

The Year 2000

Record of Disastrous Eruptions on Miyakejima Island/Overview

Volcanic Eruptions on Miyakejima Island in 2000

Living with Volcanoes



February, 2008 Miyake Village, Tokyo

We would like to express our gratitude for your help and support.

Upon the publication of this booklet

Time goes quickly, and it is now three years since we came back to Miyakejima Island.

Starting with the announcement of "threat of eruptions, caution necessary" on the evening of June 26, 2000, volcanic eruptions on Miyakejima Island forced all residents to leave the island, and ended up being an unprecedented disaster in the island's history. In particular, the large volume of volcanic gas prohibited islanders from returning home for as long as four years and five months, and gas emissions still torment us even after more than seven years have passed.

In order to prevent the memory of this disastrous calamity from fading away, and to hand down valuable records and source materials about the eruptions to succeeding generations, we, the people of Miyake Village, began this booklet's editing in 2006 and have finally reached its publication.

When making this booklet, we asked some residents of Miyakejima Island, who had personally suffered from the disastrous eruptions, to serve as writers and editors, while limiting the role of the village government to a minimum, such as providing records and confirming facts. In the islanders' view, they have successfully compiled a wonderful book which will continue to remind us of our deep appreciation for our supporters, as well as pass on the memories of our experiences to the children who will conserve the island in the future, while reminding both the younger and older generations of the hardship endured.

Again, at this publication, we wish to express our heartfelt gratitude, not only for the cooperation of the residents of Miyakejima Island, the editorial staff and working group members of the Tokyo Metropolitan Miyake Branch Office, but the government of Japan, the Tokyo Metropolitan Government, local residents at evacuation locations and people throughout Japan for supporting us both practically and emotionally.



February 1, 2008

Sukeyasu Hirano

Miyake Village Mayor,
Miyakejima Island, Tokyo

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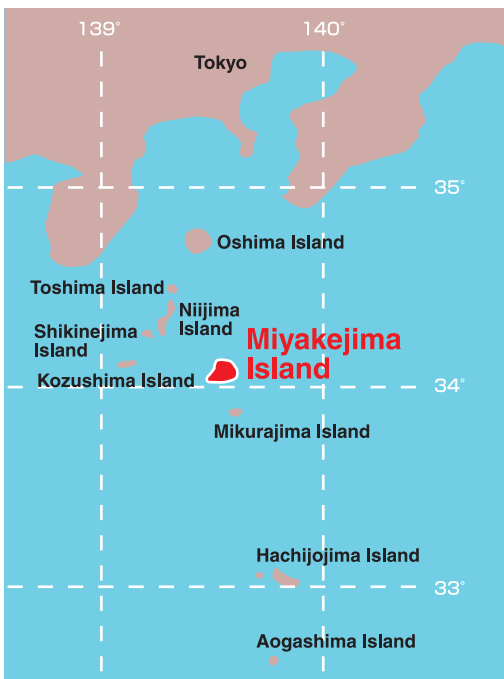
● General Information on Miyakejima Island

Geographic and Topographic Features

Miyakejima is an island located about 180 kilometers offshore to the south of Tokyo. It has an area of 55.5 square kilometers, measuring about 8 kilometers in diameter and 38 kilometers in circumference. Mount Oyama, at the height of 775 meters, is in the center of the island.

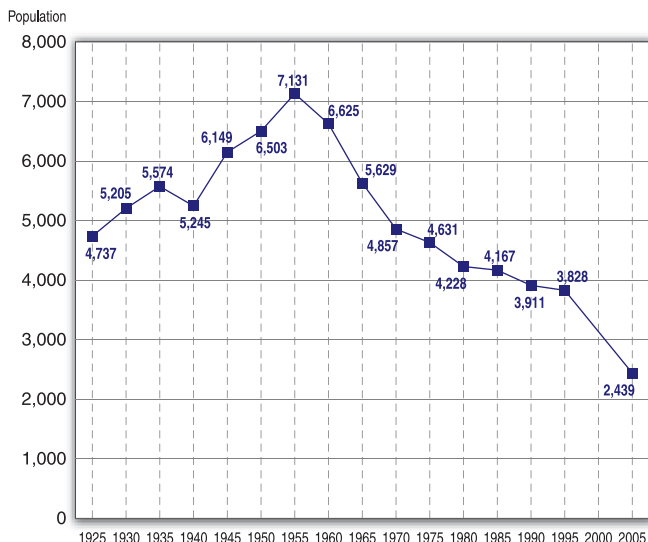
The climate is warm and rainy. With an average annual precipitation of 2,900 millimeters and an average temperature of 17.5 Celsius, it has a typical oceanic climate.

The island is grouped into five communities: Kamitsuki, Izu, Igaya, Ako, and Tsubota.



Population

The island population hit a peak of 7,131 in 1955, and has been declining since then. Before the volcanic eruption in 2000, the population stood at 3,845. Additionally, the population is aging, with the rate of the elderly at 29 percent before the eruption.



Population Changes (source: Japanese National Census)

Industry

Abundant nature has been the support of industry of the island. Before the eruption, residents were actively engaged in the greenhouse horticulture of flowers and ornamental plants, tourism, such as diving and fishing, and so on. However, many businesses were facing problems due to aging or the shortage of successors.

Agriculture and Fishery

Taking advantage of the mild oceanic climate, snow peas and "Ashitaba," or *Angelica keiskei*, have been produced for many years. In addition to Ashitaba, flowers and ornamental plants such as leather ferns, cultivation of which began after the eruption of 1983, are the major products of the village.

Major fishery output of the island before the eruption included yellow striped butterfish, bonito, many kinds of tuna, and alfonso, aquatic animals, such as spiny lobsters and Japanese abalone, and algae, such as ceylon moss and red algae. There were 167 registered fishing boats at the end of 2000, and 53 of them were less than 1 ton.



Cultivation of Flowers and Ornamental Plants



The Season's First Fixed Net Catch (red squid)

Business and Tourism

About 340 businesses were supporting the economy of the island. The lush vegetation has made Miyakejima Island a famous wild bird reservoir, while the surrounding sea is sprinkled with spots for diving and fishing. Making the most of these gifts of nature, tourism-related businesses in particular flourished. Prior to the eruption, there were many tourist inns on the island, and approximately 80,000 tourists per year were welcomed.



① Overview of Volcanic Eruptions

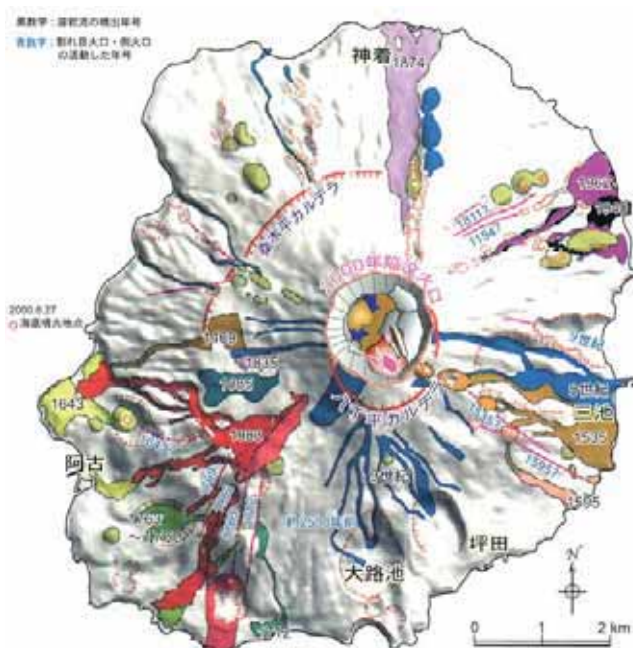


Fissure eruptions in 1983
(Photo credit: The Mainichi Newspapers)

History of Volcanic Eruption

Miyakejima Island is a volcano that is 25 kilometers in diameter and 1,200 meters in height, including its undersea section. Many crater chains from fissure eruptions have been formed from the summit to the coastline. When magma explosively made contact with groundwater, phreatomagmatic explosions occurred around the coast areas where some craters extended, and created more large-scale craters such as Tairo-ike Pond and Shinmyo-ike Pond.

The island has two calderas. The Hacchodaira Caldera is believed to have been formed as the result of volcanic eruptions around the summit approximately 2500 years ago. On the other hand, the majority of the latest 14 eruptions recorded were fissure eruptions occurring on the flanks of the volcano. During the last 100 years, fissure eruptions have repeatedly occurred every 21-22 years.



Lava Flows and Pyroclastic Cones from Volcanic Eruptions, and Fissure Crater Chains
Source: "Emergent Research of Volcanic Eruptions on Miyakejima Island - Measures against Eruptions in 2000," the team for emergent observation of volcanic eruptions on Miyakejima Island, Geological Survey of Japan

Volcanic Eruption in 1940

Fissure eruptions occurred on the side of the volcano on the northeast section of the island at approximately 7:30 p.m. on July 12, 1940. Lava flowed from numerous volcanic craters covering Akabakyo Bay. Submarine eruptions in the bay led to the formation of a hill called "Hyotanyama." Although the fissure eruptions from the volcano flank had mostly ceased by July 13, summit eruptions started on July 14. This caused large quantities of volcanic ash and bombs to continue spouting from the summit until about August 8. The number of casualties resulting from this eruption rose to 11 dead.

Volcanic Eruption in 1962

Following a series of earthquakes beginning in May, 1962, fissure eruptions from the northeastern flank of the volcano started shortly after 11:00 p.m. on August 24. Many craters emerged and the outflow of lava reached the coastline. Volcanic cinders from this eruption formed the hill called "Sanshichiyama."

The eruption itself ceased after 30 hours, but the earthquakes continued. On August 30, earthquakes in the Izu area, located in the northern part of the island, totaled more than 2,000. Therefore safety measures, including child evacuation, were taken. There were no human injuries due to this eruption.

Volcanic Eruption in 1983

Fissure eruptions from the southwestern flank of the volcano started at approximately 3:23 p.m. on October 3, 1983. The lava flow traveled toward the south-southwest and reached the ocean. Phreatomagmatic explosions occurred around Shinmyo-ike Pond in the southern part of the island and around the coastline of Nippana, and large amounts of volcanic ash and rock fragments fell over the southeastern part of the island.

The lava flow toward the west burned down and swallowed up houses in the Ako area until it stopped near the coast. Eruptions and explosions continued until just before dawn, and the lava flow had almost subsided by early morning of the next day, October 4.

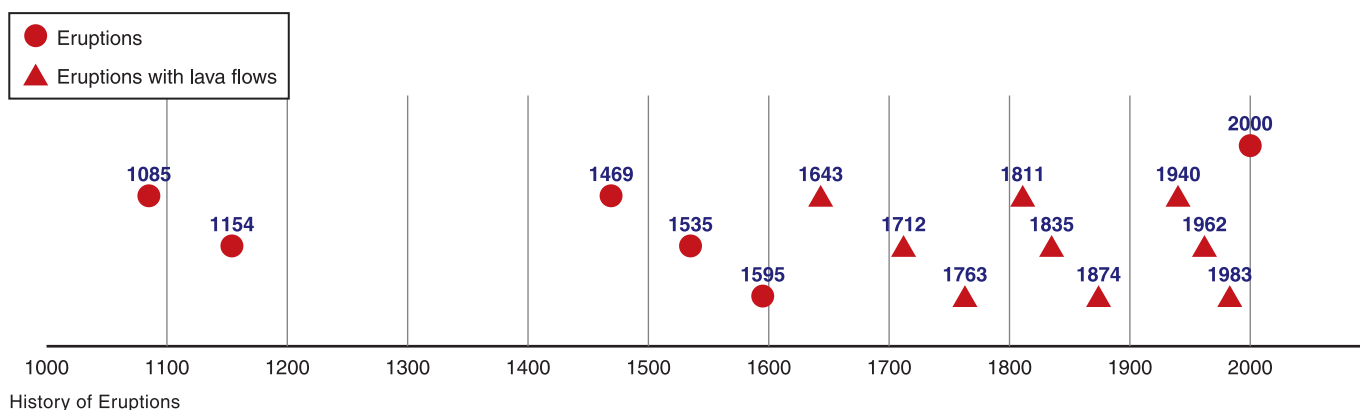
Approximately 400 houses were burned or buried, but there were no casualties.



Ako Elementary School Swallowed Up by The Lava Flow from Volcanic Eruptions in 1983

Development of Disaster

From the volcanic eruptions in 2000, four years and five months passed before the full-island evacuation order was lifted and even now, the islanders who safely returned to their homes are fighting daily with volcanic gas and the hardships



of recovery. The unprecedentedly long-term disaster can be roughly classified into the following periods based on changes in the situation and people's consciousness.

Period 1 - Occurrence of the Disaster (June - August, 2000)

This was the confusing period before the decision to leave the island was made.

Volcanic eruptions of Mount Oyama, starting on June 26, seemed to end once, but became active again in July and the islanders experienced eruptions at the mountain top unlike any before. The eruption on August 18 especially shook the residents. Following that, the large-scale eruption on August 29 resulted in the decision on September 1 to order all residents to leave the island.

Period 2 - Beginning of Prolonged Life as Evacuees (September, 2000 - August, 2001)

After leaving the island, the residents of Miyakejima Island started their new life in public housing and many other evacuation locations off the island. At first, many islanders thought they would soon return home. So, they spent days of uncertainty about getting their new life on track as they were expecting to go back to the island quickly. However, they were eventually forced to resolve themselves for a prolonged evacuation life as emissions of volcanic gas still continued.

Period 3 - Settling into Evacuation Locations (September, 2001 - March, 2003)

More than one year after the evacuation, one dream of the islanders came true; short visits to Miyakejima Island were finally allowed. In a situation where no sign of permanent return to their home could be seen, residents temporarily visited the island to carry out their household items and start house maintenance. On the other hand, by directly viewing the devastated state, some finally came to believe that their life as evacuees would be longer than expected.

Period 4 - Extended Temporary Stays (April, 2003 - June, 2004)

The completion of Clean Houses made it possible for residents to stay longer on the island, and undertake real steps to maintain and restore their houses. At the same time, the government of Japan, the Tokyo Metropolitan Government and the government of Miyake Village started to make a plan for returning to the island, based on reports from the Exploratory Committee of Volcanic Gas Safety.

