists of four regions representing the Central Ryukyus and the South Ryukyus. By combining the four regions, the nominated property is an outstanding example of ecosystems that clearly demonstrates the unique processes of speciation and phylogenetic diversity in continental islands reflecting their history.

○ Criterion (x) Biodiversity

The nominated property provides habitats for terrestrial flora and fauna, including 86 endangered species (of which 70 are endemic) listed in the IUCN Red List (2016) such as the Iriomote cat (CR), the Okinawa woodpecker (CR), the Amami rabbit (EN), the Okinawa rail (EN), and Anderson's crocodile newt (EN). Also, many relict endemic species and new endemic species reflecting their history have been observed, showing that the property contains extraordinarily important natural habitats for in-situ conservation of biological diversity from a global perspective.

2) Zone-Specific Targets

(1) Nominated property

The Outstanding Universal Value of the property is to be maintained in the natural condition by minimizing human intervention, keeping a careful watch on changes due to natural processes, and taking necessary measures to protect and recover endangered species and also to address alien species issues.

(2) Buffer zone

Buffering functions that contribute to maintaining the Outstanding Universal Value of the property are to be maintained by ensuring coexistence with human activities such as tourism, agriculture, and forestry and taking necessary complementary measures for the conservation and management of the nominated property to protect and recover endangered species and also to address alien species.

(3) Surrounding area

Measures are taken to enable local communities to share understanding about the Outstanding Universal Value of the property to remove and reduce threats affecting the component parts and thereby avoid the loss of the Outstanding Universal Value by means of sustainable use. In addition, participation and collaboration of local communities in these activities are to be promoted to strike a balance between the conservation of local biodiversity and the sustainable development of local communities.

3) Special Management Perspectives

It is a characteristic of the area covered by this plan that the environment inhabited by endemic species, endangered species, etc. which are constituent elements of the Outstanding Universal Value exists extremely close, or in some cases even partially overlaps, with places of local people's life and livelihoods. Cultures and livelihoods that harness natural resources have been nurtured in this area and the Outstanding Universal Value has been maintained therein. In light of this, stakeholders share the correct understanding of this Outstanding Universal Value and the history of coexistence between nature and humankind. Also, maintaining the exceptional natural environment of the nominated property and passing them on to future generations through coexistence between nature and humankind are to be shared as a common target.

Also, human resource development, public awareness, and information sharing and utilization are to be promoted in local communities in order to strengthen relationship between management organizations and local communities. The use of natural resources within the buffer zone and the surrounding area is to be made in a sustainable manner without damaging the Outstanding Universal Value of the nominated property and in a manner compatible with the promotion of local livelihoods.

Furthermore, in the buffer zone and the surrounding area that are particularly adjacent to the nominated property or located between component parts of the nominated property, efforts are to be made to ensure the continuity of ecosystems that support the maintenance of the Outstanding Universal Value and to strengthen the buffering functions through restoration and regeneration of the natural environment and establishment of ecological corridors in coordination and cooperation with local people.

5. Basic Management Policies

The management organizations and stakeholders work actively in coordination and cooperation to deliver conservation and management that meet the aforementioned objectives in accordance with the basic management policies shown below and the action plans by region, which have been prepared separately under this plan.

1) Proper Enforcement of Protective Legal Instruments

Protective legal instruments such as national parks and forest ecosystem reserves established pursuant to national laws and ordinances will be properly utilized with a view to ensuring the survival of relict endemic species, new endemic species, endangered species, and their important habitats, which account for the Outstanding Universal Value of the nominated property, into the future. It is also intended to soundly protect them from the impacts of humankind, such as development activities that have potential impact on the Outstanding Universal Value of this property.

(1) National Park

“National parks” are designated by the Minister of the Environment and managed pursuant to the Natural Parks Act with the objective of protecting excellent scenic areas and promoting their utilization, thereby contributing to the health, recreation, and cultural edification of the citizens as well as the safeguarding of wildlife diversity.

Pursuant to this law, the legal procedures for designating Amami-Oshima Island and Tokunoshima Island as The Amami Gunto National Park (provisional name) have been taken, and in September 2016 the northern part of Okinawa Island was designated as Yambaru National Park. Iriomote Island had already been designated as Iriomote National Park in 1972, but its revisions and expansions were made in FY2003, FY2007, and FY2011 and the name has been changed correspondingly to Iriomote-Ishigaki National Park. Following this, its area was further expanded to encompass almost the entire island in April 2016.

The “special protection zone” and “class I special zone” within these national parks are subject to particularly strict restrictions on human activities. The “class II special zone” is subject to certain restrictions on human activities while coordination is made with local agriculture and forestry.

(2) Forest Ecosystem Reserve

“Forest ecosystem reserves” are designed to contribute to maintaining the natural environment comprised of forest ecosystems, protecting wildlife, protecting genetic resources, developing forest operation and management technologies, and promoting scientific research by protecting and managing primeval natural forests representative of Japan’s climatic zones and forest zones. These forest ecosystem reserves are established and managed by the Regional Administration and Management Plan specified by the Forestry Agency under the Law on the Administration and Management of National Forests.

Based on this system, the Amami Islands Forest Ecosystem Reserve was established on Amami-Oshima Island and Tokunoshima Island in 2013 and the Iriomote Forest Ecosystem Reserve was established on Iriomote Island in 1991. Following these expansions in FY2012, further expansion was made in FY2015.

Within the forest ecosystem reserves, the “preservation zone” is an area to be left to natural succession without human interventions in principle. The “conservation and utilization zone” is an area that plays a role as a buffer for the preservation zone and control measures

equivalent to those in the preservation zone are applied. Within the forest ecosystem reserves, activities such as academic research and nature observation education can be permitted.

(3) Wildlife Protection Area

“National wildlife protection areas” are designated by the Minister of the Environment pursuant to the Wildlife Protection, Control, and Hunting Management Act from among those areas that are recognized as important for international or national wildlife protection. “Prefectural wildlife protection areas” are designated by prefectural governors from among those areas that are recognized as important for the protection of local wildlife pursuant to this same law. Hunting is prohibited in both national and prefectural wildlife protection areas. Also, places where efforts to protect wildlife or habitats are particularly needed are designated as the “special protection zone” in which certain development activities are restricted.

National wildlife protection areas were designated on Amami-Oshima Island in 1965, i.e. the Mt. Yuwandake National Wildlife Protection Area as habitats for rare wildlife species such as the Amami rabbit, the Amami woodcock, the Amami thrush, and the Amami woodpecker, and in three villages in the northern part of Okinawa Island in 2009, i.e. the Yambaru (Ada) National Wildlife Protection Area and the Yambaru (Aha) National Wildlife Protection Area as habitats for rare wildlife species such as the Okinawa woodpecker, the Okinawa rail, and the Ryukyu robin, and on Iriomote Island in 1992, i.e. the Iriomote National Wildlife Protection Area as habitats for rare wildlife species such as the Iriomote cat and the crested serpent eagle. Prefectural wildlife protection areas have been designated at 17 areas on Amami-Oshima Island, 3 areas on Tokunoshima Island in Kagoshima Prefecture, and 4 areas in the northern part of Okinawa Island in Okinawa Prefecture.

Table 1. List of prefectural wildlife protection areas in Kagoshima Prefecture

Name	Location	Area (ha)	Effective period
Naze Elementary School Prefectural Wildlife Protection Area	Amami City	3	Nov. 1, 2007–Oct. 31, 2017
Kasarizaki Prefectural Wildlife Protection Area	Amami City	425	Nov. 1, 2007–Oct. 31, 2017
Kinsakubaru Prefectural Wildlife Protection Area	Amami City	297	Nov. 1, 2007–Oct. 31, 2017
Mt. Kanengo Prefectural Wildlife Protection Area	Amami City	158	Nov. 1, 2008–Oct. 31, 2018
Akazaki Prefectural Wildlife Protection Area	Amami City	156	Nov. 1, 2009–Oct. 31, 2019
Yamato Elementary and Junior High School Prefectural Wildlife Protection Area	Yamato Village	3	Nov. 1, 2009–Oct. 31, 2019
Gamozaki Prefectural Wildlife Protection Area	Amami City	45	Nov. 1, 2009–Oct. 31, 2019
Mt. Rankan Prefectural Wildlife Protection Area	Amami City	1	Nov. 1, 2009–Oct. 31, 2019
Mt. Ogami Prefectural Wildlife Protection Area	Amami City	11	Nov. 1, 2009–Oct. 31, 2019
Sekko Elementary and Junior High School Prefectural Wildlife Protection Area	Setouchi Town	3	Nov. 1, 2010–Oct. 31, 2020
Inutabu Prefectural Wildlife	Isen Town	1,150	Nov. 1, 2010–Oct. 31, 2020

Name	Location	Area (ha)	Effective period
Protection Area			
Ose Coast Prefectural Wildlife Protection Area	Amami City	172	Nov. 1, 2010–Oct. 31, 2020
Kaminomine Elementary School Prefectural Wildlife Protection Area	Tokunoshima Town	3	Nov. 1, 2011–Oct. 31, 2021
Nagakumo Toge Prefectural Wildlife Protection Area	Tatsugo Town	35	Nov. 1, 2013–Oct. 31, 2023
Hatsuno Prefectural Wildlife Protection Area	Setouchi Town	302	Nov. 1, 2014–Oct. 31, 2024
Sumiyou Prefectural Wildlife Protection Area	Amami City	378	Nov. 1, 2014–Oct. 31, 2024
Uchiumi Park Prefectural Wildlife Protection Area	Amami City	71	Nov. 1, 2014–Oct. 31, 2024
Yanma Prefectural Wildlife Protection Area	Amami City	73	Nov. 1, 2015–Oct. 31, 2025
Honohoshi Prefectural Wildlife Protection Area	Setouchi Town	326	Nov. 1, 2015–Oct. 31, 2025
Boma Prefectural Wildlife Protection Area	Tokunoshima Town	310	Nov. 1, 2016–Oct. 31, 2026

Table 2. List of prefectural wildlife protection areas in Okinawa Prefecture

Name	Location	Area (ha)	Effective period
Taiho Prefectural Wildlife Protection Area	Ogimi Village	240	Nov. 1, 2004–Oct. 31, 2024
Mt. Nishimedake Prefectural Wildlife Protection Area (including the special protection zones)	Kunigami Village	84	Nov. 1, 2015–Oct. 31, 2035
Sate Prefectural Wildlife Protection Area (including the special protection zones)	Kunigami Village	158	Nov. 1, 2015–Oct. 31, 2035
Mt. Yonahadake Prefectural Wildlife Protection Area (including the special protection zones)	Kunigami Village	666	Nov. 1, 2015–Oct. 31, 2035

(4) Natural Monuments

Natural monuments are designated by the Minister of Education, Culture, Sports, Science and Technology based on the Law for the Protection of Cultural Properties to protect animals and plants (including their habitats, breeding sites, stopover sites for migratory birds, and native habitats) and geological features and minerals (including areas of unique natural phenomenon) which have significant scientific value for the country. Furthermore, the board of education of each prefecture can similarly designate prefectural natural monuments pursuant to the Kagoshima Prefectural Ordinance on the Protection of Cultural Properties and the Okinawa Prefectural Ordinance on the Protection of Cultural Properties.

Pursuant to this law, 30 national natural monuments have been designated and 22 prefectural natural monuments have been designated in the four regions that constitute the nominated property.

Any acts that would alter the existing state of these natural monuments or affect their preservation require prior permission from the Commissioner for Cultural Affairs or the prefectural board of education, as they are legally protected.

Table 3. List of national natural monuments in the four regions where the component parts of the nominated property is located

Name	Category	Location	Designation date (designation as special natural monument)
Amami rabbit	Special natural monuments	Amami-Oshima Island, Tokunoshima Island	March 3, 1921 (July 4, 1963)
Okinawa woodpecker	Special natural monuments	Northern part of Okinawa Island	May 15, 1972 (March 15, 1977)
Iriomote cat	Special natural monuments	Iriomote Island	May 15, 1972 (March 15, 1977)
Crested serpent eagle	Special natural monuments	Iriomote Island	May 15, 1972 (March 15, 1977)
Ryukyu robin	Natural monuments	Amami-Oshima Island, Tokunoshima Island, Northern part of Okinawa Island, Iriomote Island	January 23, 1970
Land hermit crab	Natural monuments	Amami-Oshima Island, Tokunoshima Island, Northern part of Okinawa Island, Iriomote Island	November 12, 1970
Wood pigeon	Natural monuments	Amami-Oshima Island, Tokunoshima Island, Northern part of Okinawa Island, Iriomote Island	May 19, 1971
Amami Jay	Natural monuments	Amami-Oshima Island	March 3, 1921
Amami Woodpecker	Natural monuments	Amami-Oshima Island	May 19, 1971
Amami thrush	Natural monuments	Amami-Oshima Island	May 19, 1971
Kamiya and Mt. Yuwandake Natural Monument Protection Area	Natural monuments	Amami-Oshima Island	November 8, 1968
Yamatohama's <i>Quercus miyagii</i> forest	Natural monuments	Amami-Oshima Island	March 28, 2008
Tokunoshima Myogano-mori	Natural monuments	Tokunoshima Island	March 27, 2013
Ryukyu long-haired rat	Natural monuments	Amami-Oshima Island, Tokunoshima Island, Northern part of Okinawa Island	May 15, 1972

Name	Category	Location	Designation date (designation as special natural monument)
Spiny rat	Natural monuments	Amami-Oshima Island, Tokunoshima Island, Northern part of Okinawa Island	May 15, 1972
Ryukyu black-breasted leaf turtle	Natural monuments	Northern part of Okinawa Island	June 26, 1975
Okinawa rail	Natural monuments	Northern part of Okinawa Island	December 18, 1982
Yanbaru long-armed scarab beetle	Natural monuments	Northern part of Okinawa Island	May 14, 1985
Mt. Yonahadake Natural Monument Protection Area	Natural monuments	Northern part of Okinawa Island	May 15, 1972
Aha Tanagagumui plant communities	Natural monuments	Northern part of Okinawa Island	May 15, 1972
Taminatoutaki plant communities	Natural monuments	Northern part of Okinawa Island	May 15, 1972
Gesashi Bay's mangrove	Natural monuments	Northern part of Okinawa Island	May 15, 1972
Yellow-margined box turtle	Natural monuments	Iriomote Island	May 15, 1972
Ryukyu emerald dove	Natural monuments	Iriomote Island	May 15, 1972
Kishinoue's giant skink	Natural monuments	Iriomote Island	June 26, 1975
Funaura nipa palm communities	Natural monuments	Iriomote Island	May 15, 1972
<i>Satakentia liukuensis</i> community at Ubundoru	Natural monuments	Iriomote Island	May 15, 1972
Hoshidate Natural Monument Protection Area	Natural monuments	Iriomote Island	May 15, 1972
Nakama River Natural Monument Protection Area	Natural monuments	Iriomote Island	May 15, 1972
<i>Heritiera littoralis</i> community at Komi	Natural monuments	Iriomote Island	March 22, 1978

Table 4. List of prefectural natural monuments in the four regions where the component parts of the nominated property is located

Name	Prefecture	Location	Designation date
Anderson's crocodile newt	Kagoshima	Amami-Oshima Island, Tokunoshima Island	April 22, 2003
Okinawa Ishikawa's frog	Kagoshima	Amami-Oshima Island	April 22, 2003
Banded ground gecko	Kagoshima	Tokunoshima Island	April 22, 2003

Name	Prefecture	Location	Designation date
Otton frog	Kagoshima	Amami-Oshima Island,	April 19, 2005
Amami tip-nosed frog	Kagoshima	Amami-Oshima Island, Tokunoshima Island	April 19, 2011
Uke Island's Uke lily habitats	Kagoshima	Amami-Oshima Island	April 22, 2008
Inutabu Coast's melange sediments	Kagoshima	Tokunoshima Island	April 21, 2009
Great nawab	Okinawa	Northern part of Okinawa Island	August 26, 1969
Orange oakleaf	Okinawa	Northern part of Okinawa Island, Iriomote Island	August 26, 1969
Anderson's crocodile newt	Okinawa	Northern part of Okinawa Island	November 9, 1978
Kuroiwa's grounded gecko (including spotted ground gecko)	Okinawa	Northern part of Okinawa Island	November 9, 1978
Holst's frog	Okinawa	Northern part of Okinawa Island	March 29, 1985
Namie's frog	Okinawa	Northern part of Okinawa Island	March 29, 1985
Okinawa Ishikawa's frog	Okinawa	Northern part of Okinawa Island	March 29, 1985
Amami woodcock	Okinawa	Northern part of Okinawa Island	February 4, 1994
Aha looking-glass tree	Okinawa	Northern part of Okinawa Island	December 16, 1959
Ogimiutaki fountain palm communities	Okinawa	Northern part of Okinawa Island	February 22, 1974
Kijoka Itashiki Coast's beach rock	Okinawa	Northern part of Okinawa Island	February 22, 1974
Hiji Kodama Forest plant communities	Okinawa	Northern part of Okinawa Island	April 2, 1991
Asahina's skipper	Okinawa	Iriomote Island	April 1, 1978
Atlas moth	Okinawa	Iriomote Island	March 29, 1985
Funauki Yaeyama roundleaf chastetree	Okinawa	Iriomote Island	December 16, 1959

2) Protection and Recovery of Endangered Species

(1) Survey and Research on Endangered Species

A large number of surveys and a great deal of research have been carried out by relevant government organizations, many other researchers, NPOs, etc. on relict endemic species, other endemic species, and threatened and other endangered species which constitute the Outstanding Universal Value of the nominated property. Scientific knowledge that contributes to the conservation of species is to be accumulated on a continuous basis.

(2) Promotion of the Protection and Recovery of Endangered Species of Wild Fauna and Flora

As a general rule, capturing, collecting, killing, damaging, or transferring national endangered species designated pursuant to the Act on Conservation of Endangered Species of Wild Fauna and Flora is legally prohibited. The nominated property has 31 animal species and 23 plant species that are designated as the national endangered species of wild fauna and flora. In addition, a number of efforts have been made and will continue to be promoted with regard to species considered particularly necessary based on the plans developed for the protection and recovery program. These include determining the inhabitation status of each respective species on a continuous basis, maintaining and improving the living environments in habitats, captive breeding and returning animals to the wild, monitoring habitats, raising public awareness, and ensuring coordination with related organizations.

The Kagoshima Prefectural Ordinance to Protect Endangered Wild Fauna and Flora was enacted for the Amami Island Group, which contains Amami-Oshima Island and Tokunoshima Island of the nominated property. It prohibits the capturing, collecting, and so forth of 7 animal species and 15 plant species. Also, the Ordinances to Protect Endangered Wild Fauna and Flora have been enacted commonly for five municipalities on Amami-Oshima Island and for three towns on Tokunoshima Island, respectively. They ban the capturing, collecting, and so forth of 22 animal species and 35 plant species on Amami-Oshima Island and five animal species and 26 plant species on Tokunoshima Island. Moreover, on-going efforts are being made by Okinawa Prefecture, three village governments in the northern part of Okinawa Island, and Taketomi Town, where Iriomote Island is located, toward the enactment of ordinances and other regulations that provide similar protection for endangered species of wild fauna and flora.

The management organizations will continue to promote measures concerning the protection and recovery of endangered species of wild fauna and flora in coordination based on the relevant laws, ordinances, etc.

(3) Prevention of Traffic Accidents and Other Incidents Involving Endangered Species

In the nominated property and its surrounding area, traffic accidents occur that involve endemic species and endangered species such as the Amami rabbit, Ryukyu long-haired rat, Okinawa rail, Iriomote cat, and crested serpent eagle. In addition, there are incidents of the chicks of the Okinawa rail or small animals such as the Anderson's crocodile newt, Ryukyu black-breasted leaf turtle, and the Chinese box turtle falling into roadside ditches.

Therefore, in the four regions, active efforts have been made in coordination and cooperation with related local organizations to urge drivers to stay alert and to raise public awareness for the protection of endangered species. In the future, further efforts will be made in coordination and cooperation with local residents and tourism businesses.

Also, to prevent the impact of traffic accidents involving endangered species mainly in the northern part of Okinawa Island and on Iriomote Island, where roadkills of endangered species have been an issue conventionally, effective countermeasures to address traffic accidents have been considered and implemented, studying the ecological characteristics and the inhabitation status of protected endangered species, causes of traffic accidents, and road structures of sections where accidents frequently occur. In the future, similar measures will be taken for Amami-Oshima Island and Tokunoshima Island as well. In so doing, impact of such measures on the inhabitation status of other endangered species will be taken into consideration.

(4) Prevention of the Poaching and Illegal Collection of Endangered Species

The nominated property provides habitats for many endemic species that are only distributed in this region, which have differentiated into species and subspecies varying from island to

island. This used to attract collectors but, in recent years, the protection of plants and animals has been in place based on laws and ordinances, restricting collection of endangered species through designation as national endangered species of wild fauna and flora in accordance with the Endangered Species Act.

In addition, patrols will be continuously carried out to prevent the poaching and illegal collection of endangered species through coordination and cooperation of the management organizations, related local organizations, NPOs, local residents, and others.

Furthermore, information on endangered species for which poaching and collecting are prohibited by related laws, ordinances, etc. will be broadly disseminated to local residents and visitors to further implement activities to obtain their understanding and cooperation for the protection of endangered species.

3) Elimination and Reduction of Impact of Alien Species

(1) Monitoring, Prevention, and Emergency Responses to Address the Introduction of Invasive Alien Species

Some invasive alien species either pose direct threats to native ecosystems by preying on endangered species and other native species or pose or may pose indirect threats to habitats of endangered species and other native species by disrupting inter-specific balance, causing genetic disturbance, or carrying with them pathogens and parasites. Therefore, it is important to prevent the invasion of such invasive alien species before it happens.

Invasive alien species that cause or are likely to cause damage to native ecosystems are categorized as “specified invasive alien species” pursuant to the Act on the Prevention of Adverse Ecological Impacts Caused by Specified Invasive Alien Species and it is prohibited to carry, release, or plant them. However, the risk of unintentional introduction and dispersion is still present. Therefore, management organizations will continue to work to curb the introduction, establishment, and dispersion of invasive alien species by enforcing the existing laws and regulations properly, raising awareness to ensure compliance, and calling on individual stakeholders to take action to prevent unintentional introduction.

The management organizations will perform surveillance and monitoring on the status of introduction, with a particular attention to places which could potentially serve as routes of invasive alien species making incursions into the regions to be protected by this plan and other places where they may establish themselves in an effort to prevent introduction before it happens. In the event that it is affirmed that invasion has occurred, a mechanism is to be set up to take effective control measures immediately. Also, information will be provided to local residents, tourists, businesses, and other stakeholders on a continuous basis about the threats of alien species and also about preventive measures.

Local residents, tourists, businesses, and other stakeholders are to be informed about the threats that alien species pose to the natural environment and actions are to be taken to prevent their invasion to ensure that the aforementioned stakeholders do not introduce these species to the regions covered by this plan whether it is intentional or unintentional.

The management organizations continue to work to curb the introduction, establishment, and dispersion of invasive alien species through proper enforcement of the existing laws and ordinances and by calling on various players to act to prevent unintentional introduction.

(2) Systematic Promotion of Control Projects to Address Existing Invasive Alien Species

From among the invasive alien species that have been confirmed to have already made entry and are established in the regions covered by this plan, the small Indian mongoose has been

designated as a specified invasive alien species pursuant to the Act on the Prevention of Adverse Ecological Impacts Caused by Specified Invasive Alien Species, having been established on Amami-Oshima Island and the northern part of Okinawa Island. Control projects to address this species are being implemented, as they have had particularly significant impact on the ecosystem. To date, their habitat density has fallen substantially and their habitat area has shrunk as well.

The Phase II Mongoose Control Plan has been developed for both Amami-Oshima Island and the northern part of Okinawa Island, with the goal of completely eradicating the invasive species by FY2022. Control projects will be implemented on a continuous basis as a priority in accordance with the plan.

As for invasive alien species other than the small Indian mongoose that have already made entry, control measures are to be taken as a priority to address alien species for which necessity, urgency, and effectiveness of control measures are judged to be high in consideration of the potential impact on the Outstanding Universal Value of the nominated property, the degree of invasiveness, the inhabitation status of endangered species at and around the invaded area, the technical viability of the control techniques, etc.

(3) Elimination and Reduction of Impact of Cats and Dogs

It has been confirmed that cats and dogs prey on endangered species within the regions covered by this plan. Moreover, there are concerns over the transmission of feline immunodeficiency virus (FIV) from ordinary cats (*Felis silvestris catus*) on Iriomote Island to the Iriomote cat (*Prionailurus bengalensis iriomotensis*). Therefore, it is important to eliminate and mitigate the impact of cats and dogs to protect endangered species.

For this purpose, it is important to carry out upstream countermeasures for cats and dogs. Regarding cats and dogs, owners' responsibilities are specified under the Act on Welfare and Management of Animals and the Rabies Prevention Act. More specifically, five municipalities on Amami-Oshima Island and three towns on Tokunoshima Island have enacted the Ordinance on the Proper Keeping and Management of Pet Cats, three villages in the northern part of Okinawa Island have enacted the Ordinance on Cat Welfare and Management, and Taketomi Town, which has jurisdiction over Iriomote Island, enacted the Ordinance on the Keeping of Cats. Other actions are also implemented, including the registration and microchipping of pet cats, requirement for keeping pet cats indoors, and ban on abandoning pet cats. In addition, Kagoshima Prefecture has stipulated owners' obligation to keep pet dogs leashed, capture of unleashed dogs, and other matters under the Ordinance on Welfare and Management of Animals, and Amami City in Amami-Oshima Island, three villages in the northern part of Okinawa Island, and Taketomi Town where Iriomote Island is located have enacted ordinances on pet dogs, setting out similar provisions to those of Kagoshima Prefecture. The management organizations will continue to promote public awareness raising to improve the understanding and awareness of the local residents about these ordinances and work for proper enforcement.

Also, the ongoing coordination and cooperation among relevant government organizations, NPOs, etc. in exploring and implementing various measures are to be further promoted, including collection and sharing of information about cats and dogs within the habitats for endangered species (forests), the capturing, eliminating, or transferring of them to new owners, and the promotion of proper pet-keeping practices (registration obligation under the ordinance, recommendation of sterilization and indoor raising, and prohibition on abandonment).

(4) Prevention of Impact on Ecosystems of Animals and Plants Bred or Raised by Humans

Since many endemic species exist within the nominated property, it is anticipated with concern that, if related species of the mainland, native species of other islands within the

Central Ryukyus and South Ryukyus groups (alien species from within Japan), or groups of the same species or subspecies with different genetic characters are brought in, disturbance might happen because of hybridization.

Continuous efforts will be made to collect relevant information, enhance local people's awareness and understanding, and secure the mechanism for cooperation to prevent the intentional introduction of the aforementioned related species into the regions covered by this plan and thoroughly manage animals that have been bred and raised by humans (preventing their release, etc.), with a view to mitigating the risk of genetic disturbance due to hybridization between native species and related species.

4) Harmony with Livelihoods in the Buffer Zone and Surrounding Area

The forests existing in the regions covered by this plan have historically been used by people as part of their daily life and livelihoods since old times and have continued to supply necessary timber locally and also to outside the region. Also, there are some species existing in the region that have been using smartly the environment that has been maintained through a moderate level of human disturbance. In this region, an outstanding natural environment that boasts of rich biodiversity has been maintained to the present on the strength of high resilience that forests have, although exposed to human impact.

In light of this, a sustainable use of forest resources in the buffer zone and surrounding area is to be made, keeping in mind the restorative power of forests and giving due consideration to ensuring that the value of the Natural World Heritage property should not be affected by means of the relevant laws and ordinances as well as customary rules and methods, including the Natural Park Act. Furthermore, in consideration of the fact that, on Iriomote Island, the Iriomote cat uses arable land as habitat, the inhabitation status of important wildlife species will be determined. Based on this, studies and research are to be promoted to examine the necessary levels and ways of human involvement for maintaining biodiversity.

5) Proper Use and Ecotourism

(1) Strategic Promotion of Sustainable Tourism, Including Ecotourism

Tourism provides an opportunity to deepen understanding of the heritage value. On the other hand, the disorderly growth of tourism industry and excessive use are factors that could potentially affect the heritage value and lower visitors' expectations and satisfaction.

Local stakeholders, tourism business operators, and others strategically promote sustainable tourism, understanding that it is the heritage value that makes the region attractive and paying attention to its conservation at all times.

Mainly in the buffer zone and surrounding area, an appropriate capacity for receiving a large number of people in mass tourism is to be built up and the possibility of installing facilities to make interpretation of the attractiveness of the nominated property is also to be considered. Since raising people's awareness not only about the natural environment but also about a culture of co-existence between nature and people contributes to the sustainable development of local society as well as deep understanding of the heritage value, tourism combined with village walking, historical culture experience, and local products will be actively promoted.

In the nominated property area, a nature-experience type of tourism will also be promoted by using rich nature and native culture, including ecotourism under the rules of proper use. Artificial changes to nature will be limited to a minimal level to reduce the environmental burden of human use.

(2) Proper Enforcement of Use Control

To achieve sustainable tourism without compromising the conservation of the heritage value, appropriate use control measures will be taken, as needed, based on the sufficient knowledge of the characteristics of the attributes to be conserved, their changes, actual use, and situation relative to carrying capacity.

In introducing use control measures, a mechanism for cooperation and coordination is to be set up, building a consensus among management organizations, tourism business operators, local residents, and NPOs, and awareness raising is to be actively carried out to earn the understanding and cooperation of visitors. Once the control measures have been introduced, impacts on the natural environment and local society and economy are to be monitored and periodical evaluation is to be made.

(3) Awareness Raising Through Ecotour Guides etc.

Tourism business operators will promote initiatives such as human resource development for guides and the adoption of a system for certification and registration of excellent guides with a view to improving their skills including sufficient knowledge, information, and communication related to the heritage value and safety management.

Furthermore, recognizing that it is important to deepen the understanding of visitors about the heritage value for effective conservation, ecotour guides etc. provide effective explanation to visitors about the Outstanding Universal Value of the property and how individual component parts contribute to it and provide them with opportunities to perceive it in reality. Also, on the correct understanding about the history and culture of coexistence between nature and people, which is a product of a long history of local people making sustainable use of natural resources, including endemic plants and animals, interpretation is to be provided to visitors about this as one of the unique local resources.

6) Conservation and Management with the Participation and Collaboration of Local Communities

(1) Integration of Effective Environmental Consideration into Development Projects

In addition to the national Environmental Impact Assessment Act, prefectural ordinances concerning environmental impact assessments have been enacted for both Kagoshima Prefecture and Okinawa Prefecture. Mechanisms for the implementation of appropriate environmental conservation measures have also been established.

Even for relatively small development activities that are not controlled under the Environmental Impact Assessment Act or the ordinances concerning environmental impact assessments of the two prefectures, appropriate environmental consideration is to be ensured not to affect the Outstanding Universal Value as a Natural World Heritage property.

(2) Implementation of Conservation Activities in Collaboration with Local Communities

Various conservation activities have already been implemented in the regions covered by this plan through collaboration between the management organizations and local residents, related local organizations, NPOs, etc., including patrols to prevent poaching, illegal collection, and traffic accidents of endangered species and voluntary rules to reduce tourism pressures, etc.

As work to be implemented from now on, the Regional Liaison Committee, Sub-local Meetings, and other frameworks will be mobilized to further encourage voluntary activities of local communities for conservation and management and to strengthen the protection of endangered species, control of alien species, and monitoring of illegal activities through collaboration between governmental organizations and local communities.

Also, in the buffer zone and surrounding area, measures are to be promoted in cooperation with local communities to restore ecosystems as part of the heritage value, to improve, restore, and create habitats, and to reduce environmental load.

(3) Awareness Raising and Educational Activities

Each of the regions covered by this plan has its own culture of coexistence with nature. The nature in each region has been maintained up to the present through wisdom and practices of making sustainable use of nature's blessings.

It is extremely effective in promoting the participation and cooperation of local communities to ensure that local people understand that these exceptional local cultures contribute to the conservation of the value as a Natural World Heritage property and entertain enhanced interest in and awareness about the Natural World Heritage. Therefore, awareness raising and educational activities will be continued to raise awareness for the conservation of the value as a Natural World Heritage property and to foster understanding about exceptional local cultures.

7) Proper Monitoring and Utilization of Information

(1) Monitoring of Projects Related to Conservation and Management

To make adaptive management of the regions covered by this plan based on scientific knowledge, the management organizations obtain the necessary baseline data in cooperation with relevant government organizations, other stakeholders, and researchers before various measures for conservation and management are implemented and monitor changes in the natural environment properly during the implementation. Also, information obtained as a result is utilized to revise this plan and action plans by region and to develop subsequent actions.

Specific monitoring items are to be determined as indicators to manage the progress of individual action items that are set out in the action plans by region and are to be recorded by individual project undertakers. However, where proper monitoring techniques and indicators are not yet established, the development of a new monitoring technique is to be considered under the action item in question.

(2) Implementation of Study, Research, and Long-term Monitoring

Implementation of the adaptive conservation and management of the regions covered by this plan is not possible without basic study on the ecology of individual plants and animals and long-term monitoring to detect forest changes. Research and study are to be promoted through coordination between researchers and the management organizations.

For long-term monitoring, the results of the existing surveys by various organizations will be fully utilized, including 1000 monitoring sites (Ministry of the Environment) and the basic inventorying survey to quantify forest resources (Forestry Agency).

(3) Promotion of Information Sharing and Utilization

The management organizations and researchers will be encouraged to share the results of long-term monitoring surveys as well as information, knowledge, and technology which have been obtained from the results not only of conservation and management monitoring but also of other surveys and research. These results will also be used effectively in the conservation and management of the regions covered by this plan. For this purpose, information will be extensively collected and accumulated and an integrated system of management and disclosure will be secured by official web page etc.

6. Implementation Mechanism for Management

1) Structure for Coordination among Stakeholders

For proper conservation and management of the regions covered in this plan, it is necessary to make a unified effort through close coordination and cooperation of the management organizations. For this reason, the Regional Liaison Committee is established as the forum for liaison and coordination among the management organizations. The Regional Liaison Committee builds a consensus, ensures coordination, and checks the progress of implementation on the preparation and revision of the comprehensive management plan that covers the entire regions.

Furthermore, since the area covered by this plan consists of four separate regions, it is necessary to deliver conservation and management in coordination and cooperation based on the opinions of local communities in each region. Therefore, sub-local meetings are set up for each of the four regions under the Regional Liaison Committee to provide opportunities for liaison and coordination through the participation of the management organizations, other related local government organizations, NPOs, etc. The sub-local meetings ensure the proper conservation and management of the regions covered by this plan by building a consensus, facilitating liaison and coordination, managing progress, and making inspections and evaluations of the implementation of measures concerning the preparation and revision of action plans by region and report to and coordinate with the Regional Liaison Committee, as needed.

* The list of the member government organizations of the Regional Liaison Committee is attached as Reference Material 2; the lists of the member organizations of the Amami-Oshima Island Sub-local Meeting, Tokunoshima Island Sub-local Meeting, the Northern Part of Okinawa Island Sub-local Meeting, and Iriomote Island Sub-local Meeting are attached as Reference Material 3.

2) Mechanism for Adaptive Conservation and Management Based on Scientific Advice

For the conservation and management of the area covered by this plan, adaptive conservation and management is to be delivered based on the results of the monitoring mentioned in 5.7) and in consideration of advice from the Scientific Committee on Amami-Oshima Island, Tokunoshima Island, the northern part of Okinawa Island and Iriomote Island natural World Heritage nominated property, which was established in FY2013, consisting of experts, as well as the Amami Working Group and the Okinawa Working Group, which were established under the scientific council in FY2014 for the purpose of entertaining detailed discussions at the local level. The preparation and revision of the comprehensive management plans and action plans by region will be carried out with advice primarily from the working groups.

