

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

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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]

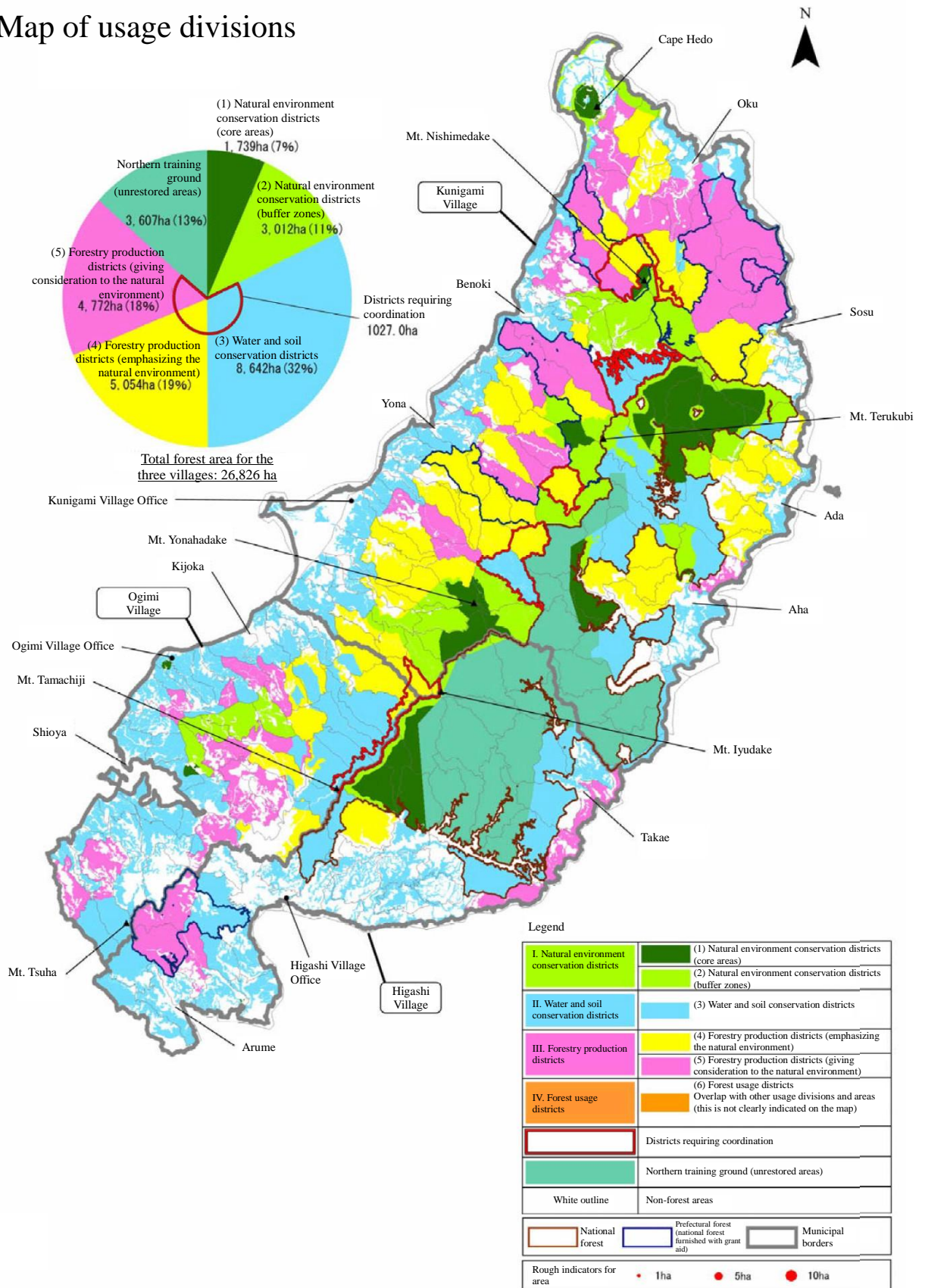
	(5) Giving consideration to the natural environment	Districts in regions where the objective is forestry production where logging areas are decentralized (made non-continuous), where efforts for conservation are made for the forest zones along ridges and the understory vegetation in valleys, and where 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

III. Forestry production districts

<Definition> Areas where the emphasis is on the production of lumber and other products in aiming for sustainable forestry production

<p>(4) Emphasizing the natural environment</p>	<p><Basic policy> 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> 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.