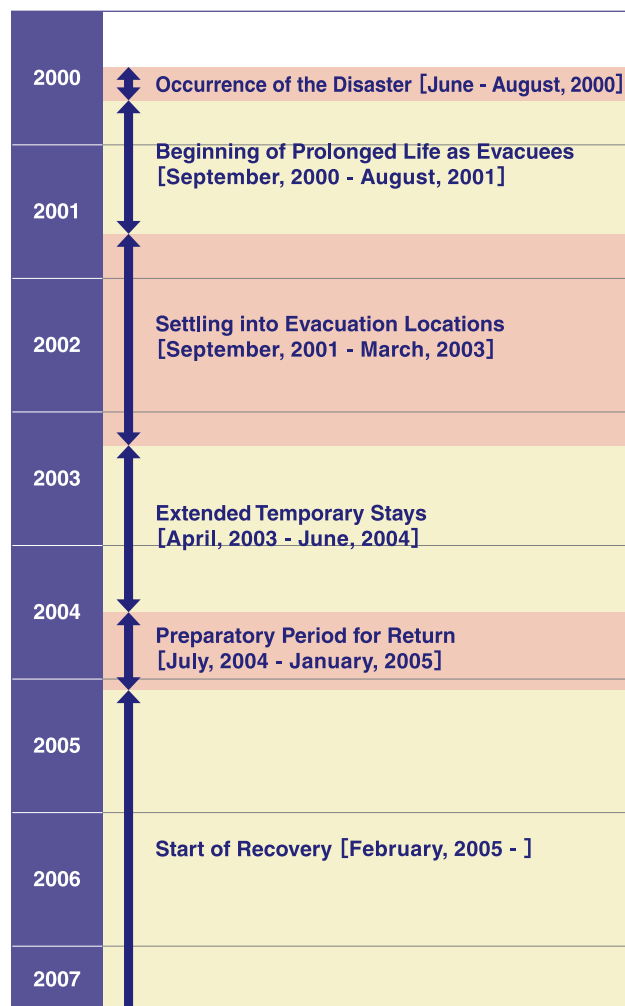
Period 5 - Preparatory Period for Return (July, 2004 - January, 2005)

On July 20, 2004, the government of Miyake Village announced the policy for returning, and the concrete plan for

return to the island was presented in September. This accelerated the preparations by the government at the national, Tokyo and Miyake Village levels. The residents of Miyakejima Island were forced to make final decisions about living along with volcanic gas. The word "self-responsibility" lay heavily on their minds.

Period 6 - Start of Recovery (February, 2005 -)

The long-awaited lift of the evacuation order was finally realized on February 1, 2005. Approximately 70 % of the residents who had left the island came back to Miyakejima Island, and recovery work, such as re-cultivation of agricultural lands, began.



Period Divisions

Outline of Eruptions

Approximately 17 years after the previous eruption, the volcano again became intensively active at the end of June in 2000. Although there were not large amounts of ejecta, this volcanic activity resulted in creating a large collapse crater. In addition, an extremely large amount of volcanic gas has been released over a long period of time, and it is still being emitted.

Submarine Eruption

Following a series of earthquakes occurring just under Miyakejima Island shortly after 6:00 p.m. on June 26, 2000, the volcano rapidly intensified its activity, and the epicenter gradually moved northwestward. On the next day, June 27, there was a change in the color of the seawater 1km off the west coast of the island, which is the sign of a submarine eruption. Later on, the epicenter moved to the west, and the volcanic activity on Miyakejima Island seemed to subside.

Summit Eruptions Leading to Collapse



Formation of the Caldera Before (left) and After (right) the Eruptions (Geographical Survey Institute)

The frequency of earthquakes started to increase on July 4. Then suddenly, small eruptions occurred at the volcano summit a little after 6:00 p.m. on July 8, creating a large collapse around the summit. The collapse continued over July through August, and developed into a collapse crater (caldera) 1.6 km in diameter and around 500 meters in depth.



Volcanic Gas Emission

This same mechanism of volcanic gas emission led to the creation of a caldera on Miyakejima Island approximately 2500 years ago, and it is a very rare type of eruption on Miyakejima Island, occurring once in several millenniums.

Volcanic Eruptions

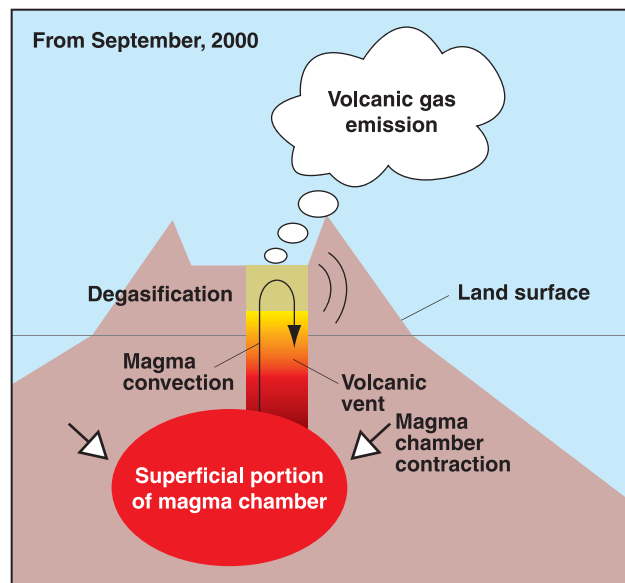
The summit eruptions continued at intervals after July 8. Eruptions occurred repeatedly from July 14 and 15, and large amounts of ash fell northeastward. It was on August 18 that the biggest eruption occurred; volcanic smoke reached approximately 14,000 meters up in the air, and large quantities of volcanic ash and lapilli, or volcanic cinders, were expelled and fell over a widespread area of the island. Eruptions producing pyroclastic flows occurred on August 29, and the flow reached the coastline.

Volcanic Gases

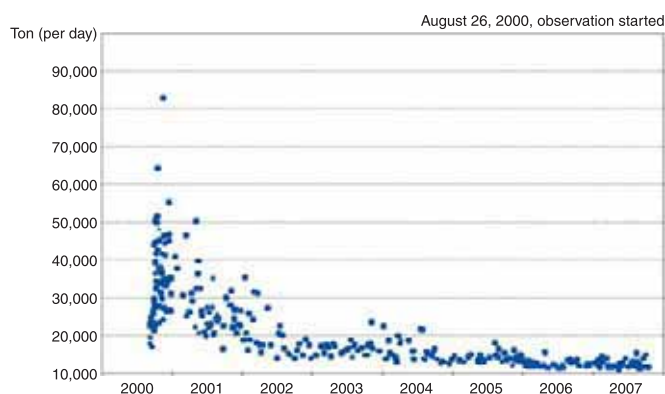
The volcanic gas emission started in the middle of August 2000, and the Japan Meteorological Agency began observation of the emission volume of sulfur dioxide, the toxic component of the gas, on August 26.

At its maximum, the sulfur dioxide emission hit a peak of over 70,000 tons per day in November 2000.

Even seven years after the eruption, gas emissions continue to be observed.



Mechanism of Volcanic Gas Emission



Changes in the Amount of Volcanic Gases Emitted

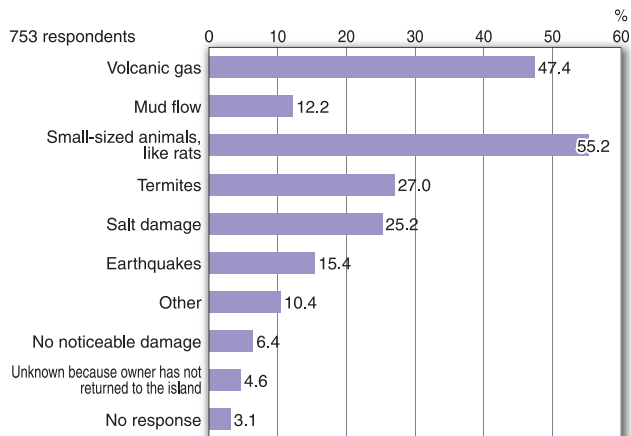
Outline of Damage

Various Causes & Types

The damage occurrence in volcanic eruptions is diverse due both to their causes and damage types. Mainly, they can be categorized by the type of damage they cause; in this case, direct damage, effects from long-term evacuation, and damage due to volcanic gases. The specific causes of house collapses are described in the diagram below.

Ungraspable Damages

Damages change their form over time and measures for recovery and reconstruction come into effect. Thus, complete determination of the damage, in which stage and what's

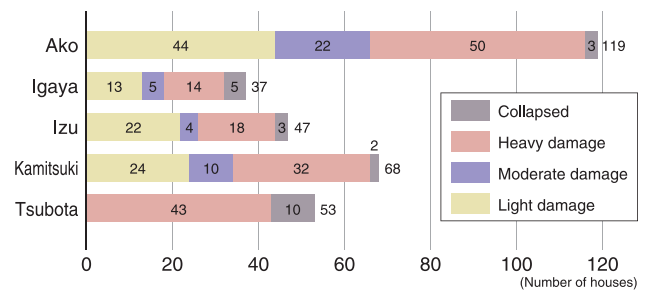


Causes of House Collapse (results from a questionnaire by the insulars' liaison team, 2005)

considered to be damage, is difficult to categorically assess. The official numbers and total damage from this volcanic hazard have not been finalized, as is characteristic of a long-term volcanic disaster.

According to research done on the houses which a damage qualification was applied for, 180 out of 324 houses, approximately 55%, collapsed or had heavy damaged.

Emergency precautions taken by islanders who returned to the island short-term, and the workmanship association's first-aid measures for the houses prevented the damage from escalating.



Degree of Damage	Collapsed	Heavy damage	Moderate damage	Light damage	Total
Number of cases	23	157	41	103	324
Percentage	7%	48%	13%	32%	100%

Damage Qualifications of Houses (as of October 24, 2007)



Roof Destroyed by Volcanic Gas

Subject	Direct damage	Effects of long-term evacuation	Damage from volcanic gas
Human Damage	*One person injured directly due to earthquakes and volcanic eruption	(Anxieties and stress)	*Disorders due to volcanic gasses increased according to a health inspection carried out after returning to the island.
House/ Facilities Damage	*Direct damage caused by volcanic cinders, earthquake, volcanic ash, debris-avalanche, ground deformation, etc.	*Damage due to abandonment, including deterioration, damage by rats and weasels, and the emergence of termites	*Corrosion of all kinds of metals used in housetops, bicycles, etc.
Effects on Nature	*Forest damage caused by volcanic cinders, volcanic ash; annihilation of sea life due to volcanic mud flow	(Ruin of agricultural lands)	*Decrease in wild birds; Damage to forest and plants; Effects of acid rain
Economic Damage	*Direct economic damages brought about by various damage	*Damage to livelihood due to suspension of business activities caused by evacuation *Deteriorating competitiveness of industries compared to other areas	*Decrease in population and acceleration of low birthrate and aging forest and plants; *Air transportation closure

Classification of Damage



Cars Rusted and Broken Down Due to Volcanic Gas



Dirt That Flowed into the Sea



Near the Summit of Mount Oyama

② By the Time of Full Island Evacuation



Large-scale eruption on August 18
Residents of Miyakejima Island faced unprecedented horror

June 26, 2000: 1st Emergency Volcanic Alert

When the Japan Meteorological Agency observed a volcanic tremor at 7:33 p.m. on June 26, it issued its 1st emergency volcanic alert warning that "strong precautions need to be taken for possibility of eruption" without hesitation. A disaster risk management office was established at Miyake Village, and the office ordered evacuations to areas such as Ako, Tsubota, Miike, and Igaya. Evacuation centers were set up at Miyake Elementary School and Miyake Junior High School, and as many as 1,857 people evacuated there. Later, the earthquake center moved west, further away from Miyakejima Island, so the danger of eruption seemed as if it were subsiding.

However, seismic activity increased in July, and on July 8, a small-scale eruption accompanied by volcanic ash occurred at the top of Mount Oyama. Eruptions occurred again on the July 14 and 15, and massive amounts of ash fell on the Kamitsuki Area in the northern part of the island. On July 26, mudslides occurred due to heavy rain. On July 30, earthquakes measuring 5 and 6 on the Japanese intensity scale occurred frequently, and eruption concerns rapidly grew. Eruptions occurred successively as a small-scale eruption accompanied by massive volcanic ash occurred on August 10, followed by another small-scale eruption on the August 14.



July 8: Eruption



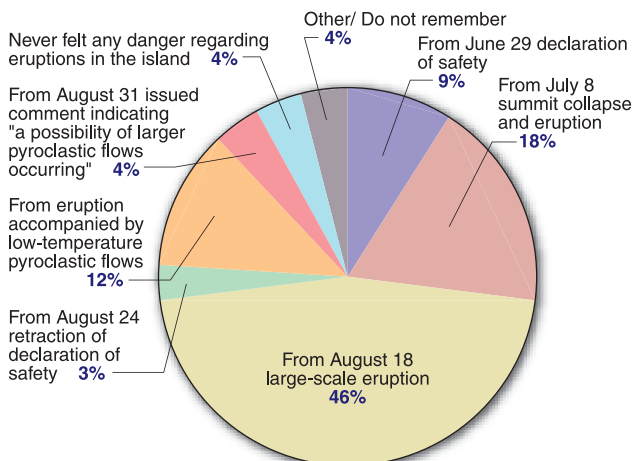
July 14: Early Evening Eruption



July 15: Morning Eruption



July 27: Heavy Rain after Fall of Volcanic Ash Causes Mudslides



When Feelings of Danger Due to Volcanic Activities Arose
(questionnaire conducted by Tokyo University)



August 21: Self-Defense Forces Re-visit the Island to Remove Ash Accumulated on the Roads and Houses of the Elderly.



August 29: Large-scale Eruption

Volcanic Ash Removal

The largest eruption occurred at 5:02 p.m. on August 18, and the volcanic smoke raised by this eruption reached a height of 14,000 meters. Fortunately, there were no casualties, but several large volcanic cinders caused damage to the roads and broke the windows of many cars in the southern part of the island. Volcanic cinders and ashes from this eruption fell island-wide, which heightened the sense of crisis within the island's residents. From this day, the number of residents independently evacuating the island increased.

People in Need of Nursing and Elementary and Junior High Students Evacuated

Continuous eruptions and mudslides made supplying care

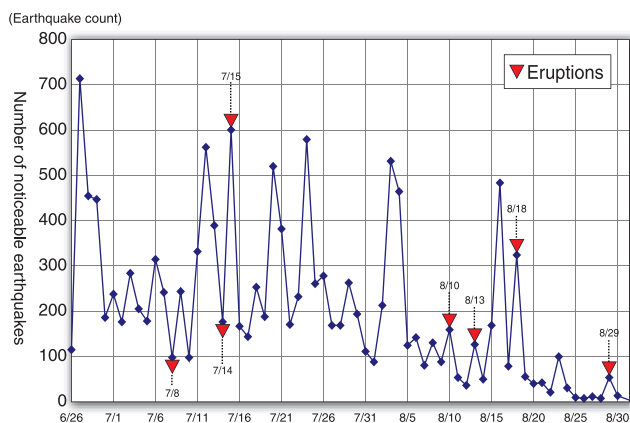


Chart of Noticeable Earthquakes and Eruptions

service difficult, so the decision to evacuate people in need of home nursing off the island was made on August 23. The next day, elementary and junior high students were ordered to evacuate the island as well.

August 29: Eruption and Low-temperature Pyroclastic Flow

At 4:35 a.m. on August 29, an eruption with volcanic smoke rising up to 5,000 meters occurred. The occurrence of a low-temperature pyroclastic flow was also confirmed by a picture taken by a local resident.

Following the eruption, the disaster risk management office that had been set up by the national and Tokyo Metropolitan Governments then dismantled at the end of June, was reestablished. As well, the evacuation of elementary and junior high students which was planned for the following day was moved forward and quickly implemented.

On the August 31, the Volcanic Eruption Prediction Liaison Team issued the comment that "the occurrence of eruptions and pyroclastic flows larger than the ones that occurred on the 18th and 29th of August is possible."