Also, issues for which individual study teams have been established, such as the small Indian mongoose control project and the protection and recovery programs of national endangered species, are to be addressed under the corresponding study teams. In addition, efforts will be made for close coordination with the Regional Liaison Committee and sub-local meetings to share necessary information about the comprehensive management plan and action plans by region.

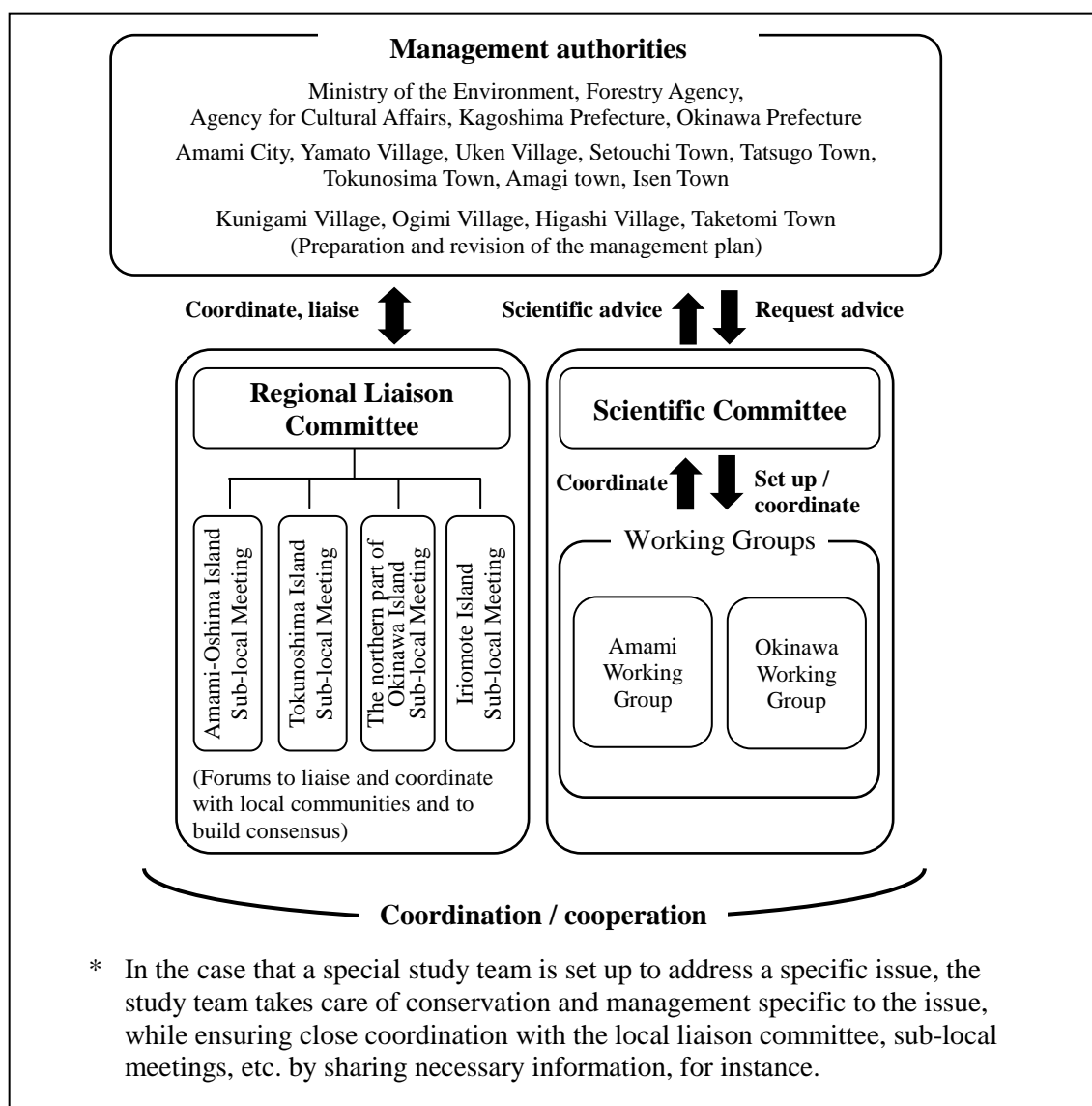


Fig. 7. Implementation Mechanism for Management

3) Information Dissemination and Awareness Raising

For effective information provision and awareness raising, it is necessary to consider appropriate means of information sharing and awareness raising, depending on the target groups.

An official web page in multiple languages is to be set up on the Internet and broadly publicized to provide the audience within and outside Japan with various kinds of information about the natural property, “Amami-Oshima Island, Tokunoshima Island, the northern part of Okinawa Island, and Iriomote Island”, nominated for inscription on the World Heritage List, including the information about this plan and monitoring results.

Explanation by guides and at the existing related facilities will be actively promoted as a means to provide information and educational explanatory programs to visitors of the area covered by this plan. In addition, the possibility of establishing a new World Heritage center will be explored, as needed.

Moreover, for local people, a number of measures will be actively carried out, including the publication of information magazines and organization of seminars etc. about the conservation of World Heritage to ensure information provision, awareness raising, and communication.

Table 3. Existing major related facilities

Region	Facility name	Established by
Amami-Oshima Island	Amami Wildlife Conservation Center	Ministry of the Environment
	Amami Park	Kagoshima Prefecture
	Amami Nature Observation Forest	Tatsugo Town
	Amami Museum	Amami City
	“Kuroshio no Mori” Mangrove Park	Amami City
	Amami Forestpolis	Yamato Village
	Setouchi Town Folk Museum	Setouchi Town
Tokunoshima Island	Amagi Town History, Culture, Industry and Science Center Yui-no-Yakata	Amagi Town
	Amami Rabbit Observation Shed	Amagi Town
	Tokunoshima Town Folk Museum	Tokunoshima Town
	Isen Town Museum of History and Folklore	Isen Town
The northern part of Okinawa Island	Yambaru Wildlife Conservation Center	Ministry of the Environment
	Yambaru Discovery Forest	Kunigami Village
	Okinawa Rail Ecology Center	Kunigami Village
	Hiji Falls	Kunigami Village
	Kunigami Forest Park	Kunigami Village
	Bunagaya Museum	Okinawa General Bureau
	Higashi Museum	Higashi Village
	Fureai Hirugi Park	Higashi Village
Iriomote Island	Iriomote Wildlife Conservation Center	Ministry of the Environment

4) Roles of Individual Management Organizations

The individual roles of the management organizations that prepared this plan are shown below.

With a view to further enhancing conservation and management following the inscription on the World Heritage List, the management organizations will continue to secure necessary financial and human resources to the extent possible and further promote coordination, cooperation, and the division of roles. When needed, the possibility of introducing new mechanisms and systems for procuring financial and human resources will be explored.

(1) Naha Natural Conservation Office, Ministry of the Environment

The Amami Ranger Office for Nature Conservation, Tokunoshima Ranger Office for Nature Conservation, Yambaru Ranger Office for Nature Conservation, Ishigaki Ranger Office for

Nature Conservation, and Iriomote Ranger Office for Nature Conservation manage national parks, nature conservation areas, and national wildlife protection areas. They deliver management pursuant to the Act on Conservation of Endangered Species of Wild Fauna and Flora and the Act on the Prevention of Adverse Ecological Impacts Caused by Specified Invasive Alien Species. In addition, matters concerning the protection and recovery of endangered species and the protection and use of national parks that are mentioned in this plan and action plans by region will be delivered in coordination and cooperation with other management organizations.

It serves as the secretary-general and the secretariat for external affairs for the Regional Liaison Committee, the Scientific Council, the Amami Working Group, and the Okinawa Working Group, which are shown in Fig. 7 depicting the implementation mechanism for management.

(2) Kyusyu Regional Forest Office, Forestry Agency

The Kagoshima District Forest Office (Naze Forestry Office, Tokunoshima Forestry Office), Okinawa District Forest Office (Takae Forestry Office, Ohara Forestry Office, and Sonai Forestry Office), and the Iriomote Forest Ecosystem Conservation Center manage national forests.

In addition, matters to be carried out within national forests under this plan and action plans by region are addressed in coordination and cooperation with other management organizations.

(3) Kagoshima Prefecture

The Nature Conservation Division, Environment and Forestry Affairs Department, Kagoshima Prefecture and the Hygiene and Environment Office, Oshima Branch Office will take the lead in carrying out a variety of projects together with the divisions concerned with agriculture, forestry, and fisheries, civil engineering and construction, and tourism as well as the board of education. These include projects related to cooperating over the management of national parks; protecting wildlife; countermeasures to address alien species; promoting and establishing agriculture, forestry, and fisheries and resource management for these; installing and maintaining public facilities; promoting tourism; and protecting and managing cultural properties.

It serves as the secretary-general and the secretariat for external affairs for Amami-Oshima Island Sub-local Meeting and Tokunoshima Island Sub-local Meeting, which are shown in Fig. 7 depicting the implementation mechanism for management.

(4) Okinawa Prefecture

The Nature Conservation Division, Department of Environmental Affairs, Okinawa Prefecture will take the lead in carrying out a variety of projects together with the divisions concerned with agriculture, forestry, and fisheries, civil engineering and construction, and tourism as well as the board of education. These include projects related to cooperating over the management of national parks; countermeasures to manage wildlife and to address alien species; promoting and establishing agriculture, forestry, and fisheries and resource management; installing and maintaining public facilities; promoting tourism; and protecting and managing cultural properties.

It serves as the secretary-general and the secretariat for external affairs for the sub-local meetings for the northern part of Okinawa Island and Iriomote Island, which are shown in Fig. 7 depicting the implementation mechanism for management.

- (5) Five Municipalities on Amami-Oshima Island (Amami City, Yamato Village, Uken Village, Setouchi Town, and Tatsugo Town)

The World Natural Heritage Promotion Office, Environmental Measure Section (Amami City), General Affairs and Planning Division (Yamato Village, Uken Village, and Tatsugo Town) and Setouchi Board of Education Department of Social Education World Natural Heritage Setouchi Promotion Office (Setouchi Town) will take the lead in carrying out a variety of projects together with the divisions concerned with agriculture, forestry, and fisheries, civil engineering and construction, and tourism as well as the board of education. These include projects related to managerial cooperation for national parks; countermeasures to manage wildlife and to address alien species; promoting and establishing agriculture, forestry, and fisheries and resource management; installing and maintaining public facilities; promoting tourism; providing user services and guidance; and protecting and managing cultural properties.

Wide Area Administration Association of Amami Islands is a special local public entity regulated under Article 1-3 of the Local Autonomy Act covering the entirety of the Amami Island Group, which include Amami-Oshima Island and Tokunoshima Island. It serves as a combined business union for one city, nine towns, and two villages, for which it is responsible for improving infrastructure and promoting various projects for the promotion of the Amami Island Group. It will also promote ecotourism related to the management of the Natural World Heritage property and carry out various projects related to tourism promotion.

- (6) Three Municipalities on Tokunoshima Island (Tokunoshima Town, Amagi Town, and Isen Town)

The Planning Division (Tokunoshima Town and Amagi Town) and the Kyura-Machi Tourism Division (Isen Town) will take the lead in carrying out a variety of projects together with the divisions concerned with agriculture, forestry, and fisheries, civil engineering and construction, and tourism as well as the board of education. These include projects related to managerial cooperation for national parks; countermeasures to manage wildlife and to address alien species; promoting and establishing agriculture, forestry, and fisheries and resource management; installing and maintaining public facilities; promoting tourism; providing user services and guidance; and protecting and managing cultural properties.

- (7) Three Villages on the northern part of Okinawa Island (Kunigami Village, Ogimi Village, and Higashi Village)

The World Natural Heritage Promotion Division (Kunigami Village), Planning and Tourism Division (Ogimi Village and Higashi Village) will take the lead in carrying out a variety of projects together with the divisions concerned with agriculture, forestry, and fisheries, civil engineering and construction, and tourism as well as the board of education. These include projects related to managerial cooperation for national parks; countermeasures to manage wildlife and to address alien species; promoting and establishing agriculture, forestry, and fisheries and resource management; installing and maintaining public facilities; promoting tourism; providing user services and guidance; and protecting and managing cultural properties.

- (8) One Town on Iriomote Island (Taketomi Town)

In Taketomi Town, the Natural Environment Division will take the lead in carrying out a variety of projects together with the divisions concerned with agriculture, forestry, and fisheries, civil engineering and construction, and tourism as well as the board of education. These include projects related to protecting nature; countermeasures to manage wildlife and to address alien species; promoting and establishing agriculture, forestry, and fisheries and resource management; installing and maintaining public facilities; promoting tourism; providing user services and guidance; and protecting and managing cultural properties.

7. Preparation of Action Plans by Region

1) Methodology for the Preparation of Action Plans by Region

Action plans by region are prepared by sub-local meetings consisting of management organizations, other related local government organizations and groups, NPOs, etc. which are set up for each of the four regions of this plan, Amami-Oshima Island, Tokunoshima Island, the northern part of Okinawa Island, and Iriomote Island with the participation of and based on the consensus of local communities.

Information about the history of discussion at the sub-local meetings and the content of the plan is widely disclosed. In addition, opportunities for information sharing and explanation are provided to local citizens and other stakeholders to obtain their understanding about and cooperation for the plan's objectives, content, and specific measures.

2) Action Plans by Region

The action plans have been developed by region for Amami-Oshima Island, Tokunoshima Island, the northern part of Okinawa Island, and Iriomote Island:

(1) Action Plan for Amami-Oshima Island

* Attached as Annex 1.

(2) Action Plan for Tokunoshima Island

* Attached as Annex 2.

(3) Action Plan for the Northern Part of Okinawa Island

* Attached as Annex 3.

(4) Action Plan for Iriomote Island

* Attached as Annex 4.

8. Conclusion

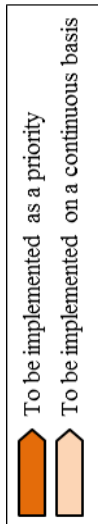
Amami-Oshima Island, Tokunoshima Island, the northern part of Okinawa Island, and Iriomote Island, which are collectively nominated for inscription on the World Heritage List, is a globally unique natural heritage that possesses Outstanding Universal Value based on criteria concerning ecosystem and biodiversity. Part of its value has been maintained not only on the strength of nature's high recovering power, but also as part of the daily life and livelihoods of local communities.

In order to nominate such place for inscription on the World Heritage List and pass on its value to future generations, it is essential to work, besides management organizations, in collaboration with local citizens, related local organizations, etc. It is with this shared recognition that efforts will be made to achieve proper conservation and management, so that Amami-Oshima Island, Tokunoshima Island, the northern part of Okinawa Island, and Iriomote Island, nominated to be inscribed as a Natural World Heritage property, will be maintained with the participation and collaboration of local communities.

Annexes

Annex 1

Action Plan Amami-Oshima Island

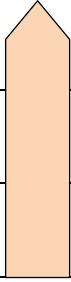
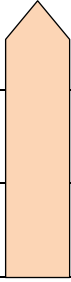
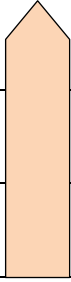
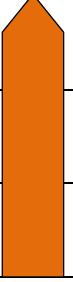
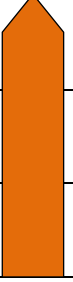
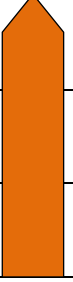
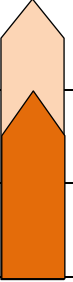
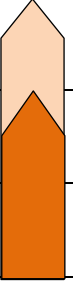
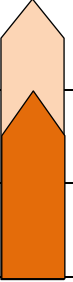





Action item	Implementing agency	Time line			Area			Description	Target [evaluation indicator]	Notes (relevant organization)
		Short term	Middle term	Long term	Property	Buffer zone	Surrounding area			
1) Proper Enforcement of Protective Legal Instruments										
1	MOE				✓	✓	✓	Designation as a National Park is to be made on Amami-Oshima Island, centering on the area that constitutes the World Heritage value. Once designation has been made, management is to be properly carried out.	The value of the World Heritage property is conserved and legal control measures are in place to ensure the buffering functions.	
2	Forestry Agency				✓	✓	✓	Conservation and management of the Amami Gunto Forest Ecosystem Reserve is to be properly carried out.	The value of the World Heritage property is conserved and legal control measures are in place to ensure the buffering functions.	Amami Gunto Forest Ecosystem Reserve Conservation Management Committee
3	MOE Kagoshima Prefecture				✓	✓	✓	Management of National Wildlife Protection Areas and Prefectural Wildlife Protection Areas is to be properly carried out.	Compliance is made with regulations in wildlife protection areas and endangered wildlife species are conserved.	
2) Protection and Recovery of Endangered Species										
1	MOE				✓	✓	✓	Measures for conservation of national endangered species of wild fauna and flora are to be taken by legally designating species of wild fauna and flora that are at risk of extinction as national endangered species under the Endangered Species Act.	National endangered species are properly conserved.	
2	Kagoshima Prefecture, municipal govts.				✓	✓	✓	Prefectural and municipal ordinances for the protection of endangered species of wild fauna and flora are to be enforced appropriately to conserve the biodiversity of Amami-Oshima Island.	Ordinances are complied with and endangered species of wild fauna and flora are protected appropriately.	Amami Island Group Rare Wildlife Protection Program Council
3	MEXT, MAF, MOE, Kagoshima Prefecture, municipal govts., related local organizations				✓	✓	✓	For species that are covered by protection and recovery programs (the Amami rabbit, the Amami woodcock, and the Amami thrush), the inhabitation status, habitats, and so forth are to be studied and analyzed. Efforts are to be made for the protection and recovery of their populations.	Stable subsistence in natural conditions is possible. [To be evaluated on a case-by-case basis at review committee meetings]	Amami Rare Species Protection and Recovery Review Conference

Action item	Implementing agency	Time line			Area			Description	Target [evaluation indicator]	Notes (relevant organization)
		Short term	Middle term	Long term	Property	Buffer zone	Surrounding area			
4	MOE, Kagoshima Prefecture, municipal govts., related local organizations				✓	✓	✓	The distribution of endangered species that are not covered by protection and recovery programs is to be studied on a continuous basis to accumulate scientific data. Protection and recovery measures are to be taken in coordination with other projects such as alien species eradication, traffic accident prevention, and patrol.	Stable subsistence in natural conditions is possible.	
5	MOE, Forestry Agency, Kagoshima Prefecture, municipal govts., related local organizations				✓	✓	✓	The occurrence of accidents is to be avoided by means of road improvement and awareness raising—informing people of locations where there is a high risk of traffic accidents involving endangered species of wild fauna, installing signs, distributing leaflets, and campaigns.	Drivers of vehicles comply with speed limits to avoid endangered wild animals and no traffic accidents involving them happen.	Amami Island Group Rare Wildlife Protection Program Council
6	MOE, Kagoshima Prefecture, municipal govts.				✓	✓	✓	Sick or injured birds and animals such as the Amami rabbit are to be rescued. Data are to be collected from rescued birds and animals. The possibility of exhibiting some of the individuals that cannot return to the wild for awareness-raising purposes. When dead individuals are found, the cause of death is to be identified whenever possible as information contributing to the development of future actions.	Populations are maintained. Ecological studies and care-taking techniques are established.	Amami Rare Species Protection and Recovery Review Conference
7	MOE, Forestry Agency, Kagoshima Prefecture, municipal govts., related local organizations				✓	✓	✓	Government organizations are to take the lead in carrying out patrols for the prevention of poaching and illegal collection and raising public awareness in coordination with local organizations and the police.	An effective monitoring system is established. No poaching or illegal collection takes place.	Amami Island Group Rare Wildlife Protection Program Council



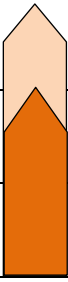
Action item	Implementing agency	Time line			Area			Description	Target [evaluation indicator]	Notes (relevant organization)
		Short term	Middle term	Long term	Property	Buffer zone	Surrounding area			
3) Elimination and Reduction of Impact from Alien Species										
1	MOE, Kagoshima Prefecture, municipal govts., related local organizations				✓		✓	The status of invasion of already established invasive alien species is to be studied and, with a focus on species that particularly need addressing, countermeasures are to be taken. Information is to be collected of the sighting of invasive alien species that are not yet established on Amami-Oshima Island. Also, measures to prevent their establishment are to be taken, as needed.	Adverse effects are reduced or avoided by eliminating, or preventing the establishment of, alien species whose impact on the heritage value (ecosystem / biodiversity) is considered to be particularly significant.	
2	MOE				✓		✓	Measures are to be taken to control the mongoose that is greatly affecting the native ecosystems by preying on endangered species.	The mongoose is completely eradicated from Amami-Oshima Island.	Amami-Oshima Island Mongoose Control Project Review Conference and Control Strategic Meeting
3	MOE, Kagoshima Prefecture, municipal govts., related local organizations				✓		✓	Government and private sectors coordinate at the local level, sharing information widely and building consensus to build and operate the system for excluding cats from the habitats of endangered species (forests) that delivers a series of actions ranging from capture and temporary keeping to transfer.	Cats are excluded from the habitats of endangered species; adverse effects on endangered species are avoided.	Amami Island Group Rare Wildlife Protection Program Council (Amami-Oshima Island Feral Dog and Feral Cat Control Measures Review Conference)
								Attempt to prevent abandonment and escape of pet cats, spaying and neutering, appropriate animal breeding such as owner labels, and prevention of feeding cats, that except house cats, without reason.	Cats kept at human settlements are bred and managed appropriately and they do not enter forests any more.	Amami Island Group Rare Wildlife Protection Program Council (Amami-Oshima Island Feral Dog and Feral Cat Control Measures Review Conference)
4	Municipal govts.				✓		✓	Measures are to be taken to control feral goats whose feeding damage can potentially affect ecosystems, including endangered species.	Feral goats are completely eradicated from Amami-Oshima Island.	Amami Island Group Rare Wildlife Protection Program Council

Action item	Implementing agency	Time line			Area			Description	Target [evaluation indicator]	Notes (relevant organization)
		Short term	Middle term	Long term	Property	Buffer zone	Surrounding area			
4) Harmony with Livelihoods in the Buffer Zone and Surrounding Area										
1	Kagoshima Prefecture, municipal govts.				✓	✓	✓	Measures to strike a balance with industry and livelihoods are to be implemented in accordance with "the Biodiversity Strategy and Action Plan of Kagoshima Prefecture", which set out policies and measures for biodiversity conservation in Kagoshima Prefecture.	A mechanism for the implementation of measures based on the strategy is established.	
2	Kagoshima Prefecture, municipal govts.				✓	✓	✓	Measures to strike a balance with industry and livelihoods are to be implemented in accordance with "the Biodiversity Strategy and Action Plan of Amami-Oshima Island", which sets out policies and measures for biodiversity conservation in Amami-Oshima Island.	A mechanism for the implementation of measures based on the strategy is established.	Amami-Oshima Nature Protection Council
3	Kagoshima Prefecture, municipal govts.						✓	Rules for forestry practices compatible with biodiversity conservation are to be established to strike a balance between the strengthening of buffering functions and forestry in the forests around the heritage property area. For this purpose, efforts are to be made to develop common forest management methods for forests owned by municipal governments and share them across the region.	Methods of economically viable forestry practices compatible with the conservation of the heritage value are established. [Progress of the development of forestry management methods; record of actual forestry practice based on the forestry management methods.]	Amami Island Group Natural World Heritage Nominated Property Conservation and Utilization Review Conference
4	MOE, Forestry Agency, Kagoshima Prefecture, municipal govts.				✓	✓	✓	A mechanism to integrate environmental consideration into public works is to be set up to prevent the World Heritage value from being affected by public works in the World Heritage property area or its surrounding area. For this purpose, the possibility of developing "environmental consideration guidelines" (provisional title) based on the actual experience of Amami Island Group and in consideration of special characteristics of nature and culture of the Amami Island Group is to be examined together with the possibility of putting in place a mechanism to support their implementation. These are to be shared among the national government, the prefectural government, municipal governments, and private businesses to improve the standards of environmental consideration in the entire region.	A mechanism is in place that ensures that appropriate environmental consideration is given when public works are carried out and that there is no impact on the World Heritage value. [Record of environmentally-conscious measures]	Amami Island Group Natural World Heritage Nominated Property Conservation and Utilization Review Conference

Action item	Implementing agency	Time line			Area			Description	Target [evaluation indicator]	Notes (relevant organization)	
		Short term	Middle term	Long term	Property	Buffer zone	Surrounding area				
5) Proper Use and Ecotourism											
1	Development of a sustainable tourism master plan	Kagoshima Prefecture				✓	✓	✓	In preparation for inscription on the World Heritage List, visitor management is to be promoted based on a master plan that sets forth directions for planned mitigation of concentration in mass tourism and ecotourism, infrastructure installation, and desirable use in the Amami Island Group.	Infrastructure and capacity for receiving an increased number of tourists are in place.	Amami Island Group Natural World Heritage Nominated Property Conservation and Utilization Review Conference
2	Use control	MOE, Forestry Agency, Kagoshima Prefecture, municipal govts., related local organizations				✓	✓		In areas where World Heritage inscription might result in increased use or concentrated use to the extent that tangible environmental impact could occur, use control measures such as restriction of the number of users, mandatory accompaniment of guides, and traffic restrictions are to be examined and necessary arrangements area to be made to ensure the conservation of the natural environment and the provision of high quality use.	The World Heritage value is conserved and the quality of users' experience is guaranteed.	Amami Island Group Natural World Heritage Nominated Property Conservation and Utilization Review Conference
3	Installation of facilities that contribute to the reduction of environmental burden	MOE, Kagoshima Prefecture, municipal govts.				✓	✓	✓	To enable visitors to perceive the heritage value tangibly and to reduce environmental burden, the installation of user facilities and improvement of the existing facilities are to be examined as follows: <ul style="list-style-type: none"> ➤ Key facilities capable of receiving large numbers of users; ➤ Facilities that gives expression to the attractiveness of forest areas; and ➤ Necessary facilities that reduce environmental burdens for sustainable use, such as toilets and walking trails. 	The World Heritage value is conserved and the quality of users' experience is guaranteed.	Amami Island Group Natural World Heritage Nominated Property Conservation and Utilization Review Conference
4	Installation of the Amami World Natural Heritage Trail (provisional name)	Kagoshima Prefecture, municipal govts.				✓	✓		Trails are to be installed to encourage walking, so that visitors can experience the nature, local lifestyle, and culture of the Amami Island Group and enjoy rich interactions with local communities, resulting in more overnight stays in the region. High-quality nature trips are to be promoted to contribute to raising awareness about the value of the Natural World Heritage.	The entire island group are connected by trails and tourists make repeated visits and enjoy high-quality uses of various types that meet different demands.	Amami Island Group Natural World Heritage Nominated Property Conservation and Utilization Review Conference

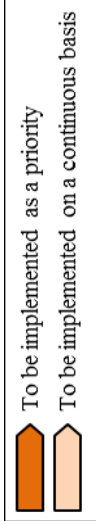
Action item	Implementing agency	Time line			Area			Description	Target [evaluation indicator]	Notes (relevant organization)
		Short term	Middle term	Long term	Property	Buffer zone	Surrounding area			
5	MOE, Kagoshima Prefecture, municipal govts., related local organizations				✓	✓	✓	In the World Heritage property area, tours of small groups of visitors accompanied by eco-tour guides are to be promoted to improve the satisfaction of visitors who come for genuine nature. High-quality nature trips are to be promoted to contribute to raising awareness about the value of the Natural World Heritage.	Small-group guided tours are provided in the property area etc.; tourists are satisfied with the nature of Amami-Oshima Island and make repeated visits.	Amami Island Group Ecotourism Promotion Council
6	Kagoshima Prefecture, municipal govts., related local organizations				✓	✓	✓	High-quality guides (tourism information guides, eco-tour guides, and village eco-tour guides) are to be trained to build the capacity of Amami-Oshima Island for tourism. High-quality nature trips are to be promoted to contribute to raising awareness about the value of the Natural World Heritage.	High-quality guides are available; tourists are satisfied with tourism of Amami-Oshima Island and make repeated visits.	
6) Conservation and Management with the Participation and Collaboration of Local Communities										
1	Implementation of forestry practices in consideration of biodiversity (intentionally listed repeatedly)							Rules for forestry practices compatible with biodiversity conservation are to be established to strike a balance between the strengthening of buffering functions and forestry in the forests around the heritage property area. For this purpose, efforts are to be made to develop common forest management methods for forests owned by municipal governments and share them across the region.	Methods of economically viable forestry practices compatible with the conservation of the heritage value are established. [Progress of the development of forestry management methods; record of actual forestry practice based on the forestry management methods.]	Amami Island Group Natural World Heritage Nominated Property Conservation and Utilization Review Conference

Action item	Implementing agency	Time line			Area			Description	Target [evaluation indicator]	Notes (relevant organization)
		Short term	Middle term	Long term	Property	Buffer zone	Surrounding area			
2 Environmentally-conscious implementation of public works (intentionally listed repeatedly)	MOE, Forestry Agency, Kagoshima Prefecture, municipal govts		✓	✓	✓	✓	A mechanism to integrate environmental consideration into public works is to be set up to prevent the World Heritage value from being affected by public works in the World Heritage property area or its surrounding area. For this purpose, the possibility of developing “environmental consideration guidelines” (provisional title) based on the actual experience of environmental consideration in the Amami Island Group and in consideration of special characteristics of nature and culture of the Amami Island Group is to be considered together with the possibility of putting in place a mechanism to support their implementation. These are to be shared among the national government, the prefectural government, municipal governments, and private businesses to improve the standards of environmental consideration in the entire region.	A mechanism is in place that ensures that appropriate environmental consideration is given when public works are carried out and that there is no impact on the World Heritage value. [Record of environmentally-conscious measures]	Amami Island Group Natural World Heritage Nominated Property Conservation and Utilization Review Conference	
3 Dissemination of information to tourists and people outside the region	MOE, Forestry Agency, Kagoshima Prefecture, municipal govts., related local organizations		✓	✓	✓	✓	Information about attractive natural and cultural features, the World Heritage value, and rules for appropriate use is to be disseminated throughout Japan by means of various media to deepen people’s understanding about the Amami Island Group.	Understanding about the Amami Island Group is improved throughout Japan. The environmental burden to the heritage property area is controlled below a certain level through tourism compatible with environmental consideration.		
4 Implementation of activities for the prevention of illegal dumping of waste etc.	MOE, Kagoshima Prefecture, municipal govts., related local organizations		✓	✓	✓	✓	Activities to prevent illegal dumping of waste, cleanup activities, and so forth are to be carried out for beautification of Amami-Oshima Island as a Natural World Heritage property.	The environment of Amami-Oshima Island is kept clean and beautiful both inside and outside the World Heritage property.		
5 Promotion of local people’s actions through awareness raising etc.	MOE, Forestry Agency, Kagoshima Prefecture, municipal govts., related local organizations		✓	✓	✓	✓	Seminars and various events are to be carried out. Posters, brochures, etc. are to be made and distributed to have local people recognize the significance of World Heritage inscription and the need for endangered species protection and alien species countermeasures and to promote local people’s actions.	Each member of local communities recognizes the significance of World Heritage inscription and the need for endangered species protection and alien species countermeasures and actively plays his/her own role.		

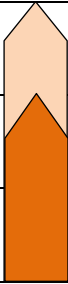
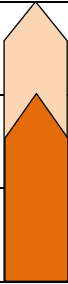
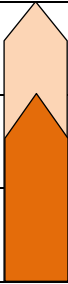



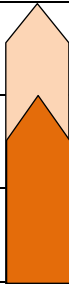
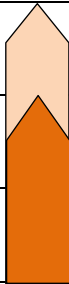
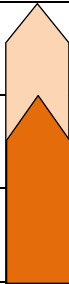
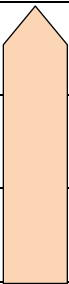
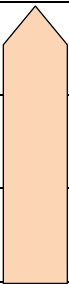
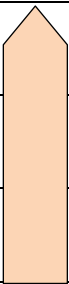
Action item	Implementing agency	Time line			Area			Description	Target [evaluation indicator]	Notes (relevant organization)
		Short term	Middle term	Long term	Property	Buffer zone	Surrounding area			
6	Kagoshima Prefecture, municipal govts., related local organizations					✓		Since the nature of the Amami Island Group, unlike other natural heritage properties, has been maintained through a long history of close interactions with people through its long history, efforts are to be made to raise awareness to ensure that the nature is conserved and that the unique culture of the Amami Island Group that has co-existed with nature is passed on to future generations.	Each member of local communities is proud of the nature and culture of the Amami Island Group and contributes to passing them on to future generations.	
7	MOE, Kagoshima Prefecture, municipal govts., related local organizations					✓		Special environmental education for a natural heritage property nominated for World Heritage inscription is to be explored to help children cultivate interest in local nature and culture.	Children are interested in local nature and culture and understand the need for endangered species protection and alien species countermeasures.	
7) Proper Monitoring and Utilization of Information										
1	MOE, Forestry Agency, Kagoshima Prefecture, municipal govts.				✓	✓		Information about the results of, and knowledge obtained by, monitoring programs and other types of research by different project undertakers are to be collected and accumulated widely. A mechanism for one-stop information collection, management, and publication is to be set up, such as the official website.	Information, knowledge, and technical experiences concerning the heritage value are collected, accumulated, and utilized for conservation and management.	

Annex 2

Action Plan Tokunoshima Island



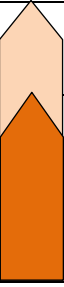
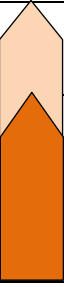
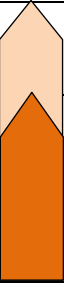






Action item	Implementing agency	Time line			Area			Description	Target [evaluation indicator] Short term	Notes (relevant organization) Middle term	
		Short term	Middle term	Long term	Property	Buffer zone	Surrounding area				
1) Proper Enforcement of Protective Legal Instruments											
1	MOE						✓	✓	✓	Designation as a National Park is to be made on Tokunoshima Island, centering on the area that constitutes the World Heritage value. Once designation has been made, management is to be properly carried out.	The value of the World Heritage property is conserved and legal control measures are in place to ensure the buffering functions.
2	Forestry Agency						✓	✓		Conservation and management of the Amami Gunto Forest Ecosystem Reserve is to be properly carried out.	The value of the World Heritage property is conserved and legal control measures are in place to ensure the buffering functions.
3	Kagoshima Prefecture						✓	✓		Management of Prefectural Wildlife Protection Areas is to be properly carried out.	Compliance is made with regulations in wildlife protection areas and endangered wildlife species are conserved.
2) Protection and Recovery of Endangered Species											
1	MOE						✓	✓	✓	Measures for conservation of national endangered species of wild fauna and flora are to be taken by legally designating species of wild fauna and flora that are at risk of extinction as national endangered species under the Endangered Species Act.	National endangered species are properly conserved.
2	Kagoshima Prefecture, town govts.						✓	✓		Prefectural and municipal ordinances for the protection of endangered species of wild fauna and flora are to be enforced appropriately to conserve the biodiversity of Tokunoshima Island.	Ordinances are complied with and endangered species of wild fauna and flora are protected appropriately.
3	MEXT, MAFF, MOE, Kagoshima Prefecture, town govts., related local organizations						✓	✓		For species that are covered by protection and recovery programs (the Amami rabbit and the Amami woodcock), the inhabitation status, habitats, and so forth are to be studied and analyzed. Efforts are to be made for the protection and recovery of their populations.	Stable subsistence in natural conditions is possible. [To be evaluated on a case-by-case basis at review committee meetings]

Action item	Implementing agency	Time line			Area			Description	Target [evaluation indicator] Short term	Notes (relevant organization) Middle term
		Short term	Middle term	Long term	Property	Buffer zone	Surrounding area			
4	MOE, Kagoshima Prefecture, town govts., related local organizations				✓	✓	✓	Stable subsistence in natural conditions is possible.		
5	MOE, Forestry Agency, Kagoshima Prefecture, town govts., related local organizations				✓	✓	✓	Drivers of vehicles comply with speed limits to avoid endangered wild animals and no traffic accidents involving them happen.	Amami Island Group Rare Wildlife Protection Program Council	
6	MOE, Kagoshima Prefecture, town govts., related local organizations				✓	✓	✓	Populations are maintained. Ecological studies and care-taking techniques are established.	Amami Rare Species Protection and Recovery Review Conference	
7	MOE, Forestry Agency, Kagoshima Prefecture, town govts., related local organizations				✓	✓	✓	An effective monitoring system is established. No poaching or illegal collection takes place.	Amami Island Group Rare Wildlife Protection Program Council	



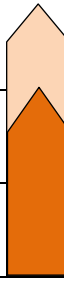
Action item	Implementing agency	Time line			Area			Description	Target [evaluation indicator] Short term	Notes (relevant organization) Middle term
		Short term	Middle term	Long term	Property	Buffer zone	Surrounding area			
3) Elimination and Reduction of Impact from Alien Species										
1	MOE, Kagoshima Prefecture, town govts., related local organizations				✓	✓	✓	The status of invasion of already established invasive alien species is to be studied and, with a focus on species that particularly need addressing, countermeasures are to be taken. Information is to be collected of the sighting of invasive alien species that are not yet established on Amami-Oshima Island. Also, measures to prevent their establishment are to be taken, as needed.	Adverse effects are reduced or avoided by eliminating, or preventing the establishment of, alien species whose impact on the heritage value (ecosystem / biodiversity) is considered to be particularly significant.	
2	MOE, Kagoshima Prefecture, town govts., related local organizations				✓	✓	✓	Government and private sectors coordinate at the local level, sharing information widely and building consensus to build and operate the system for excluding cats from the habitats of endangered species (forests) that delivers a series of actions ranging from capture and temporary keeping to transfer.	Cats are excluded from the habitats of endangered species; adverse effects on endangered species are avoided.	Amami Island Group Rare Wildlife Protection Program Council (Tokunoshima Island Feral Dog and Feral Cat Control Measures Review Conference)
					✓	✓	✓	Attempt to prevent abandonment and escape of pet cats, spaying and neutering, appropriate animal breeding such as owner labels, and prevention of feeding cats, that except house cats, without reason.	Cats kept at human settlements are bred and managed appropriately and they do not enter forests any more.	Amami Island Group Rare Wildlife Protection Program Council (Tokunoshima Island Feral Dog and Feral Cat Control Measures Review Conference)
4) Harmony with Livelihoods in the Buffer Zone and Surrounding Area										
1	Kagoshima Prefecture, town govts.				✓	✓	✓	Measures to strike a balance with industry and livelihoods are to be implemented in accordance with “the Biodiversity Strategy and Action Plan of Kagoshima Prefecture”, which set outs policies and measures for biodiversity conservation in Kagoshima Prefecture.	A mechanism for the implementation of measures based on the strategy is established.	

Action item	Implementing agency	Time line			Area			Description	Target [evaluation indicator] Short term	Notes (relevant organization) Middle term
		Short term	Middle term	Long term	Property	Buffer zone	Surrounding area			
2	MOE, Forestry Agency, Kagoshima Prefecture, town govts.						<p>To strengthen buffering functions of the agricultural land in the adjacent areas of the heritage property, the following measures are to be considered and necessary actions are to be taken:</p> <ul style="list-style-type: none"> ➢ Formation of green networks connecting small forests, rivers, etc.; ➢ Supportive measures to strike a balance between the habitation of endangered species (ex. the Amami rabbit) and agriculture; and ➢ Formation of ecological corridors to secure the continuity between the northern forests and the southern forests. 	Buffering functions are strengthened, without compromising biodiversity conservation or agriculture.		
3	Kagoshima Prefecture, town govts.						<p>Rules for forestry practices compatible with biodiversity conservation are to be established to strike a balance between the strengthening of buffering functions and forestry in the forests around the heritage property area.</p> <p>For this purpose, efforts are to be made to develop common forest management methods for forests owned by municipal governments and share them across the region.</p>	Methods of economically viable forestry practices compatible with the conservation of the heritage value are established. [Progress of the development of forestry management methods; record of actual forestry practice based on the forestry management methods.]	Amami Island Group Natural World Heritage Nominated Property Conservation and Utilization Review Conference	
4	MOE, Forestry Agency, Kagoshima Prefecture, town govts.						<p>A mechanism to integrate environmental consideration into public works is to be set up to prevent the World Heritage value from being affected by public works in the World Heritage property area or its surrounding area. For this purpose, the possibility of developing “environmental consideration guidelines” (provisional title) based on the actual experience of environmental consideration in the Amami Island Group and in consideration of special characteristics of nature and culture of the Amami Island Group is to be examined together with the possibility of putting in place a mechanism to support their implementation. These are to be shared among the national government, the prefectural government, municipal governments, and private businesses to improve the standards of environmental consideration in the entire region.</p>	A mechanism is in place that ensures that appropriate environmental consideration is given when public works are carried out and that there is no impact on the World Heritage value. [Record of environmentally-conscious measures]	Amami Island Group Natural World Heritage Nominated Property Conservation and Utilization Review Conference	

Action item	Implementing agency	Time line			Area			Description	Target [evaluation indicator] Short term	Notes (relevant organization) Middle term
		Short term	Middle term	Long term	Property	Buffer zone	Surrounding area			
5) Proper Use and Ecotourism										
1	Kagoshima Prefecture				✓	✓	✓	In preparation for inscription on the World Heritage List, visitor management is to be promoted based on a master plan that sets forth directions for planned mitigation of concentration in mass tourism and ecotourism, infrastructure installation, and desirable use in the Amami Island Group.	Infrastructure and capacity for receiving an increased number of tourists are in place.	Amami Island Group Natural World Heritage Nominated Property Conservation and Utilization Review Conference
2	MOE, Forestry Agency, Kagoshima Prefecture, town govts., related local organizations				✓			In areas where World Heritage inscription might result in increased use or concentrated use to the extent that tangible environmental impact could occur, use control measures such as restriction of the number of users, mandatory accompaniment of guides, and traffic restrictions are to be examined and necessary arrangements area to be made to ensure the conservation of the natural environment and the provision of high quality use.	The World Heritage value is conserved and the quality of users' experience is guaranteed.	Amami Island Group Natural World Heritage Nominated Property Conservation and Utilization Review Conference
3	MOE, Kagoshima Prefecture, town govts..				✓	✓	✓	To enable visitors to perceive the heritage value tangibly and to reduce environmental burden, the installation of user facilities and improvement of the existing facilities are to be examined as follows: <ul style="list-style-type: none"> ➤ Key facilities capable of receiving large numbers of users; ➤ Facilities that gives expression to the attractiveness of forest areas; and ➤ Necessary facilities that reduce environmental burdens for sustainable use, such as toilets and walking trails. 	The World Heritage value is conserved and the quality of users' experience is guaranteed.	Amami Island Group Natural World Heritage Nominated Property Conservation and Utilization Review Conference
4	Kagoshima Prefecture, town govts..				✓	✓	✓	Trails are to be installed to encourage walking, so that visitors can experience the nature, local lifestyle, and culture of the Amami Island Group and enjoy rich interactions with local communities, resulting in more overnight stays in the region. High-quality nature trips are to be promoted to contribute to raising awareness about the value of the Natural World Heritage.	The entire island group are connected by trails and tourists make repeated visits and enjoy high-quality uses of various types that meet different demands.	Amami Island Group Natural World Heritage Nominated Property Conservation and Utilization Review Conference

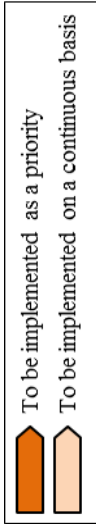
Action item	Implementing agency	Time line			Area			Description	Target [evaluation indicator] Short term	Notes (relevant organization) Middle term
		Short term	Middle term	Long term	Property	Buffer zone	Surrounding area			
5	MOE, Kagoshima Prefecture, town govts., related local organizations				✓	✓	✓	In the World Heritage property area, tours of small groups of visitors accompanied by eco-tour guides are to be promoted to improve the satisfaction of visitors who come for genuine nature. High-quality nature trips are to be promoted to contribute to raising awareness about the value of the Natural World Heritage.	Small-group guided tours are provided in the property area etc.; tourists are satisfied with the nature of Tokunoshima Island and make repeated visits.	Amami Island Group Ecotourism Promotion Council
6	Kagoshima Prefecture, town govts., related local organizations				✓	✓	✓	High-quality guides (tourism information guides, eco-tour guides, and village eco-tour guides) are to be trained to build the capacity of Tokunoshima Island for tourism. High-quality nature trips are to be promoted to contribute to raising awareness about the value of the Natural World Heritage.	High-quality guides are available; tourists are satisfied with tourism of Tokunoshima Island and make repeated visits.	
6) Conservation and Management with the Participation and Collaboration of Local Communities										
1	Implementation of forestry practices in consideration of biodiversity (intentionally listed repeatedly)						✓	Rules for forestry practices compatible with biodiversity conservation are to be established to strike a balance between the strengthening of buffering functions and forestry in the forests around the heritage property area. For this purpose, efforts are to be made to develop common forest management methods for forests owned by municipal governments and share them across the region.	Methods of economically viable forestry practices compatible with the conservation of the heritage value are established. [Progress of the development of forestry management methods; record of actual forestry practice based on the forestry management methods.]	Amami Island Group Natural World Heritage Nominated Property Conservation and Utilization Review Conference

Action item	Implementing agency	Time line			Area			Description	Target [evaluation indicator] Short term	Notes (relevant organization) Middle term
		Short term	Middle term	Long term	Property	Buffer zone	Surrounding area			
2	MOE, Forestry Agency, Kagoshima Prefecture, town govts.				✓	✓	✓	A mechanism to integrate environmental consideration into public works is to be set up to prevent the World Heritage value from being affected by public works in the World Heritage property area or its surrounding area. For this purpose, the possibility of developing “environmental consideration guidelines” (provisional title) based on the actual experience of environmental consideration in the Amami Island Group and in consideration of special characteristics of nature and culture of the Amami Island Group is to be considered together with the possibility of putting in place a mechanism to support their implementation. These are to be shared among the national government, the prefectural government, municipal governments, and private businesses to improve the standards of environmental consideration in the entire region.	A mechanism is in place that ensures that appropriate environmental consideration is given when public works are carried out and that there is no impact on the World Heritage value. [Record of environmentally-conscious measures]	Amami Island Group Natural World Heritage Nominated Property Conservation and Utilization Review Conference
3	MOE, Forestry Agency, Kagoshima Prefecture, town govts., related local organizations					✓		Information about attractive natural and cultural features, the World Heritage value, and rules for appropriate use is to be disseminated throughout Japan by means of various media to deepen people’s understanding about the Amami Island Group.	Understanding about the Amami Island Group is improved throughout Japan. The environmental burden to the heritage property area is controlled below a certain level through tourism compatible with environmental consideration.	
4	MOE, Kagoshima Prefecture, town govts., related local organizations					✓		Activities to prevent illegal dumping of waste, cleanup activities, and so forth are to be carried out for beautification of Tokunoshima Island as a Natural World Heritage property.	The environment of Tokunoshima Island is kept clean and beautiful both inside and outside the World Heritage property.	
5	MOE, Forestry Agency, Kagoshima Prefecture, town govts., related local organizations					✓		Seminars and various events are to be carried out. Posters, brochures, etc. are to be made and distributed to have local people recognize the significance of World Heritage inscription and the need for endangered species protection and alien species countermeasures and to promote local people’s actions.	Each member of local communities recognizes the significance of World Heritage inscription and the need for endangered species protection and alien species countermeasures and actively plays his/her own role.	

Action item	Implementing agency	Time line			Area			Description	Target [evaluation indicator] Short term	Notes (relevant organization) Middle term
		Short term	Middle term	Long term	Property	Buffer zone	Surrounding area			
6	Kagoshima Prefecture, town govts., related local organizations					✓	✓	Since the nature of the Amami Island Group, unlike other natural heritage properties, has been maintained through a long history of close interactions with people through its long history, efforts are to be made to raise awareness to ensure that the nature is conserved and that the unique culture of the Amami Island Group that has co-existed with nature is passed on to future generations.	Each member of local communities is proud of the nature and culture of the Amami Island Group and contributes to passing them on to future generations.	
7	MOE, Kagoshima Prefecture, town govts., related local organizations					✓	✓	Special environmental education for a natural heritage property nominated for World Heritage inscription is to be explored to help children cultivate interest in local nature and culture.	Children are interested in local nature and culture and understand the need for endangered species protection and alien species countermeasures.	
7) Proper Monitoring and Utilization of Information										
1	MOE, Forestry Agency, Kagoshima Prefecture, town govts..					✓		Information about the results of, and knowledge obtained by, monitoring programs and other types of research by different project undertakers are to be collected and accumulated widely. A mechanism for one-stop information collection, management, and publication is to be set up, such as the official website.	Information, knowledge, and technical experiences concerning the heritage value are collected, accumulated, and utilized for conservation and management.	

Annex 3

Action Plan Northern Part of Okinawa Island






Action item	Implementing agency	Time line			Area			Description	Target [evaluation indicator]	Notes (relevant organization)
		Short term	Middle term	Long term	Property	Buffer zone	Surrounding area			
1) Proper Enforcement of Protective Legal Instruments										
1	MOE						✓	✓	✓	The value of the World Heritage property is conserved and legal control measures are in place to ensure the buffering functions.
2	MOE, Okinawa Prefecture				✓	✓	✓	✓	✓	Compliance is made with regulations in wildlife protection areas and endangered wildlife species are conserved.
3	Okinawa Prefecture				✓					Compliance is made with regulations in natural monument protection areas and endangered species of wild flora and fauna are conserved.
2) Protection and Recovery of Endangered Species										
1	MOE						✓	✓	✓	Measures for conservation of national endangered species of wild fauna and flora are to be taken by legally designating species of wild fauna and flora that are at risk of extinction as national endangered species under the Endangered Species Act.

Action item	Implementing agency	Time line			Area			Description	Target [evaluation indicator]	Notes (relevant organization)
		Short term	Middle term	Long term	Property	Buffer zone	Surrounding area			
2 Enactment of ordinance etc. to protect endangered species of wild fauna and flora	Okinawa Prefecture, village govts.				✓	✓	✓	While the Endangered Species Act regulates the capture, transfer, and the like of national endangered species, there are species on the Red List that are not designated as national endangered species and therefore not legally protected. From among these species, those for which there is a particularly high risk of being poached are to be identified and measures to prevent and control illegal collection are to be strengthened by enacting prefectural or municipal ordinances.	Legal instruments are in place for the protection of endangered species.	
3 Continuous implementation of protection and recovery programs etc.	MOE, MEXT, MAFF, MLIT, Okinawa Prefecture, village govts.				✓	✓	✓	For species that are covered by protection and recovery programs (the Okinawa rail, the Yabbaru long-armed scarab beetle, and the Okinawa woodpecker), the inhabitation status, habitats, and so forth are to be studied and analyzed. Efforts are to be made for the protection and recovery of their populations.	Stable subsistence in natural conditions is possible. [To be evaluated on a case-by-case basis at review committee meetings]	<ul style="list-style-type: none"> Yabbaru Rare Species Protection and Recovery Review Conference Yabbaru Long-Armed Scarab Beetle Poaching Prevention Council
4 Study of the inhabitation status of endangered species that are not covered by protection and recovery programs and the identification and implementation of protection measures	MOE, Forestry Agency, Okinawa Prefecture, village govts.				✓	✓	✓	For endangered species that are not covered by protection and recovery programs (including the Ryukyu long-haired rat and the Okinawa spiny rat, which are national natural monuments and national endangered species), their inhabitation status, habitats, and so forth are to be studied and analyzed. Efforts are to be made to identify and implement appropriate protection measures, as needed.	Endangered species that are not covered by protection and recovery programs are in stable subsistence in natural conditions. [Inhabitation status of endemic species and endangered species]	
5 Enhancement of countermeasures to address traffic accidents and other incidents involving endangered wild fauna	MOE, Forestry Agency, Okinawa Prefecture, Okinawa General Bureau, village govts.				✓	✓	✓	The occurrence of accidents is to be reduced by means of awareness raising—informing people of locations where there is a high risk of traffic accidents involving endangered species of wild fauna, installing signs, distributing leaflets, and running roadkill prevention campaigns. In addition, measures to prevent accidents are to be taken—securing safe routes for the movement of animals and making improvements on the road to prevent animals from jumping out on the road.	In areas inhabited by endangered wildlife, drivers of vehicles are aware of the risk of traffic accidents involving species of wild fauna and comply with the legal speed limit, so that accidents would not occur. Road structures that make accidents less likely to happen are adopted. [To be evaluated on a case-by-case basis at review committee meetings]	<ul style="list-style-type: none"> Yabbaru Rare Species Protection and Recovery Review Conference The Liaison Council on Okinawa Region Roadkill Prevention

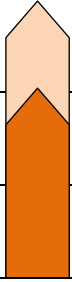
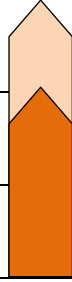
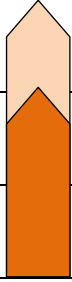
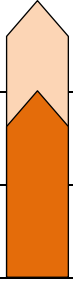
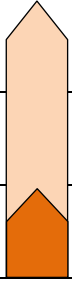
Action item	Implementing agency	Time line			Area			Description	Target [evaluation indicator]	Notes (relevant organization)
		Short term	Middle term	Long term	Property	Buffer zone	Surrounding area			
6	MOE, Okinawa Pref., related local organizations				✓	✓	✓	Endangered wildlife individuals that are sick or injured on the northern part of Okinawa Island are to be rescued and reintroduced to the wild.	A mechanism is available for appropriate implementation of measures to rescue endangered wildlife and reintroduce them to the wild.	
7	MOE, Forestry Agency, Okinawa Pref., village govts., related local organizations				✓	✓	✓	Patrols are to be carried out primarily along the forest roads leading into the core forests to prevent the poaching and illegal collecting of species of wild flora and fauna in coordination with various organizations, including municipal governments, local organizations, and the police.	An effective monitoring system is established to address the poaching and illegal collecting of endangered species of wild flora and fauna. No poaching or illegal collecting happens. [Number of patrols carried out in one year, number of people participating in the patrols, etc.]	
8	Higashi Village						✓	Based on the Higashi Village Ordinance to Protect the Okinawa Woodpecker, rangers are deployed at the Higashi Village Okinawa woodpecker protection area to watch the protection area and monitor the breeding condition of the Okinawa woodpecker.	The habitat of the Okinawa woodpecker in Higashi Village (close to the southern limit of its distribution) is maintained to support its stable breeding.	
9	Kunigami Village, related local organizations				✓	✓	✓	In order to enhance the corridor functions for endangered species between the Mount Hedo area and the backbone mountain range, the status of movement of endangered species is to be studied and analyzed, measures to address alien species are to be taken, and the possibility of creating ecological corridors as a measure to secure the continuity of forests is to be explored.	Corridor functions for endangered species linking the Mount Hedo area and the backbone mountain range is strengthened.	
3) Elimination and Reduction of Impact from Alien Species										
1	MOE, Forestry Agency, Okinawa Prefecture, village govts.				✓	✓	✓	The status of invasion of already established invasive alien species is to be studied and, with a focus on species that particularly need addressing, countermeasures are to be taken. Information is to be collected of the sighting of invasive alien species that are not yet established on the northern part of Okinawa Island and the database of alien species sighting information is to be updated as appropriate. Also, measures to prevent their establishment are to be taken, as needed.	Adverse effects are reduced or avoided by eliminating, or preventing the establishment of, alien species whose impact on the heritage value (ecosystem / biodiversity) is considered to be particularly significant.	

Action item	Implementing agency	Time line			Area			Description	Target [evaluation indicator]	Notes (relevant organization)
		Short term	Middle term	Long term	Property	Buffer zone	Surrounding area			
2	MOE, Okinawa Prefecture				✓	✓	✓	Mongoose, which are exerting a significant impact on the native ecosystems by preying on endangered species of wild fauna, are to be captured and eliminated. Also, completely mongoose-free areas are to be established and invasion prevention fences are to be managed to prevent new invasion of mongooses into these areas.	Mongooses are completely eliminated from the northern part of Okinawa Island and new invasion is prevented. [Catch per unit effort (CPUE) for the mongoose, the area of sighting, and case-by-case evaluation at review committee meetings]	Northern Okinawa Region Mongoose Control Project Review Committee
3	MOE, Okinawa Prefecture, village govts.				✓	✓	✓	Feral cats, which are exerting (or likely to exert) impact on the native ecosystems by preying on wild animals, are to be captured and eliminated. Also, the present state of distribution and predation is to be studied and effective methods of capturing them are to be explored.	Native ecosystems are conserved by eliminating feral cats.	
4	Village govts.				✓	✓	✓	Based on the Ordinance on Cat Welfare and Management enacted by individual village governments, registration is to be made of pet cats, microchip implantation and contraceptive castration are to be recommended, ownerless cats in and around settlements are to be captured for protection, and various awareness raising measures are to be taken. Effective activities are to be carried out in coordination with cat care facilities.	Adverse effects of pet cats on wild animals are prevented, progress is made toward complete elimination of ownerless cats in and around settlements, general awareness is raised regarding cats and endangered species of wild fauna, and new appearance of ownerless cats is prevented. [Number / ratio of microchipped pet cats]	
5	Okinawa Prefecture, village govts.				✓	✓	✓	Efforts are to be made to establish facilities and mechanisms that can take the series of actions to care, keep, and transfer ownerless cats and dogs to new owners. Also, educational use of these facilities such as opportunities for children to play with animals is to be considered.	Facilities and mechanisms that care, keep, and transfer ownerless cats and dogs to new owners are available. New appearance of ownerless cats and dogs is prevented.	
6	Village govts.						✓	Based on the Pet Dog Ordinance enacted by individual village governments, the appropriate management of pet dogs is to be thoroughly enforced. Effective activities are to be carried out in coordination with dog care facilities.	Adverse effects of pet dogs on wild animals are prevented. New appearance of ownerless dogs is prevented.	
7	Okinawa Prefecture, village govts.						✓	Patrols and campaigns are to be carried out to prevent the release of pets that exert significant impacts on the native ecosystems (dogs, cats, reptiles, etc.). Enhancement of countermeasures is to be considered as necessary, without excluding the possibility of enacting new ordinances etc.	The release of pets is terminated. New release of pets is prevented.	

Action item	Implementing agency	Time line			Area			Description	Target [evaluation indicator]	Notes (relevant organization)
		Short term	Middle term	Long term	Property	Buffer zone	Surrounding area			
4) Harmony with Livelihoods in the Buffer Zone and Surrounding Area										
1	Okinawa Prefecture, village govts., related local organizations				✓	✓	✓	In the forests on the northern part of Okinawa Island, the Yamaru Model Forestry which is a combination of sustainable, recycling-oriented “forestry and forest products industry” and environmentally harmonious “nature-experiencing activities”, is to be promoted as a means of conserving the natural environment and environmentally-friendly use.	Forest functions are enhanced for each zone by setting up, or reviewing, the zoning of forests.	
2	MOE, Okinawa Prefecture, village govts.						✓	In order to achieve coexistence between wildlife and local communities, biodiversity is to be maintained through appropriate protection and management of wildlife and necessary measures are taken to prevent damage to agriculture, forestry, and life of local communities.	Wildlife and local communities coexist as a result of habitat management and measures to prevent damage.	
3	Okinawa Prefecture, village govts., related local organizations						✓	A sustainable, nature-coexistent agriculture in which consideration is given to reducing environmental impact is to be promoted by improving the habitat of precious wildlife in individual villages, putting in place infrastructure that gives consideration to biodiversity, and making soil. The World Heritage brand is to be used to give added value to agricultural produces.	Biodiversity is conserved as a result of nature-coexistent agriculture taking root in local communities. Agriculture is promoted as a result of the brand value of agricultural produces being enhanced.	
4	Okinawa Prefecture, village govts.					✓	✓	Thorough measures are to be taken to prevent red soil outflow due to various development projects by ensuring compliance with the Okinawa Prefecture Red Soil Erosion Prevention Ordinance . In addition, countermeasures are to be promoted to curb red soil outflow from the existing farmland due to rain.	Red soil outflow to rivers and coastal marine areas is curbed. [To be evaluated on a case-by-case basis at review committee meetings]	Okinawa Prefecture Committee on Measures to Prevent Red Soil Erosion

Action item	Implementing agency	Time line			Area			Description	Target [evaluation indicator]	Notes (relevant organization)	
		Short term	Middle term	Long term	Property	Buffer zone	Surrounding area				
5) Proper Use and Ecotourism											
1	Promotion of sustainable tourism by developing the tourism vision concerning the World Heritage property	Okinawa Prefecture, village govts., related local organizations				✓	✓	✓	A balance is to be struck between maintaining the heritage value and promoting tourism by sharing information, exchanging opinions, and building consensus among stakeholders at council meetings and other opportunities with the participation of government organizations and related local organizations concerned with the Natural World Heritage to develop, based on coordination among the three villages on the northern part of Okinawa Island, the tourism vision describing how tourism, ecotourism, protection, and conservation should be for the World Heritage component on the northern part of Okinawa Island.	The tourism vision is developed for the area nominated for World Heritage inscription and a balance is struck between maintaining the heritage value and promoting tourism.	
2	Establishment of tourism styles characterized by experience, stay, and exchange	Okinawa Prefecture, village govts., related local organizations				✓	✓	✓	Tourism styles characterized by experience, stay, and exchange are to be established for the northern part of Okinawa Island through coordination of the three villages, including the development of attractive programs together with the surrounding area of the World Heritage property by combining different styles of tourism such as ecotourism, green tourism, blue tourism, the use of vacant private houses as tourist accommodation, local village walk, and history- and culture-experiencing activities.	A mechanism that can provide attractive menus of experience, stay, and exchange, utilizing local natural and cultural resources together with the surrounding area of the World Heritage property.	
3	Establishment of a mechanism for promoting forest tourism	Okinawa Prefecture, village govts., related local organizations				✓	✓	✓	Rules for appropriate use of forests are to be established; a mechanism for monitoring and field management is to be set up; and a guide system that can provide high quality tours is to be put in place in compliance with the rules. Sustainable financial resource is to be secured with the aim of establishing a mechanism or an organization (ex. council) that enables local communities to manage and operate the above independently.	A forest tourism promotion mechanism is in place that contributes to the promotion of mountain village areas, while striking a balance between heritage value conservation (biodiversity and ecosystems) and forest use.	

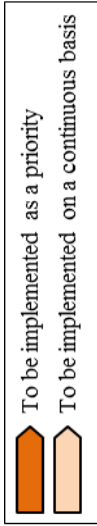
Action item	Implementing agency	Time line			Area			Description	Target [evaluation indicator]	Notes (relevant organization)
		Short term	Middle term	Long term	Property	Buffer zone	Surrounding area			
4	MOE, Okinawa Prefecture, village govts., related local organizations				✓	✓	✓	In order to conserve the heritage value (biodiversity and ecosystems), environmental load associated with the use of natural resources is to be reduced by taking the following measures: <ul style="list-style-type: none"> ➤ Visitors are guided to the surrounding area as a measure to disperse the use; ➤ Common rules for the observation of endangered species etc. are to be set up; and ➤ Passage on the roads within the World Heritage property and access roads is to be controlled. 	Environmental load associated with the use of natural resources is reduced and the heritage value (biodiversity and ecosystems) is conserved.	
5	Okinawa Prefecture, village govts., related local organizations				✓	✓	✓	Soft infrastructure is to be strengthened, including human resource development such as guides and program development, in order to achieve appropriate and high quality use at the World Heritage property.	Appropriate and high quality use is provided in a manner compatible with the World Heritage property.	
6	MOE, Okinawa Prefecture, village govts., related local organizations					✓	✓	In order to reduce the environmental load associated with use and promote appropriate use within the heritage property without compromising visitors' perception of the heritage value such as ecosystems and biodiversity, effective manners of utilizing the existing facilities are to be explored, together with the following management and installation of user facilities: <ul style="list-style-type: none"> ➤ Maintenance and management of Okinawa Rail Wild Forest; ➤ Operation of the Okinawa Rail Ecology Exhibition and Learning Facilities; ➤ Establishment and operation of facilities for disseminating information etc. ➤ Installation of facilities that highlight the attractive features of forests; and ➤ Enhancement of educational facilities where ecological exhibits of endangered species are made. 	A balance is struck between heritage value conservation and appropriate use. The quality of user experience is maintained. [Number of users of core facilities]	

Action item	Implementing agency	Time line			Area			Description	Target [evaluation indicator]	Notes (relevant organization)
		Short term	Middle term	Long term	Property	Buffer zone	Surrounding area			
6) Conservation and Management with the Participation and Collaboration of Local Communities										
1	Okinawa Prefecture				✓	✓	✓	Relevant measures are to be taken based on the Biodiversity Strategy of Okinawa, in which the policies and measures for biodiversity conservation in Okinawa Prefecture are set out.	The mechanism for the implementation of measures based on the strategy is in place.	
2	Village govts., related local organizations				✓	✓	✓	A series of forest management measures is to be taken to promote the sound recovery of laurel forests in the forested and idle areas surrounding the core area, including seed sowing, supplementary planting, top soil spraying, invasive plant elimination, and the planting and monitoring of the Okinawa woodpecker's foraging trees. Forest regeneration projects are to be implemented with the participation of and in collaboration with local forestry industry and local communities.	A forest management mechanism is in place together with forests with buffering functions to ensure that the value as a Natural World Heritage property be maintained.	
3	Ogimi Village, related local organizations				✓	✓	✓	Nature conservation efforts are to be made by implementing environmental education mainly for the youth as well as environmental monitoring based on the Regional Biodiversity Conservation Plan.	Not only citizens who live in the relevant villages but also other citizens of Okinawa Prefecture are aware of the value of the Natural World Heritage property. Activities for environmental conservation are carried out.	
4	Okinawa Prefecture, village govts., related local organizations				✓	✓	✓	Field surveys are to be carried out for rivers whose degree of naturalness is decreasing in the northern part of Okinawa Island. Also, nature restoration projects are to be implemented for rivers such as the Oku River, Takasato River, and Gesashi River in accordance with the Okinawa Prefecture Guidelines on Natural Environment Restoration.	The river environments that are inhabited by diverse animals and plants, including aquatic organisms. [To be evaluated on a case-by-case basis at review committee meetings (Gesashi River)]	<ul style="list-style-type: none"> Committee to Restore the Nature along the Oku River Committee to Restore the Natural Environment along the Gesashi River
5	MOE, Okinawa Prefecture, village govts., related local organizations				✓	✓	✓	Awareness raising is to be carried out for local people about the Natural World Heritage inscription procedure, its significance, progress status, relevant activities, and the roles and responsibilities of local communities through different opportunities including symposia, lectures, and PR brochures. Particularly where the cooperation of local people is needed, priority is given to building their understanding.	Understanding and cooperation are obtained for matters that should need cooperation from local people, such as the state of progress of activities related to the Natural World Heritage property. [Number of (number of participants in) events such as the Northern Part of Okinawa Island Working Group, symposia related to the Natural World Heritage property and local natural and cultural resources, workshops and training courses]	

Action item	Implementing agency	Time line			Area			Description	Target [evaluation indicator]	Notes (relevant organization)
		Short term	Middle term	Long term	Property	Buffer zone	Surrounding area			
6	Forestry Agency, Okinawa Prefecture, village govts., related local organizations				✓	✓	Study of the environment is to be enhanced at elementary and junior high schools with a view to stimulate children's interest in local nature and culture. Also, for the environment course of Hentona High School, the possibility of integrating World Heritage education into the curriculum is to be explored.	Children are interested in local nature and culture and understand the importance of conserving the value of the World Heritage property. In the future, the increasing number of local people find jobs related to the Natural World Heritage property.		
7	Okinawa Prefecture, village govts.				✓	✓	The Policy for Environmental Consideration which is set out in the Second Okinawa Prefecture Basic Plan for the Environment and the Guidelines on Natural Environment Conservation are to be properly enforced. In addition, the standards for environmental consideration will be upgraded on the occasion of their revision to ensure that public works should not affect the value of the World Heritage property.	Appropriate consideration is given when public works are implemented. The level of the standards for environmental consideration is high enough to ensure that biodiversity and ecosystems should be maintained up to standards for a Natural World Heritage property should be maintained. [Record of environmentally-conscious measures]		
8	Forestry Agency, Okinawa Prefecture, village govts.				✓	✓	As a proactive measure to address the possibility of increased illegal waste dumping due to increased use following World Heritage inscription, patrols and campaigns to prevent illegal dumping are to be carried out to raise awareness of citizens of Okinawa Prefecture widely. The possibility of removing already dumped waste is to be also considered.	No illegal dumping occurs, even if the number of users increases.		
7) Proper Monitoring and Utilization of Information										
1	MOE, Forestry Agency, Okinawa Prefecture, village govts.				✓	✓	Information about the results of, and knowledge obtained by, monitoring programs and other types of research by different project undertakers are to be collected and accumulated widely. A mechanism for one-stop information collection, management, and publication is to be set up, such as the official website.	Information, knowledge, and technical experiences concerning the heritage value are collected, accumulated, and utilized for conservation and management.		

Annex 4

Action Plan Iriomote Island





Action item	Implementing agency	Time line			Area			Description	Target [evaluation indicator]	Notes (relevant organization)
		Short term	Middle term	Long term	Property	Buffer zone	Surrounding area			
1) Proper Enforcement of Protective Legal Instruments										
1	MOE				✓	✓	✓	Protection and management of Iriomote-Ishigaki National Park is to be properly carried out.	The value of the World Heritage property is conserved and legal control measures are in place to ensure the buffering functions.	Iriomote Forest Ecosystem Reserve Conservation Management Committee
2	Forestry Agency				✓	✓	✓	Conservation and management of the Iriomote Forest Ecosystem Reserve is to be properly carried out.	The value of the World Heritage property is conserved and legal control measures are in place to ensure the buffering functions.	
3	MOE				✓	✓	✓	Proper management is to be continued in the future of the National Iriomote Wildlife Protection Area, which provides habitats for endangered species such as the Iriomote cat. In addition, a mechanism is to be put in place to ensure the implementation of management measures.	Compliance is made with regulations in wildlife protection areas and endangered wildlife species are conserved.	
2) Protection and Recovery of Endangered Species										
1	MOE				✓	✓	✓	Measures for conservation of national endangered species of wild fauna and flora are to be taken by legally designating species of wild fauna and flora that are at risk of extinction as national endangered species under the Endangered Species Act.	National endangered species are properly conserved.	
2	Taketomi Town				✓	✓	✓	In order to contribute to the conservation of the sound and rich natural environment of Taketomi Town and to secure its biodiversity, the existing ordinance is to be drastically revised and effectively enforced as a new ordinance that contains provisions for the protection of habitats for endangered species of wild flora and fauna, the implementation of protection and management projects, and regulations controlling the capture of special endangered species of wild flora and fauna and the release of designated alien species.	Biodiversity of Taketomi Town is conserved to meet specific characteristics of individual islands as a result of designation of reserves and specific species, and compliance with regulations, and implementation of projects.	Taketomi Town Nature Protection Council

Action item	Implementing agency	Time line			Area			Description	Target [evaluation indicator]	Notes (relevant organization)
		Short term	Middle term	Long term	Property	Buffer zone	Surrounding area			
3	MOE, MAFF, Okinawa Prefecture				✓	✓	✓	For species that is covered by protection and recovery programs (the Iriomote cat), the inhabitation status, habitats, and so forth are to be studied and analyzed. Efforts are to be made for the protection and recovery of their populations.	Stable subsistence in natural conditions is possible. [To be evaluated on a case-by-case basis at review committee meetings]	Iriomote Cat Protection and Recovery Review Conference
4	MOE, Forestry Agency, Okinawa Prefecture, related local organizations				✓	✓	✓	The inhabitation status and so forth of endangered species that are not covered by protection and recovery programs are to be studied on a continuous basis to obtain and accumulate data that contribute to appropriate protection measures. Monitoring of the <i>Satakenia lukiensis</i> community at Ubundoru; Monitoring of the <i>Funaura nipa</i> palm communities at the forest reserve in Funaura; Survey on the inhabitation status of the crested serpent eagle; and Survey on the actual distribution of the Kishinoue's giant skink.	A mechanism is in place that can determine and monitor the inhabitation status of endangered species that are not covered by protection and recovery programs.	
5	MOE, Okinawa Prefecture, Taketomi Town, related local organizations					✓	✓	The occurrence of accidents is to be reduced by means of awareness raising—informing people of locations where there is a high risk of traffic accidents involving the Iriomote cat and other endangered species of wild fauna, installing signs, distributing leaflets, and running roadkill prevention campaigns. In addition, a basic plan for traffic accident prevention is to be developed. The functions of the routes for the movement of animals (animal pathways) are to be maintained and enhanced. The possibility of strengthening measures such as prevention of animals' entry onto the road and speed limits of vehicles is to be explored.	The occurrence of traffic accidents involving endangered species of wild fauna is prevented on major roads. [Number of traffic accidents involving the Iriomote cat, Number of the Iriomote cat and other animals killed in traffic accidents]	Iriomote Cat Traffic Accident Occurrence Prevention Liaison Conference
6	MOE, Okinawa Prefecture, related local organizations				✓	✓	✓	Endangered wildlife individuals that are sick or injured in the Iriomote region are to be rescued and reintroduced to the wild.	A mechanism is available for appropriate implementation of measures to rescue endangered wildlife and reintroduce them to the wild.	