At this time, approximately 70% of the islanders had already evacuated the island.

	In Residence	Evacuated	Total
Population	1,145 About 30%	2,710 About 70%	3,855
Male	759 About 40%	1,175 About 60%	1,934
Female	368 About 20%	1,553 About 80%	1,921

Evacuation Status on August 31



Low-temperature Pyroclastic Flow Occurred Due to the Eruption on August 29

③ Evacuation Life: The Beginning



Authorized disaster prevention personnel see the evacuees off; 600 remain on the island as disaster prevention personnel.

❑ Full-island Evacuation Decided

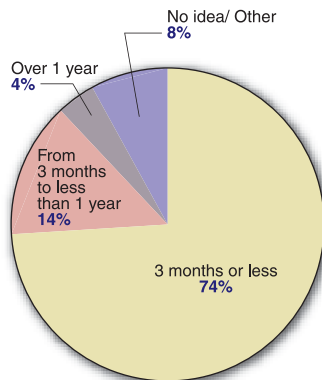
September 1, 2000

On September 1, it was decided to evacuate the entire island. Also at that time, measures were also taken to allow the villagers of Miyakejima Island who evacuated to return temporarily from September 2 to 4 even after the announcement of the evacuation order.

❑ September 4, - Evacuation of Entire Island Completed

The Islanders' Idea

At this time, many islanders believed they would be able to return home within three months. Therefore, many people evacuated without many extra clothes or other things.



Disaster Prevention Personnel

Approximately 600 people remained on the island.

Their purpose included doing the following:

- 1) Implement emergency mud flow measures and to maintain the function of road, traffic and lifeline so the islanders could promptly resume their lives after returning to the island.
- 2) Continue observation of volcanic activity.
- 3) Be aware of the state of the island in order to accurately inform the islanders, now living off the island, about the situation there.

Besides the authorized disaster prevention personnel, business people involved in transportation, garbage-disposal, fuel, auto repair, photography, etc. also remained on the island as disaster prevention personnel.

September 2, 2000, 7:09 am

Notification from Miyake Village Disaster Management Headquarters

Miyake Village Disaster Management Headquarters announces an evacuation order effective from 7:00 a.m. today, September 2, that all islanders except those involved in disaster prevention and life maintenance personnel must leave the island.

The "Sutorechia-maru" liner will be used to carry out the evacuation for three days starting today. Municipally-owned buses have been arranged for transport to the departure port; do not use personal vehicles for transportation. Please board at the appropriate stop; the schedule is as follows. There are 2 routes. Route 1 departs from Igaya-chuzaisho-mae at 11:00 a.m. and continues to Miike Port via Izu, Kamitsuki and Miike. Route 2 also departs at 11:00 a.m. from Miyakemura Local Welfare Center and continues to Miike Port via Tsubota.

If you will be taking your dog or cat with you, you deliver them to the port by 9:30 a.m.

Please strictly observe the following precautions: make sure that the doors are locked, turn off the breaker, turn off the gas and water at the mains. Please put the garbage out at the collection point.

Please bring your lunch on the evacuation day.

Evacuation Order Announcement



The National Olympics Memorial Youth Center Which Became the Evacuation Location

Olympic Center

Approximately 1,300 islanders evacuated from September 2 to 4. Half of them went to their children's or relatives' homes. The rest temporarily moved into accommodations at the National Olympics Memorial Youth Center, Yoyogi, Shibuya Ward. At the center, Tokyo Metropolitan Housing provided services for them, and islanders who decided on a place to live quickly moved out. By September 9, everyone had left the center. As of September 13, 846 families had decided to move into Tokyo Metropolitan Housing.

❑ Evacuation Destination

No Emergency Temporary Housing

At first, public housing was temporarily provided not only by Tokyo Metropolitan Housing, but also through

municipally-owned housing and Urban Development Corporation. As of October 24, 2000, 2,426 people were provided with public housing. Instead of public housing, over 880 evacuated people relied on their relatives for housing. Another 305 people moved into company housing, and 70 people moved into medical or welfare institutions. In this disaster, there was no emergency temporary housing which is usually built for a large-scale disaster. Instead, unoccupied public housing was utilized as the main evacuation facilities.

Dispersed Evacuation Destinations

The authorities secured temporary residences for the victims with rapid dispatch; however, the islanders were dispersed throughout Tokyo and neighboring prefectures with no exchange of information regarding the various evacuation destinations. As of October 24, 2000, about 90 percent of the evacuees were dispersed throughout Tokyo in 23 wards, 26 cities and 3 towns. The rest were dispersed over 20 prefectures, extending from Hokkaido to Okinawa Prefectures. This divided community resulted in difficulties in later support of the victims.

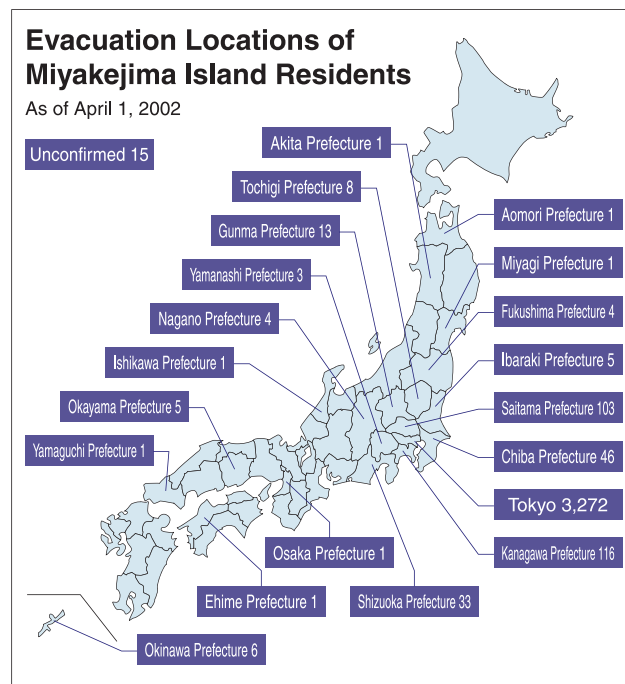
The Widest Village in Japan?

Information Service for Islanders in Need

The village's first worry was not knowing the islanders' whereabouts, as they were dispersed across the country. Through the media, the village urged islanders to inform them of their location as soon as their evacuation place was decided. Successful results were achieved with this method and two months later 95% of the islander's evacuation

locations had been confirmed. After that, information was carefully sent by mail twice a month.

As many islanders put forward a request to be informed of the state of restoration of the island and the prospects of volcanic gas, explanatory meetings were held. The meetings were held 7 times until returning to the island. Due to the dispersion of the islanders, the meetings were held at 2 to 3 locations each time.



Evacuation Locations Dispersed Across Japan

Time	Date	Explanation	Questions/Requests
1	November 25, 26, 2000	<ol style="list-style-type: none"> 1. Current situation of Miyakejima Island (video showing) 2. Lecture about volcanic activity of Mt. Oyama 3. Current situation of damage and future response 	<ul style="list-style-type: none"> *Livelihood support for parents who have children in school *Request for mental health care for children *Request that a town councilor reside in each housing complex *How long it will take the infrastructure and lifeline to recover on the island *Request that they try to limit the extent of the house damage in the island *Request for people affected by the disaster to temporarily return home
2	May 12, 13, 20, 26, 2001	<ol style="list-style-type: none"> 1. Current situation of Miyakejima Island (video shown) 2. Temporary return to the island under discussion with the national and metropolitan governments 3. Start of overnight residence on the island from May 4 4. Allocation of support funds 5. Establishment of a support project for residents' autonomous action 6. Send photographs to families whose homes were damaged by mud flow 	<ul style="list-style-type: none"> *Actualize a temporary return; if that isn't possible, provide more information *Request to eliminate the need for a receipt for support funds *Anticrime measures on the island *Request to integrate evacuation housings *Not enough support for people outside Tokyo *Request to receive a hopeful explanation *More support for evacuees *What are the duties of an information connector? *What measures against long-term disasters have been prepared?
3	October 20, 2002	<ol style="list-style-type: none"> 1. Explanation of volcanic activity 	<ul style="list-style-type: none"> *Implement measures for livelihood support now and after return home *The time period to return home *Support the cost of home repairs *Support for the elder after returning home
4	March 2, 2003	<ol style="list-style-type: none"> 1. Mutual and earthquake insurance 	
5	April 24, 25, 29, 2004	<ol style="list-style-type: none"> 1. Village council opinion about returning home 2. Islanders' return program preparatory commission report 3. Situation of volcanic gas 4. Volcanic gas and health effects 	<ul style="list-style-type: none"> *Need more information to make a decision *Support measures for people who cannot return home at once *The time period for returning home *Caring for the elderly and highly sensitive *How to move *Village-owned housing *Home repairs *Livelihood support after returning home *Measures against volcanic gas
6	September 18, 19, 2004	<ol style="list-style-type: none"> 1. Explain the results of a survey to measure islanders' feelings about returning home 2. Explanation of return home plan 3. Explanation of "Returning Home and Resuming a Normal Life" guidebook 	<ul style="list-style-type: none"> *Support in highly-concentrated areas *Agriculture in highly-concentrated areas *Measures against volcanic gas after returning home *Request to improve desulphurization equipment promptly *Request to be able to go to the island freely *Measures for residences of people who don't return home *Interpretations of self-responsibility
7	November 20, 21, 23, 2004	<ol style="list-style-type: none"> 1. Moving plan 2. Preparatory acceptance of applications for Natural Disaster Victims Relief Fund 3. Preliminary consultation about disaster support funds 4. Application for Tokyo Metropolitan Housing after lifting the evacuation order 	<ul style="list-style-type: none"> *Procedure for support funds *How to move in *The time period for moving into municipally-owned housing *The results of medical examinations before returning home *Compact desulphurization equipment

Outline of Explanatory Meetings for Residents

Evacuation of Children

Evacuation of Only Children

After the massive eruption on August 18, sheltering children off the island was considered. As it was believed the children wouldn't have to stay in the shelter for long, it was decided that they could choose either to commute to a school near their shelter or to board in a dormitory utilizing Akikawa High School's facility. After the massive eruption of August 29, it was suddenly decided that the children were to evacuate the island.



Parents Seeing off Their Children Who Were Evacuating Earlier

Boarding Life at Akikawa High School

When communal boarding life separate from the family home began, it was believed that to be only for a short time. As it turned out to be longer than expected, it became more difficult, especially for children in the lower grades of elementary school. As they had to be away from their parents, some children became emotionally unstable, while others became physically unwell or started craving physical contact.

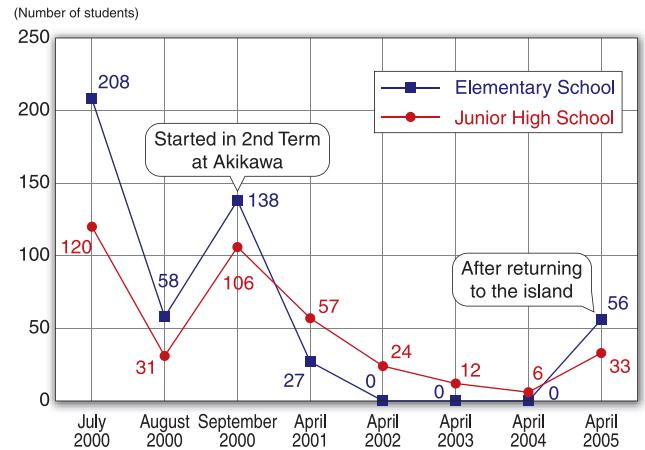
Sheltering Away from Home

One teacher, who was responsible for first grade students, observed, "The children seemed sad at night, or wanted me to sleep beside them. I realized that no matter how much care and affection we teachers give the children, we can't take the place of their parents." As the length of time in shelters was prolonged, there were gradual changes in the children's mentality. The level of stress children experienced from the communal boarding life began to influence their health and behavior.

There were cases where parents had no choice but to leave their children at the dormitory due to the environment at their

Some Direct Physical Influences of Stress	Indirect Behavioral Influences of Stress
*worsening bronchial asthma	*bullying
*tics or nail biting	*telling lies
*recurring stomachache	*regression
*orthostatic disregulation	*insomnia
*psychogenic nausea	*apathy and reduced concentration
*alopecia areata	*unclean acts
	*violent acts
	*disobeying rules

Symptoms Caused by Children's Stress (data gathered from the school infirmaries used by both elementary and junior high school students)



Changes in the Number of Students at Akikawa Between the Time of Evacuation and the Time of Return

own evacuation location, employment issues, and so on. However, schools are where children are educated, not where they are raised. In that sense, there were limits to the long-term care the teachers could provide the children.

Support Children Received

The children received a lot of support and encouragement from all over the country. They were comforted and cheered up by the many events planned and invitations received. The children of Miyakejima Island received a lot of support not only at Akikawa, but also at other schools where they were sheltered.

Additionally, volunteers organized a child and school support center which dealt with dormitories and the great amount of relief supplies received.



Meal Preparation at the Dormitory



A Dormitory Room

Evacuation of the Elderly

August 24: Evacuation of the Elderly Requiring Assistance Commenced

Before the eruption of 2000, there were 40 people using home visit services by caregivers and 49 people who lived in a special care nursing home.

Those aged people who were left on the island due to their inability to evacuate on their own started feeling worried after the massive eruption of August 18. As the eruptions, volcanic ash fall and mud flow continued, it became more and more difficult for staff members at the special care nursing home and the Counsel of Social Welfare to provide care for them. The staff members repeatedly requested the local government and the prefectural government to assist those aged people to evacuate the island. Between August 24, when evacuation of the aged requiring assistance commenced, and September 1, 70 elderly people and 1 disabled person evacuated the island and were immediately taken to shelters in various facilities throughout the Tokyo Metropolitan area.

Aged People at a Loss in City Life

Many of the evacuated aged people were not familiar with the neighborhood and were perplexed with how to use public transport system. Additionally, the completely different from the island situation of living in large scale apartment complexes, city noise and relationships with neighbors all contributed to great anxiety among them.