Action item	Implementing agency	Time line			Area			Description	Target [evaluation indicator]	Notes (relevant organization)
		Short term	Middle term	Long term	Property	Buffer zone	Surrounding area			
7	MOE, Forestry Agency, Okinawa Prefecture, Taketomi Town, related local organizations				✓	✓	✓	Patrols are to be carried out to prevent the poaching and illegal collecting of endangered species of wild flora and fauna based on the relevant laws and ordinances through coordination among various stakeholders including government organizations and local related organizations. Information is to be provided to local people and tourists about the relevant legal provisions regulating the capture of endangered species of wild flora and fauna and the protected species. In addition, with the cooperation from private businesses and others, awareness-raising is to be carried out about protection of endangered species.	An effective monitoring system is established to address the poaching and illegal collecting of endangered species of wild flora and fauna. No poaching or illegal collecting happens. [Number of patrols carried out in one year, number of people participating in the patrols, etc.]	
3) Elimination and Reduction of Impact from Alien Species										
1	MOE, Forestry Agency, Okinawa Prefecture, Taketomi Town, related local organizations				✓	✓	✓	The status of invasion of already established invasive alien species is to be studied and, with a focus on species that particularly need addressing, countermeasures are to be taken. Information is to be collected of the sighting of invasive alien species that are not yet established on Iriomote Island and the database of alien species sighting information is to be updated as appropriate. Also, measures to prevent their establishment are to be taken, as needed, such as awareness-raising for local people, businesses, and tourists. Measures to prevent the spread of infectious diseases from pet cats to the Iriomote cat are to be taken, such as microchipping, inoculation with vaccine, virus tests, castration or sterilization if needed, based on the Ordinance on the Keeping of Cats in cooperation with the related organizations.	Adverse effects are reduced or avoided by eliminating, or preventing the establishment of, alien species whose impact on the heritage value (ecosystem / biodiversity) is considered to be particularly significant. Also, local people and tourists are fully aware of alien species issues.	
2	Taketomi Town					✓	✓	Measures to prevent the spread of infectious diseases from pet cats to the Iriomote cat are to be taken, such as microchipping, inoculation with vaccine, virus tests, castration or sterilization if needed, based on the Ordinance on the Keeping of Cats in cooperation with the related organizations.	Adverse effects of pet cats on the Iriomote cat are prevented. [Number / ratio of microchipped pet cats]	
3	Taketomi Town, related local organizations					✓	✓	Ownerless cats living on Iriomote Island are to be captured and extradited off the island in order to prevent the transmission of infectious diseases to the Iriomote cat and adverse effects on the ecosystem.	Adverse effects on the ecosystem are prevented by eliminating ownerless cats on Iriomote Island.	

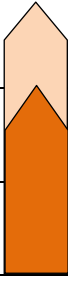
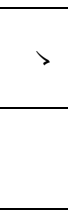
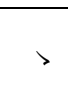

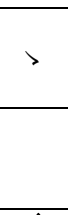

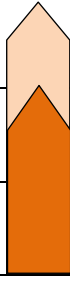
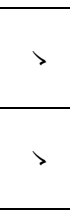
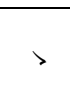
Action item	Implementing agency	Time line			Area			Description	Target [evaluation indicator]	Notes (relevant organization)
		Short term	Middle term	Long term	Property	Buffer zone	Surrounding area			
4	Okinawa Prefecture, Taketomi Town, related local organizations				✓	✓	✓	To prevent pets (dogs, cats, exotic animals, etc.) from escaping to become new alien species, the breeding status is to be checked out and awareness-raising is to be carried out about proper breeding. In addition, measures are to be explored to prevent pets taken by tourists into forested areas from spreading pet-derived infectious diseases to, or feeding on, wild animals.	Progress is made in obtaining the knowledge of the breeding status of pets and owners are taking care of their pets appropriately. Risks of infectious diseases' spreading from pets to wild animals and pets' predating on wild animals are reduced.	
5	Taketomi Town, related local organizations				✓	✓	✓	With regard to interbreeding between the Ryukyu wild boar and wild/domesticated pig hybrids, the investigation of the current status is to be carried out as soon as possible and effective countermeasures are to be explored. In addition, efforts are to be made to facilitate understanding of local people and establish a mechanism for their cooperation for the prevention of intentional introduction of closely related species to Iriomote Island and strict management of domesticated animals.	The risk of interbreeding between the Ryukyu wild boar and wild/domesticated pig hybrids is reduced.	
4) Harmony with Livelihoods in the Buffer Zone and Surrounding Area										
1	Forestry Agency, Okinawa Prefecture, Taketomi Town, related local organizations					✓		Mangroves that foster rich biota are to be monitored. Necessary measures are to be considered and implemented, depending on the extent of deterioration.	A mechanism is in place for continuous monitoring of mangrove ecosystems. The ecological processes of ecosystems are stable over time.	
2	Forestry Agency					✓		Coastal forests are to be managed properly based on coastal forest regeneration guidelines.	Enhanced functions of reserve forests, such as wind breaking and protection from sea water as well as biodiversity of regenerated coastal forests contribute to local industry.	

Action item	Implementing agency	Time line			Area			Description	Target [evaluation indicator]	Notes (relevant organization)
		Short term	Middle term	Long term	Property	Buffer zone	Surrounding area			
1	Okinawa Prefecture, Taketomi Town, related local organizations				✓	✓	✓	A balance is to be struck between maintaining the heritage value and promoting tourism by sharing information, exchanging opinions, and building consensus among stakeholders at council meetings and other opportunities with the participation of government organizations and related local organizations concerned with the Natural World Heritage to develop the tourism vision clarifying the basic concept of tourism, ecotourism, protection, and conservation for the World Heritage component on Iriomote Island.	The tourism vision is developed for the area nominated for World Heritage inscription and a balance is struck between maintaining the heritage value and promoting tourism.	
2	MOE, Forestry Agency, Okinawa Prefecture, Taketomi Town, related local organizations				✓	✓	✓	In order to reduce the environmental load associated with use and promote appropriate use within the heritage property without compromising visitors' perception of the heritage value such as ecosystems and biodiversity, effective manners of utilizing the existing facilities are to be explored, together with the following management and installation of user facilities: ➤ Installation of boardwalks to prevent impacts of trekking and other uses on the natural environment; ➤ Consideration of setting up core facilities that deepen visitors' understanding of the Natural World Heritage property; ➤ Consideration for the improvement of infrastructure such as toilets; ➤ Installation of users' facilities as projects eligible for lump-sum grants for promotion of Okinawa; and ➤ Consideration of national park projects under the direct control of the MOE.	A balance is struck between heritage value conservation and appropriate use. The quality of user experience is maintained. [Number of visitors to Iriomote Island] [Number of users at core facilities] [User satisfaction]	

5) Proper Use and Ecotourism

Action item	Implementing agency	Time line			Area			Description	Target [evaluation indicator]	Notes (relevant organization)
		Short term	Middle term	Long term	Property	Buffer zone	Surrounding area			
3	MOE, Okinawa Prefecture, Taketomi Town, related local organizations				✓	✓	<p>In order to conserve the heritage value (biodiversity and ecosystems), environmental load associated with the use of natural resources is to be reduced by taking the following measures:</p> <ul style="list-style-type: none"> ➤ Strengthened measures to address overuse from nature experience tours along the Hinai River and in the surrounding national forests; ➤ Appropriate enforcement of Nakama River Conservation and Utilization Agreement; ➤ Preparation of eco-tourism guidelines; and ➤ Consideration of setting up the zoning and usage rules that meet the specific characteristics of individual resources and the reality of the current uses. 	Environmental load associated with the use of natural resources is reduced and the heritage value (biodiversity and ecosystems) is conserved.		
4	MOE, Okinawa Prefecture, Taketomi Town, related local organizations				✓	✓	<p>The status of uses such as tourism and eco-tours is to be checked. Effective monitoring methods are to be explored to evaluate the positive and negative impacts of various uses on the natural environment, local community, and local economy. A mechanism that can carry out monitoring and evaluation on a continuous basis is to be put in place.</p>	The results of the monitoring and evaluation of the positive and negative impacts of uses on the natural environment, local community, and local economy are fed back as appropriate to individual plans and projects.		
5	MOE, Forestry Agency, Okinawa Prefecture, Taketomi Town, related local organizations				✓	✓	<p>Soft infrastructure is to be strengthened, including human resource development, such as guides and program development, in order to achieve appropriate and high quality use at the World Heritage property.</p>	Appropriate and high quality use is provided in a manner compatible with the World Heritage property.		

Action item	Implementing agency	Time line			Area			Description	Target [evaluation indicator]	Notes (relevant organization)
		Short term	Middle term	Long term	Property	Buffer zone	Surrounding area			
6	Taketomi Town						✓	In order to prepare for the potential increase in costs for conservation and management due to the foreseen increase of visitors following World Heritage inscription, fund-raising mechanisms are to be explored to be able to procure financial resources from a wide range of sources from beneficiaries such as tourism businesses and users to those who have understanding for the conservation of heritage value.	The budget necessary for the conservation and sustainable use of the natural environment of Iriomote Island is available.	
6) Conservation and Management with the Participation and Collaboration of Local Communities										
1	Okinawa Prefecture				✓	✓	✓	Relevant measures are to be taken based on the Biodiversity Strategy of Okinawa, in which the policies and measures for biodiversity conservation in Okinawa Prefecture are set out.	The mechanism for the implementation of measures based on the strategy is in place.	
2	MOE, Okinawa Prefecture, Taketomi Town, related local organizations				✓	✓	✓	Participatory conservation and management activities are to be carried out continuously on the initiative of local community. Issues concerning the relation between the World Heritage property and local community are to be identified from the perspective of local people. Guidance and support are to be provided to concrete measures to solve these issues.	Activities for the conservation and management of the World Heritage value are carried out continuously on the initiative of and with the participation of local community.	
3	MOE, Forestry Agency, Okinawa Prefecture, Taketomi Town, related local organizations				✓	✓	✓	Awareness-raising and educational activities for local people, tourists, and other people are to be carried out on a continuous basis, including distribution of brochures, in order to foster awareness for the conservation of the World Heritage value and imbue them with respect for and pride in unique local culture in light of nature-culture linkage on Iriomote Island. Also, visitors are to be advised to pay attention to the proper use, particularly on their arrival at the island.	Local people, tourists, and other people show deeper understanding for World Heritage conservation and unique local culture. [Number of (number of participants in) events such as the Iriomote Island Working Group, symposia related to the Natural World Heritage property and local natural and cultural resources, workshops and training courses]	

Action item	Implementing agency	Time line			Area			Description	Target [evaluation indicator]	Notes (relevant organization)
		Short term	Middle term	Long term	Property	Buffer zone	Surrounding area			
4	Okinawa Prefecture, Taketomi Town				✓	✓	✓	The Policy for Environmental Consideration which is set out in the Second Okinawa Prefecture Basic Plan for the Environment and the Guidelines on Natural Environment Conservation are to be properly enforced. In addition, the standards for environmental consideration will be upgraded on the occasion of their revision to ensure that public works should not affect the value of the World Heritage property.	Appropriate consideration is given when public works are implemented. The level of the standards for environmental consideration is high enough to ensure that biodiversity and ecosystems should be maintained up to standards for a Natural World Heritage property should be maintained. [Record of environmentally-conscious measures]	
5	MOE, Forestry Agency, Okinawa Prefecture, Taketomi Town, related local organizations				✓	✓	✓	Various stakeholders who collaborate and cooperate, sharing responsibility and playing different roles appropriately, are to carry out activities, such as removal of seaborne waste, for the beautification of the environment and the conservation of ecosystems and biodiversity of Iriomote Island as part of a Natural World Heritage property.	The natural environment is conserved and landscapes appropriate for an island that constitutes a component of a Natural World Heritage property are maintained and conserved.	
7) Proper Monitoring and Utilization of information										
1	MOE, Forestry Agency, Okinawa Prefecture, Taketomi Town				✓	✓	✓	Information about the results of, and knowledge obtained by, monitoring programs and other types of research by different project undertakers are to be collected and accumulated widely. A mechanism for one-stop information collection, management, and publication is to be set up, such as the official website.	Information, knowledge, and technical experiences concerning the heritage value are collected, accumulated, and utilized for conservation and management.	

Reference Materials

Reference Material 1: List and Overview of Laws, Ordinances, Plans, and Other Regulations Related to the Management Plan

Name of document	Responsible agency / enactor / preparer	Type of rule				Relevance to the component parts						Relevant zone / area			Document No.	Page No.
		Laws etc.	Ordinances	Other administrative plans etc.	Voluntary rules etc.	Amami-Oshima Island	Tokunoshima Island	The northern part of Okinawa Island	Iriomote Island	Nominated property	Buffer zone	Surrounding area				
Natural Parks Act	MOE	•				•	•	•	•	•	•	•	•	•	*1	—
Specifications and Park Plan for the Amami Gunto National Park	MOE	•				•								•	*1	—
Specifications and Park Plan for Yambaru National Park	MOE	•						•						•	*1	—
Specifications and Park Plan for Iriomote-Ishigaki National Park	MOE	•							•					•	*1	—
Law on the Administration and Management of National Forests	Forestry Agency	•				•	•	•	•	•	•	•	•	•	*1	—
National Forest Administration and Management Regulations	Forestry Agency	•				•	•	•	•	•	•	•	•	•	*1	—
Protected Forest Setting Rule	Forestry Agency	•				•	•	•	•	•	•	•	•	•	*1	—
Regional Administration and Management Plan (Amami-Oshima Island)	Kyusyu Regional Forest Office	•				•	•							•	*1	—
Regional Administration and Management Plan (the northern part of Okinawa Island)	Kyusyu Regional Forest Office	•						•						•	*1	—
Regional Administration and Management Plan (Miyako-Yaeyama)	Kyusyu Regional Forest Office	•							•					•	*1	—
Conservation Management Plan for Forest Ecosystem Reserve (Amami)	Kyusyu Regional Forest Office	•				•	•							•	*1	—
Conservation Management Plan for Forest Ecosystem Reserve (Iriomote)	Kyusyu Regional Forest Office	•							•					•	*1	—
Wildlife Protection, Control, and Hunting Management Act	MOE	•				•	•	•	•	•	•	•	•	•	*1	—
Designation Plan of Mt. Yuwandake National Wildlife Protection Area	MOE	•				•								•	*1	—
Designation Plan of Mt. Yuwandake National Wildlife Special Protection Area	MOE	•				•								•	*1	—
Designation Plan of Yambaru (Ada) National Wildlife Protection Area	MOE	•						•						•	*1	—
Designation Plan of Yambaru (Ada) National Wildlife Special Protection Area	MOE	•						•						•	*1	—
Designation Plan of Yambaru (Aha) National Wildlife Protection Area	MOE	•						•						•	*1	—
Designation Plan of Iriomote National Wildlife Protection Area	MOE	•							•					•	*1	—
Designation Plan of Iriomote National Wildlife Special Protection Area	MOE	•							•					•	*1	—
Law for the Protection of Cultural Properties	MEXT	•				•	•	•	•	•	•	•	•	•	*1	—
Kagoshima Prefectural Ordinance on Cultural Assets Protection	Kagoshima Prefecture		•			•	•							•	1	1-95

Name of document	Responsible agency / enactor / preparer	Type of rule				Relevance to the component parts				Relevant zone / area			Document No.	Page No.
		Laws etc.	Ordinances	Other administrative plans etc.	Voluntary rules etc.	Amami-Oshima Island	Tokunoshima Island	The northern part of Okinawa Island	Iriomote Island	Nominated property	Buffer zone	Surrounding area		
Okinawa Prefectural Ordinance on Cultural Assets Protection	Okinawa Prefecture		•				•	•	•	•	•	•	2	1-100
Act on Conservation of Endangered Species of Wild Fauna and Flora	MOE	•				•	•	•	•	•	•	•	*1	—
Plan for the Protection and Recovery Program (Amami Rabbit)	MEXT, MAFF, MOE	•				•	•			•	•	•	*1	—
Plan for the Protection and Recovery Program (Amami Woodcock)	MOE, MAFF	•				•	•			•	•	•	*1	—
Plan for the Protection and Recovery Program (Amami Thrush)	MOE, MAFF	•				•				•	•	•	*1	—
Plan for the Protection and Recovery Program (Okinawa Woodpecker)	MOE, MAFF, MOE	•						•		•	•	•	*1	—
Plan for the Protection and Recovery Program (Okinawa Rail)	MEXT, MAFF, MLIT, MOE	•						•		•	•	•	*1	—
Plan for the Protection and Recovery Program (Yambaru Long-armed Scarab Beetle)	MOE, MEXT, MAFF	•						•		•	•	•	*1	—
Plan for the Protection and Recovery Program (Iriomote Cat)	MOE, MAFF	•							•	•	•	•	*1	—
Kagoshima Prefectural Ordinance to Protect Endangered Wild Fauna and Flora	Kagoshima Prefecture		•			•	•			•	•	•	*1	—
Amami City Ordinance to Protect Endangered Wild Fauna and Flora	Amami City		•			•	•			•	•	•	*1	—
Yamato Village Ordinance to Protect Endangered Wild Fauna and Flora	Yamato Village		•			•	•			•	•	•	*1	—
Uken Village Ordinance to Protect Endangered Wild Fauna and Flora	Uken Village		•			•	•			•	•	•	*1	—
Setouchi Town Ordinance to Protect Endangered Wild Fauna and Flora	Setouchi Town		•			•	•			•	•	•	*1	—
Tatsugo Town Ordinance to Protect Endangered Wild Fauna and Flora	Tatsugo Town		•			•	•			•	•	•	*1	—
Tokunoshima Town Ordinance to Protect Endangered Wild Fauna and Flora	Tokunoshima Town		•				•			•	•	•	*1	—
Amagi Town Ordinance to Protect Endangered Wild Fauna and Flora	Amagi Town		•				•			•	•	•	*1	—
Isen Town Ordinance to Protect Endangered Wild Fauna and Flora	Isen Town		•				•			•	•	•	*1	—
Higashi Village Ordinance to Protect Okinawa Woodpecker	Higashi Village		•					•				•	3	1-105
Act on Prevention of Adverse Ecological Impacts Caused by Specified Invasive Alien Species	MOE	•				•	•	•	•	•	•	•	*1	—
Phase 2 Spotted Mongoose Control Plan for Amami-Oshima Island	MOE		•			•				•	•	•	*1	—
Phase 2 Mongoose Control Plan for the Northern Part of Okinawa Island	MOE, Okinawa Prefecture	•						•			•	•	*1	—

Name of document	Responsible agency / enactor / preparer	Type of rule				Relevance to the component parts				Relevant zone / area			Document No.	Page No.
		Laws etc.	Ordinances	Other administrative plans etc.	Voluntary rules etc.	Amami-Oshima Island	Tokunoshima Island	The northern part of Okinawa Island	Iriomote Island	Nominated property	Buffer zone	Surrounding area		
Cane Toad Control Plan for the Yaeyama Region, Okinawa	MOE	•							•	•	•	•	*1	—
Amami City Ordinance on the Proper Keeping and Management of Pet Cats	Amami City		•			•				•	•	•	*1	—
Yamato Village Ordinance on the Proper Keeping and Management of Pet Cats	Yamato Village		•			•				•	•	•	*1	—
Uken Village Ordinance on the Proper Keeping and Management of Pet Cats	Uken Village		•			•				•	•	•	*1	—
Setouchi Town Ordinance on the Proper Keeping and Management of Pet Cats	Setouchi Town		•			•				•	•	•	*1	—
Tatsugo Town Ordinance on the Proper Keeping and Management of Pet Cats	Tatsugo Town		•			•				•	•	•	*1	—
Tokunoshima Town Ordinance on the Proper Keeping and Management of Pet Cats	Tokunoshima Town		•				•			•	•	•	*1	—
Amagi Town Ordinance on the Proper Keeping and Management of Pet Cats	Amagi Town		•				•			•	•	•	*1	—
Isen Town Ordinance on the Proper Keeping and Management of Pet Cats	Isen Town		•				•			•	•	•	*1	—
Kunigami Village Ordinance on Cat Welfare and Management	Kunigami Village		•					•		•	•	•	*1	—
Ogimi Village Ordinance on Cat Welfare and Management	Ogimi Village		•					•		•	•	•	*1	—
Higashi Village Ordinance on Cat Welfare and Management	Higashi Village		•					•		•	•	•	*1	—
Taketomi Town Ordinance on the Keeping of Cats	Taketomi Town		•						•	•	•	•	*1	—
Biodiversity Strategy of Kagoshima Prefecture	Kagoshima Prefecture			•			•			•	•	•	*1	—
Biodiversity Strategy of Okinawa	Okinawa Prefecture			•				•		•	•	•	*1	—
The Biodiversity Strategy and Action Plan of Amami-Oshima Island	Amami City, Yamato Village, Uken Village, Setouchi Town, Tatsugo Town			•						•	•	•	4	1-107
Amami Island Group Nature Symbiotic Society Plan	Kagoshima Prefecture			•				•		•	•	•	*1	—
Regional Biodiversity Conservation Plan (Ogimi Village Regional Cooperation Conservation Action Plan)	MOE, Ogimi Village			•				•					5	1-116
Policy for the Promotion of the Yambaru Model Forestry	Okinawa Prefecture			•				•					6	1-129
Okinawa Prefecture Red Soil Erosion Prevention Ordinance	Okinawa Prefecture							•					7	1-142
Act on Special Measures for the Amami Islands Promotion and Development	MLIT	•							•				*1	—

Name of document	Responsible agency / enactor / preparer	Type of rule				Relevance to the component parts						Relevant zone / area			Document No.	Page No.
		Laws etc.	Ordinances	Other administrative plans etc.	Voluntary rules etc.	Amami-Oshima Island	Tokunoshima Island	The northern part of Okinawa Island	Iriomote Island	Nominated property	Buffer zone	Surrounding area				
Amami Islands Promotion and Development Plan (FY2014 - FY2018)	Kagoshima Prefecture	•				•	•				•	•	•	•	*1	—
Kagoshima Prefecture Basic Plan for Tourism Promotion	Kagoshima Prefecture			•		•	•								*1	—
Act on Special Measures for the Promotion and Development of Okinawa	Cabinet Office	•						•	•						*1	—
Basic Plan for 21st Century Vision of Okinawa (Okinawa Promotion Plan) (FY2012 - FY2021)	Okinawa Prefecture	•						•	•						*1	—
Okinawa Prefecture Basic Plan for Tourism Promotion	Okinawa Prefecture			•				•	•						*1	—
Mt. Ibudake District Conservation and Utilization Agreement	Tourism business operators, Okinawa Prefecture				•			•							*1	—
Nakama River Conservation and Utilization Agreement	Tourism business operators, Okinawa Prefecture				•				•						*1	—
Gesashi Mangrove Tourism Use [Guide / Business Operator Rules]	Higashi Village Tourism Promotion Council				•			•							8	1-150
Iriomotejima Canoe Association Rulebook	Iriomotejima Canoe Association				•				•						9	1-154
Okinawa Prefecture Guidelines on Natural Environment Restoration	Okinawa Prefecture			•						•					10	1-158
Second Okinawa Prefecture Basic Plan for the Environment	Okinawa Prefecture			•						•					11	1-170
Guidelines on Natural Environment Conservation	Okinawa Prefecture			•											12	1-183

*1. Refer to the documents attached to the nomination dossier.

**Document 1. Kagoshima Prefectural Ordinance on Cultural Assets
Protection
(Excerpt)**

(Ordinance No.48 of December 26, 1955)

Amendments

(Ordinance No.42 of October 15, 1962)

(Ordinance No.50 of December 22, 1975)

(Ordinance No.74 of March 29, 2005)

(Ordinance No.47 of December 25, 2015)

The Kagoshima Prefectural Ordinance on Cultural Assets Protection is hereby promulgated.

Kagoshima Prefectural Ordinance on Cultural Assets Protection

Table of Contents (the excerpted parts have been **bolded**.)

Chapter 1	General Provisions (Articles 1–Articles 3)
Chapter 2	Designated Tangible Cultural Properties (Articles 4–Articles 18)
Chapter 3	Designated Intangible Cultural Properties (Articles 19–Articles 24)
Chapter 4	Designated Tangible Folk Cultural Assets and Designated Intangible Folk Cultural Assets (Articles 25–Articles 29)
Chapter 5	Designated Historic Sites, Places of Scenic Beauty, and Natural Monuments (Articles 30–Articles 35)
Chapter 6	Auxiliary Provisions (Articles 36– Articles 37)
Chapter 7	Penal Provisions (Articles 38–Articles 40)
Supplementary Provisions	

Chapter 1 General Provisions

(Purpose)

Article 1

This ordinance is based on the provision of paragraph 2 of Article 182 in the Act on the Protection of Cultural Properties (the Act No. 214 of 1950, hereinafter referred to as the “Act”). The purpose of this ordinance is to take the necessary measures for preservation and use with regard to the cultural properties which exist within the area of the prefecture and are of importance to the prefecture, except for those designated pursuant to the provisions of the Act, thereby contributing to the cultural enhancement of the public in the prefecture, as well as contributing to the advancement of Japanese culture.

(Definitions)

Article 2

The term “cultural properties” as used in this ordinance means the tangible cultural properties, intangible cultural properties, folk cultural assets, and monuments set forth in the items 1 to 4 of paragraph 1 of Article 2 in the Act.

(Respect for Property Rights, etc. and Coordination with Other Public Interests)

Article 3

In the execution of this ordinance, the Kagoshima Prefectural Board of Education (hereinafter referred to as the “Board of Education”) must respect the ownership and other property rights of the stakeholders as well as pay due regard to the protection of cultural properties and the coordination with other public interests.

(Omitted)

Chapter 5 Designated Historic Sites, Places of Scenic Beauty, and Natural Monuments

(Designation)

Article 30

The Board of Education may designate the monuments which exist within the area of the prefecture and are of importance to the prefecture (except for those designated as Historic Sites, Places of Scenic Beauty, and Natural Monuments pursuant to the provision of paragraph 1 of Article 109 in the Act) as Kagoshima Prefecture Designated Historic Sites, Kagoshima Prefecture Designated

Places of Scenic Beauty, and Kagoshima Prefecture Designated Natural Monuments (hereinafter collectively referred to as the “Designated Historic Sites, Places of Scenic Beauty, and Natural Monuments”).

- 2 The provisions of paragraphs 2 to 5 of Article 4 shall apply mutatis mutandis to the designation prescribed in the preceding paragraph.

(Rescission)

Article 31

When any Designated Historic Site, Place of Scenic Beauty, or Natural Monument has lost the value as a Designated Historic Site, Place of Scenic Beauty, or Natural Monument, or when there are any other special grounds, the Board of Education may cancel its designation.

- 2 When any Designated Historic Site, Place of Scenic Beauty, or Natural Monument is designated as a Historic Site, Place of Scenic Beauty or Natural Monument pursuant to the provisions of paragraph 1 of Article 109 in the Act, the designation of said Designated Historic Site, Place of Scenic Beauty, or Natural Monument shall be deemed to be cancelled.
- 3 With regard to the cancellation of designations pursuant to the provision of paragraph 1, the provision of paragraph 2 of Article 5 shall apply mutatis mutandis, while the provision of paragraph 4 of the same article shall apply mutatis mutandis to cases falling under the provision in the preceding paragraph.

(Installation of Signs, etc.)

Article 32

The owner of a Designated Historic Site, Place of Scenic Beauty, or Natural Monument shall install signs, description plates, boundary posts, enclosing fence, and other facilities needed for the administration of the Designated Historic Site, Place of Scenic Beauty, or Natural Monument, in accordance with the standards specified in the Rules of the Board of Education.

(Notification of Changes Pertaining to the Location etc. of Land)

Article 33

When there are changes to the location, parcel number, land category, or parcel area with regard to the land within the designated area of a Designated Historic Site, Place of Scenic Beauty, or Natural Monument, the owner (or the administrator, if any, who has been chosen as provided for by the

provision of paragraph 2 of Article 6 which is applied mutatis mutandis pursuant to the provision of Article 35) must promptly give notification to the Board of Education to that effect.

(Restrictions on Alteration of the Current States, etc.)

Article 34

With regard to Designated Historic Sites, Places of Scenic Beauty, and Natural Monuments, any person who intends to alter the current state, or to engage in acts that have an impact on their preservation, must obtain the permission of the Board of Education. However, this does not apply to cases in which such person takes measures for maintenance, or emergency measures necessitated by unforeseen disasters, with regard to the alteration of current states, or where the impacts are minor with regard to the acts that have an impact on their preservation.

- 2 The scope of the measures for maintenance stipulated in the proviso in the preceding paragraph shall be specified in the Rules of the Board of Education.
- 3 In granting the permission pursuant to the provision of paragraph 1, the provisions of paragraphs 3 and 4 of Article 13 shall apply mutatis mutandis.
- 4 Where a person has incurred losses due to the inability to obtain the permission set forth in paragraph 1, or due to the addition of conditions of permission set forth in the provision of paragraph 3 of Article 13, which is applied mutatis mutandis under the preceding paragraph, the prefecture shall compensate the person for the losses that would normally be incurred in such a case.

(Provisions Applied Mutatis Mutandis)

Article 35

The provisions of Articles 6 to 8, Articles 10 to 12-2, Article 14, Article 17, and paragraph 1 of Article 18 shall apply mutatis mutandis to Designated Historic Sites, Places of Scenic Beauty, and Natural Monuments.

(Omitted)

Chapter 7 Penal Provisions

(Criminal Punishment)

Article 38

A person who damages, disposes, or conceals any designated tangible cultural property shall be punished by a fine of not more than 50,000 yen or a petty fine.

Article 39

A person who alters the current state or engages in acts that have an impact on the preservation of any designated Historic Site, Place of Scenic Beauty, or Natural Monument, and thereby causes loss, damage, or deterioration, shall be punished by a fine of not more than 50,000 yen or a petty fine.

Article 40

If the representative of a juridical person, or the agent, the employee, or any other worker of a juridical person or an individual has committed a violation referred to in the preceding two articles in connection with the business or the management of assets of the juridical person or the individual, in addition to the offender being punished, the juridical person or the individual shall be liable to pay a fine set forth in each article.

(Omitted hereafter)

**Document 2. Okinawa Prefecture Ordinance on Cultural Assets
Protection
(Excerpt)**

(Ordinance No. 25 from May 15, 1972)

Amendments

(Ordinance No. 12 from March 30, 1976)

(Ordinance No. 47 from July 26, 2005)

The Okinawa Prefecture Ordinance on Cultural Assets Protection is hereby promulgated.

Okinawa Prefecture Ordinance on Cultural Assets Protection

Table of Contents (the excerpted parts have been **bolded**)

Chapter 1	General Provisions (Article 1–Article 3)
Chapter 2	Prefectural Tangible Cultural Properties (Article 4–Article 19)
Chapter 3	Prefectural Intangible Cultural Properties (Article 20–Article 26)
Chapter 4	Prefectural Tangible Folk Cultural Properties and Prefectural Intangible Folk Cultural Properties (Article 27–Article 31)
Chapter 5	Prefectural Historic Sites, Places of Scenic Beauty, and Natural Monuments (Article 32–Article 37)
Chapter 6	Preservation Techniques Selected by the Prefecture (Article 38–Article 42)
Chapter 7	Auxiliary Provisions (Article 43)
Chapter 8	Penalties (Article 44–Article 47)
Supplementary Provisions	

Chapter 1 General Provisions

(Purpose)

Article 1

The purpose of this ordinance is to take the necessary measures for the conservation and use of the important cultural properties found within the prefecture other than those cultural properties that have been designated via legal provisions pursuant to the provisions of Paragraph 2, Article 182 of the Act on Protection of Cultural Properties (Act No. 214 from 1950; hereafter referred to as the “Act”), thereby contributing to cultural improvements for the prefectural residents as well as the advancement of Japanese culture.

(Definitions)

Article 2

The “cultural properties” mentioned in this ordinance refer to the tangible cultural properties, intangible cultural properties, folk cultural properties, and monuments listed in Items 1–4, Paragraph 1, Article 2 of the Act.

(Respect for Property and Other Rights and Coordination with the Public Interest)

Article 3

For the enforcement of this ordinance, the Board of Education must respect the ownership and other property rights of the related parties, and must also give forethought to the protection of the cultural properties and coordination with other public interests.

(Omitted)

Chapter 5 Prefectural Historic Sites, Places of Scenic Beauty, and Natural Monuments

(Designation)

Article 32

The Board of Education can designate important monuments found within the prefecture (excluding those designated as historical sites, places of scenic beauty, or natural monuments per the provisions of Paragraph 1, Article 109 of the Act) as Okinawa Prefectural historic sites, Okinawa Prefectural places of scenic beauty, or Okinawa Prefectural natural monuments (hereafter referred to as “prefectural historic sites, places of scenic beauty, and natural monuments”).

2. The provisions of Paragraphs 2 through 5, Article 4 shall apply regarding the designation through the provisions of the preceding paragraph.

(Rescission)

Article 33

The Board of Education may rescind these designations in the event that the value of the prefectural historic sites, places of scenic beauty, or natural monuments has been tarnished, or if there is another particular reason for doing so.

2. If a prefectural historic site, place of scenic beauty, or natural monument has been designated as a historic site, place of scenic beauty, or natural monument through the provisions of Paragraph 1, Article 109 of the Act, said designation shall be rescinded.
3. The provisions of Paragraphs 3–5, Article 4 shall apply for rescissions of designations through the provisions of Paragraph 1, and the provisions of Paragraph 4, Article 5 shall apply in the case of the preceding paragraph.

(Installation of Signs, etc.)

Article 34

The owners of prefectural historic sites, places of scenic beauty, and natural monuments (if there is a management body designated through the provisions of Paragraph 1, Article 7-2 applied mutatis mutandis via Article 37, then said body) shall install the signs, description plates, boundary indicators, enclosures, and other facilities necessary for the management of the prefectural historic sites, places of scenic beauty, and natural monuments pursuant to the standards established by the regulations of the Board of Education.

(Notification on Changes in the Whereabouts of the Land, etc.)