Problems Faced	Number of Cases (%)
Unfamiliarity with public transportation in the city	140 (20%)
Long distance to the nearest bus stop or station	113 (16%)
Difficulty getting around with due to leg handicaps	112 (16%)
Lack of knowledge about the location of shops, hospitals and other public places	65 (9%)
Lack of knowledge about where to get welfare assistance or services of caregivers	24 (3%)

From a Questionnaire Conducted by the Council of Social Welfare Soon after the Evacuation (700 responses)

Although They Were Active on the Island

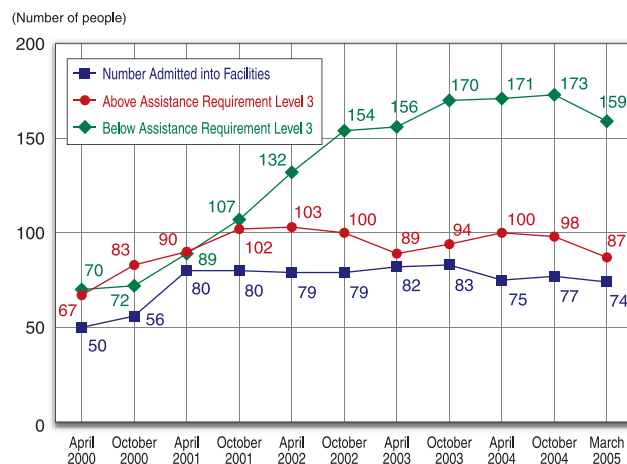
No Jobs for Them in the City

While even those in their late 60s and 70s had actively been

Subjects: Heads of 660 households over 65 years of age		
Household Structure	Husband and a wife only	37%
	Living with children	33%
Employment Situation	Unemployed	60%
	Willing to work but no job	13%
Poverty Level	Employed	10%
	Very poor	10%
Source of Income	Poor	49%
	Unchanged	36%
Household Income	Pension	62%
	Withdrawals from savings	26%
	Less than 80,000 yen (eligible for welfare)	35%

Current Living Conditions Survey of Aged Households (1st investigation) Miyake Village (May 2001)

taking part in local industry on the island, it wasn't easy for the aged to find jobs in the city. Not only the financial reasons, but also the lack of physical activities negatively influenced them both mentally and physically. There was a sudden increase in the number of elderly people admitted to nursing homes or registered as people requiring assisted living around the time of evacuation, which shows that both the aged and their families were harshly affected mentally and physically by the evacuation.



Changes in the Number of People Requiring Assisted Living and the Number of People Admitted to Facilities

Senior Support Center

"Senior Support Center" was established in order to provide a place for the islanders to gather, and for isolated and worried elderly people to receive advice and consultation about general living. There were a number of opportunities for the islanders to gather and communicate with one another. Quite a few senior people lead modest lives supporting each other.



Senior Support Center (Public health nurses visit regularly to give consultation and guidance on health)

On the Island

Ship Hotel

Though the disaster management related personnel also left the island after the evacuation order was issued, it was crucial to observe the volcano and maintain electric power and communication. Therefore, the on-site disaster countermeasures headquarters chartered a passenger boat as accommodations. Operations on the island continued, while Self-Defense Forces patrol aircraft flew over to monitor them.

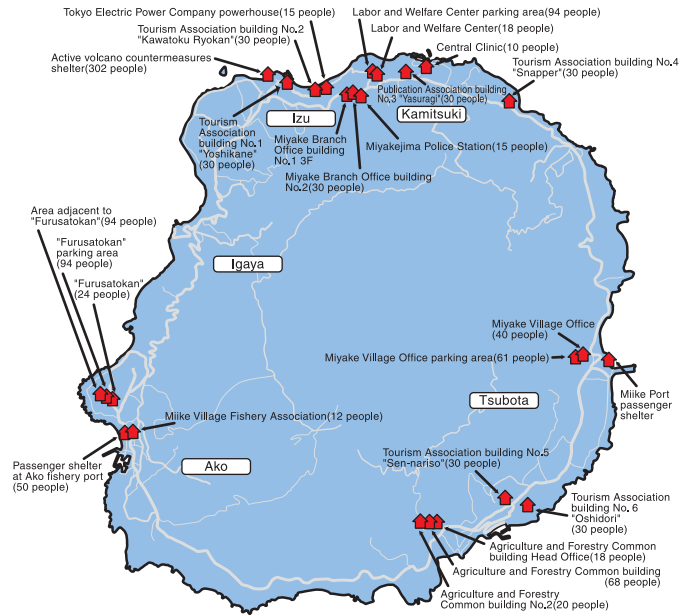
Bad Weather Obstructs Access to the Island.

Disaster-relief Work

The relief operation directed from the offshore base was, however, limited due to the arrival of the season of many typhoons, and the heavy ocean swell. So at the beginning of October, the headquarters was moved from Miyakejima Island to Kozushima Island, located 40 kilometers northwest. At first, the only mode of transportation to Miyakejima Island was a few fishing boats. Until heliports were prepared and large vessels could start service, fishing boats which had escaped to Shimoda Harbor played a helpful role in taking the relief crews to the island. The trip was one hour each way, crossing over the ocean which was often running high

Desulphurization Equipment

It was difficult to maintain mudflow management, the roads



Established Clean Houses

and lifelines and step up restoration operations, because the ratio of boat and vessel service from Kozushima Island to Miyakejima Island, which started in October, 2000, stayed at approximately 60% for about six months. The Tokyo Metropolitan Government decided to install desulphurization equipment and establish clean houses on the island to enhance the operation. The first clean house established was the Tokyo Metropolitan Miyake Branch Office.

After its safety was confirmed through two-month trial stay



Fishing Boats Continued to Take People to the Island in the Harsh Winter Climate



Desulphurization Equipment Installed in Accommodations

Time Period	2000				2001												2002			
	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
System	Ship Hotel	[Bar chart showing service from Sep 2000 to Dec 2000]																		
	Commuter vessel from Kozushima Island	[Bar chart showing service from Oct 2000 to Dec 2000]																		
	Overnight stay	[Bar chart showing service from Oct 2000 to Dec 2000]																		
Modes of Transportation	Fishing Boats	[Bar chart showing service from Sep 2000 to Dec 2000]																		
	Ebine-maru	[Bar chart showing service from Oct 2000 to Dec 2000]																		
	Hamayu-maru	[Bar chart showing service from Oct 2000 to Dec 2000]																		
	Helicopter	[Bar chart showing service from Oct 2000 to Dec 2000]																		
Operation System	Service Ratio	-	70%	52%	62%	48%	85%	46%	79%	77%	86%	86%	81%	84%	67%	87%	60%	67%	79%	73%
	No. of Boats from Kozushima Island	0	280	200	876	940	1,577	2,036	3,574	3,425	5,592	5,701	5,566	4,982	4,050	3,587	1,775	1,479	1,682	1,630
	Overnight Stay Ratio	-	-	-	-	-	-	-	-	67%	73%	87%	71%	100%	100%	100%	100%	100%	100%	100%
	No. of People Staying Overnight	661	0	0	0	0	0	0	0	不明	不明	650+α	1,563	3,471	5,627	8,827	8,948	8,340	12,744	14,391

Record of Transportation to Miyakejima Island and the Number of Lodgers

from May to July, 2001, actual overnight stays started.

From that point, prefab lodgings with desulphurization equipment installed were built, but the construction couldn't keep up with the increasing number of relief crews. The lodgings were soon filled beyond capacity. Therefore, with the cooperation of private Japanese-style hotels and guest houses, desulphurization equipment was installed and the accommodation situation of reconstruction workers was greatly improved.

What is volcanic gas?

Volcanic Gas

When the concentration of volcanic gas becomes high, it appears as if a bluish "fog" is floating. The active emission of gas from the volcano's collapse crater began in the middle of August. The gas contained vapor, carbon dioxide (CO₂) and sulfur dioxide (SO₂) etc. Sulfur dioxide, in particular, is harmful to humans. It is colorless with a pungent odor, and irritates the eyes and the throat. Inhaling high concentrations of sulfur dioxide can provoke difficulty breathing. Even at low concentrations, people with asthma can have asthma attacks and suffer severe symptoms in some cases. Workers involved in reconstruction operations on the island were instructed to carry a gas mask when the concentration was less than 2 ppm, and wear it to work when the concentration was over 2 ppm (up to 20 ppm).

Volcanic Gas Study Commission

Though volcanic gas tends to decrease in the long term, this one did not show signs of a declining trend. Thus the Cabinet Office and the Tokyo Metropolitan Government created a Miyakejima Island volcanic gas study commission on September 30, 2002 in order to scientifically study under what gas conditions the residents could be allowed to return to the island without jeopardizing their health and safety. In March, 2003, the commission reported the study results and presented what effects volcanic gas has on the human body, classifying them into two categories; long-term and short-term effects. The critical gas concentration based on acceptance of the risk that mild chronic effects could increase to some extent, for example coughing and phlegm was indicated to prevent long-term effects. Also, reported were the concentration levels to be observed to prevent short-term effects which would be provoked by inhaling high levels of sulfur dioxide instantaneously or over a short time.

The decision of when to allow the residents to return to the island was based not only on the attainment of an acceptable gas concentration related to long-term effects and when the emission situation would generate short-term effects, but also on the progress of safety-ensuring measures to minimize the effects on health.

Furthermore, upon return to the island, an ordinance prohibited living in two districts determined to be "high density areas," because gas concentrations were above the acceptable level in consideration of long-term effects.

Critical Gas Concentration to Prevent Long-term Effects	
*Average annual density should be 0.04 ppm or lower	
*Annual number of times the hourly value concentration surpasses 0.1 ppm should be 10% or less	

Critical Gas Concentration to Prevent Short-term Effects		
Level	5-minute Value	Effects
1	0.2ppm	*Concentration can affect the health of highly sensitive people *Concentration that necessitates surrounding people to pay careful attention to those requiring support.
2	0.6ppm	*Concentration can seriously affect the health of highly sensitive people
3	2ppm	*Concentration that requires a general alert to be given to all people
4	5ppm	*Concentration that will start seriously affecting all people

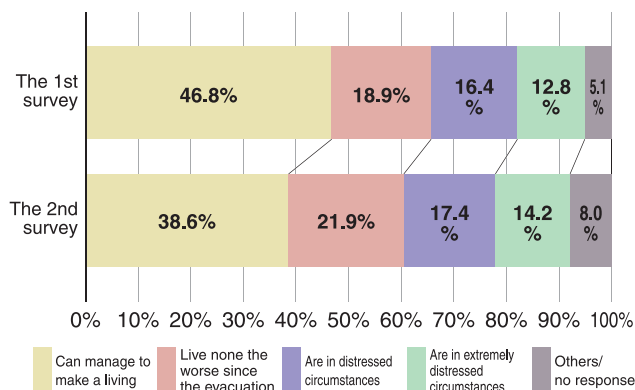
Safety Measures to Minimize Effects on Health
<p>[Residents' Preparation]</p> <ul style="list-style-type: none"> *Obtain accurate information about volcanic gasses *Everyday health care *Carry a gas mask *Voluntary evacuation *Mutual cooperation with neighbors
<p>[Measures to Ensure Safety]</p> <ul style="list-style-type: none"> *Monitoring and observation of volcanic gas behavior *Monitoring of sulfur dioxide concentration & transmission of emergency information *Establishment of evacuation system *Ensure health care and medical care system *Dissemination of knowledge and education on volcanic gasses(Risk communication)



④ Prolonged Life as Evacuees

Harsh Economic Conditions

A survey about current living conditions conducted by Miyake Village showed that more than half of the Miyakejima islanders lost their livelihood or had decrease in income.



From the First(March 2001)and Second(December 2001) Current Living Conditions Survey of Evacuees

Unprecedented bailout – Interest Rate Subsidy

Especially due to the island-wide evacuation, the majority of Miyake Village-based business corporations continue to have few prospects for sales or income from most of their business locations. According to a questionnaire conducted by the Miyake Village Chamber of Commerce and Industry, about 90 percent of these business corporations remained inactive. In addition, 60 percent of the business entities have outstanding loans which were taken out before the eruption, and half of them continue to repay their loans. The Miyake Village Chamber of Commerce and Industry reported these facts in symposiums and written petitions. Their efforts resulted in an unprecedented bailout plan. Three parties, the Japanese Government, the Tokyo Metropolitan Government and the Miyake Village local government, worked together to provide an interest rate subsidy for the loans which business corporations had taken out before the disaster happened.

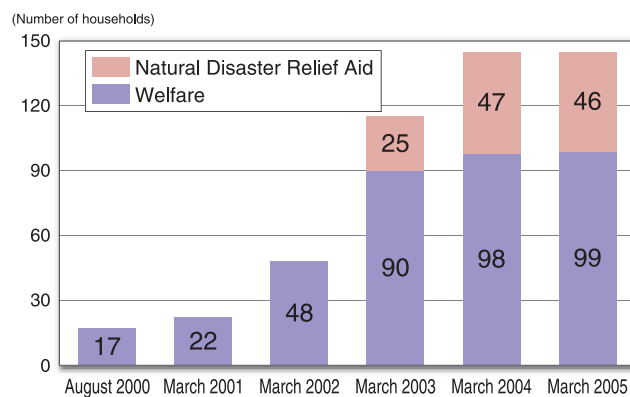
Unprecedented aid – Natural Disaster Assistance Projects

Surveys show that the livelihood of those in elderly households especially worsened remarkably after the evacuation. In April 2002, the Tokyo Government conducted a door-to-door survey of low-income

households, of which the householder was 50 years old or older. According to the results of the survey, the Tokyo Metropolitan Government estimated that about 300 households had an income lower than the standard for welfare recipients.

The Tokyo Government has supported evacuees applying for welfare by sending caseworkers to visit them. In addition, it decided to implement the "Miyake Village Special Aid Plan" as its unique bailout program in February 2003.

Under the plan, the Tokyo Government provides economic aid equivalent to the welfare benefits of households which have bank deposits of five million yen or less and did not qualify to receive welfare. Tokyo continued to this assistance until February 2005 when it lifted the evacuation directive. At its peak, 48 households were paid an average of 58,000 yen per month. The subsidy provided support during the harsh conditions of their evacuation lifestyle.



Recipients of Welfare and Natural Disaster Relief Aid

Gratitude

Natural Disaster Victims Relief Fund and Monetary Donations

The Japanese government decided to apply the preferential measure of the Natural Disaster Victims Relief Law to long suffering households from the natural disaster. The Tokyo Metropolitan Government provided similar aid for households not covered by the preferential measure. Relief money donated to the Miyakejima islanders was reached 2,739 billion yen in February 2005.

Time	Month/Year	Distribution Method	
1	August 2000	28,000 yen per person	
2	December 2000	90,000 yen per household + 120,000 yen per person	
3	May 2001	90,000 yen per household + 120,000 yen per person	
4	December 2001	90,000 yen per household + 120,000 yen per person	
5	December 2004	90,000 yen per household + 120,000 yen per person	
6	August 2005	Household returned to the island	300,000 yen per household plus 50,000 yen per person Highest concentration: One million yen
		Household did not return to the island	150,000 yen per household
		Household moved back to the island again	90,000 yen per household plus 120,000 yen per person
7	February 2006	Cases where a household suffered due to mudslide, earthquake, etc.	Household living in owned house: one million yen Household living in a rental house: 500,000 yen
		Cases where a household is in an area with a high gas concentration	

Status of Distribution of Relief Money

Exchange

Miyakejima Islanders' Telephone Directory

Maintaining the sense of community and providing mutual aid was a key issue for islanders while they took shelter at separate locations. To achieve this, the development of a telephone directory to enable evacuees to keep in touch with one another was of great importance. The development of the telephone directory was supported by the Miyakejima Natural Disaster/Tokyo Volunteer Support Center consisting of the Tokyo Volunteer Network for Disaster Relief, Tokyo Volunteer Action Center, the Tokyo Handicap Network and Miyakejima Council of Social Welfare.



Miyakejima Islanders' Telephone Directory

Voluntarily Assembled Islanders Association and Liaison Team

Miyakejima islanders strongly believed that islanders had to support each other while at evacuee shelters. Centering on the apartment blocks where a relatively large number of villagers was located, they began to develop a place for communication with each other. In this way, Miyakejima Islander associations naturally developed at individual shelters. In April 2002, the representatives of the associations in each region gathered and organized a liaison team.