Article 35

When there have been changes in the whereabouts of the land, its lot number, land classification, or acreage for land within the designated region of prefectural historic sites, places of scenic beauty, and natural monuments, the owner (if there is a management administrator that has been appointed through the provisions of Paragraph 2, Article 6 applied mutatis mutandis via Article 37, then said person, or if there is a management body designated through the provisions of Paragraph 1, Article 7-2 applied mutatis mutandis via Article 37, then said body) must promptly send notification to this effect to the Board of Education.

(Restrictions on Changes to the Current Conditions, etc.)

Article 36

When attempting to make changes to the current conditions of prefectural historic sites, places of scenic beauty, and natural monuments or to take actions that would impact their conservation,

permission must be obtained from the Board of Education. However, when it comes to changes to the current conditions, this shall not apply in cases where maintenance measures or emergency measures needed in response to extraordinary disasters are taken, or in cases where the impact from actions that will affect conservation is minor.

2. The scope of the maintenance measures stipulated in the provisos of the preceding paragraph shall be established via the regulations of the Board of Education.
3. In cases where permission is granted through the provisions of Paragraph 1, then the provisions of Paragraphs 3 and 4, Article 14 shall apply.
4. The prefecture shall provide compensation to persons who have suffered a loss because they could not receive the permission from Paragraph 1, or because the requirement to obtain permission from Paragraph 3, Article 14 applied *mutatis mutandis* via the preceding paragraph was imposed on them, for any losses they would ordinarily suffer.

(Applicable Provisions)

Article 37

The provisions of Articles 6 through 8, Articles 10 through 13, Article 15, Article 18, and Paragraph 1, Article 19 shall apply with regard to prefectural historic sites, places of scenic beauty, and natural monuments.

(Omitted)

Chapter 8 Penalties

(Penalties)

Article 44

A fine or fee of up to 50,000 yen shall be imposed on anyone who destroys, damages, or conceals a prefectural tangible cultural property.

Article 45

A fine or fee of up to 50,000 yen shall be imposed on anyone who changes the current conditions of prefectural historic sites, places of scenic beauty, and natural monuments; or takes actions that impact their conservation; or causes their destruction, damage, or decline.

Article 46

A fine or fee of up to 30,000 yen shall be imposed on anyone who, in violation of the provisions of Article 14 or Article 36, changes the current conditions of prefectural tangible cultural properties or

prefectural historic sites, places of scenic beauty, and natural monuments or takes actions that impact their conservation without the permission of the Board of Education or by failing to comply with the conditions of said permission; or fails to comply with orders from the Board of Education to stop engaging in actions that would impact their conservation or changes to the current conditions or their conservation.

Article 47

If the representative of a corporation or a corporation, or a personal agent, user, or other employee should engage in the violations from the preceding three articles in relation to the management of said corporation, personal business, or assets, then the perpetrator shall be punished and the penalties from each of these articles shall be imposed on the corporation or individual.

(Omitted hereafter)

Document 3. Higashi Village Ordinance to Protect the Okinawa Woodpecker

(Ordinance No. 11 from June 18, 2010)

(Intent)

Article 1

This ordinance shall establish the necessary items in relation to the protection of the Okinawa woodpecker, which is a national special natural monument as well as a national endangered species of wild fauna and flora, within Higashi Village pursuant to the Act on Protection of Cultural Properties (Act No. 214 from 1950) and the Act on Conservation of Endangered Species of Wild Fauna and Flora (Act No. 75 from 1992).

(Obligations of the Village)

Article 2

The village must make the appropriate efforts for the protection of the Okinawa woodpecker and the conservation and management of its habitat.

(Protection Area)

Article 3

The village mayor may designate an area necessary for the conservation of the Okinawa woodpecker's habitat as the Higashi Village Okinawa woodpecker protection area (hereafter referred to as the "protection area").

(Designation Procedures for the Protection Area)

Article 4

When bestowing this designation pursuant to the preceding article, the village mayor must receive the consent of the owner of the land and seek out the opinions of the village's council for the protection of cultural properties. What is more, the mayor shall coordinate with the related agencies at the prefectural and national levels when necessary.

(Prohibitions)

Article 5

The following actions are prohibited within the protection area and in its surrounding regions. However, this shall not apply in cases where permission has been received from the village mayor in advance.

- (1) Trespassing within the protection area without permission.
- (2) Actions that threaten the habitation of the Okinawa woodpecker, such as making noise in the protection area or its surrounding regions, which constitute actions established via regulations.

(Establishment of Protection Monitors)

Article 6

The village mayor can establish protection monitors, who will offer guidance for the sake of protecting the Okinawa woodpecker and conserving its habitat.

(Duties of the Protection Monitors)

Article 7

The protection monitors will regularly patrol and survey the habitat and offer guidance to or remove persons engaging in the actions prescribed in Article 5.

(Penalties)

Article 8

A fine of up to 300,000 yen will be imposed on anyone in violation of the provisions of Article 5.

(Delegation)

Article 9

The provisions of this ordinance and other necessary items shall be established via regulations.

Supplementary provisions

This ordinance shall enter into force on the day it is promulgated.

Supplementary provisions (Ordinance No. 13 from December 22, 2011)

This ordinance shall enter into force on the day it is promulgated.

Supplementary provisions (Ordinance No. 11 from October 15, 2012)

This ordinance shall enter into force on the day it is promulgated.

Document 4. The Biodiversity Strategy and Action Plan of Amami-Oshima Island

(Excerpt)

Preparer: Amami City, Yamato Village, Uken Village, Setouchi Town and Tatsugo Town

Date: 2015

Table of Contents (the excerpted parts have been **bolded**.)

Chapter 1 In Formulating the Strategy

- 1 Background of Formulation of the Biodiversity Strategy
- 2 **Objectives and Roles of the Biodiversity Strategy and Action Plan of Amami-Oshima Island**
- 3 **Structure of the Strategy and Basic Concepts for Implementing Projects**

Chapter 2 Characteristics of Biodiversity in Amami-Oshima Island

- 1 Wide Diversity of Life
- 2 Abundant Endemic Species
- 3 Existence of Endangered Fauna and Flora Created in the Distinctive Climate of Amami-Oshima Island
- 4 Existence of Nature that Has Been Nurtured through the Interaction between People and Nature
- 5 Existence of Nature of Global Significance Affluent in Biodiversity

Chapter 3 Issues in Conservation and Use of Biodiversity in Amami-Oshima Island

- 1 Impact of Human Activities such as Development and Excessive Use
- 2 Impact of the Decrease in the Interaction between Human Activities and Nature
- 3 Impact of the Organisms and Substances Artificially Brought in the Area
- 4 Impact of the Environmental Changes Affected by Global Warming
- 5 Impact of the Changing Public Consciousness and Socio-economy

Chapter 4 Basic Items and Targets

- 1 **Basic items**
- 2 **Targets**

Chapter 5 Priority Measures

- [Priority Measure 1] Conservation activities for endangered wildlife and universalization projects of biodiversity
- [Priority Measure 2] Countermeasures against feral cats, feral goats and alien species
- [Priority Measure 3] Project for the Amami-Oshima Island Environmental Culture and Nature Restoration Field Museum
- [Priority Measure 4] Construction project of the Amami-Oshima Island Biodiversity Nature Trails
- [Priority Measure 5] Construction project of the bases for In-the-village Eco-tours
- [Priority Measure 6] Industrial development and biodiversity conservation projects
- [Priority Measure 7] Exchanges and disseminating information
- [Priority Measure 8] Invitation of research bases on the Amami Island Group's environmental culture

Chapter 6 Action Plans

- Basic Policy 1 Conservation and Management of Biodiversity
- Basic Policy 2 Mechanism Building and Human Resources Development to Establish a Society where People and Nature Coexist
- Basic Policy 3 Sustainable Use of Biodiversity

Chapter 7 Steering Structure and Progress Management

- 1 Steering Structure of the Strategy**
- 2 Progress Management of the Strategy
- 3 Role of Each Stakeholder

Chapter 8 Materials

Chapter 1 In Formulating the Strategy

(Omitted)

2. Objectives and Roles of the Biodiversity Strategy and Action Plan of Amami-Oshima Island

(1) Objectives and natures of the strategy

The Biodiversity Strategy and Action Plan of Amami-Oshima Island (hereinafter referred to as “this Strategy”) is formulated by five municipalities on Amami-Oshima Island acting in coordination with each other based on the fundamental law, and will be the general plan for conservation and sustainable use of biodiversity in Amami-Oshima Island.

This Strategy aims to ensure the enhancement of quality of biodiversity in Amami-Oshima Island, while at the same time to promote regional revitalization through conserving and using it.

Various measures will be undertaken, based on the views that regional revitalization is to be achieved by nurturing the uniqueness of communities and that its foundation is natural environment and history and culture, aiming to make Amami-Oshima Island Japan’s “model community of the society where people and nature genuinely coexist.”

(2) Roles of the strategy

This Strategy intends to ensure the alignment with the prefecture’s strategy, as well as to be a guideline on conservation and use of biodiversity in implementing the General Promotion Plans of the related municipalities, the Amami Island Group Promotion and Development Plan , etc., in light of the intent of the fundamental law and national strategies. Moreover, it will be a guideline for community-driven activities to build a society where people and nature genuinely coexist.

3. Structure of the Strategy and Basic Concepts for Implementing Projects

This Strategy, which is based on the basic principles of co-existence and recycling, clarifies the issues on conservation and use of biodiversity in Amami-Oshima Island, and then puts together a set of measures to be taken while bearing the strategical propositions in mind. With regard to those measures, it sets three basic policies for implementing projects and, in accordance with them, specifies the action plans which the respective regional parties will undertake in collaboration with each other, as well as the priority measures which five municipalities will focus on within the plans.

In addition, with regard to the projects of which the national government, the prefecture, etc. are the responsible entities, the items for which collaboration and support will be requested to the national government, the prefecture, etc. in order to accomplish the projects will be identified after sorting out the roles of five municipalities.

(Omitted)

Chapter 4 Basic Items and Targets

1. Basic Items

(1) Targeted areas

Targeted areas of this Strategy are Amami-Oshima's main island and other included islands under the jurisdiction of Amami City, Yamato Village, Uken Village, Setouchi Town, and Tatsugo Town, as well as their surrounding waters.

(2) Planning period

Planning period of this Strategy is ten years from FY 2015 (Heisei 27) to FY 2024 (Heisei 36).

(3) Basic principles

Basic principles are to both conserve biodiversity in Amami-Oshima Island as an appropriate place for a Natural World Heritage, and to create a society where people respect the culture that has co-existed with nature, sustainably enjoy its benefits, and live more enriched organisms.

(4) Basic policies

In crystallizing the basic principles and achieving the goals, the following three basic policies are set to pursue the endeavors.

2. Targets

(1) Short-term targets (a picture of Amami-Oshima Island in 10 years' time or in 2024)

Both the social infrastructure needed to achieve the long-term target to become Japan's "model community of the society where people and nature genuinely coexist" and the foundation of the community activities to be undertaken as an inscribed Natural World Heritage site will be constructed.

[Situations to aim for]

- No further emergence of degradation of biodiversity, and efforts to lead the already lost diversity to better conditions are underway.

- Habitat environments of fauna and flora including endangered species have been improved, illegal collecting etc. have been eliminated, and no additional emergence of species to conserve.
- A structure is established in which feral cats, feral dogs, and feral goats no longer newly emerge and their population decreases. Mongooses (Small Indian mongooses) have also been eradicated.
- As a result of the heightened awareness among islanders and visitors about alien species, no further intentional addition of alien species due to pet relinquishment, planting and afforestation, transferal of people and objects, or other causes occurs, and the numbers of the already existing alien species are decreasing.
- A capturing system staffed with the capturing personnel who can scientifically manage the wildlife population is established and wildlife population is under proper control.
- Awareness of biodiversity is increasing among islanders and visitors.
- Adequate numbers of places and opportunities are provided where people are able to experience and learn the benefits of biodiversity and nature.
- The primary industries are operated with due consideration to conservation of biodiversity, and the island's local products including traditional vegetables are actively utilized.
- Various stakeholders such as islanders, business operators, academic experts, visitors, and each municipal government share roles and collaborate with each other, working to conserve biodiversity in the respective positions.
- The area has become a vibrant community where, for example, sustainable tourism is provided by taking advantage of the wisdom and skills of people who co-exist with rich nature, and such facts are being publicized both domestically and internationally.

(2) Long-term targets (a picture of Amami-Oshima Island in 50 years' time (2064))

The area is already Japan's "model community of the society where people and nature genuinely coexist."

[Situations to aim for]

- Multi-faceted superior nature, such as rich nature continuously spreading from mountains to the ocean and nature formed through interaction with people, is maintained and various fauna and flora live there.
- Nature is utilized and, under such circumstances, people interact with nature and live spiritually affluent organisms by taking advantage of Amami-Oshima Island's traditional recycling systems and culture.
- A large number of visitors come to Amami-Oshima Island, and an environment has been constructed where they can deeply acknowledge Amami's attractiveness by being embraced within nature and enjoying, tasting, and experiencing it, and can express the gratefulness for it.

- A society has been formed where people are grateful to nature while moderately utilizing it and also undertake the efforts to carefully hand it down to the next generations, while considering it as a matter of course.
- The profiles of Amami-Oshima Island's society where people and nature co-exist in better conditions are widely publicized to the world.

Chapter 5 Priority Measures

[Priority Measure 1] Conservation activities of endangered wildlife and universalization projects of biodiversity

In order to conserve the endangered wildlife living on Amami-Oshima Island, various research on fauna and flora and conservation activities will be conducted in collaboration with the related organizations. At the same time, development of environmental learning hubs, leadership training, and program development will be conducted so that the residents are able to learn about Amami-Oshima Island's biodiversity, and thus the projects to pursue the deeper understanding of biodiversity (= universalization) will be actively undertaken.

- Proper enforcement of the ordinance to protect endangered wild fauna and flora, and promotion of conservation activities
- Monitoring surveys on biodiversity and information gathering
- Development of environmental learning hubs and enhancement of environmental learning
- Establishment of the networks for conservation of biodiversity

[Priority Measure 2] Countermeasures against feral cats, feral goats and alien species

Given such facts that cats reverting to wild (feral cats) are causing serious damage to ecosystems such as predation of endangered species, that the impact of goats reverting to wild (feral goats) on ecosystems is of concern, and that other alien species' invasion is suspected of bringing some impacts on ecosystems, each municipal government has taken a variety of measures including enactment of ordinances. In the coming years, while the countermeasures based on the local characteristics will be pursued, all the municipalities will work in collaboration and effectively facilitate the countermeasures.

- Development of the counteracting projects against feral cats and goats
- Countermeasures against alien species

[Priority Measure 3] Project for the Amami-Oshima Island Environmental Culture and Nature Restoration Field Museum

An ecosystem model based on Amami-Oshima Island's local characteristics will be set up and the conservation of biodiversity will be moved ahead. Additionally, handover and creation of environmental culture will be progressed through information gathering, etc., utilization of the entire island as a field museum for environmental learning will be endeavored, and the pursuit of projects that unify science and culture will be considered.

- Model projects for reclamation of forests, sato-umi (a coastal area where biological productivity and biodiversity has increased through human interaction), and mangroves
- Activities to hand over the environmental culture of coexistence of nature and people
- Development of information hubs of Amami-Oshima Island's environmental culture

[Priority Measure 4] Construction project of the Amami-Oshima Island Biodiversity Nature Trails

On the axis of the "Amami-Oshima Island Biodiversity Nature Trails" (provisional name) that go around Amami-Oshima Island, the possible development of the places where visitors can not only fully enjoy the precious and diverse ecosystems but also experience the environmental culture nurtured by the community, will be examined.

[Priority Measure 5] Construction project of the bases for In-the-village Eco-tours

As visitors are expected to increase following the designation as a quasi-national park and the inscription as a Natural World Heritage site, the selection of a hub location for each municipality will be facilitated in order to promote the resident-driven operation of "In-the-village Eco-tours" for learning and experiencing the environmental culture that remains in colonies at various locations on the island.

[Priority Measure 6] Industrial development and biodiversity promotion projects

The establishment of tourism from new viewpoints and the promotion of environmentally-conscious tourism (e.g. ecotourism) will be conducted in cooperation with the private sector, related organizations, and other parties because visitors are expected to increase following the designation as a national park and the inscription as a Natural World Heritage site, which causes concern over the impacts on the ecosystems of Amami-Oshima Island. Furthermore, environmentally-conscious agricultural production, conservation of fishery resources, and forest maintenance will be

implemented. At the same time, production of processed agricultural, forestry and fishery products will be promoted.

- Development of a new tourism master plan and promotion of experience-based tourism
- Sixth sector industrialization and biodiversity promotion projects

[Priority Measure 7] Exchanges and disseminating information

In order to ensure the dissemination of this Strategy, it will be pursued as an inscribed Natural World Heritage site to have exchanges with a large number of people and the related organizations, etc. both at home and abroad, as well as to actively dispatch the local information.

- Creation of Amami-Oshima Island Nature Ambassador
- Exchanges with other inscribed Natural World Heritage sites
- Promotion of international exchanges
- Exchanges with universities and researchers
- Spreading information

[Priority Measure 8] Invitation of research bases on the Amami Island Group's environmental culture

With regard to the research on the Amami Island Group's environmental culture which is conducted by the Kagoshima Prefecture, invitation of its research bases will be furthered, while the post-inscription measures as a Natural World Heritage site on the Amami Island Group's biodiversity will be carried out in cooperation with the prefecture and other parties.

(Omitted)

Chapter 7 Steering Structure and Progress Management

1. Steering Structure of the Strategy

"Amami-Oshima Island Biodiversity Promotion Council" (provisional name) composed of the five municipalities, i.e. Amami City, Yamato Village, Setouchi Town, Uken Village and Tatsugo Town, will be formed to undertake progress management, review, etc. of the strategy, and it will also be positioned as the steering entity for liaison and coordination with the national and prefectural

governments, the related organizations, etc. as well as for the various measures and projects incorporated within the strategy.

Additionally, in order to get guidance and advice in pursuing the strategy, the possible formation of the “Expert Committee for Amami-Oshima Island Biodiversity Strategy” (provisional name) comprised of academic experts will be examined.

(Omitted hereafter)

Document 5. Regional Biodiversity Conservation Plan
(Ogimi Village Regional Cooperation Conservation Action Plan)
(Excerpt)

Preparer: Ministry of the Environment and Ogimi Village

Date: March 2014

Table of Contents (the excerpted parts have been **bolded**)

Chapter 1 Project Details

1. **What Are Regional Biodiversity Conservation Plans?**
2. **Orientation of the Ogimi Village Regional Cooperation Conservation Action Plan**
3. Outline of the Project Formulated in FY2013

Chapter 2 Regional Cooperation and Conservation Action Plan (Draft)

1. Characteristics of the Nature in Ogimi Village's Limestone Area
2. Regional Activities related to Nature
3. Ecosystem Services
4. **Creation of a Structure to Enable Coordination over the Activities**
5. **Orientation of Initiatives by Ogimi Village**
6. **Action Plan**
7. **Promotion Structure**

Chapter 1 Project Details

1. What Are Regional Biodiversity Conservation Plans?

1) Background to and Positioning of the Plan

Regional Biodiversity Conservation Plans express policies that encourage and support initiatives to continue maintaining and passing down the biological diversity found in each respective region in order to conserve the diverse nature found in each and every part of a changing Japan. As one such policy, this policy is based on the Promotion of Activities for Biodiversity Conservation through the Cooperation among Regional Diversified Actors (Act on Biodiversity Conservation through Regional Cooperation; Act No. 72 from 2010). Specifically, the aim is to enact and put into practice Regional Cooperation and Conservation Action Plans that establish modalities and create initiatives for biodiversity in each region, while also achieving the objective of the law (conserving regional biological diversity and contributing to securing a healthy and cultured lifestyle for the public).

The Ogimi Village Regional Cooperation Conservation Action Plan was created by Ogimi Village with the support and cooperation of organizations that are active in the local region. The targeted region primarily consists of the limestone mountain mass in the central part of the village, and its target period is about ten years in the future. The plan is to continue implementing this by setting in place a structure whereby related organizations and Ogimi Village cooperate and coordinate with one another, mainly in fields where pacesetting organizations are active.

Given such circumstances, in FY2011 experts were commissioned to perform a survey of natural characteristics in the seven fields of amphibious reptiles, geological features, plants, birds, insects, butterflies, and land snails. This focused mainly on Mt. Nekumachiji, which has the most abundant nature out of the village's hilly areas. In addition, previous related surveys and plans, as well as local proposals, were organized to carry out a survey on regional characteristics regarding the status of natural conservation and usage initiatives that have been promoted in the region. In FY2012, based on recommendations from the experts from the previous survey, a supplementary survey was performed on the natural characteristics for nine fields, in which the two fields of mammals and aquatic creatures were added to the seven fields mentioned above. As for the regional characteristics, field observations were carried out on those areas that are environments that are closely connected to the life within the village and that have particularly promising natural environments. Recommendations on conservation and use were received from local experts on current challenges. However, that year the region was buffeted by a typhoon the likes of which have been rare in recent years, and so satisfying results could not be obtained regarding the survey on natural characteristics.

Given the fact that adequate results could not be obtained for the survey on natural characteristics due to natural disasters in FY2013, another supplementary survey was carried out by excluding some of the fields. The survey results from FY2011 through FY2013 were compiled in order to both clarify the characteristics of the natural environment in said region and also offer proposals for activities to conserve the region. What is more, the regional conservation activities currently being carried out based on the policies set forth from the survey results were observed together with the local experts, and consideration was given to the future direction of conservation. The Regional Biodiversity Conservation Plan (Ogimi Village Regional Cooperation Conservation Action Plan) (Draft) was recently created by arranging these in a comparative manner.

(Omitted)

2. Orientation of the Ogimi Village Regional Cooperation Conservation Action Plan

(Omitted)

(4) Importance in terms of the Project

This project aims to connect the nature within human habitations on Okinawa that had been thought about in a partial and localized manner, such as oceans and forests, and popularize the region as an important location for maintaining the biodiversity of Okinawa. Therefore, it was important to clarify the natural environment within the plan region.

What is more, it is necessary to clarify how the local people that have made use of this environment have utilized the nature and surrounding conditions found in the limestone mountains, where a diverse array of natural environments remain. It is also necessary to go about rebuilding connections with nature in a manner suited to the modern age in order to continue to preserve satoyama (border regions between arable land and mountain foothills) environments on into the future. This project began by clarifying the natural characteristics. Next, its goal was to create a specific action plan for awareness-raising activities to extend environmental conservation to the region and for conservation activities, as well as a promotion structure to manage this.

The objective of the project is to make the region one where sound and vigorous pursuits are fostered by maintaining natural diversity and the benefits received from the natural environment.

(Omitted)

Chapter 2 Regional Cooperation and Conservation Action Plan (Draft)

(Omitted)

4. Creation of a Structure to Enable Coordination over the Activities

1) Rationale behind Creating the Structure

In order to give concrete shape to biodiversity conservation activities, the village residents' understanding of the survey on natural characteristics should be deepened. In addition, the action plan necessary to cultivate activities to be carried out in the target region and for developing environments with the desired biological diversity, as well as a structure for promoting said action plan, should be created.

(Omitted)

3) Creating the Structure

In order to instantiate the Regional Biodiversity Conservation Plan, regional cooperation and conservation activities must be promoting in an ongoing manner. For this, it will be necessary to get the local region concerned with and interested in nature and the environment, while also getting the local region to undertake the activities voluntarily.

For this, a process must be established whereby each of the conservation activities is developed and deployed in a coordinated manner. This is to ensure that the regional biodiversity can be secured with the help of expert advice and with a focus on the activities that are being voluntarily carried out in the region.

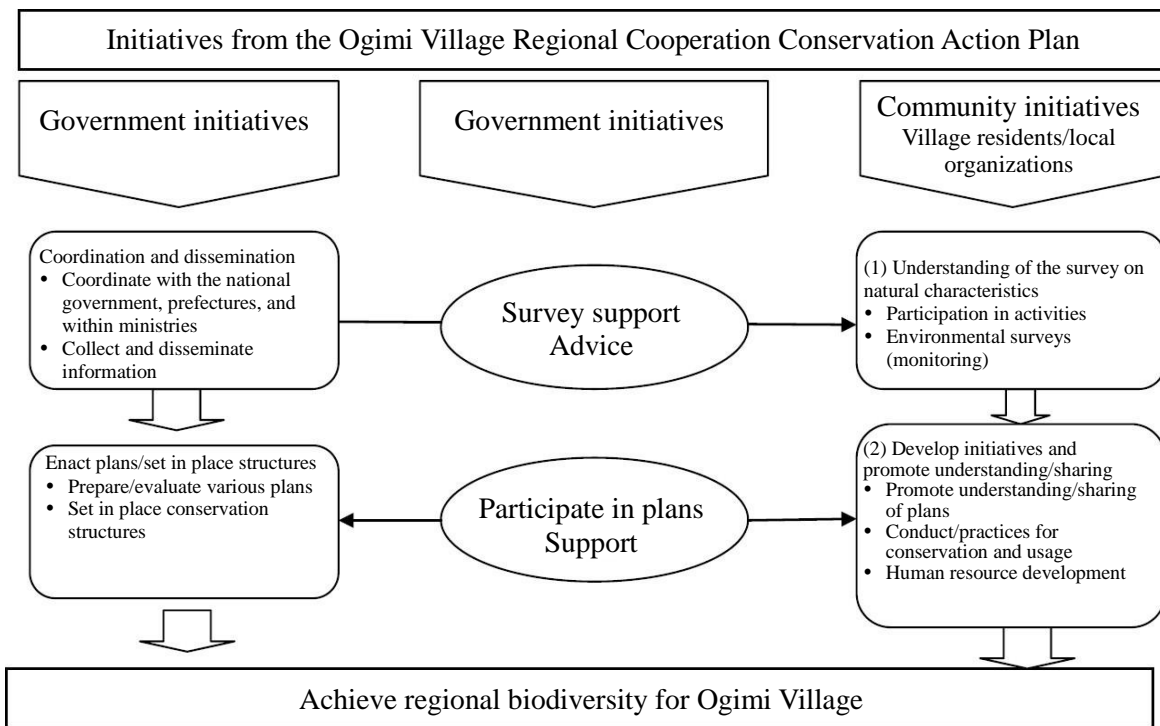


Fig. Flow of initiatives

(Omitted)

5. Orientation of Initiatives by Ogimi Village

At the conclusion of the three-year survey, the natural characteristics of the planned region for the biodiversity conservation project within the village had become clear. By setting the goal as being to conserve these highly diverse natural resources, the expectation is that future projects will feature major initiatives that cover a wide range. However, even if grand plans with multiple interrelated facets contain superior content, they tend to remain nothing more than plans due to factors like budget and personnel shortfalls in some cases.

This project will consider the overall framework for the activities needed in order to promote conservation. In addition to this, it will also start out with those undertakings that it can implement under its current structure, then consider methods for reaching its ultimate goals by amassing the results from this. For example, we are confident that by steadily amassing results one by one from even small-scale undertakings, we will be able to achieve our ultimate goals of conserving the biodiversity in the planned region and promoting the village.

It is hoped that, rather than laying out major goals and striving to achieve them right from the outset, instead amassing experience through small, specific undertakings for individual matters and continuing to accumulate knowledge will serve as a shortcut to reaching our goals.

Activities to observe butterflies were carried out on an experimental basis through the across-the-board cooperation of Shioya Elementary School in the Yako Region as part of outreach activities and regional observation activities. Attention was paid to this for the reasons that the biodiversity in the Yako Region has been recognized as being extremely high in its capacity as a satoyama region, children who were motivated to observe nature are found there, and Shioya Elementary School made efforts to promote this. What is more, it was also because the Yako Region adopted a positive and welcoming attitude with respect to these activities, and there were absolutely no problems regarding project implementation. Therefore, it will be possible to implement specific projects almost immediately starting from the following fiscal year.

The decision has been made to have the village adopt an approach of initiating this sort of method of amassing experience in those areas where it is feasible to do so in the village, then ultimately tying this in with activities for the conservation of biodiversity that cover the entire village.

6. Action Plan

1) Objectives of the activities

The activities that are necessary to promote the Ogimi Village Regional Cooperation Conservation Action Plan have been compiled below. Here, the objectives of the activities will be shown based around the major axes of “Satoyama conservation,” “Collecting information on nature,” “Exchanges,” and “Education and learning.”

(1) Satoyama conservation

With the goal of coexisting with environments that are high in biodiversity, perform conservation based on the appropriate considerations for regions inhabited by rare living creatures, make use of the diverse nature found in regions inhabited by humans, and work to maintain and restore the environment.

(Omitted)

(2) Collecting information on nature

Collect nature information on this region, which is rich in biodiversity, and put it to good use in conserving the environment. In addition, disseminate the aggregated information in order to encourage industrial development in the village.

(Omitted)

(3) Exchanges

With the goal of conserving satoyama regions, hold ecotours and events aimed at people from outside the village and work to revitalize the region. In addition, hold exchanges with regions that are working to address biodiversity to create a network for maintaining biodiversity.

(Omitted)

(4) Education and learning

Increase opportunities for people to come into contact with the nature all around them to realize the importance of regions with an abundance of biodiversity, and carry out initiatives to cultivate a mentality of taking pride in the region.

(Omitted)

2) About the activities

Activities for specifically promoting “Satoyama conservation,” “Collecting information on nature,” “Exchanges,” and “Education and learning,” which have been established for each target, are shown below.

Ogimi Village Regional Cooperation Conservation Action Plan on Biodiversity

(1) Satoyama conservation	
Objective	With the goal of coexisting with environments that are high in biodiversity, perform conservation based on the appropriate considerations for regions inhabited by rare living creatures, make use of the diverse nature found in regions inhabited by humans, and work to maintain and restore the environment.
Activities	(1) Establish the Ogimi brand by capitalizing on its biodiversity

	(2) Establish mountain roads and clean-up the region
	(3) Develop the site for a satoyama butterfly garden

(2) Collecting information on nature	
Objective	Collect nature information on this region, which is rich in biodiversity, and put it to good use in conserving the environment. In addition, disseminate the aggregated information in order to encourage industrial development in the village.
Activities	(1) Collect and disseminate nature information

(3) Exchanges	
Objective	With the goal of conserving satoyama regions, hold ecotours and events aimed at people from outside the village and work to revitalize the region. In addition, hold exchanges with regions that are working to address biodiversity to create a network for maintaining biodiversity.
Activities	(1) Create and engage in tourism
	(2) Coordinate with other regions working to address biodiversity

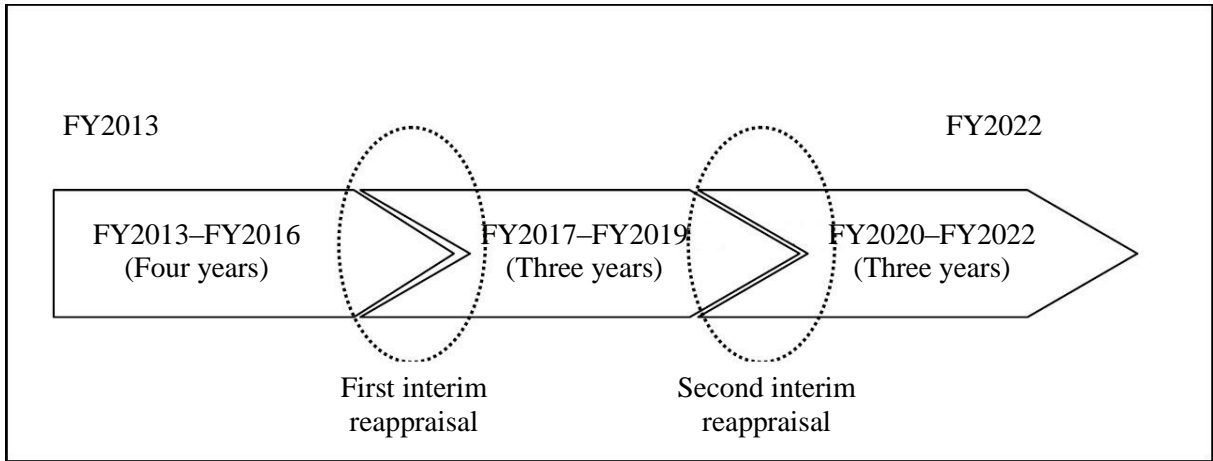
(4) Education and learning	
Objective	Increase opportunities for people to come into contact with the nature all around them to realize the importance of regions with an abundance of biodiversity, and carry out initiatives to cultivate a mentality of taking pride in the region.
Activities	(1) Hold observation tours that involve having local children take records on living creatures
	(2) Hold symposia and lectures

3) Period of activities

For the project period for Ogimi Village Regional Cooperation Conservation Action Plan, this fiscal year, which corresponds to the final fiscal year of the survey, was set as a trial period. Including this, the project period was set at ten years, to conclude in FY2022.

What is more, it was decided that reappraisals would be carried out, with the aim being to do this after three years have elapsed. This is designed to accommodate factors like changes in the activity sponsor and the social conditions.

The contents of activities starting on the next page list the specific initiatives for the four-year period lasting from FY2013 to FY2016.



Plan period

(Omitted)

4) Contents of activities

(Omitted)

(2) Collecting information on nature

Initiative	(1) Collect and disseminate information on nature
Contents of the initiative	<p>In order to promote biodiversity conservation activities, it will be important to make records and amass data on environmental changes. For these initiatives, the most desirable thing is to have a structure whereby local residents carry these out on a daily basis.</p> <p>To start with, nature information on the region will be collected and aggregated based primarily around the butterfly observations by Shioya Elementary School that are currently carried out in the Yako area. Catching site of butterflies will be taken as an indicator for biodiversity.</p> <p>In addition, a structure will be created whereby informational placards on living creatures are installed in the village, and local people who catch sight of living creatures or hear their calls will be asked to write this down on them. The information will be aggregated and periodically disseminated to local residents once more via the placards in the form of notices. If the trial run in Yako is successful, it will be sequentially expanded out to the other settlements within the village.</p> <p>The information collected here will be analyzed in cooperation with experts, and the results will be put to good use in conservation activities. Moreover, it will be necessary to foster NPOs to perform monitoring together with the residents in order to promote this in a sustainable manner.</p>
Activity (1)	
Sponsor	Ogimi Village/NPO Yambaru House
Implementation period/location	<p>Period: Year round</p> <p>Location: Yako area</p>
Implementation details	<p>Nature information on the region will be collected and aggregated based primarily on the butterfly observations by Shioya Elementary School. A structure will be created whereby informational placards on living creatures are installed, and local people who catch sight of living creatures or hear their calls will be asked to write this down on them to exchange information.</p> <p>The Monitoring Sites 1000 Satoyama survey manual from the Biodiversity Center, Nature Conservation Bureau, Ministry of the Environment will be used for the monitoring methods. Experts will be invited and monitoring lectures will be held.</p>

(Omitted)

(4) Education and learning

Initiative	(1) Hold observation tours that involve having local children take records on living creatures
Contents of the initiative	<p>It was learned that the results of the outreach activities from this fiscal year and the activities to deepen awareness of biodiversity in the form of environmental education for the elementary school produced significant outcomes for the region.</p> <p>For the future, one of the most momentous challenges will be working to promote the understanding of village residents in the nature all around them for Ogimi Village, which forms a corner of the Yambaru Region that is slated for registration as a Natural World Heritage Site.</p> <p>The butterfly observations in the Yako community that were carried out this fiscal year on a trial basis by Shioya Elementary School will be performed in an ongoing manner. What is more, it was decided that the regular observation records taken by the children will be used to collect information on nature, which is stipulated in the plan. The collected information will be analyzed in cooperation with experts, and the results of the investigations will be put to good use in conservation activities.</p> <p>The intention is to foster understanding of the importance of biodiversity as the source of life in the children by providing them with an understanding of the region in which they live and considering the environment around them through the specific approach of observing butterflies.</p> <p>With this initiative forming the core, the circle of activities to conserve biodiversity will be widened to regions where observations are carried out, as well as the school districts that encompass these, or even the village as a whole.</p>
Activity (1)	
Sponsor	Village-run Shioya Elementary School
Implementation period/location	Period: About ten times a year Location: Yako area
Implementation details	Hold nature observation club events. The butterflies in the Yako area will be observed.