We're Happy Just to See Each Other

Miyakejima Islanders Interchange Gathering

The Miyakejima Tomin Fureai Shukai was held as a cooperative effort to promote friendship between Miyakejima islanders who took shelter at separate locations and volunteers who supported the evacuees, by Miyake Village and the volunteer groups. Gatherings were held nine times at Shibaura Public Elementary School in Minato Ward, Tokyo. It was one of the events that islanders enjoyed very much, and had 1,000 participants or more every time.



Participants at Fureai Shukai

Genki Nojo farm and Yume Noen ranch

The Miyakejima Genki Nojo and the Miyake Village Yume Noen were opened in Hachioji City and Koto Ward respectively, where evacuees grew vegetables and flowers as an employment program. Working on these farms enabled the islanders to move their bodies, develop a daily rhythm, enjoy chatting and feel the earth. It also provided them a livelihood, as well as positive effects on their health.



Genki Nojo



Yume Noen



Yume Noen Participates in Koganei Citizens' Festival

⑤ Desire to Protect Our Homes



Learning How to Use Gas Masks for Temporary Home Visits

Request for Temporary Visits

After one year had passed since the evacuation, evacuees had become accustomed to living in housing away from home. What concerned them most was the actual condition of their own houses on the Miyakejima Island. Any house might have been damaged by volcanic gas, falling ash and mudflow. Many islanders left home in a flurry when the evacuation order was issued. Nobody expected to live away home for such a long period and most of the families could not bring valuables, ancestral tablets, albums and so forth from their houses. The houses on the island already required frequent care as the galvanized iron roofs were easily corroded by sea breezes. Additionally, typhoons often hit the island. The former inhabitants wanted to do many things for their houses to limit the extent of the damage and avoid any further harm.

Mudflow Victims' Temporary Visit Home

Of course, the central and the Tokyo Metropolitan Governments, as well as Miyakejima Island local government, were not just sitting back doing nothing, but the public administrations had to make full safety preparations to meet the islanders' request. It was July 13, 2001, when the strong wish of the mudflow victims, who had been informed of the damage to their houses, came true, and about 70 representatives whose houses were completely or partially destroyed landed on the island. Thorough safety measures were formulated by disaster prevention related organizations, and that first group of 73 members, accompanied by about 180 guards and security staff, paid a half-day visit home from early morning to noon.

House Damage Revealed for the First Time

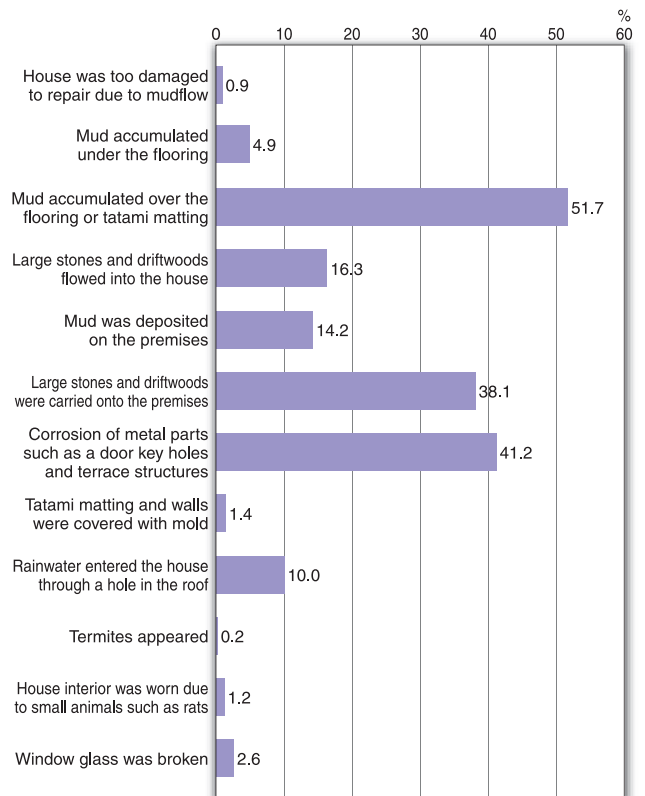
In September, 2001, more than one year after the evacuation, families other than the mudflow victims were able to visit the island to check their houses. The village set up a "Temporary Visit Home for Every Household Project Team" to handle the great amount of necessary preparations, such as chartering passenger boats, leasing and transporting 10 large-sized buses, preparing gas masks and helmets, offering food, listing would-be visitors, and providing information to the islanders through a telephone service.

The visit home project was successfully held with the participation of 1,608 people from every household. Afterwards, the village surveyed project participants on house damage. The survey provided an overview for the first time of the damage to the houses which had been left alone over a long period of time. While some houses suffered

damage from rainwater due to the roof having been harmed and others were worn due to weasels and rats, quite a few houses were not greatly damaged. Thus, the first round of the temporary visit home project finished with mingled feelings of joy and sorrow.

We Want to Protect Our Houses/Helpful Activities of the Workmanship Association

After the first round of one-day visits completed from



Overview of House Damage (Results of questionnaires which were sent out after the temporary visit)

Date	Itinerary	Notes
1st day		
17:00	Decision for departure	
17:30	Distribution of guide staff	
18:00	Start of reception	*Miyake Village Tokyo Office (Document Library 6F)
19:30	End of reception	
20:00	Start of briefing	
20:30	End of briefing	Boarding party moves to Takebashi Pier
21:30	Start of boarding	Briefing
21:30	End of boarding	
23:00	Departure from Takeshiba	Spend the night onboard
2nd day		
04:30	Wake-up	
05:00	Breakfast	
05:00	Preparation of disembarkation	
05:30	Arrival at Miyakejima Island	
06:00	Departure by bus (10 buses for residents)	
07:00	} Temporary visit period (maximum 4 hours, minimum 3 hours)	
08:00		
09:00		
10:20	Arrival the pier by bus	Boarding
10:50	Departure from Miyakejima Island	
12:00	Lunch	
17:30	Arrival at Takeshiba	Disembarkation Send-off

Temporary Visit Schedule



Izu Shelter under Construction

September to October 2001, numerous requests to repair roofs were made by the residents who had checked house damage caused by rainwater. On November 13, 2001, workmen from the island, including carpenters and sheet metal workers, gathered to organize the Miyakejima Island Workmanship Association. The skilled members who had been repairing the houses on the island couldn't bear to leave the damaged houses unattended. The newly launched association started with 13 members. The house repairing operation progressed with the cooperation by the Kozushima Island Workmanship Association and the number of the repaired houses finally reached 1,300 in total.

Expected Izu Shelter, Visit home to stay

The one-day visit project continued even after every household could make a temporary return to their home. However, as two years had passed, the house damage was becoming more severe. It was essential to take measures to curb the expansion of the damage. One-day visits, which allowed the residents to care the house for only about four hours, limited their ability to take necessary actions.

Since July 2001, recovery workers stayed over-night on the island. Facilities called "Clean Houses" were specifically built for the disaster prevention personnel and recovery operations staff, so the islanders were not allowed to stay there at night. Therefore, they needed to wait for the completion of another clean house, called "Izu Shelter," where they could stay over-night. The facility was built,



Heading for Their Homes from the Shelter Where They Stayed Over-night

based on the Special Measures Law on Active Volcano, with the village government as the project implementing body. Construction was completed at the end of March, 2003, at a cost of about 1.5 billion yen.

❖ We Want Our Children to See Our Home Island!

Children's Temporary Visit to the Island

In August, 2002, students of elementary, junior high and senior high schools paid a one-day visit to the island, accompanied with their parents and teachers. In the following year, children again visited their schools and their own houses as "experiencing our hometown." In February, 2004, 3rd year students of Miyake High School visited their alma mater as a commemorative graduation event. It was the return of the children, bearers of the island's future.



Students' Temporary Visit Home in August, 2003

⑥ Preparation for Islanders' Return



Officials nervously announce the guidelines for islanders' return

New Mayor Elected on Commitment of Return before Year End

In October 2003, an islanders' return program preparatory commission was established by three authorities, the Cabinet Office, the Tokyo Metropolitan Government, and the Miyake Village government. The commission held discussions on various matters: sorting out problems with return preparations and recovery support activities after the return and proper response to each minister's response to the requests from Tokyo and Miyake Village. In February 2004, just before the commission concluded its report, a mayoral election was conducted in the wake of the resignation of the previous mayor (the late Mr. Ko Hasegawa) due to health conditions. With the pledge of "early return, early reconstruction, and early restoration," Mr. Sukeyasu Hirano was elected mayor. Both the newly elected mayor and the commission report finalized in March made the islanders' return increasingly possible.

Acceleration of Islanders' Return Program

Risk Communication

Thorough discussion between the administration and the local people was believed necessary for living in an environment with volcanic gas in order that the residents accurately understand health effects caused by the gas. This understanding risk through dialogue was called "risk

communication." Miyake Village held about 60 risk communication meetings within half a year, supported by members of the Miyakejima Island Volcanic Gas Research Panel with necessary documentation, explanations and instructions. Through this, the total 1,400 participants were able to more deeply understand the nature of volcanic gases.

Return or Not? Questionnaire Difficult to Answer

The village held public meetings for residents in April 2004 to inform them of the findings and considerations by the national, metropolitan and village governments. Mayor Hirano indicated that they wanted to start going back to the island and settle into places where volcanic gases were still being emitted, saying "It seems that the gas emission on the island will continue. Still, we would like to go back there as soon as possible, taking every possible safety measure." In May after the public meetings, the village implemented a survey asking the residents whether they wanted to go back or not; it was not easy for them to answer as no concrete plans were presented to them regarding safety, housing, employment and other issues. In spite of the delicate situation, about 80 percent of the islanders answered the questionnaire. In addition, 968 out of 1,388 households, or 69.7 percent of the total respondents, answered that they would return to the island, fully understanding the fact that they had to face risks from volcanic gas. This was a tough decision for them to make in the midst of such anxieties.

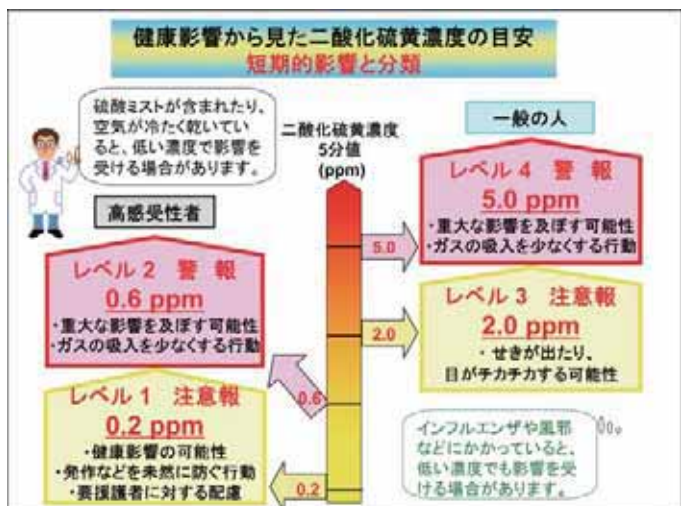
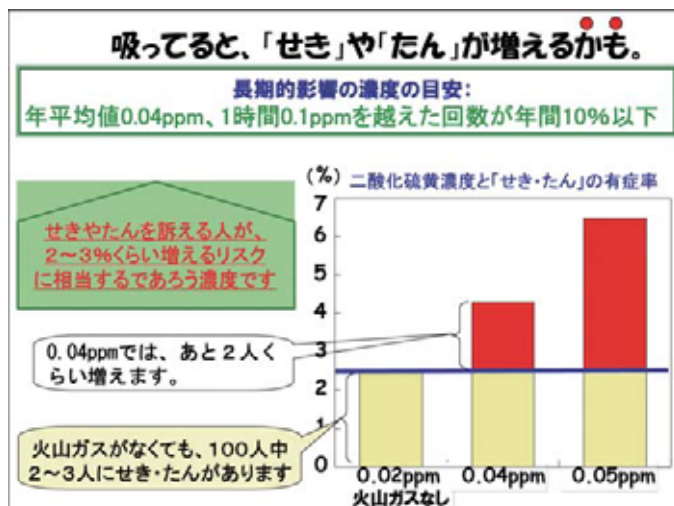
Guidelines for Islanders' Return Announced

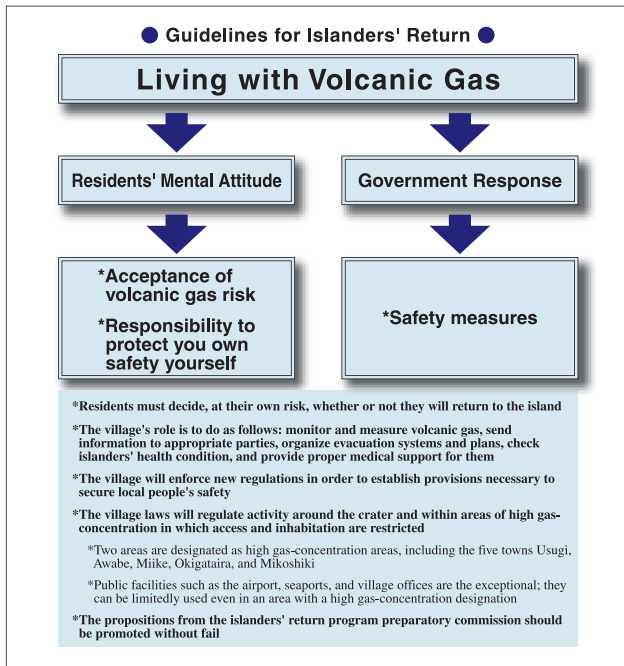
The Volcanic Eruption Prediction Liaison Team presented its view on June 30, 2004 that the volume of volcanic gas emitted could remain at the same level for a while. In light of the volcanic gas situation and the survey results, as well as the opinions from meetings with experts set up by the village, Mayor Hirano concluded that local people could return to the island at their own risk. His decision was based upon the principle of "living in an environment with volcanic gas" even though gas emission had not stopped. He formally made the request to Tokyo Governor Ishihara that the evacuation order be lifted before the end of February 2005, and the guidelines for islanders' return be announced.