(Omitted)

7. Promotion Structure

1) Establish the Ogimi Village Biodiversity Center

In order to boost the effectiveness of the Ogimi Village Regional Cooperation Conservation Action Plan, the entities within Ogimi Village must each fully understand their own roles and work to undertake said roles.

The village enacted the Ogimi Village Basic Plan for Tourism Promotion in FY2009, which set goals for promoting a style of tourism that would conserve the environment and contributing to the development of the region. This would be done by opening the excavation of Nejame Fortress, which is considered to be the fortress for the northernmost part of the main island of Okinawa, as well as the registration of the Yambaru Region (Ogimi Village, Kunigami Village, and Higashi Village), which has garnered global attention for its biodiversity, as a Natural World Heritage Site.

As the village is being considered for designation as a natural park and registration as a Natural World Heritage Site, in the future the Ogimi Village Biodiversity Center (provisional title) should be established as a base for creating a structure that can accommodate this. In striving to promote this plan, the Ogimi Village Biodiversity Center will play the following roles and move ahead with activities through the combined efforts of the public and private sectors.

(1) Ogimi Village Biodiversity Center

- The center will undertake the following roles when it comes to promoting the plan and promoting conservation activities.

1. Collect and disseminate information related to biodiversity
2. Coordinate among a diverse array of activity sponsors in relation to conservation activities
3. Introduce scientific knowledge from experts, etc.
4. Support education and learning
5. Ensure volunteers and other human resources
6. Support human resource development
7. Create a network with other regions with biodiversity

In working to conserve and restore the biodiversity in the planned region for which this plan was established, ideally the environment in the local region will either be allowed to maintain its intrinsic capabilities or will be restored to its ideal conditions. What is more, activities should be carried out

to make the local people grateful for the nature all around them amidst the connections between their daily lives and nature, and to urge them to take a concern and interest in it.

Therefore, the decision was made to have the entire region band together by seeking the participation and cooperation of a diverse array of entities, including village residents, local organizations, business operators, specialized agencies, and the government. It is not enough to just have mainly ecotourism business operators and some local organizations involve themselves with the natural environment, as has been seen so far. Instead, it will be necessary to seek the participation of a wide range of village residents, with this including local farmers and those related to trade and welfare, in order to promote conservation activities for the biodiversity in Ogimi Village.

In addition, a network will be created with various other regions that are working to address biodiversity and a wide range of information will be collected. What is more, the expectation for the future is that the village will serve to function as a think-tank capable of drafting measures and plans and offering advice to allow it to promote the conservation of biodiversity while still using local resources, even as the village develops.

(Omitted hereafter)

**Document 6. Policy for the Promotion of the Yambaru Model Forestry:
Aiming to Create Environmentally Friendly Forests
(Measures and Policies)**

Preparer: Forests and Greenery Division, Department of Agriculture, Forestry and Fisheries,
Okinawa Prefecture

Date: October 2013

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 - (1) Forest Usage Divisions (Zoning)
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 - (3) New Uses for Forests (Promoting Activities for Experiencing Nature)
5. Other Forest Conservation Initiatives
 - (1) Use Special Trees and Cleared Land that Is Currently Unused
 - (2) Promoting Selective Cutting

1. Promoting the Conservation and Environmentally Friendly Use of the Natural Environment

The Yambaru forest that extends to Kunigami Village, Ogimi Village, and Higashi Village plays a large number of important roles in its capacity as a forest containing water sources, a forest supplying forest products, a forest housing wildlife, a forest offering public health and culture, and a forest with regional resources.

Given this, in recent years the social demands surrounding the Yambaru forest have been growing more diverse.

The forests in Yambaru's three villages require appropriate management to enable the forests to exhibit their multi-functionality at a high level while also maintaining and augmenting this. They also require the revitalization of forestry as a local industry, and new forest uses to secure labor and employment.

On the other hand, there have been increasing calls seeking the conservation of this outstanding natural environment that is teeming with biodiversity.

Therefore, for the Yambaru forest "Yambaru-style Forestry" will continue to be promoted. This combines sustainable, recycling-oriented forestry and forest products industry with activities for experiencing nature in harmony with the environment as a means of conserving the natural environment and achieving its environmentally-friendly use.

When it comes to the promotion of this Yambaru-style Forestry, reference will be made to the opinions of knowledgeable experts based on scientific data. Coordination will be carried out with the government at the national, prefectural, and local levels, as well as forestry corporations, related organizations, and others. Measures will be carried out based on the various views and opinions of the prefectural residents.

2. Ideal Vision for the Forests in Yambaru's Three Villages

The forest in Yambaru's three villages has a variety of functions, which include cultivating water sources, producing lumber and other forest products, and public health and culture arising from coming into contact with nature. In addition, they play a large number of roles, including as a habitat for highly endemic wild flora and fauna and as forests that underpin the lifestyles and lives of the local residents.

Therefore, the forests in Yambaru's three villages will be put to use for the lifestyles and lives of the local residents while conserving the outstanding natural environment that is teeming with biodiversity. What is more, it will aim for forestry whereby the prefectural residents can enjoy the various public interest benefits that the forest offers in a continuous manner.

○ Forest containing water sources that nurtures the water of life

Aim for a forest containing water sources whereby the forests extending into the mountains catch the incessant rainfall, the tree roots creeping along the ground store the water droplets, and where ample cool and clear water bubbles up, sustaining the lives of the prefectural residents.

○ Forest supplying forest products in which its abundant gifts persist and are recycled

Aim for a forest supplying forest products that underpins the rich lifestyles, industry, and culture of the prefectural residents through the judicious use of the various benefits brought about by the flourishing forest and through the sustainable recycling of resources that strikes a balance with nature.

○ Forest housing wildlife in which living creatures are protected and nurtured

Aim for a forest housing wildlife where the various richly diverse and highly endemic living creatures are born into and nurtured by forests that are protected in a sustainable manner.

○ Forest offering public health and culture in which people can rest and relax

Aim for a forest offering public health and culture where people gather in a flourishing forest, experience nature through their five senses (sight, sound, smell, taste, and touch), play, learn, and are healed.

○ Forest that features regional resources that underpin people's lifestyles and protect and nurture the region

Aim for a forest with regional resources in which the ample benefits of the forest are maintained and the region is protected and nurtured with care.

3. Forest and Forestry Measures for Yambaru's Three Villages

The region as well as a broad range of prefectural residents enjoy the benefits from the forest in Yambaru's three villages, which include supplying water and forest products and as a location that promotes health and recreation.

Therefore, efforts will be made for the appropriate cultivation and management of the forest in an effort to promote and augment forest functions with a view towards allowing the forest to express its multi-functionality at a high level and express this in a sustainable manner.

○ Forest containing water sources (water and soil conservation function)

In the interest of supplying high-quality water in a stable manner, work to conserve water conservation forests and perform the management needed in order to improve water source protection functions.

○ Forest supplying forest products (function for producing lumber and other products)

In the interest of supplying lumber and other products in a sustainable and stable manner, perform forest conservation suitable for the birth and growth of forest trees and properly maintain them. In addition, make efforts for forest management and forest development that take the conservation of the natural environment into consideration.

○ Forest housing wildlife (biodiversity conservation function)

In the interest of maintaining a sound ecosystem, make efforts for the conservation of primeval natural forests and the habitats of rare wildlife, as well as the prevention of environmental disturbances.

○ Forest offering public health and culture (public health and culture function)

In the interest of using the natural environment in a reasonable manner, promote recreation as a place for residents to relax and use in the form of promoting health and for environmental education while giving forethought to the impact this has on the environment.

○ Forest that features regional resources (function for contributing to regional promotion)

In the interest of securing venues for labor and employment and promoting settlement in the region, promote sustainable, recycling-oriented forestry and forest products industry and continue working to develop activities for experiencing nature.

4. Forest Initiatives and Policies for Yambaru's Three Villages

(1) Forest Usage Divisions (Zoning)

Conservation and usage divisions will be established according to functions that should be emphasized from among the functions that the forest possesses. This is to allow for the forest's multi-functionality to be adequately exhibited, while promoting the planned use of the forest and appropriate forest management.

For the forests in Yambaru’s three villages, four classifications will be established in order to divide up usage: “Natural environment conservation districts,” “Water and soil conservation districts,” “Forestry production districts,” and “Forest usage districts.” These accord with the multi-functionality possessed by the forest, particularly its “Biodiversity conservation function,” “Water source protection function,” “Function for producing lumber and other products,” and “Public health and culture function.” This will be done with the goals of maintaining diverse forest ecosystems, maintaining and augmenting functions that stably underpin the dams and rivers that serve as water holders in regions of the main island of Okinawa, and promoting sustainable, recycling-oriented forestry.

● **Thinking behind the usage divisions for Yambaru’s three villages**

Usage divisions	Thinking behind the usage divisions
I. Natural environment conservation districts	
(1) Core areas	Districts with ecosystems that include highly endemic, rare wild creatures like the Okinawa woodpecker, Yambaru long-armed scarab beetle, Okinawa spiny rat, and other animals that only inhabit the primeval natural forest within the forests of Yambaru [areas where primeval natural forests will be maintained and passed down (core areas)]
(2) Buffer zones	Districts corresponding to core areas as buffer zones with the goals of linking core areas with other districts and stably maintaining the core areas [areas for ensuring the continuity and buffer-like characteristics of the natural environment conservation districts (buffer zones)]
II. Water and soil conservation districts	
(3) Water and soil conservation districts	Water source forest districts where dams and rivers will be maintained with the goal of stably providing the water that underpins the prefectural residents’ lifestyles and industry [areas where the emphasis is on the high-level expression of water and soil conservation functions, such as water source protection and the prevention of mountain disasters, etc.]
III. Forestry production districts	
(4) Emphasizing the natural environment	Districts in regions where the objective is forestry production where more environmentally friendly management is to be carried out by emphasizing the conservation of the natural environment because they adjoin natural environment conservation districts and water and soil conservation districts [areas where forestry production that emphasizes conservation of the natural environment is carried out]

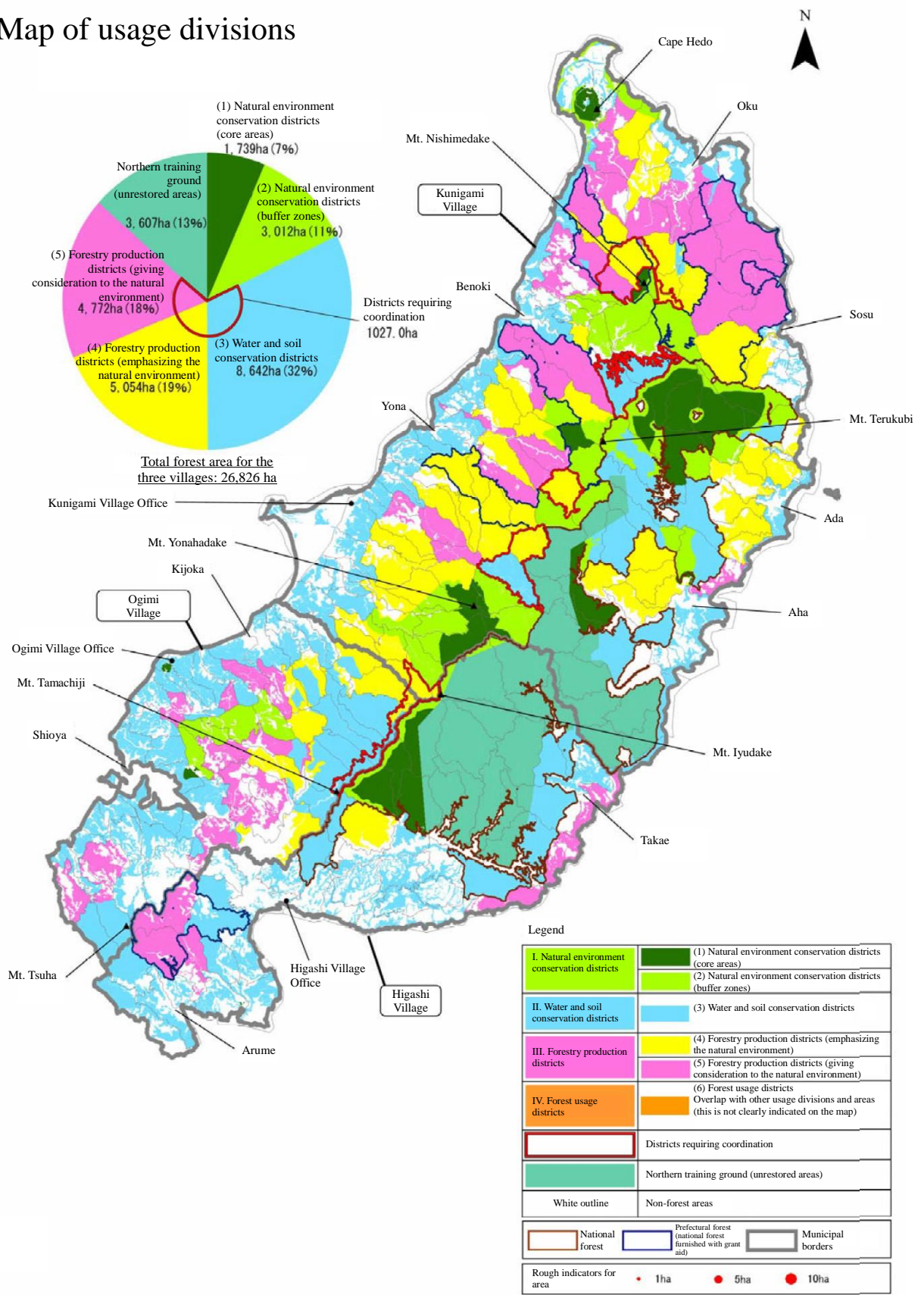
	(5) Giving consideration to the natural environment	Districts in regions where the objective is forestry production where logging areas are decentralized (made non-continuous), where efforts for conservation are made for the forest zones along ridges and the understory vegetation in valleys, and where management that is friendly to the natural environment is carried out while supplying lumber products in a stable manner [areas where forestry production that is friendly to the natural environment is carried out]
IV. Forest usage districts		
	(6) Forest usage districts	Districts where the forests are used as tools to create new industries (tourism industry) by those engaged in the forestry industry and local residents, to serve as districts for deploying activities to experience nature [areas where activities to experience nature by using forests while taking the natural environment into consideration are carried out]

For the time being, some parts of the forestry production districts and water and soil conservation districts (backbone mountain range areas and area surrounding Mt. Nishimedake) will be classified as “Districts requiring coordination,” which require coordination between the conservation and use of the natural environment. This will be done in the interest of conserving biodiversity and securing continuity between environmental conservation districts, as well as from the perspective of maintaining forest functions and conserving forests. Considerations over this will continue to be held between the concerned parties.

Furthermore, national forests will be managed based on the Regional Administration and Management Plan for Northern Okinawa, which was enacted by the national government (Forestry Agency). What is more, it was decided that part of the unrestored national forest from the northern training ground will be treated as a forest ecosystem reserve after it is restored.

As for prefectural forests, roughly 90% of these are national forests furnished with grant aid, and so therefore additional coordination with the national government will be needed for establishing the conservation and usage divisions.

Map of usage divisions



(2) Improving Forest Management and Forest Development

Efforts will be made to improve forest management and forest development according to the usage divisions based on continuity with the environmental conservation initiatives taken to date in order to further improve environmental conservation measures and mitigate the environmental impacts.

● Basic policies for forest management and management policies for each usage division

Usage divisions	Definitions/basic policies/management policies
I. Natural environment conservation districts	
<Definition> Areas where the emphasis is on the conservation of primeval natural forests	
(1) Core areas	<Basic policy> Work to maintain and pass down primeval natural forests without engaging in forest management
	<Management policy> <ul style="list-style-type: none"> • Do not harvest, conduct afforestation, or install road systems
(2) Buffer zones	<Basic policy> Carry out the bare minimum forest management while maintaining primeval natural forests
	<Management policy> <ul style="list-style-type: none"> • Perform long rotation forest management and develop multi-storied forests through the use of selective cutting of single trees and natural forces
II. Water and soil conservation districts	
<Definition> Areas where the emphasis is on the high-level exhibition of water and soil conservation functions, such as water source protection and the prevention of mountain disasters, etc.	
(3) Water and soil conservation districts	<Basic policy> Forest management that strives to maintain and improve water and soil conservation functions serves as the foundation
	<Management policy> <ul style="list-style-type: none"> • Develop multi-storied forests or single-storied forests through selective cutting, with long rotation forest management serving as the foundation for this • Perform clear cutting on small areas less than 1 ha large so long as it does not have an effect on water and soil conservation functions

<p>III. Forestry production districts</p> <p><Definition> Areas where the emphasis is on the production of lumber and other products in aiming for sustainable forestry production</p>	
<p>(4) Emphasizing the natural environment</p>	<p><Basic policy></p> <p>Engage in forest management that emphasizes the conservation of the natural environment and conserve and create diverse forest environments</p> <hr/> <p><Management policy></p> <ul style="list-style-type: none"> • Primarily carry out long rotation forest management and standard rotation forest management (the longer the rotation, the less the impact on the environment) • When performing clear cutting, it must be based on management regulations pursuant to the relevant laws and regulations. In addition, it should be minimized to small areas of 5 ha or smaller to the extent possible, and single-storied and multi-storied forests should be developed • When performing selective cutting, multi-storied forests should be developed as a general rule
<p>(5) Giving consideration to the natural environment</p>	<p><Basic policy></p> <p>Engage in forest management that gives consideration to the natural environment and conserve and create diverse forest environments</p> <hr/> <p><Management policy></p> <ul style="list-style-type: none"> • Primarily carry out long rotation forest management and standard rotation forest management • When performing clear cutting, it must be based on management regulations pursuant to the relevant laws and regulations. In addition, it should be minimized to small areas of 5 ha or smaller to the extent possible, and single-storied and multi-storied forests should be developed • When performing selective cutting, the development of multi-storied forests should be promoted • Promote the use of cleared land that is currently unused

● **Basic policies for forest management and management policies for each usage division**

Usage divisions		(1) Natural environment conservation districts (core areas)	(2) Natural environment conservation districts (buffer zones)	(3) Water and soil conservation districts	(4) Forestry production districts (emphasizing the natural environment)	(5) Forestry production districts (giving consideration to the natural environment)	
Management items							
Harvest management	[Forest management rotation]	Long rotation	○Do not perform harvest management (cutting prohibited)	○Promote long rotation forest management	○Perform long rotation forest management in some areas		
		Standard rotation			○Perform standard rotation forest management		
		Short rotation			○Perform short rotation forest management in some areas	○Promote short rotation forest management	
	[Cutting method]	Clear cutting		○Avoid clear cutting as a general rule	○Small clear cutting area (less than 1 ha)	○Clear cutting (perform on a single area less than 1 ha large, minimize the area to the extent possible)	
		Selective cutting		○Perform selective cutting of single trees	○Perform selective cutting to the extent possible (single trees, zones, copses)		
	[Harvesting method]	Cable				○Logging using cables (endless-Tyler system)	
		Machinery				○Logging using grapples	
		High performance forestry machinery		○Promote logging using tower yarders, swing yarders, and winched grapples			
	[Environmental conservation measures]	○Perform the necessary maintenance		○Conserve trees along valleys and along ridges, avoid and discontinue logging during the breeding season, decentralize logging locations, etc.			
	Clearing management	[Regeneration]		Natural regeneration	○Do not perform clearing management	○Perform natural regeneration (germination, natural seeding)	
Artificial clearing				○Regenerate via artificial clearing (germination, natural seeding according to the conditions)			
Single/multi-storied forests				○Promote multi-storied forest management	○Promote single-storied or multi-storied forest management		

	[Planting]	Broad-leafed/evergreen trees		○Plant broad-leafed trees as a general rule	○Plant broad-leafed trees or evergreen trees (Okinawa pine, etc.)		
	[Cultivated natural management]				○Perform this by giving consideration to the environment and water/soil conservation functions		
	[Environmental conservation measures]	○Perform the necessary maintenance	○Plant pre-existing species as a general rule	○Plant tree species (native species) with consideration for the environment			
					○Use cleared land that is currently unused		
Road system installation		○Do not install a road system		○Install the bare minimum road system necessary			
			○Use the existing road system, install service roads by taking the environment into consideration				

(3) New Uses for Forests (Promoting Activities for Experiencing Nature)

Continue to promote activities for experiencing nature that make use of the abundant forest resources in Yambaru, including forest tourism, forest therapy, forest environmental education, and hands-on forestry, that treat forests as places where prefectural residents and numerous other people can come into contact with nature (by playing, learning, and being healed).

● Usage policies for each usage division

Usage divisions		Contents
I. Natural environment conservation districts	(1) Core areas	<Definition> <ul style="list-style-type: none"> • Areas in which primeval natural forests are maintained and passed down <Usage policy> <ul style="list-style-type: none"> • Restrict access (use only for academic research, etc.) <Usage method> <ul style="list-style-type: none"> • Essentially refrain from using it
	(2) Buffer zones	<Definition> <ul style="list-style-type: none"> • Areas where the continuity and buffer-like characteristics of natural environment conservation districts are secured <Usage policy> <ul style="list-style-type: none"> • Aim to restrict, regulate, and supervise their use by treating primeval natural forests as resources, and use them based on the bare minimum development <Usage method> <ul style="list-style-type: none"> • Mainly forest tourism, forest therapy, forest environmental education, etc.
II. Water and soil conservation districts	(3) Water and soil conservation districts	<Definition> <ul style="list-style-type: none"> • Areas where efforts are made towards high-level expression of functions such as water source protection and the prevention of mountain disasters, etc.
III. Forestry production districts	(4) Emphasizing the natural environment	<ul style="list-style-type: none"> • Areas where the emphasis is on conservation of the natural environment or forestry production that gives consideration to the natural environment is carried out
	(5) Giving consideration to the natural environment	<Usage policy> <ul style="list-style-type: none"> • Aim to use these by installing walking paths and

		<p>facilities with consideration for the environment by treating the diverse forest resources and connections between people and the forest as resources</p> <p><Usage method></p> <ul style="list-style-type: none"> • Forest tourism, forest therapy, forest environmental education, forestry experiences, etc.
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5. Other Forest Conservation Initiatives

(1) Using Special Trees and Cleared Land that is Currently Unused

The decision was made to work to reclaim forests in the form of a conservation-oriented forestry and forest products industry with minimal environmental impact through a variety of initiatives. These include the use of special trees by using their fruits, leaves, stems, flowers, and more without cutting them down, and planting tree species that ripen early through the use of cleared land that is currently unused such as deserted arable land (non-farmland) and the sites of former lodging and amusement facilities.

(2) Promoting Selective Cutting

Efforts will be made to improve conditions for performing selective cutting, such as by establishing harvesting techniques suited to the actual sites, developing human resources to support the acquisition of techniques, and the adoption of forestry machinery. In addition, selective cutting will continue to be promoted through trials by conducting repeated demonstration tests on selective cutting and working to resolve the various challenges with the technique.

**Document 7. the Okinawa Prefecture Red Soil Erosion Prevention
Ordinance
(Excerpt)**

(Ordinance No. 36 from October 20, 1994)

(Omitted)

(Purpose)

Article 1

The purpose of this ordinance is to prevent the contamination of the water in public water areas by outflows of red clay (with this including the degradation of the sediment at the sea or river bed; the same hereafter), thereby contributing to securing a favorable living environment. This will be done by regulating outflows of red clay that arise as a result of construction work, promoting appropriate management of soil, and other such efforts.

(Definitions)

Article 2

For this ordinance, the definitions of the terms listed in the following items shall be used for the stipulations in each of the applicable items hereafter.

- (1) Red clay: Refers all soils such as Kunigami merge (excluding pebbles and sand content) and the caustic materials from soil base rock similar to this.
- (2) Outflows of red clay: Refers to cases where red clay flows out into public water areas as a result of rain water or the like.
- (3) Construction work: Refers to work that alters the form and nature of plots of land.
- (4) Construction sites: Refers to areas of land where construction work is carried out.
- (5) Specified construction workers: Refers to people who perform construction work on a patch of land that is 1,000 m² or larger in size (excluding the national government and other organizations stipulated in regulations (hereafter referred to as the “national government and others”)).
- (6) Construction contractors: Refers to people to whom works related to construction work is contracted by specified construction workers (including people subcontracted to perform work via a subcontract).
- (7) Public water areas: Refers to public water areas as prescribed in Paragraph 1, Article 2 of the Water Pollution Prevention Act (Act No. 138 from 1970).

- (8) Facilities for preventing outflows of red clay: Refers to facilities (including provisional facilities) that store water that has been contaminated by red clay or that prevent outflows of red clay.
- (9) Equipment for preventing outflows of red clay: Refers to equipment with functions for filtering water contaminated with red clay or equipment stipulated in other regulations.

(Preventing Outflows of Red Clay)

Article 3

Those who perform construction work must strive to take the necessary measures to prevent outflows of red clay from the construction site in question.

(Standards for Facilities for Preventing Outflows of Red Clay, etc.)

Article 4

The Governor must establish standards concerning facilities for preventing outflows of red clay and standards concerning the management of said facilities via regulations in an effort to prevent the contamination of the water in public water areas as a result of outflows of red clay.

2. The Governor must first hear the opinions of the Okinawa Prefecture Environmental Council when working to establish standards concerning facilities for preventing outflows of red clay and standards concerning the management of said facilities. The same shall apply when attempting to alter or abolish these standards.

(Obligation to Establish Facilities for Preventing Outflows of Red Clay, etc.)

Article 5

When performing the construction work in question, specified construction workers must establish facilities for preventing outflows of red clay that conform to the standards concerning facilities for preventing outflows of red clay stipulated per the regulations in Paragraph 1 of the preceding article (hereafter referred to as “facility standards”). They must also perform management of the facilities in question per the standards concerning the management of the facilities for preventing outflows of red clay established per the regulations in this same paragraph (hereafter referred to as “management standards”).

2. Regardless of the regulations from the preceding paragraph, when specified construction workers perform the construction work stipulated in the regulations, the Governor may deem it suitable so long as there is equipment for preventing outflows of red clay and in light of the conditions at the construction site in question.

(Notification of Construction Work)

Article 6

When working to carry out the construction work in question, specified construction workers must notify the Governor of the following matters per the stipulations found in the regulations.

- (1) Full name or name and title, address, and the name of the representatives of corporations
- (2) Project name
- (3) Location of the construction site
- (4) Area of the construction site
- (5) Contents of the construction work
- (6) Structures, arrangements, and management methods for facilities for preventing outflows of red clay, or the types and usage methods for equipment for preventing outflows of red clay
- (7) Other matters stipulated via the regulations

(Notification of Changes to the Area of the Construction Site, etc.)

Article 7

(Omitted)

(Notification of Changes to the Name, etc.)

Article 8

(Omitted)

(Construction Work Notices)

Article 9

When the national government and others work to carry out construction work on a patch of land that is 1,000 m² or larger in size, they shall provide notice to the Governor regarding the matters listed in the items in Article 6.

2. When the national government and others would like to make changes to any of the matters listed in Items 4–6, Article 6 regarding the notices per the provisions of the preceding paragraph (excluding any minor changes stipulated in the regulations), or there have been changes to the matters listed in Items 1, 2, or 7 of said article, then they shall provide notice to the Governor to this effect.
3. The Governor shall consult with the national government and others regarding matters pertaining to the notices per the provisions of the preceding two paragraphs when it has been deemed necessary to do so.
4. The provisions of the preceding three paragraphs shall apply to local governments and other organizations stipulated in the regulations, regardless of the provisions of Article 6.

(Orders to Change Plans)

Article 10

In cases where notification has been provided as per the provisions of Articles 6 or 7, the Governor may order the person who provided said notification to make changes to plans concerning facilities for preventing outflows of red clay or their management methods, or to equipment for preventing outflows of red clay. Such orders can be given when the facility for preventing outflows of red clay for which notification was provided has been deemed as failing to conform to the facility standards, or when their management methods have been deemed as failing to conform to the facility standards, or when prevention measures by using equipment for preventing outflows of red clay have been deemed to be insufficient, so long as it is within 45 days from the date the notification was received.

(Restrictions on the Performance of Construction Work)

Article 11

People who have provided notification per the provisions of Article 6 and those who have provided notification per the provisions of Article 7 must refrain from performing the construction work for which notification was provided or performing matters for which notification was provided for said changes, respectively, unless more than 45 days have elapsed from the date on which the notification was received.

2. When the contents of the matters for which notification was provided per the provisions of Articles 6 or 7 have been deemed suitable, the Governor can shorten the period stipulated in the preceding paragraph.

(Appointment of Supervisors in Charge of Preventing Outflows of Red Clay, etc.)

Article 12

Specified construction workers must appoint supervisors in charge of preventing outflows of red clay and construction contractors must appoint red clay outflow prevention managers, respectively.

2. The supervisors in charge of preventing outflows of red clay and red clay outflow prevention managers must make efforts to offer guidance and supervision for the workers engaged in the work as well as to implement the matters stipulated in the regulations when it comes to measures to prevent outflows of red clay.

(Transfer of Approval)

Article 13

(Omitted)

(Improvement Orders, etc.)

Article 14

When the person who provided notification per the provisions of Article 6 or their construction contractors carry out construction work or construction in violation of the matters for which notification was provided per the provisions of said article, matters for which notification was provided per the provisions of Article 7, or matters ordered per the provisions of Article 10, the Governor may order said people to take the necessary improvements within a set timeframe or order a temporary suspension of the construction work or construction.

(Measures Resulting from the Discontinuation of Construction Work, etc.)

Article 15

In the event that the person who provided notification per the provisions of Article 6 wishes to discontinue or suspend the construction work for which notification was provided, they must take the appropriate measures in light of the condition at the construction site in question using the method stipulated in the regulations to prevent outflows of red clay from the construction site for which they are attempting to discontinue or suspend construction. They must also notify the Governor to this effect.

2. When the Governor deems that the measures for which notification was provided per the provisions of the preceding paragraph were not adequate in light of the conditions at the construction site in question, they may order the person who provided said notification to take the measures necessary in order to prevent outflows of red clay.

(Orders to Suspend Construction Work Without Notice, etc.)

Article 16

When a person who should have provided notification per the provisions of Article 6 is carrying out construction work without having provided the notification stipulated in this article, the Governor may order said person to either suspend the construction work or take the measures necessary to prevent outflows of red clay.

(Management of Land Provided for Purposes of Cultivation, etc.)

Article 17

Persons who manage land provided for purposes of cultivation (hereafter referred to as “cultivated land”) must work to manage the land in question by installing things like ridges in the surrounding areas to ensure that red clay outflows do not occur from said land, promoting aggregation of the soil, and so on.

2. In cases where debris basins, check dams, and other structures have been installed due to the clearing of cultivated land, the persons managing the facilities in question must make efforts to manage them so as to ensure that said facilities can function smoothly.

(Management of Other Land)

Article 18

Persons managing land other than cultivated land (hereafter referred to as “other land”) must make efforts to manage the land in question through measures like planting lawn grass or laying gravel out on said land when there are concerns over outflows of red clay occurring from this land. In addition, when facilities for preventing outflows of red clay and the like are installed, they must make efforts to manage them so as to ensure that said facilities can function smoothly.

(Guidance for the Managers of Cultivated Land, etc.)

Article 19

In the event that considerable outflows of red clay are occurring from cultivated land or other land, the Governor may give orders to the person managing the land in question to prevent said outflows of red clay.

(On-site Investigations)

Article 20

The Governor can request reports on the status of measures to prevent outflows of red clay from persons who have provided notification per the provisions of Article 6, persons who are performing construction work even though they failed to provide notification per the provisions of Article 6 despite the fact that they should have done so, or their construction contractors. Additionally, the Governor may also have said personnel go on-site to the construction sites or offices of said persons and have them investigate things like the facilities for preventing outflows of red clay, equipment for preventing outflows of red clay, and so on. These may be done within the extent needed in order to enforce this ordinance.

2. The personnel who perform the on-site investigations per the provisions in the preceding paragraph must carry with them a personal identification card and present this to the concerned parties.
3. The jurisdiction for the on-site investigations per the provisions of Paragraph 1 may not be interpreted as being the same as those recognized for the sake of criminal investigations.

(Exemptions)

Article 21

This ordinance shall not apply to construction work carried out as part of emergency measures necessary due to extraordinary disasters.

(Enactment of Comprehensive Policies, etc.)

Article 22

The Governor shall enact comprehensive policies concerning measures to prevent outflows of red clay and implement these. The Governor shall also promote research related to measures to prevent outflows of red clay, and make efforts to disseminate the results of this.

(Delegation to Regulations)

Article 23

Matters necessary for the enforcement of this enforcement will be stipulated in regulations.

(Transitional Measures)

Article 24

In the event that regulations are enacted or abolished pursuant to the provisions of this ordinance, the required transitional measures (including transitional measures concerning penalties) can be established through said regulations within the scope deemed necessary in a rational sense as a result of their enactment or abolition.

(Penalties)

Article 25

Fines of up to 500,000 yen will be imposed upon anyone who violates the orders per the provisions of Article 10, Article 14, Paragraph 2, Article 15, or Article 16.

2. Fines of up to 200,000 yen will be imposed upon anyone who fails to provide notification per the provisions of Article 6, Article 7, or Paragraph 1, Article 15, or who provides a false notification.
3. Fines of up to 100,000 yen will be imposed upon anyone to whom the following items apply.
 - (1) Anyone who violates the provisions of Paragraph 1, Article 11
 - (2) Anyone who fails to provide a report per the provisions of Paragraph 1, Article 20 or who provides a false report; or anyone who refuses, obstructs, or evades an on-site investigation

(Dual Liability)

Article 26

If the representative of a corporation or a corporation, or a personal agent, user, or other employee should engage in the violations from the preceding three articles in relation to the management of said corporation, or personal business, then the perpetrator shall be punished and the penalties from each of these articles shall be imposed on the corporation or individual.

Supplementary provisions

(Effective date)

1. This ordinance will enter into force starting from the date stipulated in the regulations within a period not to exceed one year from the date of promulgation. However, the provisions of Paragraph 2, Article 4 will enter into force on November 1, 1994.

(Regulation No. 63 from October 1995; entered into force on October 15, 1995)

(Omitted hereafter)

Document 8. Gesashi Mangrove Tourism Use

[Guide/Business Operator Rules]

■ Regions where the rules apply:

These rules cover tourism use and activities in the Gesashi River flood plain (Minatobaru 569/691—former Gesashi Fishing Harbor) and the Fureai Hirugi Park area.

■ Persons targeted:

These rules apply to guides and business operators who have applied for registration with or been approved for registration by the Higashi Village Tourism Promotion Office.

○ Shared rules on environmental conservation

- 1) The collection (and picking) of flora and fauna is prohibited within the designated region.
- 2) Visitors must not go down into the tidal flats. In addition, warnings must be issued to anyone seen heading down to them.
- 3) The feeding of wildlife is prohibited.
- 4) If anyone picks up a fallen plant to observe it, they must return it to its original location. The temporary capture of animals for purposes of observation may only be performed by first requesting to change the current conditions in advance and be carried out through the approved observation methods.
- 5) Environmental monitoring activities in the field must be carried out periodically.
- 6) If any environmental impacts should arise, they must be eliminated as part of environmental conservation activities by means of taking procedures to apply to change the current status of natural monuments through consultations with the concerned parties, such as by altering the tour route.
- 8) Clean-up activities must be carried out in the field periodically and as needed.
- 9) Alternate fields must continue to be used in a proactive manner in order to prevent the fields used from being concentrated in a single location in Gesashi.
- 10) Power boats for purposes of tourism and leisure are prohibited from entering. However, this shall not apply in the event of emergencies or evacuations. The opinions of the local residents must be reflected when it comes to other instances where power boats may enter the area.
- 11) Lectures on environmental conservation must be carried out when the tours start on matters like the natural monuments and usage rules.
- 12) Visitors must go to the restroom before the tour starts.
- 13) All garbage must be brought back.