Rapid Acceleration of Public Facility Recovery

Return Program Plan and Guidebook for Returning to the Island and Resuming Normal Life

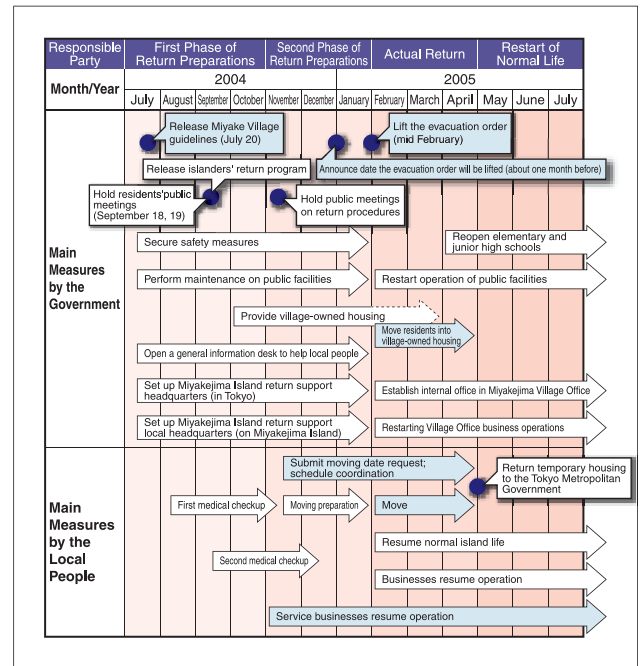
The return schedule was divided into phases: the two stage





Guidelines for Islanders' Return

period of preparation for return, the actual return period after the lifting of the evacuation order, and the restart of normal life on the island. In the first preparation phase, the frontline headquarters for the return program was set up at the Izu evacuation facility. Following this start, the next steps were taken, including conducting a detailed survey of local households, holding public meetings for the residents to explain about the return program and the guidebook on how to return to the island and restart normal life (the manual for local islander's return), opening a general information desk and running medical checkups before returning. At the same time, there were quick developments on the island, including the arrangement of village-owned housing, examination of safety measures, and maintenance of public facilities such as elementary and junior high schools.



Schedule for Islanders' Return

Medical Checkups Prior to Return

The medical checkups before returning were carried out during September and October. The purpose of these checkups was for the residents to understand their own sensitivity to volcanic gas, and be able to make an informed decision about returning based on the results. About 500 residents in total were diagnosed as having high sensitivity to the gases.

At that point, every one of islanders was worried about their final decision to return to the island or not. There were not just a few cases where the checkup results led to a resigned decision not to return.



Establishing Island Headquarters on July 27, 2004



The "Return Program Plan" and "Guidebook for Returning to the Island and Resuming Normal Life"

⑦ Return to Miyakejima Island and Afterwards



Actual Return Project Kick-off Ceremony

Return to Miyakejima Island

Lifting of the Evacuation Order

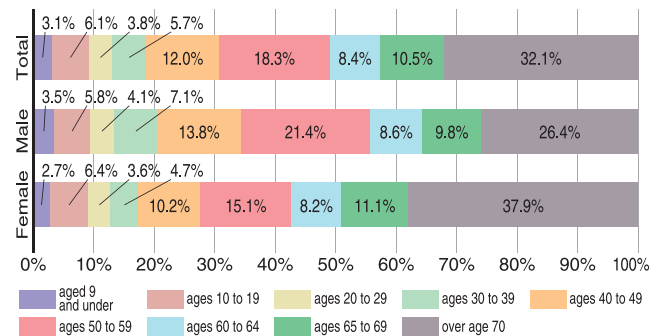
On February 1, 2005 Village Mayor Hirano lifted the evacuation order for after 4 years and 5 months. The three-month period from this day to the end of April was considered the main time to return to Miyakejima Island according to the actual return project. People who lived in public housing were granted a moratorium on rental fees during this period, and families in exceptional circumstances were given an extension to July.

Moving

Confusion in terms of expenses and date was expected when residents started the move back to Miyakejima Island. With the cooperation of several firms such as delivery companies, Miyake Village set up a "relocation project" and prepared and distributed a specific instruction manual for moving, including surrender procedures for municipally-owned houses etc., to execute the relocation plan smoothly. Moves back to the island peaked between mid-March and early-April. Statistics from a survey conducted by the village related to the relocation as of August 31, six months after the

	Returning Residents	New Residents	Total
Returned Households	1,247 households	332 households	1,579 households
Returned People	2,158 people	364 people	2,522 people

Number of Returned Households and People



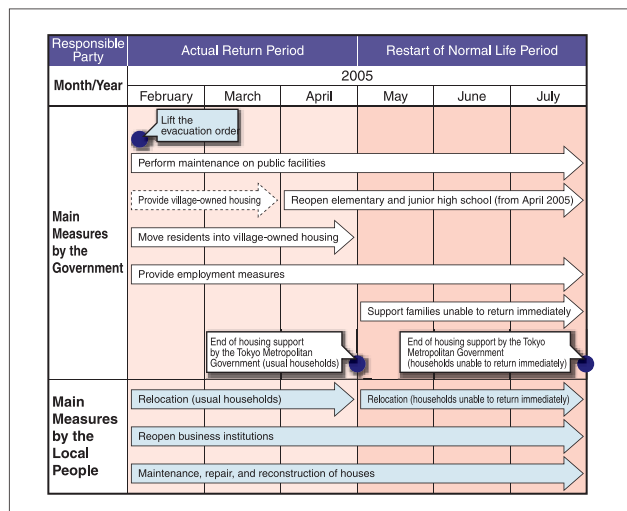
Population's Age Composition on Miyakejima Island (6 months after evacuation order was lifted)

lifting of the evacuation order, are shown in the chart above. Returning families were at 76%, and 68% of the population had returned. After the relocation, aging of the population progressed rather significantly to 42.6%. In contrast, a significant number of children and young people did not return to the island. Some concerns were related to the continuation of their education and health fears. Many families were separated, with part returning to the island while the other was left in Tokyo.

Special Measures of the Relief Law to Assist Long-term Evacuees

In March 2004, the Natural Disaster Victims Relief Law was revised, and the "Stable Housing Supporting System" was established.

Provisions were made to supply long-term evacuees with up to 700,000 yen per family for moving expenses and the purchase of daily necessities, on condition that the total aid received from the relief law was within 3 million yen. The prolonged evacuation of Miyakejima Island residents triggered the foundation of this financial aid "Special measure to help long-term evacuees."



The Return Project Was Scheduled into Roughly Two Sections

Starting with Home Repairs

Support System for Repair or Reconstruction of Houses

The Tokyo Metropolitan Government financially supported the relocation of residents by providing funds to repair or reconstruct their housing (maximum 1.5 million yen). This system was established because the Natural Disaster Victims Relief Law did not support the victims in terms of repairing homes. A significant number of islanders used this system to repair or rebuild their home.

Waste Disposal

Disposal of the massive amounts of waste was a major concern for people who returned to Miyakejima Island. After the full evacuation from the island, a large amount of waste was generated. The eruption and volcanic gas caused irreparable damage to cars and houses, and most electrical appliances became unusable. More than 2,500 cars and 1,600 refrigerators were scrapped.

Discarded Vehicles	Televisions	1,004
Automobiles	Refrigerators	1,611
Two-wheeled motor vehicles	Washing machines	66
Small engine motorcycles	others	10,720m ³
Discarded Electrical Appliances	Rubble Disposal	917 four-ton truckloads
Air conditioners		594

The Amount of Waste and Refuse Due to Disaster (disaster waste management 2004, 2005; total 2.89 million yen)



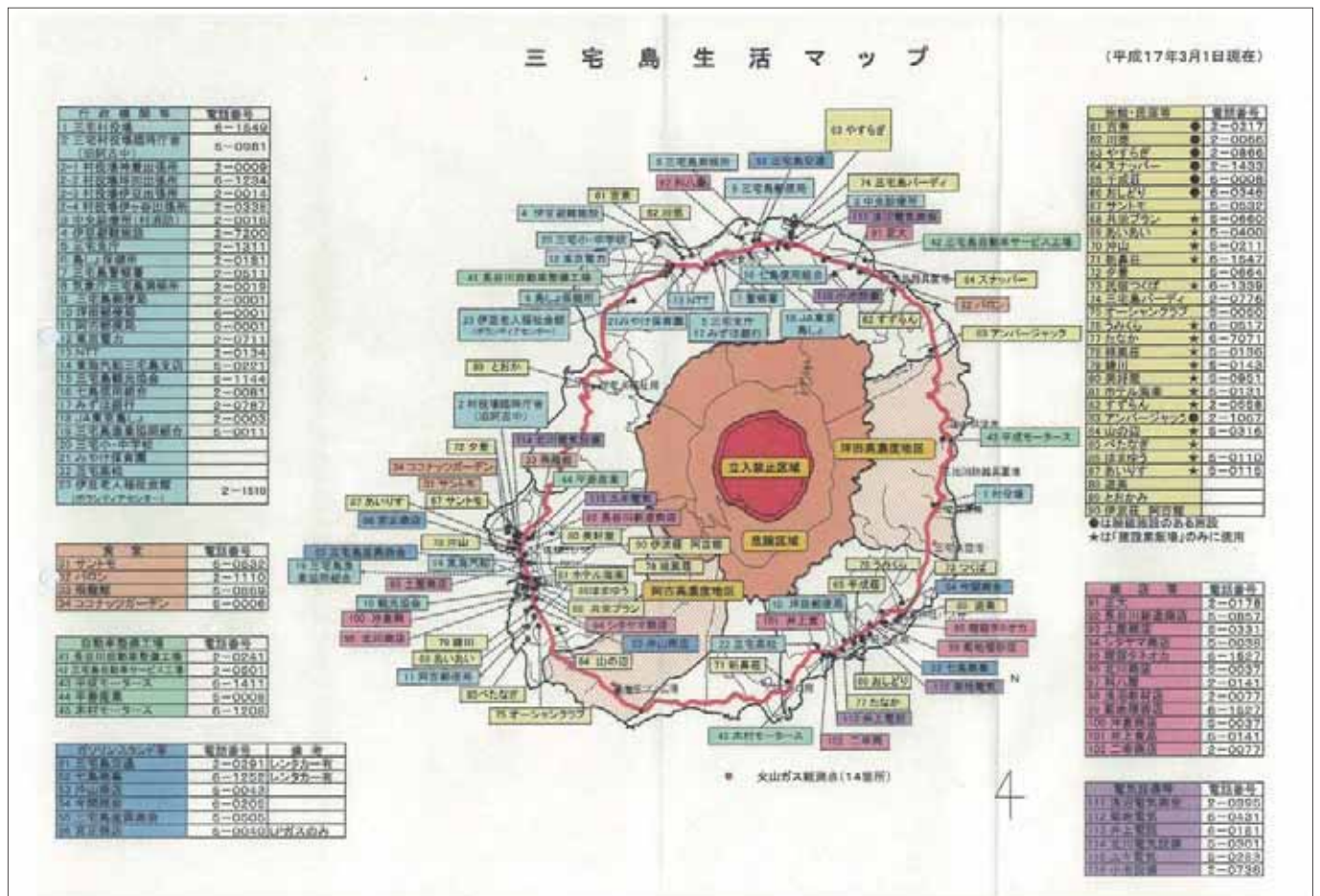
An Enormous Amount of Disposed Waste

Living Environment

Surroundings

Commercial & industrial enterprises and financial institutions made a head start back to the island and started preparation for reopening. This was because they were regarded as "disaster-preventing officials" for their imperative role in daily living. While there were concerns about a decreasing population, etc., they made the courageous decision to reopen for the good of the island.

Compared to the period just before evacuation, 26 out of 89 hotels/guest houses, 4 out of 22 eating places, and 7 out of 71 stores, such as supermarkets, were open at the time the evacuation order was lifted.



Life Support Map Distributed on Islanders' Request

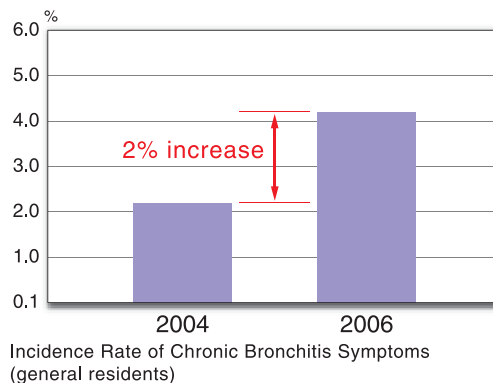
Coexisting with Volcanic Gas

Safety Ordinance Concerning Volcanic Gas

Upon lifting of the evacuation directive, "Safety Ordinance Concerning Volcanic Gas," were automatically put into effect. Set forth in the regulations are the necessity for each resident to be fully aware of the dangers of volcanic gas, the obligation to fully observe rules for safety, and the necessary measures for ensuring safety against the volcanic gas. Based on the regulations, the village implemented the following measures:

- *Set regulations and measures necessary for ensuring safety of residents and others
- *Monitored and observed sulfur dioxide concentration, issued advisories and warnings, and improved evacuation systems
- *Created a manual and other publications for ensuring safety, distributed them to residents and others, and conducted drills
- *Promoted communication with residents and raised risk awareness
- *Disseminated knowledge and provided education concerning sulfur dioxide

The "Miyake Village security measures expert council" was also established according to the regulations. The council reviewed the appropriateness of regulations and analyzed results of residents' medical examinations after returning to the island. The results of the analysis obtained by the council confirmed "Standards for sulfur dioxide concentration from the perspective of health effects (Reports from the Miyakejima Island Volcanic Gas Research Panel, March 2003)", and indicated an increase of chronic bronchitis (cough and phlegm that persist for more than 3 months).



First-ever Disaster Measures

Repeated Warnings and Difficulties of Volcanic Gas Measures

Public advisories were issued three times, and advisories and warnings for highly susceptible people were issued nine times within 24 hours after the lifting of the evacuation directive. Since advisories and warnings of the volcanic gas were frequently issued over the community wireless system, residents, who returned to the island, complained that they "could not sleep." Furthermore, few residents actually wore gas masks even when the volcanic gas concentration exceeded the standard level, so the difficulties of the volcanic gas measures were highlighted.

Living with Gas Masks

The village set a regulation stipulating that people should carry gas masks at all times. This regulation is also applied to tourists. Miyakejima Tourism Association and Tokaikisen steamship line encourage people to wear gas masks, and also sell or lend them. Other efforts concerning gas masks included designing gas masks for children that differ from the type for adults, and putting them into practical use.



The Community Wireless System's Outdoor Loudspeakers with Revolving Lights



Disaster Prevention Booklet Which Was Distributed to All Households



Sign



Gas Mask



Gas Mask Specially Designed for Small Children



Small-sized Desulfurization Equipment for Highly Sensitive People

Our Disaster Still Continues

Regulation Details

The administration had no experience the dealing with the high concentration areas, which brought up many difficult issues. Especially, the designation of restricted districts in urban areas on the grounds of volcanic gas was accompanied by an unprecedented, strict curtailment of rights. In this sense, people formerly residing in the high concentration areas are still experiencing the disaster even though the evacuation directive has been lifted. The village is also aware of this problem and continues to support those residents, who have faced such great restrictions. Consequently, the following supportive measures were taken for them.



Map of Regulated Areas

High Concentration Areas

High Concentration Areas Suddenly Designated

Living in the high concentration areas had to be restricted in order to lift the evacuation directive. The designation of high concentration areas was made while consulting the experts' meeting on Miyake Village safety measures and comprehensively evaluating volcanic gas concentration measurements, landscape, vegetation and other points. An explanatory meeting for local residents was held on December 23, 2004. At this point, details of the regulations were revealed, for example, residents are permitted to enter the high concentration areas for a maximum of 4 hours only for maintenance of houses and farmland, so they cannot operate businesses or cultivate farmland there. In the meeting, there were some residents who were bewildered and expressed their anger, saying, "For what purpose have we maintained houses and stores during the temporary return and stay home project?"