- 14) Vehicles must be turned off when parked in the parking lot.
- 15) Smoking is prohibited during the tours.

○ **Shared rules on safety management**

- 1) Tour operators must enroll in damage insurance for the tour participants, and must also enroll in liability insurance of 100 million yen or more as a countermeasure against liability for damages when accidents occur.
- 2) Weather information must be confirmed before tours leave. The decision to either suspend tours or carry on with them must be made by confirming the onsite conditions when warnings (heavy rains, flooding, snow, wave surges, storms) and advisories are issued. At the same time, decisions to resume the tours must be made by looking at the onsite conditions and weather (prediction) maps when said warnings are called off.
- 3) Responses must be taken quickly when emergencies occur, and the emergency contacts that have been listed up must be notified.
- 4) Guides must carry emergency supplies with them.
- 5) Guides must encourage visitors to stay hydrated and wear hats in order to prevent heatstroke and sunstroke.
- 6) If a guide catches site of any dangerous spots or dangerous animals (beehives, pit vipers, etc.), after first confirming that it is safe they must warn other guides in the area, while also informing the Higashi Village Tourism Promotion Office and the Village Office (Environmental Health and Sanitation Department) and requesting their eradication. The Promotion Office will promptly alert the various operators of this.
- 7) Before embarking on a tour, the participants must undergo a health check, and if the operator determines that someone's participation will pose a hindrance to the tour, they may bar said person from participating in the tour. With regard to individual tours, guides must provide the participants with warnings regarding participation in the tour and have them sign a liability waiver prior to the start of the tour. For group tours, they must gain the participants' understanding, such as by verbally warning them of and explaining to them the contents of this consent form verbally.
- 8) Before the tour starts, guides must warn the participants that they are prohibited from engaging in conduct like smoking, drinking alcohol, or exposing their top half. They may bar participants from participating if they fail to heed said warnings. After the tour starts, guides are to warn participants when they engage in risky behaviors like intentionally capsizing their boats, and if they fail to heed said warnings the guide must stop the tour.

○ **Rules for embarking on canoe tours**

- 1) When traveling with the canoes, participants must comply with traveling on the left-hand side.

- 2) The limit for the number of participants that a single guide can lead shall be set at five double boats.
- 3) The canoes must be ridden with the proper posture, including the seating position, and participants must maintain said posture when riding in them.
- 4) The canoers must faithfully adhere to and be proficient at the basic method of rowing.
- 5) The canoers must know the techniques for freely operating their canoes, such as for moving forward, moving backward, stopping, and changing direction.
- 6) The canoers must be able to quickly right themselves when they capsize. They must also be able to quickly right other boats when they capsize and aid people who have fallen out.
- 7) The canoers must be able to pull other boats and passengers who have been rendered incapable of rowing under their own power as is.
- 8) No one may enter the tidal flats, except when emergencies occur (strong winds, lightning, physical incapacitation, accidents, injuries, etc.).
- 9) No one may enter the tidal flats at location No. 5. Likewise, no one may pass through them from this same location from either the upstream or downstream directions.
- 10) For group tours, as a general rule (the guide will make a decision on this by observing the users' skill at operating their canoes and the congestion on the river) groups of ten boats must use the mangroves as their final turnaround point, while groups of 20 boats must use the section right before the curve in the river as their final turnaround point (they will reach the location numbers on the map).
- 11) Tour groups must reduce their speed and slow down when traveling upstream from the large bridge at Gesashi, with guides instructing the participants to do so.

○ **Safety management rules for canoe tours**

- 1) Participants must thoroughly comply with wearing life jackets.
- 2) They must wear clothing underneath their life jackets.
- 3) They must wear clothing and footwear that can handle changes in the weather when riding in the canoes.
- 4) The number of guides must be increased when the weather conditions warrant it.
- 5) Participants must undergo a health check prior to boarding, and the guides must give them a lecture on precautions for safety management.
- 6) The guides must carry a cell phone, wireless radio, and tow ropes with them.
- 7) Each operator must have at least one or more guides attend a lecture on water safety techniques and rescue given by the Japanese Red Cross Society. They must also uphold the renewal deadline and constantly maintain their knowledge and skills with regard to rescue and relief.

8) The guides must attend the rescue courses periodically held by the Higashi-son Eco-Tourism Association.

Document 9. Iriomotejima Canoe Association Rulebook (Excerpt)

1. General Provisions

1) Environmental conservation

- (1) Canoe touring and similar activities must be carried out by striving to conserve the natural environment on Iriomote Island (Memorandum on the Protection of Flora and Fauna and the Conservation of the Natural Environment from October 25, 1999).
- (2) Trash may not be thrown out. Association members must work to clean up the locations where they hold tours (Voluntary Rules from April 14, 2006).
- (3) Participants may not recklessly collect plants and animals during the tours (Voluntary Rules from April 14, 2006).

(Omitted)

4) Tour operation

Association members must comply with the provisions found in the rulebook. Together with this, they must also monitor the guides affiliated with their business establishments to ensure they are complying with the provisions (Voluntary Rules from April 14, 2006).

2. Regions surrounding Pinaisara and Funaura Bay

- (1) Guides must carry with them the guide certification cards issued by the Association while giving tours (Voluntary Rules from April 14, 2006).
- (2) The requirements for the issuance of guide certification cards are listed below.
 - a) They must attend lifesaving courses held by the Fire and Disaster Management Agency and others.
 - b) Only one guide certification card per person (guides cannot possess guide certification cards for several shops at the same time).
(Regular general meeting from March 28, 2011)
- (3) For-profit guided tours using non-motorized boats must have no more than eight people per party (Special general meeting from January 10, 2007).
- (4) A single operator can guide up to a maximum of 14 guests per day. However, the number of people that a single guide can guide shall be limited to no more than seven people. For eight or more people, several groups must be sent out independently (Voluntary Rules from September 1, 2002).

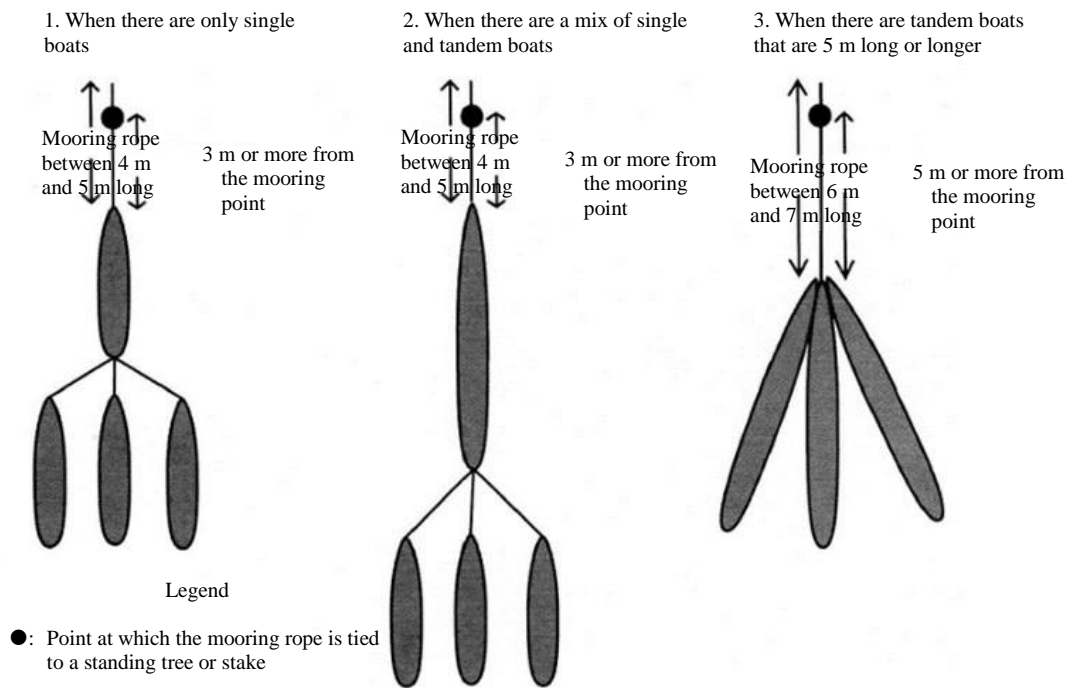
With up to three guides per day, the maximum number of guests is 14 people. If there are four or more guides, then they will be counted among the number of guests (for example, if there are four guides then the maximum number of guests would then be 13 people).

The number of people that can be guided per day by business operators that have newly enrolled shall be considered to be half the number from these Voluntary Rules for one year, unless wharfs or the like are set in place (Voluntary Rules from October 16, 2003/Revised on April 14, 2006 and January 10, 2007).

- (5) For guided tours and rental canoes together, the maximum number of guests per operator per day shall be 14 people. However, elementary school students and younger children (less than six years old) will not be included in this number. The requirement is that elementary school students and younger children must not be given a paddle. If they are given a paddle, then they will be included in the number of guests (Voluntary Rules from September 10, 2003/Revised at the regular general meeting on April 5, 2005/Revised on April 14, 2006/Revised at the special general meeting on January 10, 2007).
- (6) When the schools and children's associations within Taketomi Town go on guided tours, the provisions from 2-2, 2-3, 2-4, 2-5, and 2-6 shall not apply. However, they must be accompanied by at least one guide who belongs to the Association, and ten children must be accompanied by one or more chaperones. Guides who belong to the Association, teachers, and parents of the children can serve as chaperones (Revisions to the Voluntary Rules from April 14, 2006).
- (7) Operators offering rentals of canoes and the like are to prepare guide maps that include the usage rules, which they are to distribute to users and ensure their compliance with them (Memorandum).
- (8) Guests must comply with the following rules when they bring animals (especially dogs) with them on the tour.
 - a) Animals must be kept on a leash.
 - b) Guests must be responsible for animal's feces and the like to ensure that this does not pose a problem for others.
 - c) Animals may not be allowed to swim in the plunge basin below the waterfall. However, the state of affairs resulting from these voluntary rules will be observed, and will be reconsidered if any problems should arise (Voluntary Rules from April 25, 2003).
- (9) Camping and bonfires are prohibited in the area around Funaura Bay and Pinaisara (Voluntary Rules from April 14, 2006).
- (10) The use of megaphones is prohibited except when they are needed for safety reasons (Memorandum).
- (11) When participants are allowed to swim in the plunge basin below waterfalls, due consideration must be given to safety. Moreover, the following activities are prohibited.

- a) Standing directly under the waterfall at Pinaisara Falls so that the water strikes you.
 - b) Jumping into the plunge pool from atop the tall rocks at Pinaisara Falls and Nishida Falls.
- (Voluntary Rules from April 14, 2006)

(12) Mooring ropes that are between 4 m and 5 m long (for tandem boats with a length of about 5 m, then mooring ropes between 6 m and 7 m long) are to be used, and a distance of 3 m or more should be left between the mooring point and the boats (for tandem boats with a length of about 5 m, 5 m or more). The mooring should be performed as shown in the diagram. When there are a large number of boats they can be divided up to ensure that they do not get in the way when mooring the other canoes and so forth. Guidance should be given so that the mooring of rental canoes is done in the same way (Voluntary Rules from March 15, 2004/Voluntary Rules from April 14, 2006).



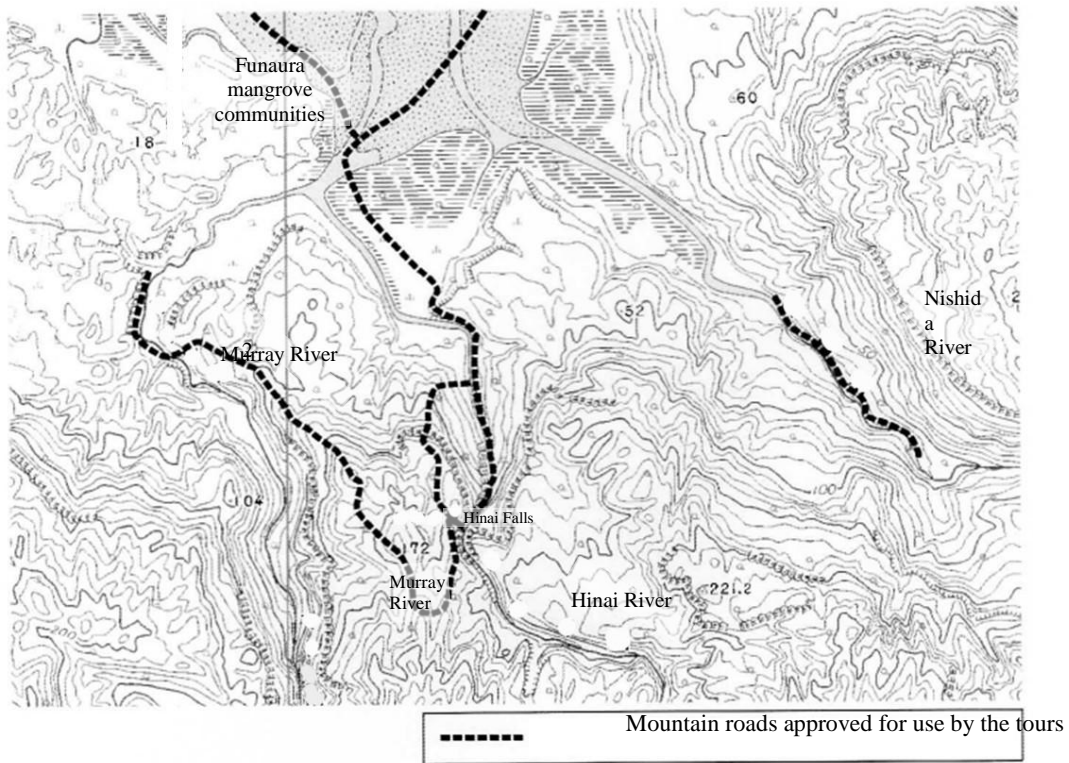
(13) No other means of for-profit forest entry within natural recreation forests may be used aside from existing mountain roads.

(Regular general meeting from April 5, 2005)

These existing mountain roads refer to the mountain roads listed below.

- a) Between Pinai River canoe yard–Pinaisara Falls plunge basin
- b) Between Pinai River canoe yard–upper Pinaisara Falls
- c) Between Funaura Bay–Pinai River canoe yard
- d) Between the Murray River canoe yard–upper Pinaisara Falls

e) Between the Nishida River canoe yard–Nishida Falls



(14) Guides must not hold tours while leaving their canoe platform trucks (trailers) parked along Kaichu Road or the Funaura Harbor slope. Tours should start after trailers have been moved to the Funaura Harbor parking lot.

(Omitted hereafter)

**Document 10. Okinawa Prefecture Guidelines on Natural Environment
Restoration: Restoring a Lush Natural Environment and Handing
Down a Beautiful Island to Future Generations
(Excerpt)**

Preparer: Okinawa Prefecture

Date: March 2015

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Part 1 Aiming to Restore the Natural Environment Unique to Okinawa

Chapter 1 Aim of the Guidelines on Natural Environment Restoration

(Omitted)

1. Background and Objectives behind the Formulation of the Guidelines

(Omitted)

As part of this, Japan entered the Act on the Promotion of Nature Restoration into force in 2005 with the goal of restoring the ecosystems and other natural environments that had been tarnished in the past. Based on this law, projects to restore the natural environment and other such initiatives have been carried out nationwide.

In Okinawa Prefecture, initiatives for the Sekisei Lagoon, which is one of the largest coral reef regions in Japan, have been advanced on the basis of this law. However, there were no guidelines that systematically arranged information like the characteristics of natural environments that had been lost, challenges concerned with the restoration of the natural environment, and points to keep in mind when promoting projects to restore the natural environment. Therefore, the Guidelines on Natural Environment Restoration were recently enacted, to compile together these necessary matters.

2. Positioning of the Guidelines

The Act on Special Measures for the Promotion and Development of Okinawa (Act No. 14, 2002) stipulates that “The national and local governments shall take measures that aim to maintain and rehabilitate ecosystems, as well as all other necessary measures, in order to contribute to the conservation and restoration of the natural environment in Okinawa.” What is more, it advocates for the “Conservation, restoration, and appropriate use of the natural environment,” which is a fundamental measure found in the Basic Plan for 21st Century Vision of Okinawa (2012), which was enacted pursuant to this law.

Okinawa Prefecture enacted various guidelines, plans, and so forth as shown in Fig. 1-1 to promote these measures. Up until that point, nothing had been enacted that placed emphasis on measures concerning the restoration of the natural environment.

Therefore, these guidelines were enacted as a specific initiative in an effort to promote and strengthen projects to restore the natural environment. It will be necessary to continue working to restore the natural environment unique to Okinawa while coordinating with related plans, as well as plans and measures for each sector.

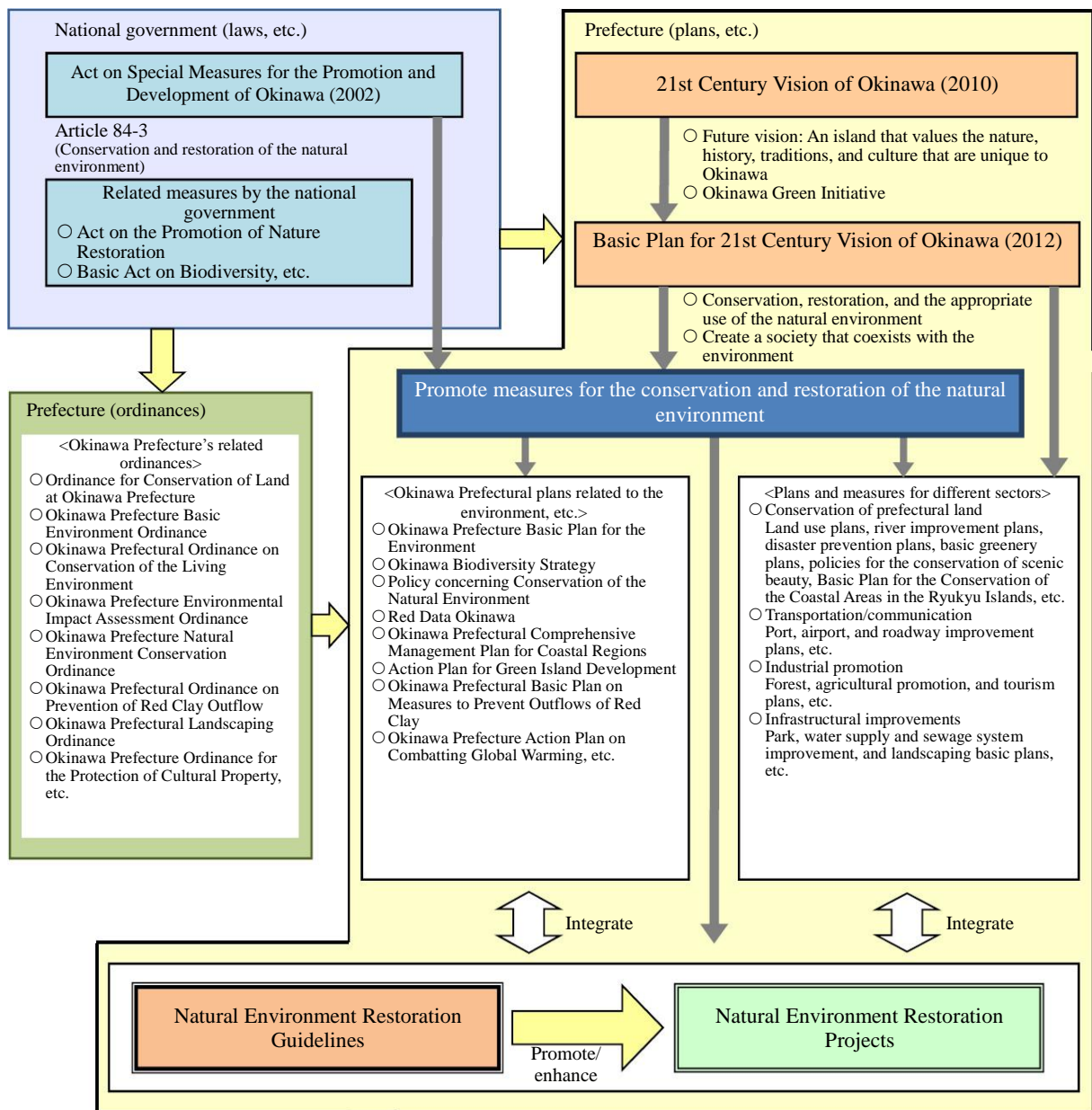


Fig. 1-1 Positioning of the Guidelines on Natural Environment Restoration

3. Fundamental Principle of the Guidelines

Human activity is one element found within ecosystems that comes about as a result of the influence exerted by nature and our dependence on nature. There is also the fact that since time immemorial humans have lived within nature, maintained connections between people and nature, and preserved this harmony, thereby maintaining the natural environment.

The natural environment has brought about numerous benefits for mankind and has served as the source of a culture of abundance. For this reason, we have made it the fundamental principle of these

guidelines to restore the abundant natural environment that has been tarnished as a result of the industrial and human activities carried out in the past so as to pass down a beautiful island to future generations. For this, we will restore the lost soundness and biodiversity of ecosystems, further deepen connections between people and nature, and maintain and improve these conditions.

What is more, in order to restore the natural environment based on these fundamental principles, “Restoring sound ecosystems,” “Ensuring biodiversity,” “Contributing to the creation of venues for interacting with nature,” and “Contributing to disaster prevention and mitigation” were defined as basic policies, and will continue to be promoted.

(Omitted)

Part 2 Basic Thinking on Projects to Restore the Natural Environment

Chapter 1 Implementation Details for Projects to Restore the Natural Environment

(Omitted)

2. Implementation Procedures for Projects to Restore the Natural Environment

The basic procedure for projects to restore the natural environment is shown in Fig. 2-2 and Table 2-1. This starts with an idea and drafting, then considering a concept and plan, performing construction work based on the concept and plan, and then striving to make use of the restored natural environment while maintaining it as well. There are projects that emphasize natural restoration and projects coordinated with infrastructural improvements, which differ in terms of points like whether or not an overall concept is created for them and the manner in which they are involved in the local region. An outline of their implementation procedures is shown in (1)–(4) below.

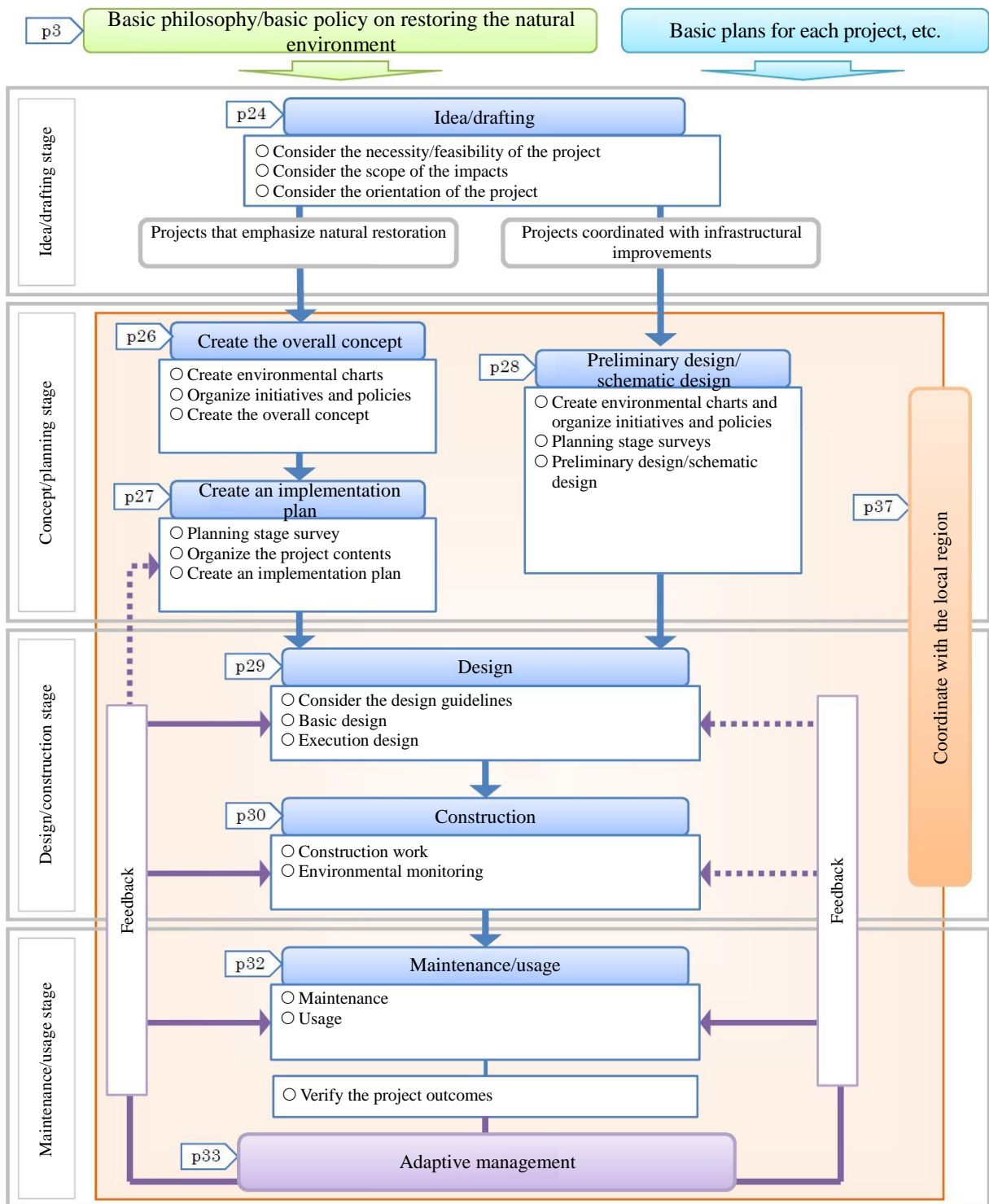


Fig. 2-2 Overall flow for projects to restore the natural environment

Table 2-1. Implementation procedures for projects to restore the natural environment

	Projects that emphasize natural restoration	Projects coordinated with infrastructural improvements
Idea/drafting stage	<p>○ Idea/drafting</p> <p>In aiming to instantiate initiatives for restoring the natural environment, engage in the considerations necessary in order to clarify the project’s category and the need for coordination with other projects. This is to be done before considering the concept and plans for restoring the natural environment.</p>	
Concept/planning stage	<p>○ Create the overall concept</p> <p>Prepare environmental charts that organize the conditions in the natural environment and social environment. Then, based on their contents, organize policy guidelines for natural environment restoration, and create the “overall concept” by aiming to build consensus with the local region.</p>	<p>○ Preliminary design/schematic design</p> <p>Organize the conditions in the natural environment and social environmental, as well as content concerning the restoration of the natural environment while aiming for integration with the basic plans (higher-level plans) of each project. Then, incorporate this into the preliminary design and the schematic design.</p>
	<p>○ Create an implementation plan</p> <p>Perform planning stage surveys with a view towards formulating an implementation plan. Based on the results of these surveys and the overall concept that has been created, create an “implementation plan” that instantiates the project contents.</p>	
Design/construction stage	<p>○ Design</p> <p>Based on the results of the examinations from the concept/planning stage, create designs (basic design/execution design) that incorporate the items necessary to get started on the project (start construction).</p>	
	<p>○ Construction</p> <p>Carry out the construction work onsite based on the designs. In addition, perform the necessary surveys to confirm the impact on the environment (environmental monitoring) regarding the construction work.</p>	

Maintenance/ usage stage	<p>○ Maintenance/usage</p> <p>After the construction work is finished, strive for the maintenance and usage of the natural environment based on the content from the concept/planning stage, and verify the project outcomes.</p>
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* In promoting projects, it is important to continue to carry out initiatives based on the “Regional ecosystem networks” discussed in this section, as well as those based on the thinking behind the “Adaptive management” and “Coordination with the local region” discussed in Chapter 2.

(Omitted)

Chapter 2 Points to Keep in Mind regarding the Implementation of Projects to Restore the Natural Environment

(Omitted)

1. Adaptive Management

In order to implement projects to restore the natural environment, it will be necessary to continue making progress with a philosophy of “adaptive management” serving as the foundation. Adaptive management involves performing monitoring and evaluations on the state of the natural environment and reflecting this into things like the design, construction, and maintenance/usage in order to achieve the project’s targets.

(1) The Adaptive Management Approach

Adaptive management refers to an approach of setting appropriate management targets, performing verifications and assessments by monitoring whether these targets have been achieved or not through the construction work and maintenance/usage, and flexibly adapting through coordination with the local region in order to achieve the project’s targets. This takes into consideration the fact that the ecosystems and other natural environments that are targeted by projects to restore the natural environment are constantly changing, and that unforeseen circumstances arise (Fig. 2-5).

The items shown below are considered and arranged when implementing adaptive management.

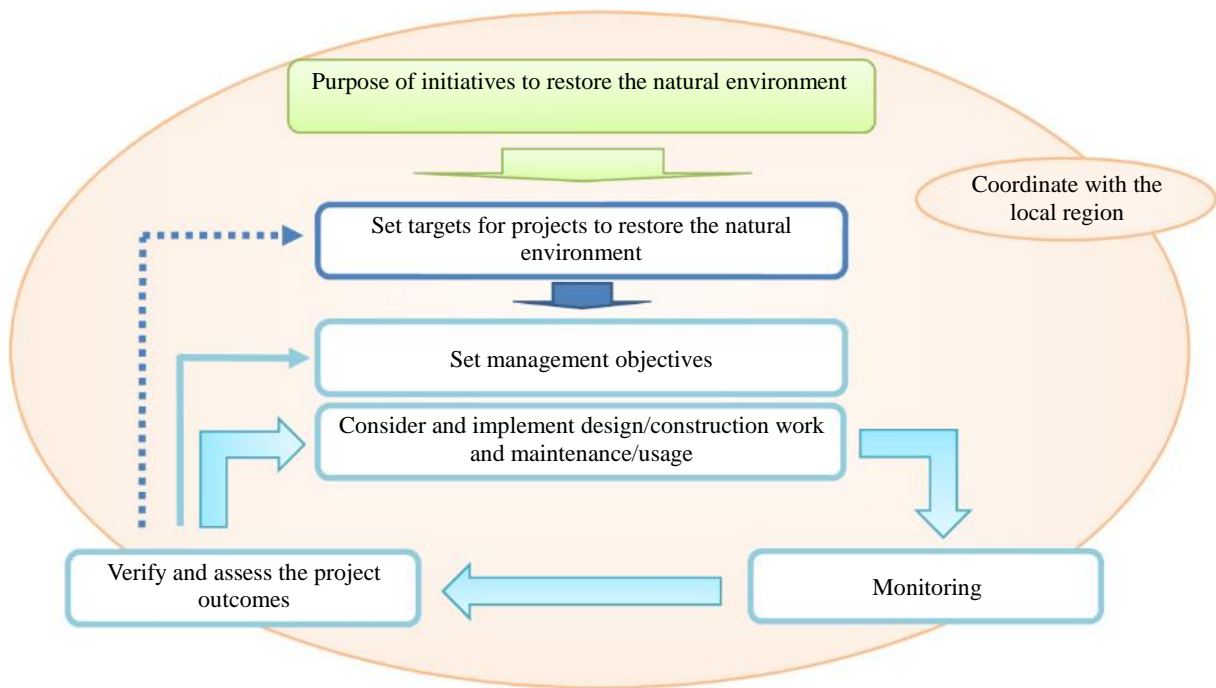


Fig. 2-5 Image showing the process of adaptive management

(Omitted)

(2) Creating Cooperative Structures

It will be important to create structures for ensuring sustainability in order to promote adaptive management. Therefore, consideration will be given to the items indicated below based on “2. Coordination with the Local Region” in order to create cooperative structures for this.

1) Creating Structures to Perform Monitoring

(1) Cooperative Structures with the Local Region

Monitoring and maintenance are exacting tasks that must be performed by manual effort, and which require a long-term perspective attuned to the cycle of natural transitions. Therefore, it is necessary to seek the cooperation of local residents, various organizations, and others in creating sustained arrangements that are rooted in the local region.

(2) Consider Establishing the Natural Environment Restoration Monitoring Review

Committee (provisional title)

Scientific verifications will be performed on the monitoring results, and the contents of projects will be revised on the basis of these results. A Natural Environment Restoration Monitoring

Review Committee (provisional title) that is comprised of experts, academics, and other specialists should be established for this.

2) Division of Roles

Ideally, an arrangement should be created whereby the local residents, various organizations, the government, and others take part from the initial maintenance/usage stage by discussing and sharing the targets and monitoring methods.

Table 2-4 and Fig. 2-7 show an image of the division of roles for monitoring.

Table 2-4. Image of the division of roles for monitoring

Participant	Role
Local residents, various organizations, etc.	Perform surveys to get a grasp of the day-to-day environmental changes in the targeted regions by using simplified monitoring. If there are people with expert knowledge present in the region, consider arranging it so that project implementers carry out the surveys.
Researchers, etc.	Promote research of a high degree of difficulty, and assess the results of projects to restore the natural environment. Offer proposals concerning points of improvement for and feedback on design/construction work and maintenance/use.
Project implementers	Periodically make efforts to get a grasp of the natural environment over a broad area.

(Omitted)

2. Coordination with the Local Region

In each of the stages of “Concept/plan,” “Design/construction,” and “Maintenance/usage” of projects to restore the natural environment, the projects will be promoted by working to ensure the participation of and coordination between a diverse array of entities in the local region. This shall be done via coordination with the local region suited to each stage. The basic thinking behind this will be indicated in this section.

(Omitted)

(2) Basic Thinking behind Coordination with the Local Region

(Omitted)

2) Image of Local Participation in Projects to Restore the Natural Environment

(1) Participating Entities

The people listed below are thought of as participating entities (individuals or organizations/corporations) for projects to restore the natural environment.

- Project implementers (people who would like to implement the project)
- Participants (people who would like to participate in the project)
 - Local residents, NPOs and other similar organizations, as well as various other organizations (unions/associations)
 - People involved in education, people with expert knowledge (researchers and other experts)
 - Land managers
 - People who are active locally (people who come to the region from outside and are active there on a regular basis), etc.
- Related administrative agencies (those who contribute to the project from an administrative standpoint (position with jurisdiction over related laws, ordinances, and plans; position as a contact point for coordinating with the local region))

(2) Goal-based Coordination with the Local Region

For projects to restore the natural environment, it is important to continue to maintain and use the restored natural environment through sustainable connections with the local region.

Therefore, as opposed to projects coordinated with infrastructural improvements, projects that emphasize natural restoration, for which the goal is the restoration of the natural environment itself, need to continue to deepen coordination with the local region to a greater extent.

Conversely, with projects coordinated with infrastructural improvements, for which the main goals are improving lives, preventing and mitigating disasters, and safety, it is envisioned that they will strive for comparatively looser coordination, given the differences in their main goals.

(3) Image of the Committee

It will be necessary to consider what sort of committee should be created based on modalities for how coordination with the local region should function.

For example, in the case of projects that emphasize natural restoration, it is envisioned that efforts will be made for adequate coordination with the local region by establishing a committee at as early

a stage as possible and making efforts to share information and build consensus. This should be established as a committee that will serve as a venue for continued development together with projects to restore the natural environment.

It is envisioned that projects coordinated with infrastructural improvements will feature comparatively looser coordination. As such, it is envisioned that a committee that will serve as a venue for adequately reflecting opinions from the local region and calling for its cooperation with maintenance and monitoring will be established so that the restored natural environment continues to be properly used.

An image of this committee is shown on the following page.

(Omitted hereafter)

Document 11. Second Okinawa Prefecture Basic Plan for the Environment (Excerpt)

Preparer: Okinawa Prefecture

Date: April 2013

Table of Contents (the excerpted parts have been **bolded**)

Chapter1 Basic Items of the Plan

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Chapter 4 Roles of Each Entity and Guidelines for Environmental Considerations

- 1. Roles of Each Entity**
- 2. Guidelines for Entity-specific Environmental Considerations/Examples of Initiatives**
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1. Promotion Structure for the Plan
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4. Financial Measures for Plan Promotion
5. Checking on and Reassessing the Plan's State of Progress
6. Promoting Research and Study/Enhancing Monitoring and Observation Structures

Chapter 1 Basic Items of the Plan

(Omitted)

2. Goals of the Plan

This plan is based on the provisions of Article 8 of the Okinawa Prefecture Basic Environment Ordinance. Its goals are listed below.

- Promote environmental conservation by diverse entities that include prefectural residents, businesses, and the government by clearly defining comprehensive, long-term targets and measures related to environmental conservation and creation based on the current status of and challenges for the environment in Okinawa.
- Promote various specific measures related to environmental conservation and creation in a comprehensive and systematic manner with a view towards achieving “A safe, secure Okinawa that is calm, pleasant, and blessed with a lush natural environment” based on partnerships with various entities.

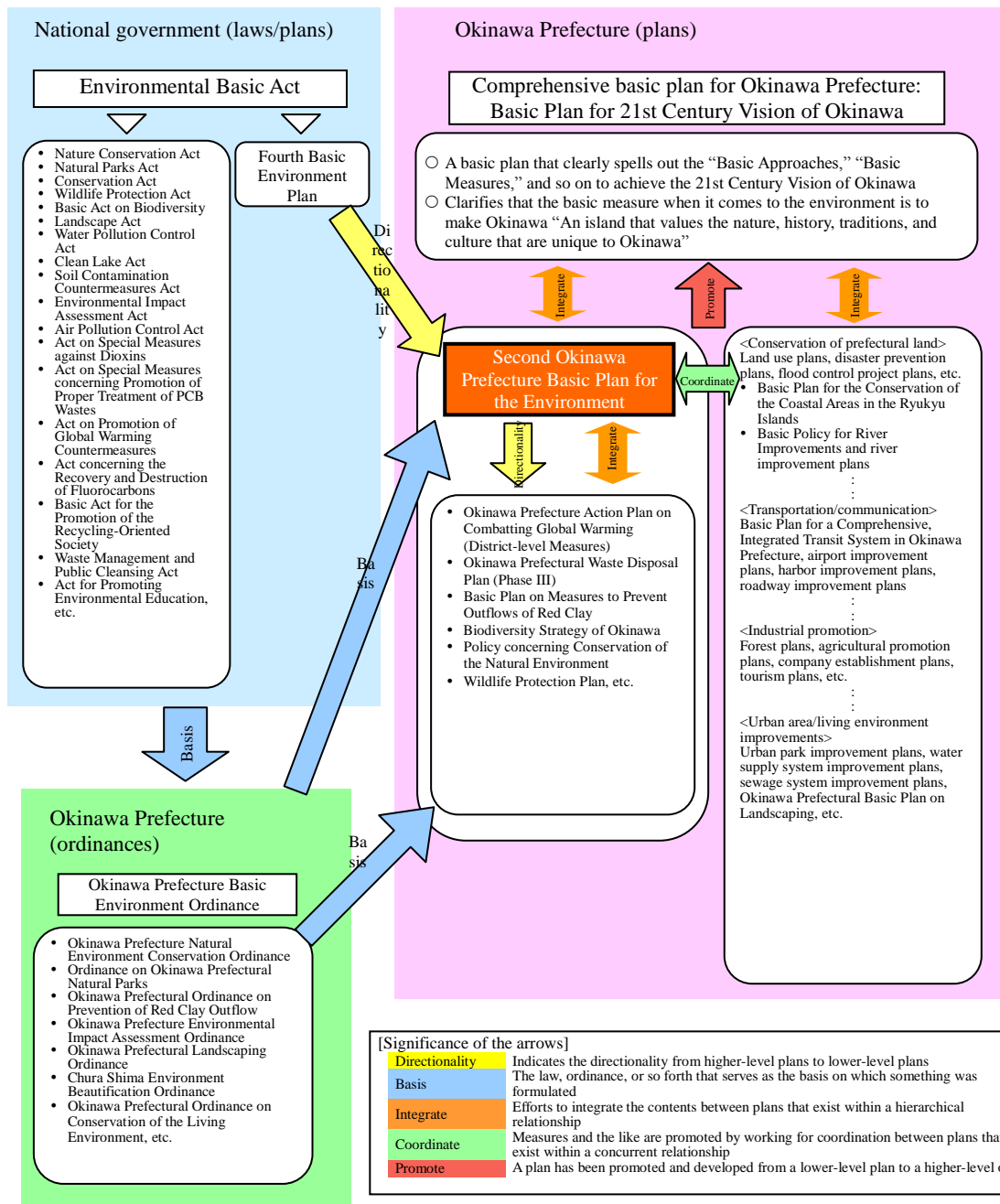
(Omitted)

4. Nature/Roles of the Plan

The role of the plan’s content is to serve as a plan for promoting the 21st Century Vision of Okinawa (which is a basic concept of Okinawa Prefecture) and the Basic Plan for 21st Century Vision of Okinawa (which is a comprehensive basic plan) from an environmental standpoint.

Therefore, plans designed for purposes of conserving the environment in Okinawa Prefecture must be enacted, developed, and promoted in line with this plan. What is more, it was decided that items related to the environment in other plans will be enacted in accordance with the basic thinking behind this plan, just like with plans designed for purposes of conserving the environment, to maintain harmony with this plan.

[Position and Roles of Laws, Ordinances, Plans, and More for Environmental Conservation]



5. Plan Period

The target period for the plan shall last for ten years from FY2013 to FY2022. The plan will promote the Basic Plan for 21st Century Vision of Okinawa and other related plans in line with the Okinawa Prefecture Basic Environment Ordinance from an environmental standpoint.

In addition, this plan will be revised as needed based on the reappraisals to the implementation plan for the 21st Century Vision of Okinawa and changes in the environmental and socioeconomic conditions in the prefecture.

6. Region Targeted by the Plan

The region targeted by this plan shall consist of the entirety of Okinawa Prefecture, including its coastal and ocean areas.

(Omitted)

Chapter 4 Roles of Each Entity and Guidelines for Environmental Considerations

1. Roles of Each Entity

(Omitted)

1-1. Administrative Agencies

The prefecture will promote measures for environmental conservation, restoration, and creation that is both comprehensive and effective based on the basic plan. Moreover, it will offer suggestions for the roles of each entity and guidelines for environmental considerations in order to incorporate various entities, such as businesses, prefectural residents, NPOs and other civil organizations, tourists, and the US military, into environmental conservation activities in a voluntary and proactive manner. In addition, it will also promote initiatives for awareness-raising activities aimed at these entities. Furthermore, it will provide support to enhance the base of activities for environmental conservation measures by setting in place social capital, as well as promoting other environmental conservation activities.

The existence and application of the vast, overcrowded US military base occupying space on Okinawa Prefecture is prominently involved in the lives of the residents and the natural environment

in the surrounding region. Therefore, for its part the prefecture will continue to request that the US military give consideration to the importance of its role here, as well as to the environment.

Initiatives in local regions are crucial for promoting environmental conservation, restoration, and creation. As the decentralization of power advances, the roles played by the municipalities closest to the local residents will continue to grow in importance.

For this reason, the municipalities must enact comprehensive plans concerning environmental conservation, restoration, and creation in accordance with their respective local characteristics. In addition, they must also promote initiatives through cooperation and coordination with the prefecture, businesses, prefectural residents, NPOs and other civil organizations, tourists, the US military, and others.

(Omitted)

2. Guidelines for Entity-specific Environmental Considerations/Examples of Initiatives

(Omitted)

2-1. Administrative Agencies

Target	Guidelines for Considerations
Recycling	<ul style="list-style-type: none"> ◆ For the implementation of projects, give consideration to reducing the environmental impact, such as by the effective use of energy and curbing emissions of pollutants. ◆ For the implementation of projects and office activities, give consideration to recycling, proactively use environmentally friendly products and recycled products, thoroughly follow the 3Rs, and promote efforts to reduce the weight of waste. ◆ For the installation and management of buildings, give consideration to reducing the environmental impact, such as by adopting renewable energies and ESCO projects and effectively using water. ◆ Enact and implement various measures such as those for the installation of facilities, regulations, surveys and research, dissemination and awareness-raising, and countermeasures, in order to reduce the environmental impact from socioeconomic activities in the local region.

Target	Guidelines for Considerations
Coexistence	<ul style="list-style-type: none"> ◆ Enact and implement various measures related to things like the installation of facilities, regulations, surveys and research, and raising public awareness, in an effort to conserve water and greenery, ensure habitat spaces for wildlife, and ensure places for interacting with nature. ◆ For the implementation of projects, give consideration to the conservation of water and greenery and ensuring habitat spaces for wildlife by performing environmental impact assessments. ◆ Promote greening in public lands, such as greenery conservation zones, parks, roads, and within public facilities. ◆ For river improvements, give consideration to habitat spaces for living creatures through nature-oriented river works. ◆ For the installation of public facilities, give consideration to the historical topography and landscapes in the local region. ◆ Promote initiatives geared towards developing local regions that are appealing by harnessing the history, culture, topography, and other characteristics fostered in said local regions. ◆ Promote land use that takes the natural environment into consideration.
Participation	<ul style="list-style-type: none"> ◆ For the implementation of projects in the local region, promote initiatives related to environmental conservation, restoration, and creation in line with the Guidelines for Project-specific Considerations and Guidelines for Region-specific Considerations established in this plan, as well as the Guidelines Concerning Conservation of the Natural Environment. ◆ Promote environmental conservation activities and work to develop human resources by promoting environmental learning and environmental education, providing information related to the environment, and more. ◆ Make efforts to raise public awareness concerning the adoption of environmental management systems (Eco Action 21/ISO) and environmental accounting, the preparation of environmental reports, and so forth. ◆ Work to raise awareness in the local region on issues like how the government itself is taking the lead in green purchasing and proactively using recycled products, and promote the adoption of environmentally friendly products. ◆ Promote the environmental conservation activities of staff members by providing training opportunities and information.

Target	Guidelines for Considerations
Global environmental conservation	<ul style="list-style-type: none"> ◆ When using official vehicles, make efforts aimed at proper driving and proper management for fuel efficiency (tire pressure, onboard weight, etc.), such as by striving to engage in eco driving that includes eliminating sudden acceleration, engine revving, and unnecessary idling. In addition, promote the adoption of low-emission vehicles, such as electric vehicles. ◆ Work to create favorable pedestrian spaces and to promote the use of bicycles as well as the use of public transportation like buses and monorails. ◆ Work to promote transportation demand management (TDM) measures and smooth the flow of traffic. ◆ Implement various measures for environmental problems at the global scale, such as global warming and the depletion of the ozone layer. ◆ Work towards global environmental conservation measures and initiatives at the regional level, while also promoting efforts like seminars and support programs for prefectural residents, businesses, and more. ◆ For the installation and management of buildings, adopt renewable energies and ESCO projects, effectively use water, and work to cut down on greenhouse gases.
The environment and the economy	<ul style="list-style-type: none"> ◆ Work to disseminate the principle of harmony between the environment and the economy to the local region, businesses, and so forth. ◆ Promote corporate social responsibility (CSR) among the companies within the prefecture. ◆ Work to raise awareness of the cost burden for environmental conservation among the prefectural residents, local region, businesses, and so forth. ◆ Work to disseminate and expand environmental management systems at companies. ◆ Strive to disseminate and promote energy-saving equipment. ◆ Support initiatives to expand recycling businesses and improve their technical capacities. ◆ Promote the use of biomass.

(Omitted)

3. Guidelines for Project-specific Considerations

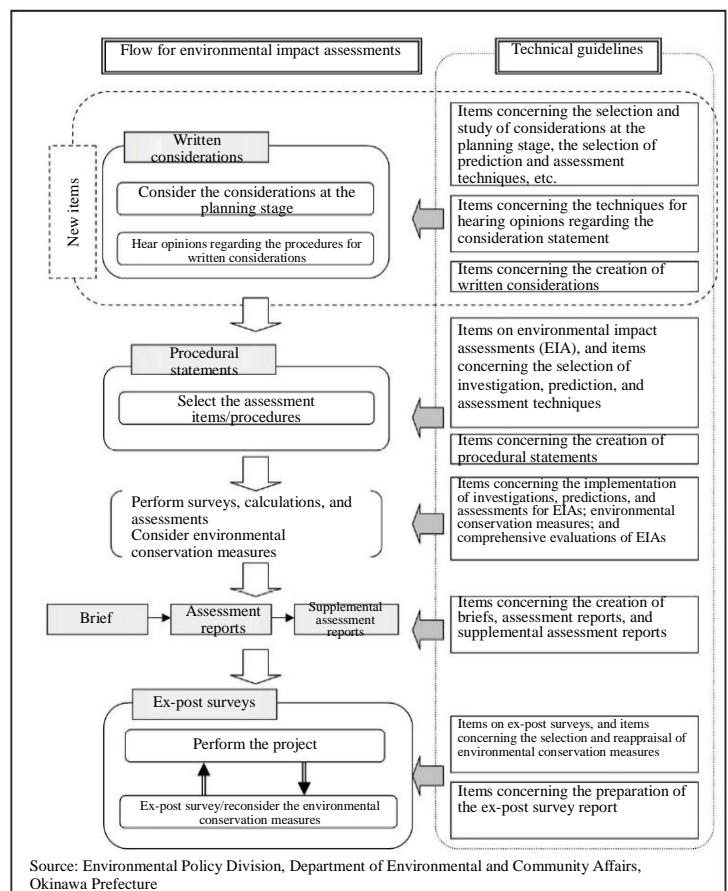
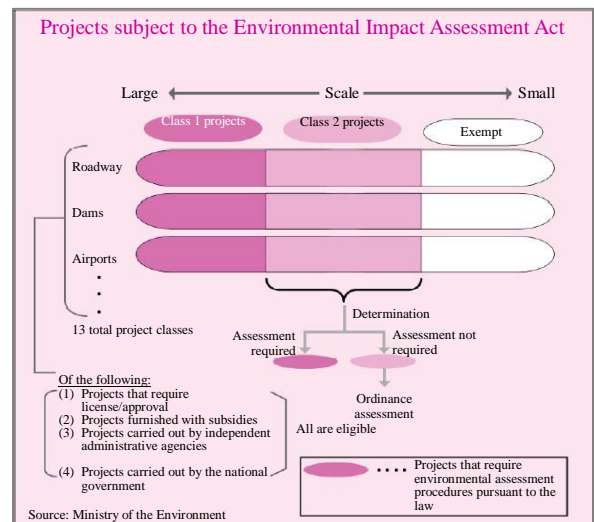
(Omitted)

3-2. Guidelines for Environmental Considerations for the Implementation of Projects

Okinawa Prefecture has lush, invaluable natural environments that are inhabited by a diverse array of many kinds of flora and fauna. But the prefecture's lush natural environments are being lost as a result of the rising population and number of tourists, as well as the advancing socioeconomic activities.

Therefore, large-scale projects for which the extent of their impact on the environment could potentially be considerable must undergo environmental impact assessment procedures pursuant to the Environmental Impact Assessment Act and the Okinawa Prefecture Environmental Impact Assessment Ordinance. Then when the projects are carried out, environmental conservation measures that were considered as part of these procedures must be taken. Doing so has achieved some measure of results in avoiding and reducing environmental impacts as a result of the implementation of such projects.

However, the environmental impact assessment scheme thus far has been focused mainly on environmental conservation measures at the project implementation stage. As a result, environmental considerations have come to be sought starting from the planning stage.



To compensate for such limitations with environmental impact assessments at the project implementation stage, the revisions to the Environmental Impact Assessment Act of 2011 introduced “consideration statement procedures at the planning stage,” whereby environmental considerations are offered at an earlier stage in the project. At the prefectural level as well, in March 2013 this ordinance was amended to introduce a similar procedure, thus revising its scheme so that considerations could be given starting from the planning stage.

Consideration must be given to the prefecture’s environment when implementing projects based on the flow for environmental impact assessments shown in the figure to the right, shared and individual items, and the Guidelines Concerning Conservation of the Natural Environment, which constitutes measures for conserving the natural environment in Okinawa Prefecture.

(Omitted)

4. Guidelines for Region-specific Considerations

With a view towards environmental conservation, restoration, and creation in Okinawa Prefecture, the prefectural government must implement environmental conservation measures in a comprehensive and systematic manner. In addition, various entities such as administrative agencies, businesses, prefectural residents, NPOs and other civil organizations, tourists, and the US military must address environmental conservation measures according to the circumstances in each respective region in line with the fundamental orientation of basic plans for the environment.

For this, the prefecture will be divided up into five regions: The Northern Okinawa Island, Central Okinawa Island, Southern Okinawa Island, Miyako, and Yaeyama Regions, and items warranting environmental consideration will be indicated for each of the regions with consideration given to consistency with related plans.

(Omitted)

Region	Environmental considerations
Shared items for all regions	<ul style="list-style-type: none"> ● For river improvements, the installation of embankments and revetments, land reclamation and other development projects, and the development of farmland, pay careful attention to things like the project location, scale, structures, and construction methods so as to reduce outflows of red clay, the disruption of ecosystems, and the impact on the scenery.

Region	Environmental considerations
	<ul style="list-style-type: none"> ● Make efforts to restore natural environments that have been lost as a result of past development or the like, and to conserve the remaining nature. ● Make efforts to eradicate and control alien species like mongooses and prevent the abandonment of pets (dogs, cats, etc.) in order to prevent the disruption of ecosystems. ● With respect to sewage disposal, work to ensure that drainage is disposed of properly, such as by installing community wastewater treatment units in regions where sewage systems, community sewage facilities, and other forms of communal treatment facilities have not been installed. This is to ensure that rivers and ocean areas are not polluted by drainage from homes, business establishments, barns, and so on. ● For the tourism industry, give rise to diverse, distinctive, and lush natural environments and outstanding historical and cultural regional resources. In addition, work on initiatives such as creating rules that would allow environmental conservation activities and economic activities to coexist based on the environmental carrying capacity. ● Reduce the final disposal volume of waste by means of recycling and effectively using it, and make efforts to create sustainable, recycling-oriented societies. ● Work to preemptively prevent the illegal dumping of waste and provide guidance on its proper disposal in cooperation with the related agencies.
Northern Okinawa Island	<ul style="list-style-type: none"> ● In the mountainous regions farther north of the isthmus that extends from Shioya Bay in Ogimi Village to Taira Bay in Higashi Village, continuous forests with trees that are 40 years old or older have been observed, and this region contains areas that are important as habitats for rare species such as the Okinawa woodpecker. Therefore, make efforts to conserve the natural environments here. ● Strive to conserve the rich ocean area ecosystems by preventing damage from the crown-of-thorns starfish and other problems. ● Work to prevent precious wild flora and fauna from dying out as a result of being illegally dug up and collected by other means. ● Make efforts to eradicate and control alien species like mongooses and prevent the abandonment of pets (dogs, cats, etc.) in order to prevent the disruption of ecosystems. ● Make efforts to restore natural environments that have been lost as a result of past development or the like, and to conserve the remaining nature. ● For river improvements, the installation of embankments and revetments, land reclamation and other development projects, and the development of farmland, pay

Region	Environmental considerations
	<p>careful attention to things like the project location, scale, structures, and construction methods so as to reduce outflows of red clay, the disruption of ecosystems, and the impact on the scenery.</p> <ul style="list-style-type: none"> ● For the construction of dams and intake weirs, give due consideration to the habitats of precious wild flora and fauna, as well as ecosystems. ● Work to prevent wildlife from entering roadways, utilize gutters that make it easy for them to escape, and avoid roadkill. ● For the tourism industry, give rise to diverse, distinctive, and lush natural environments and outstanding historical and cultural regional resources. In addition, work on initiatives such as creating rules that would allow environmental conservation activities and economic activities to coexist based on the environmental carrying capacity. ● For forestry, develop and use prefectural lumber and promote forest development that gives consideration to forest ecosystems to allow forests to exhibit the diverse functionality they possess in a sustainable manner. In addition, strive for their multifaceted use through forest tourism and the like. ● Aim to create industries that are environmentally friendly. Work on initiatives geared towards demonstration tests and practical implementation when it comes to the adoption of renewable energies such as solar power, wind power, and biomass. ● Regarding the use of regions like the Northern Training Area and Aha Training Area after they are returned, take initiatives for the appropriate conservation of the natural environment and the conservation and improvement of forest regions. Also, strive to make use of these by harnessing the resources of the Yambaru forests. ● With respect to sewage disposal, work to ensure that drainage is disposed of properly, such as by installing community wastewater treatment units in regions where sewage systems, community sewage facilities, and other forms of communal treatment facilities have not been installed. This is to ensure that rivers and ocean areas are not polluted by drainage from homes, business establishments, barns, and so on. ● Work to maintain and improve townscapes and village scenery, such as by conserving utaki (sacred) forests, Hogo Forest, and homestead forests and using them as hedges enclosing gardens. ● For development and other projects, make efforts to prevent noise, vibration, low-frequency sound, and air pollution from arising. ● Quarry operators are to make efforts to prevent the discharge of dust, such as by sprinkling water around and washing off dust adhering to vehicles.

Region	Environmental considerations
	<ul style="list-style-type: none"> ● Reduce the final disposal volume of waste by means of recycling and effectively using it, and make efforts to create sustainable, recycling-oriented societies.
Yaeyama Region	<ul style="list-style-type: none"> ● For river improvements, the installation of embankments and revetments, land reclamation and other development projects, and the development of farmland, pay careful attention to things like the project location, scale, structures, and construction methods so as to reduce outflows of red clay, the disruption of ecosystems, and the impact on the scenery. ● Work to maintain and improve scenery by conserving utaki forests and homestead forests. ● Strive to create a comfortable residential environment, such as by promoting improvements to sewage systems in urban areas and implementing land readjustment projects in accordance with the formation of outer borders around urban areas. ● With respect to sewage disposal, work to ensure that drainage is disposed of properly, such as by installing community wastewater treatment units in regions where sewage systems, community sewage facilities, and other forms of communal treatment facilities have not been installed. This is to ensure that rivers and ocean areas are not polluted by drainage from homes, business establishments, barns, and so on. ● Strive to conserve the rich ocean area ecosystems by preventing damage from the crown-of-thorns starfish and other problems. ● Work on initiatives such as creating rules that would allow environmental conservation activities and economic activities to coexist based on the environmental carrying capacity. ● Make efforts to restore natural environments that have been lost as a result of past development or the like, and to conserve the remaining nature. ● Work to prevent wildlife from entering roadways, utilize gutters that make it easy for them to escape, and avoid roadkill. ● Make efforts to eradicate and control alien species like the green iguana and prevent the abandonment of pets (dogs, cats, etc.) in order to prevent the disruption of ecosystems. ● Reduce the final disposal volume of waste by means of recycling and effectively using it, and make efforts to create sustainable, recycling-oriented societies.

(Omitted hereafter)

Document 12. Guidelines Concerning Conservation of the Natural Environment

(Excerpt)

Preparer: Okinawa Prefecture

Date: 1998

(Omitted)

○ Goals of the Guidelines

At present, the natural environment continues to undergo transformations, and there are concerns over the impact on ecosystems and the decline of precious wildlife, as a result of development projects and similar undertakings everywhere throughout the prefecture.

What is more, the nature found all around us continues to decline, as evidenced by the fact that wildlife that people used to catch site of regularly, such as dragonflies and butterflies, are no longer seen as a result of advancing urbanization.

Therefore, these guidelines will clearly lay out the nature that should be conserved based on determinations of the current status and characteristics of the nature in each region, and set forth modalities for proper conservation. This is designed to ensure that the diverse ecosystems on each respective island can be maintained in sound condition.

(Omitted)

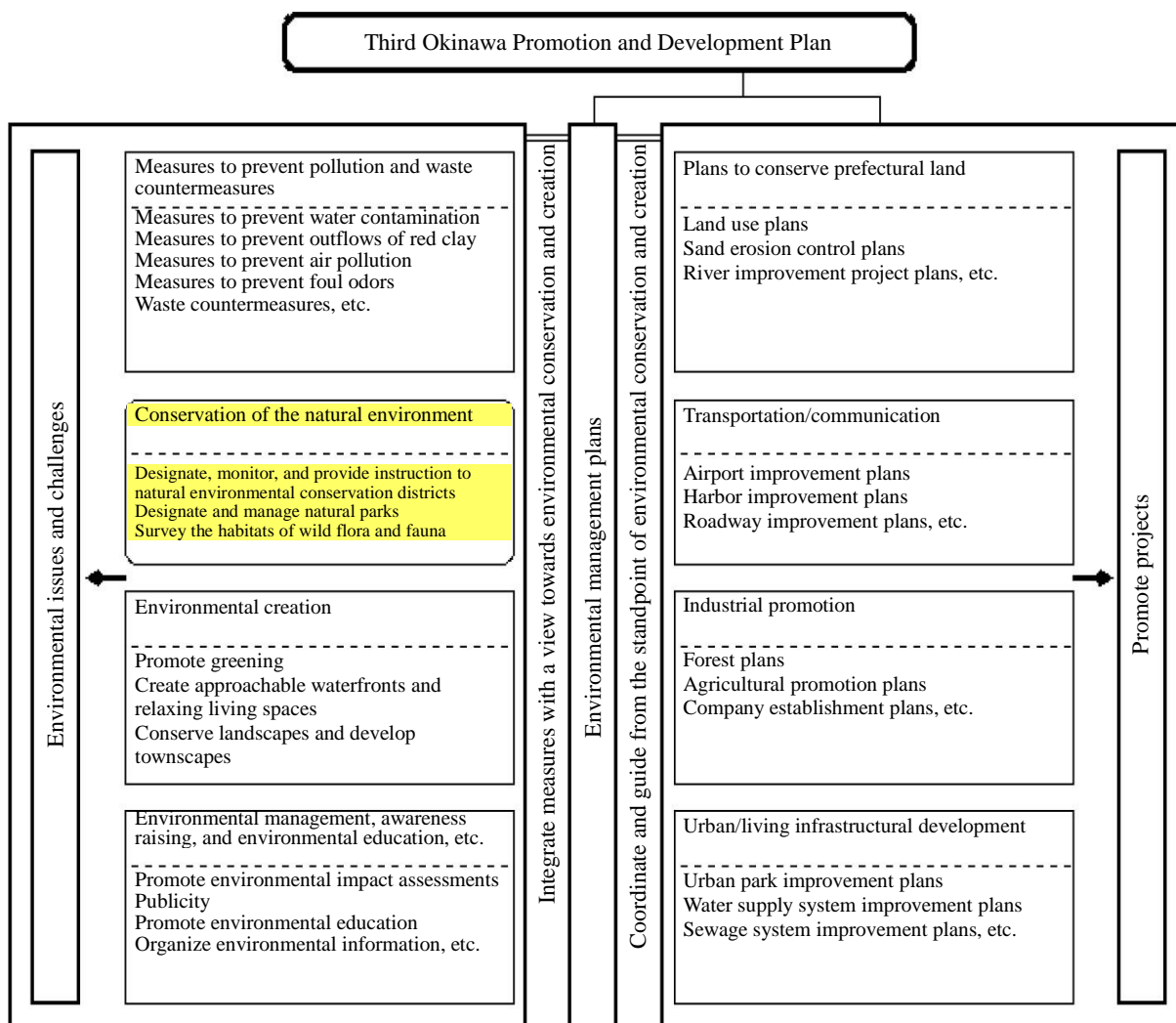
○ Positioning of the Guidelines

Okinawa Prefecture's Environmental Management Plan was enacted in 1993 to serve as a basic plan for achieving a desirable environment in Okinawa Prefecture.

Environmental problems in Okinawa Prefecture and comprehensive measures for resolving these are indicated within the plan. As such, the Guidelines Concerning Conservation of the Natural Environment has been positioned as another measure for conserving the natural environment.

The Guidelines Concerning Conservation of the Natural Environment also serves as indicators for the considerations to be undertaken by prefectural residents, businesses, and administrative agencies

from their own respective positions concerning the protection and moderate use of favorable natural environments in the prefecture to achieve a desirable environment in Okinawa Prefecture.



(Omitted)

○ Application of the Guidelines

1. Promote notifications for prefectural residents and consideration by businesses

For the future, efforts will be made to notify prefectural residents and the like through the use of the internet, and they will be called upon to provide information related to the environment.

Moreover, businesses will be encouraged to give consideration to the environment based on the guidelines when drafting the plans for projects and implementing projects.

2. Establish venues for coordination and consultations with related agencies

For the future application of the guidelines, coordination and consultations with related agencies will be performed at the promotion committee for Okinawa Prefecture's Environmental Management Plan. Here they will be encouraged to give consideration to the protection and moderate use of the natural environment.

In addition, coordination will be carried out with businesses as needed, and they will be instructed to draw up business plans that give consideration to the environment.

3. Promote surveys concerning the natural environment

Efforts will be made to promote surveys on the natural environment in aiming to augment information on the natural environment. This will include surveys to determine the ecology and habitats of precious species excluded from the surveys that have been carried out to date, such as basic surveys on conservation of the natural environment and surveys on special birds, and also surveys to determine the existing vegetation and the extent and age of vegetation, surveys to determine the ecology and habitats of coral, and more.

4. Create databases of information on the natural environment

The creation of a database of literature related to the natural environment will be promoted in order to facilitate the smooth provision of such information in aiming to use information on the natural environment effectively. What is more, efforts will be made to create a database of information on the natural environment, such as the distribution of precious flora and fauna.

5. Designate and expand protection areas

The designation and expansion of natural environmental conservation districts, natural parks, and wildlife protection areas will be promoted based on the assessments of the guidelines and the results of surveys on the natural environment.

(Omitted hereafter)

Reference Material 2: List of Member Government Organizations of the Regional Liaison Committee

Naha Natural Conservation Office, Ministry of the Environment
Kyusyu Regional Forest Office, Forestry Agency
Kagoshima Prefecture
Okinawa Prefecture

Amami-Oshima Island Region

Amami City, Yamato Village, Uken Village, Setouchi Town, Tatsugo Town

Tokunoshima Island Region

Tokunoshima Town, Amagi Town, Isen Town

The Northern Part of Okinawa Island Region

Kunigami Village, Ogimi Village, Higashi Village

Iriomote Island Region

Taketomi Town

Reference Material 3: Lists of Member Organizations of the Amami-Oshima Island Sub-local Meeting, Tokunoshima Island Sub-local Meeting, Northern Part of Okinawa Island Sub-local Meeting, and Iriomote Island Sub-local Meeting

List of Member Organizations of Amami-Oshima Island Sub-local Meeting (as of November 2016)

Member organizations
Naha Natural Conservation Office, Ministry of the Environment
Kagoshima District Forest Office, Kyushu Regional Forest Office, Forestry Agency
Nature Conservation Division, Kagoshima Prefecture
Islands Development Division, Kagoshima Prefecture
Tourism Division, Kagoshima Prefecture
General Affairs and Planning Division, Oshima Branch Office, Kagoshima Prefecture
Hygiene and Environment Office, Oshima Branch Office, Kagoshima Prefecture
World Natural Heritage Promotion Office, Environmental Measure Section, Amami City
General Affairs and Planning Division, Yamato Village
General Affairs and Planning Division, Uken Village
World Natural Heritage Setouchi Promotion Office, Education Department of Social Education, Setouchi Town
General Affairs and Planning Division, Tatsugo Town
Wide Area Administration Association of Amami Islands
Amami-Oshima Island Chamber of Commerce and Industry
Amami Islands Tourism and Product Association
Amami-Oshima Tourism Association
Setouchi-cho Tourism and Product Association
Amami-Oshima Island Ecotourism Promotion Council
Amami-Oshima Island Ecotour Guide Liaison Council
Amami Ornithologists' Club
Amami Mammalogical Society
Environmental Network Amami
Amami Association for the Consideration of Nature

List of Member Organizations of Tokunoshima Island Sub-local Meeting (as of November 2016)

Member organizations
Naha Natural Conservation Office, Ministry of the Environment
Kagoshima District Forest Office, Kyushu Regional Forest Office, Forestry Agency
Nature Conservation Division, Kagoshima Prefecture
Islands Development Division, Kagoshima Prefecture
Tourism Division, Kagoshima Prefecture
General Affairs and Planning Division, Oshima Branch Office, Kagoshima Prefecture
Hygiene and Environment Office, Oshima Branch Office, Kagoshima Prefecture
General Affairs Division, Tokunoshima Office, Kagoshima Prefecture
Planning Division, Tokunoshima Town
Planning Division, Amagi Town
Kyura-Machi Tourism Division, Isen Town
Wide Area Administration Association of Amami Islands
Amami Islands Tourism and Product Association
Tokunoshima Tourism Federation
Tokunoshima Island Ecotourism Promotion Council
Tokunoshima Island Ecotour Guide Liaison Council
Tokunoshima Niji no Kai
Amami Rabiit Village

List of Member Organizations of the Northern Part of Okinawa Island Sub-local Meeting (as of November 2016)

Member organizations
Naha Natural Conservation Office, Ministry of the Environment
Okinawa District Forest Office, Kyushu Regional Forest Office, Forestry Agency
Nature Conservation Division, Department of Environment Affairs, Okinawa Prefecture
District Forest Office, Department of Agriculture, Forestry and Fisheries, Okinawa Prefecture
Tourism Promotion Division, Department of Culture, Tourism and Sports, Okinawa Prefecture
World Natural Heritage Promotion Division, Kunigami Village
Planning and Tourism Division, Ogimi Village
Planning and Tourism Division, Higashi Village
Kunigami Village Forestry Cooperative
Kunigami Village Commerce and Industry Association
JA Okinawa Kunigami Branch
Kunigami Village Forest Tourism WG
Ogimi Village Regional Association
Ogimi Village Commerce and Industry Association
NPO Yambarusha
NPO Ogimi Marugoto Tourism Association
Ogimi Village Agricultural Committee
Higashi Village Commerce and Industry Association
JA Okinawa Higashi Branch
Higashi Village Agricultural Committee
Higashi Village Regional Association
NPO Higashi Village Tourism Promotion Office
Conservation & Animal Welfare Trust
Yona Field, Faculty of Agriculture, University of the Ryukyus

List of Member Organizations of the Iriomote Island Sub-local Meeting (as of November 2016)

Member organizations
Naha Natural Conservation Office, Ministry of the Environment
Okinawa District Forest Office, Kyushu Regional Forest Office, Forestry Agency
Iriomote Forest Ecosystem Conservation Center, Kyushu Regional Forest Office, Forestry Agency
Nature Conservation Division, Department of Environment Affairs, Okinawa Prefecture
Tourism Promotion Division, Department of Culture, Tourism and Sports, Okinawa Prefecture
Yaeyama Regional Public Works Office, Okinawa Prefecture
Natural Environment Division, Taketomi Town
Trade and Tourism Division, Taketomi Town
General Affairs Division, Board of Education, Taketomi Town
Engineering Division, Ishigaki Port Office, Okinawa General Bureau, Cabinet Office
Environmental Division, Ishigaki City
Taketomi Town Public Hall Liaison Committee
Taketomi Town Commerce and Industry Association
Taketomi Town Tourist Association
Taketomi Diving Association
Iriomote Island Ecotourism Association
Iriomotejima Canoe Association
Okinawa Ryoyukai - Taketomi Town Region
Iriomotejima Koutu Co., Ltd.
Iriomote Kanko Corp.
Urauchigawa Kanko
Anei Kanko Co., Ltd.
Yaeyama-Kanko-Ferry Co., Ltd.
Ishigaki Dream Tours
Conservation & Animal Welfare Trust
Iriomote Station, Tropical Biosphere Research Center, University of the Ryukyus
Okinawa Regional Research Center, Tokai University