Before Eruption



After Eruption

Name of High Concentration Area	Households	Population	Characteristics of the Designated Areas
Tsubota High Concentration Area	128	281	Designated were Okigataira District, which contains the village office in the Tsubota area and an airport, and Miike District, which contains the sea gateway of Miike Port and bathing beaches, and thrived on tourist homes and commerce
Ako High Concentration Area	24	50	Designated locations in the Ako Area were centered around the Usugi District. There are comparatively high numbers of established horticulture farming households.

State of High Concentration Areas (households and population, as of December 2004)

Regulations	*Uninhabitable *No Trespassing – Entrance only for those designated under the exceptional provisions		
	Subject	Details of the exceptional provisions	Necessary Measures
Exceptional Provisions	-	Boarding/leaving a ship, getting on/off a helicopter in an emergency, delivery of postal goods and home-delivered packages, moving in high concentration areas (by car or others), etc.	Notification not necessary
	Individual	*Maintenance of farmland and trees by residents (farming is not permitted) *Maintenance and repair of houses, etc. (minimum time necessary within the daily 4 hour limit)	Notification
	Group, other	*Monitoring, observation and study of volcanic activities by the Meteorological Agency and others *Monitoring of sulfur dioxide concentrations and notification of information by the village *Post-disaster reconstruction and damage repair work *Maintenance of Tokyo municipal roads, village roads and others *Systematic maintenance of farmland and trees by Japan Agricultural Cooperatives and others *Systematic operations of diving fishery and hauling fishery by fishermen's cooperatives and others *Systematic maintenance and repair of houses by workmanship association and others	Application and Permission

Details of Regulations in High Concentration Areas

Distribution of donations	
Distribution of donations	An additional two million yen was distributed
Damaged house maintenance support subsidies	Expenses for repairs of own house -- up to 500,000 yen paid to households that returned to the island.
Priority for moving into village- or municipally-owned housing	As with other households that haven't returned to the island, households are given a priority for moving into village- or municipally-owned houses. Not only residents in the high concentration areas, but all residents who evacuated the island, could apply for village-owned houses even if they live off the island.
Easing of income limits when moving in village-owned houses	Eased income limits of households moving into village-owned houses making use of the special public rental housing system.
Reduction of rents on village-owned houses	Reduced rents until March 31, 2006.
Dismantling of damaged houses	Warehouses, etc. (other than concrete structures) adjacent to the damaged houses and houses were dismantled and removed by the village
Dangerous trees cut down	The village disposed damaged timber.

Support for Residents Who Lived in the High Concentration Areas

Toward Reconstruction

Measures	Division	State of Classified Restoration
Livelihood Rehabilitation	Housing	*A total of 210 houses run by the village, including 60 new houses, 54 reconstructed houses and 96 repaired houses, completed. People have already moved into the houses
		*Removal of accumulated dirt project completed (43,214m ³)
	Welfare	*One nursery school reopened on April 1, 2005 with 29 children attending (as of April 1, 2007)
		*In-home care services (day and short-time care, and home help) restarted from April 2005
		*One nursing home for the elderly reopened on April 1, 2007 with 49 elderly people residing (as of April 1, 2007)
	Medical Services	*Restoration of Miyake-mura National Insurance Center Clinic completed and medical treatment under health insurance restarted in February 2005
		*A dental clinic located on the same grounds started treatment on June 4, 2005
		*A private dental clinic opened in Ako District on August 9, 2005
	Education	*One elementary school reopened on April 11, 2005 with 59 students attending (as of April 1, 2007)
		*One junior high school reopened on April 11, 2005 with 51 students attending (as of April 1, 2007)
*One senior high school reopened on April 6, 2005 with 52 students attending (as of April 1, 2007)		
Support Systems	*The Natural Disaster Victims Relief Law (prolonged evacuation exceptional-case law) has been applied to 1,063 cases. Tokyo's island return support ordinance has been applied to 1,007 cases	
	*The system for maintenance of deteriorated houses in volcanic gas high concentration areas has been applied to 61 cases; 12 houses in those areas were demolished (as of February 1, 2007)	
Regional Development	Tourism	*A total of 51,977 people visited the island in 2006 (89,043 people visited the island in 1999)
		*Miyake Nature Center Akakokko Station reopened on July 22, 2005
		*Preparations for reopening spas have been made
	Agriculture	*Restoration of devastated farmland was completed (65.3 ha)
		*An event showcasing agricultural products was held in the Tokyo Metropolitan area
		*Shipping of "Ashitaba," or Angelica keiskei started in October 2006, and 7 tons were shipped before the end of the year (Japan Agricultural Cooperative survey)
	Fishery	*Post-disaster restoration completed in 2005 and fishing grounds created in 2006 (Kamanoshiri and Nippana)
		*Unloading and shipping of marine products started at Ako Fishing Port on February 1, 2005
	Commerce and Industry	*Total fishing catch was about 160 tons in 2005 and about 170 tons in 2006 (about 522 tons in 1999)
		*299 business establishments resumed their operations (as of September 30, 2006) (88.7% of all establishments that were in business before the disaster resumed operations)

Present State of Restoration (as of April 2007)

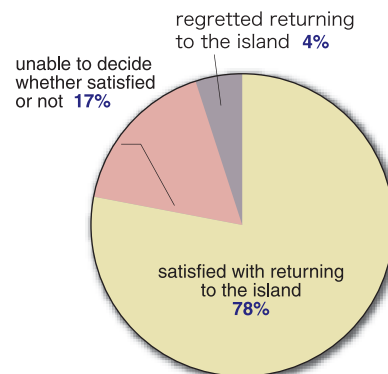
Measures	Division	State of Classified Restoration
Enhancement of Disaster Prevention on Miyakejima Island	Shelters	*Shelter for evacuees from the volcanic eruption on Miyakejima Island was provided in April 2003 (A total of 4,796 households and 7,890 people participated in the visiting and returning home project)
	Safety Measures	*14 observation points were installed on the island, and constant observation of volcanic gas concentration is conducted
		*20 volcanic gas alerts were issued in residential quarters (from February 1, 2005 to December 31, 2006)
	Roads	*16 places on the Tokyo municipal road were repaired
		*12 places on the village road were repaired
	Roads	*4 out of 10 forest roads have been closed; two of those are now being repaired
	Sea Routes	*Regular line restarted in January 2003
	Sea Routes	*As the evacuation directive was lifted on February 1, 2005, there are no longer necessary procedures to enter the island
	Air Routes	*"Island Shuttle," a commuter helicopter, resumed operation on October 1, 2005 outside the airfield
	Air Routes	*95,853 signatures were gathered for the reopening of the regular air route between Miyakejima Island and Haneda
	Erosion Control	*51 sand control dams were completed
		*New erosion control project -- 3 out of 7 mountain streams other than Mimosawa, are now being reinforced
	Forestry Conservation	*Soil saving dam plan -- 134 out of 158 soil saving dams completed
		*24 dams now under construction
	Small Scale Water-supply System	*Water supply system was restored
*Water is supplied to all areas of the island		
Electricity	*Electricity is supplied to all areas on the island	
Communications	*Fixed-line phones can be used in all areas on the island, and ADSL service started from March 2005	
	*In addition to existing MOVA, FOMA cellular phone service started on September 8, 2005 (some areas in Ako, Kamitsuki and Miike districts)	
References	Basic Resident Registry	(as of April 1, 2007) (a) Population: 2,853, Households: 1,712 (ratio of elderly people: 37.22%)
	Basic Resident Registry	(as of September 1, 2000) (b) Population: 3,829, Households: 1,966 (ratio of elderly people: 29.49%)
	Basic Resident Registry	(a) / (b) Population: 75.73%, Households: 88.96%



State of Farmland (before reconstruction)



State of Farmland (after reconstruction)



Impressions on Returning to the Island: Survey Research Center, a private research organization, conducted a questionnaire survey targeting islanders who had returned to the island, in April 2007, two years after they returned home

Entering Full-scale Reconstruction Phase

Taking Advantage of Blessings of the Volcano

The reconstruction of the island has just begun. The wisdom of many people both on and off and a lot of time are necessary in order to compensate for the four years and five months of the evacuation period to reconstruct the island. The biggest problem is that the population of the island has significantly decreased. Especially, the sharp decrease in young people has had an adverse effect on commercial and there is a lack of successors in various industries on the island. It is necessary to take advantage of the blessings of the volcano while seeking a way to live with the volcanic gas, which is an unprecedented experience in Japan.

Hospitality with Thankfulness

A variety of tourist facilities, such as hot spring facilities, were extensively damaged by the disaster. Although there were 80 accommodations before the disaster, only about half of them have been reopened, and the entire lodging industry has been weakened. In these adverse conditions, reopening the cycling road race, "Marine Schole 21" festival and hot springs, and the success of the motorcycle festival were substantial achievements. It is necessary to engage in tourism with even more "hospitality with thankfulness."

Reopening Air Route

The air route is essential for tourism and islanders' lives. Centering on the study group for Miyakejima Island air and sea routes, which was already founded before the disaster, the islanders and village ran a signature campaign and collected about 100,000 signatures from all over the country. Fortunately, the air route is expected to reopen in spring 2008, the third year after their return to the island.



Miyake-yaki Ware (left) and Miyake Glass (right)



"Ashitaba Boys" Were Unveiled at the Ceremony for the First Anniversary of Returning to the Island.

Conclusion

Residents on Miyakejima Island have encountered large-scale eruptions, which were entirely different from previous eruptions, and unprecedented ordeals. We have thought that passing down these valuable lessons is our duty, as we have been supported by many people, and as a consolation to our comrades who died before achieving their goals. Thus we compiled this record of the eruption and disaster. Our editorial policy has been to give 1) a structure indicating the seven years (eruption - evacuation - return to the island - reconstruction) and focus on 2) activities of the village office, 3) descriptions of islanders' thoughts and feelings, and 4) descriptions of scientific data. We formed the compilation committee, asked for cooperation from the project team of the Tokyo Metropolitan Miyake Branch Office and Research Institute for Social Safety, and completed this record in this year, our 3rd anniversary of returning to the island. There might be inadequate descriptions, but we hope this record will be of help to people. Experiencing this disastrous, we have received much support, starting from the national and Tokyo Metropolitan Governments, and spreading across the country. With this aid, we could begin the reconstruction of Miyakejima Island. We sincerely appreciate the support.

Noboru Kubodera

Chairperson of the compilation committee

Photo credits in random order / titles omitted from names
 *The Tokyo Metropolitan Government
 *The Tokyo Metropolitan Miyake Branch Office
 *The Miyakejima Council of Social Welfare
 *The Tokyo Volunteer Center for Relief of Miyakejima Disaster
 *Miyake Village Education Board
 *Noboru Kubodera (resident of Miyakejima Island)
 *Yoshihito Iinuma (resident of Miyakejima Island)



The Miyakejima Island Tourism Revitalization Monument



Disaster Chronology

Year	Month/Date	Volcanic Activities Etc. / Action by Miyake Village / Action by Related Events in Society
2000	6/26	"Volcanic Alert No.1: "Threat of eruptions, caution necessary" "Volcanic Advisory No.2: "The clinometer has recorded some abnormality." (8:45 p.m.) Disaster Management Headquarters established Disaster Relief Law applied to the village
	6/27	(0:15 a.m.) Tokyo Metropolitan Disaster Management Headquarters and On-site Disaster Management Headquarters established (4:15 a.m.) Metropolitan government requests a Japan Ground Self-Defense Force disaster relief mission (Early morning) Color of seawater changes about 1 km offshore to the west of Miyakejima Island
	6/28	"Volcanic Advisory No.7: Coordinating Committee for Prediction of Volcanic Eruption comments, "There is no possibility of eruption in the eastern part of the island or the mountain top."
	6/29	Governor Ishihara of Tokyo Metropolitan Government visits the island (10:30 p.m.) On-site Disaster Management Headquarters closed
	6/30	(6:15 p.m.) Disaster Management Headquarters closed (6:00 p.m.) Tokyo Metropolitan Disaster Management Headquarters closed
	7/7	Typhoon No.3 approaches Miyakejima Island (2:00 p.m.) Disaster Management Headquarters established
	7/8	(10:00 a.m.) Disaster Management Headquarters closed (6:43 p.m.) Minor eruptions at the mountaintop, volcanic ash ejected. Mountaintop depression begins "Volcanic Advisory No.9: "Volcanic ashes are being ejected." (7:30 p.m.) Disaster Management Headquarters established (Closed at 5:00 p.m. on 7/9)
	7/14	(4:14 a.m.) Eruptions at mountaintop. Heavy ash falls on Kamitsuki District, in the northeastern part of the island "Volcanic Advisory No.12: "Volcanic eruption" (9:00 a.m.) Village establishes Disaster Management Headquarters (3:50 p.m.) White volcanic fumes from mountaintop "Volcanic Observation Report No.92: "Eruption from the mountaintop"
	7/15	(12:20 a.m.) Eruption at mountaintop, huge amount of ash falls
	7/17	Normal lessons restart at elementary, junior high, and high schools
	7/26	Heavy rain (8:00 a.m.) Mudflow at Tombisawa Stream and "Sanshichiyama" hill
	7/30	(9:18 a.m.) Upper 5 seismic intensity earthquake on Japanese intensity scale (9:25 p.m.) lower 6 intensity earthquake (9:49 p.m.) upper 5 intensity earthquake
	8/10	(6:30 a.m.) Minor eruptions, heavy ash fall (1:30 p.m.) Volcanic fumes stop. (5:00 p.m.) Vapor confirmed
	8/12	Typhoon No.9 approaches and brings heavy rain
	8/14	(1:20 p.m.) Minor eruptions "Volcanic Observation Report No.165: "Minor eruptions, height of the fume is 1200 m."
	8/18	(10:52 a.m.) Intensity 4 earthquake (5:02 p.m.) Major eruption, volcanic cinders and ashes fall on all parts of the island. "Volcanic Advisory No.14: "Eruptions, the height of the fume exceeding 5000 m"
	8/21	Ground Self-Defense Force mission sent to island for removal of ash fall deposit, etc.
	8/23	(5:10 p.m.) Tokyo Metropolitan Government announces that the elderly and other residents with special needs should be accepted at metropolitan facilities
	8/24	(10:00 a.m.) Miyake Village Education Board decides to evacuate the young children and students from the island (10:20 a.m.) Elderly residing at home evacuated from the island (8/29, 30, 9/1)
	8/25	Metropolitan government announces that it will supply voluntary evacuees with housing
	8/29	(4:35 a.m.) Major eruptions, low-temperature pyroclastic flow on the northeast and southwest sides "Volcanic Advisory No.17: "Eruptions, height of the fume exceeding 5000 m" (11:00 a.m.) Metropolitan Disaster Management Headquarters and On-site Disaster Management Headquarters established (12:15 a.m.) National government establishes Emergency Disaster Management Headquarters (2:10 p.m.) A total of 136 elementary, junior high and high school students evacuate the island by Tokaikisen ferry (10:00 p.m.) Metropolitan government requests a Maritime Self-Defense Force disaster relief mission
	8/30	(11:45 a.m.) Evacuation advisory as well as order issued to all island residents due to the threat of mudflow Metropolitan government decided to offer its public housing to evacuees
	8/31	"Volcanic Advisory No.18: Coordinating Committee for Prediction of Volcanic Eruption comments, "Eruptions are continuing. There is a threat of major eruptions and pyroclastic flows larger than those on August 18 and 29," (5:00 p.m.) Evacuation advisory and order lifted for entire island
	September	9/1 Metropolitan government decides it is appropriate to evacuate all residents from the island within two or three days 9/1 Evacuation decided for all residents 9/2 Residents ordered to evacuate the island 9/1 Miyake Village Elementary and Junior High Schools open school buildings in Akiwaka 9/3 Evacuees from the island accommodated in the National Olympics Memorial Youth Center (NYC) in Yoyogi 9/4 Evacuation of general residents completed. Miyake Village's Tokyo office opens in the Tokyo Metropolitan Archives 9/4 Metropolitan On-site Disaster Management Headquarters launches countermeasure activities such as maintenance of lifelines via ship hotel "Katorea Maru" 9/5 Job consultation and placement counter opens in NYC 9/9 All the evacuees have left NYC 9/13 Support center for children and students of Miyakejima Island established *9/11 Torrential rain in Tokai Region 9/16 Typhoon No.17 approaches 9/16 Staff in charge of disaster management operations temporarily evacuate to Tokyo due to typhoon's approach. 9/19 Miyake Village Tachikawa office established in the Tokyo Tachikawa Regional Disaster Prevention Center 9/28 Career consultation meetings for evacuees held in collaboration with the Tokyo Labor Bureau (in Tachikawa on 9/28 and in Minato Ward on 9/29) 9/26 Metropolitan government establishes Miyakejima Island Volcanic Activities Exploratory Committee
	October	October 10/1 Year 2000 National Census *10/6 Western Tottori Earthquake 10/7 Metropolitan government opens On-site Disaster Management Headquarters on Kozushima Island 10/10 First Miyake Village donation distribution committee meeting Publication resumes of public magazine "Koho Miyake" 10/16 First volume of "Miyake no Kaze" issued by volunteers 10/20 First Metropolitan government donation collection and distribution committee meeting
	November	11/1 Coordinating Committee for Prediction of Volcanic Eruptions comments, "Massive emission of volcanic gas is likely to continue for some time." 11/7 First donation distribution 11/10 Second Miyake Village donation distribution committee meeting 11/15 Miyake Village opens the Shinjuku general office in the Metropolitan City Hall 11/25 Briefing session for village residents held at the Tokyo Metropolitan City Hall (also in Tachikawa on 11/26)
	December	12/3 Miyakejima Island residents' communication meeting held (Minato Ward) 12/5 Second donation distribution 12/11 Acceptance of applications for Natural Disaster Victims Relief Law started Late December A volunteer group issued a telephone directory of Miyakejima residents

Year	Month/Date	Volcanic Activities Etc. / Action by Miyake Village / Action by Related Events in Society	
2001	January		
	February	2/24 Miyakejima Island commerce and industry reconstruction symposium	
	March	3/1 Current living conditions survey conducted (through 3/15) 3/15 Public information materials to be made for twice a month publication and distribution 3/19 Miyake junior high schools hold joint graduation ceremony 3/22 Miyake elementary schools hold joint graduation ceremony *3/24 Geiyo Earthquake occurs 3/29 Rescue center for animals from Miyakejima Island volcanic disaster completed	
	April	4/18 Tatsune temporary bridge opens, Metropolitan roads around the island secured 15 Second Miyakejima Island residents' communication meeting held 4/20 Metropolitan government establishes the conference on disaster countermeasure techniques on Miyakejima Island 4/28 Miyakejima Meteorological Observatory recovers functions *4/26 Koizumi cabinet formed	
	May	5/4 Overnight stays on Miyakejima Island start on a trial basis 5/9 Current living conditions survey results released 5/10 "Miyakejima Island Genki Nojo" farm opens Briefing session for village residents held at Tokyo Metropolitan building (also in Kita Ward on 5/13, in Musashimurayama City on 5/20, and in Hachioji City on 5/26) 5/28 Research on house and building damage due to mudflows starts 5/27 Minor eruptions, small amount of ash fall confirmed near Sanshichisawa stream	
	June	6/23 Water service runs from Oji Pond to Kamitsuki Labor and Welfare Center 6/24 Tokyo Metropolitan Assembly election 6/29 Use of Hotokezawa temporary bridge starts	
	July	7/1 Medical team deployed for full-scale overnight stays 7/9 Natural Disaster Victims' Relief Fund application period extended 7/9 Offices and housing (Clean House) equipped with desulfuration system completed 7/11-13 Temporary return of residents of houses damaged by mudflow 7/20 People in charge of reconstruction work start overnight stays on a regular basis 7/29 19th Upper House election	
	August	8/2 Metropolitan government conducts survey on damaged houses 8/25 Hirayama Bridge becomes impassable due to water runoff in Igaya District 8/27 Emperor and Empress visit to encourage refugees in Shimoda	
	September	9/4 Several mudflows occur, roads became impassable in Teppoba due to rain 9/8 Temporary returns to Miyakejima Island postponed due to Typhoon No.15 *9/11 Terrorist attacks in the United States 9/17 Entire households' temporary return home (through 10/2) 9/21 Metropolitan government transfers the On-site Disaster Management Headquarters from Kozushima Island to Tokyo Metropolitan Miyake Branch Office Kozushima office of Metropolitan On-site Disaster Management Headquarters established on Kozushima Island 9/28 Minor eruption 9/29 Prime Minister pays an inspection visit to the island 9/30 Third Miyakejima Island residents' communication meeting held	
	October	10/18 Second current living conditions survey conducted (through 11/2) 10/22 Metropolitan government establishes support association for living in Miyake Village	
	November	11/11 Members of the fisheries cooperative evacuated industrial equipment and materials off the island 11/19 Volcanic glow phenomenon observed before dawn 11/21 Members of the tourism association evacuated industrial equipment and materials off the island 11/27 Members of the board of commerce and industry evacuated industrial equipment and materials off the island 11/29 First meeting of the commission to create and investigate the process for all residents to return to the island	
	December	12/1 Emergency research on roof renovation conducted by village office and members of the workmanship association 12/6 Fishery research conducted by fisheries experiment station 12/14 Sanshichisawa Disaster Prevention Dam No.1 completed	
	2002	January	1/15 "Yume Nouen" farm opens 1/23 Minor eruptions occurred, small amount of ash fall confirmed in the eastern area 1/29 First meeting of Miyake Village reconstruction plan creation committee
		February	2/1 Coordinating Committee for Prediction of Volcanic Eruptions releases its unified opinion 2/1 Door-to-door survey on evacuees conducted (through 2/25) *2/8 Winter Olympic Games start in Salt Lake City
		March	3/2 Two minor eruptions, tiny amount of ash fall confirmed in northeastern area 3/5 Implementation of Miyakejima Island one-day return project announced 3/8 Emperor and Empress visit Genki Nojo farm 3/12 Temporary return to the island by households which didn't participate previously and those who have vacation houses 3/14 Briefing session on volcanic activities (also held on 6/24 and 11/23) 3/29 Second extension of Natural Disaster Victims' Relief Fund application period announced Second extension of financial support for small and medium-sized businesses and people engaged in agriculture, forestry and fishery announced
			3/31 Minor eruptions occur, small amount of ash fall confirmed in northeastern area 3/31 Rescue center for animals from Miyakejima Island volcanic disaster closed
		April	4/1 Miyakejima Island residents one-day return project starts 4/2, 4/3 Minor eruptions occur, small amount of ash fall confirmed in eastern area 4/14 Metropolitan government lays a gas pipe in the crater to extract volcanic gas 4/20 Temporary road made to construct a land bridge in Akabakyo 4/21 Fourth Miyakejima Island residents' communication meeting held Islander's Liaison Team established
		May	5/10 Petition filed with national government 5/11 Mud flows at each stream in northern area, scoria deposited on metropolitan road in front of airport 5/14 Village office begins stay in village office parking lot clean room 5/16 Disaster management special committee of the Lower House meeting held, and resolution on measures for Miyakejima Island volcanic disaster made 5/17 Post Office ATM installed in village office building 5/23 Coordinating Committee for Prediction of Volcanic Eruptions released unified opinion on Miyakejima Island volcanic activities 5/27 Basic reconstruction plans designed
		June	6/1 Intensity 1 earthquake in Kamitsuki and Tsubota 6/30 Metropolitan government closes Kozushima office of the On-site Disaster Management Headquarters

Year	Month/Date	Volcanic Activities Etc. / Action by Miyake Village / Action by Related Events in Society
2002	July	7/5 Central Disaster Prevention Council designates Miyakejima Island as a region with an urgent need to prepare evacuation facilities
		7/10 Typhoon No.6 approaches
	August	7/29 Residents and termite exterminators visit island to investigate damage by termites in Tsubota District
		8/1 Minor eruptions, small amount of ash fall confirmed in Miike District
	September	8/4 Young children and students temporary return to the island (through 8/7)
		8/14 Special lending service of welfare funds (unemployed support fund) starts
	October	9/11 Pipe to extract volcanic gas re-laid
		9/30 Miyakejima Island Volcanic Gas Research Panel established
	November	10/1 Typhoon No.21 causes damage to fishing boats in Tsubota Port, etc.
		10/20 Briefing session for village residents held at Tokyo Metropolitan building and in Tachikawa
	December	10/22 All households temporary return with entire costs covered by the village (through 12/8)
		11/4 Fifth Miyakejima Island residents' communication meeting held
2003	January	11/23 Briefing session on volcanic activities held
		12/4 Miyake Village reconstruction plan creation committee reports basic plan for Miyake Village reconstruction
	February	12/19 Village office creates 4th Miyake Village general project
		12/24 Outline of return project first plan released
	March	12/24 Interim report by Miyakejima Island Volcanic Gas Research Panel
		1/6 Tokyo-Hachiojima Island ship service stopping at Miyakejima Island three times a week starts
	April	1/27 Decision made to implement Miyake Village disaster protection special project
		2/17 Acceptance of applications for Miyake Village disaster protection special project starts
	May	2/22 Briefing session on volcanic activities held (also held on 3/22 and 5/31)
		3/2 Briefing session for village residents (on administrative procedures for both mutual relief and earthquake insurance)
	June	3/28 Miyake Village Volcanic Gas Safety Measures Study Committee established
		3/24 Final report by Miyakejima Island Volcanic Gas Research Panel
July	3/28 Decision to prolong financial support for small and medium-sized businesses and people engaged in agriculture, forestry, and fishery	
	4/6 Briefing session on report from Miyakejima Island Volcanic Gas Research Panel (also held on 4/20, 27, 29, and 5/31)	
August	4/13 Tokyo gubernatorial election	
	4/16 One-day return project via ferry stopping at Miyakejima Island starts	
September	4/18 Multiple-day return project via ferry stopping at Miyakejima started	
	4/24 Islander's Liaison Team submits request for amendment of Natural Disaster Victims Relief Law with 140,000 signatures to the Diet	
October	4/24 O-nohama Bridge completed after metropolitan road reconstruction work	
	4/30 Emperor and Empress visit Yume Noen farm	
November	18 Sixth Miyakejima Island residents' communication meeting held	
	Approximately 3,000-10,000 tons of volcanic gas emission per day (June to October)	
December	6/7 Explanatory session on volcanic gas and its influence on human health held in Izu evacuation facility	
	7/26 Northern Miyagi Earthquake	
January	8/4 Temporary return by young children, students, and their parents (through 8/5)	
	(8/20) Tokyo and Miyake Village Councils of Social Welfare decide to extend special lending service of welfare funds for village residents	
February	8/22 Report compiled by Miyake Village Volcanic Gas Safety Measures Study Committee	
	9/17 Kanigawasa Bridge in Tsubota completed after metropolitan road reconstruction work	
March	9/26 Decision to extend financial support for small and medium-sized businesses and people engaged in agriculture, forestry, and fishery	
	9/26 Off-shore Tokachi Earthquake, tsunami damage in Hokkaido	
April	October 10/16 Islanders' return program preparatory commission established by Metropolitan Government	
	11/4 Karakuri Bridge and Ashiana Bridge completed after metropolitan road reconstruction work	
May	11/9 Lower House election	
	11/24 Seventh Miyakejima Island residents' communication meeting held	
June	12/20 Use of island hotels and inns with desulfuration equipment as overnight accommodations starts	
	12/25 Islanders' return program preparatory commission interim report	
July	2/15 Village Council and Mayoral elections	
	3/1 Preparatory project for reconstruction of local industries launched	
August	3/30 Islanders' return program preparatory commission final report	
	3/31 Reconstruction work on final bridge, Tatsune Bridge, completed	
September	4/24 Briefing session for village residents (on 4/24 and 29)	
	Approximately 3,000-10,000 tons of volcanic gas emission per day (May to around July)	
October	5/9 Eighth Miyakejima Island residents' communication meeting held	
	5/20 Emperor and Empress visit the support center in Kirigaoka, Kita Ward	
November	5/27 Miyakejima Disaster Reconstruction Council established	
	5/28 Conference on disaster countermeasure techniques on Miyakejima Island held by metropolitan government (also on 8/25 and 1/27)	
December	6/5 Briefing session for residents in the volcanic gas high concentration areas	
	7/1 Eighth Miyakejima Volcanic Activities Exploratory Committee releases results of its study: "It seems possible to consider allowing island residents to return except in some areas, on condition that reliable systems for observation and communication are prepared."	
January	7/1 First experts' meeting on Miyake Village safety measures held	
	7/13 Torrential rain in Niigata and Fukushima Prefecture	
February	7/14 Result of survey about village residents returning home released	
	7/20 Miyake Village Mayor requested "kind understanding and support for our decision to return to the island" from the governor of Tokyo	
March	7/21 Miyakejima Island return support headquarters established	
	7/27 Miyake Village on-site headquarters for Miyakejima island return support established	
April	7/27 Metropolitan headquarters for Miyakejima Island return support established in the Tokyo Metropolitan Miyake Branch Office	
	8/6 Parent-child risk communication implemented	
May	8/13 Athens Olympic Games start	
	9/1 Mount Asama eruption	
June	9/16 Applications for recovery of agricultural land accepted	
	9/17 Medical checks for residents before returning to the island start (through 10/13)	
July	9/18 Briefing session for village residents (also on 9/19), return program plan and guidebook for returning to the island and resuming normal life presented	
	9/17 Metropolitan government decides on emergency support program for the Miyakejima residents returning home prior to lifting of evacuation order	
August	Metropolitan government decides to terminate the use of public housing as free temporary accommodation for the evacuees three months after cancellation of evacuation order (extensions up to three months for households with exceptional circumstances)	

Year	Month/Date	Volcanic Activities Etc. / Action by Miyake Village / Action by Related Events in Society
2004	October	10/29 Metropolitan government decides on security measures before lifting evacuation order
		10/23 Niigata Chuetsu Earthquake
	November	11/12 Metropolitan government decides to create original program to financially support construction and repair of houses
		11/18 Decision to start accepting preparatory applications for Natural Disaster Victims' Relief Fund and Disaster Relief Fund
	December	11/20 Briefing sessions on procedures return (also on 11/21 and 23)
		11/24 Acceptance of public housing applications from residents whose house collapsed or lived in the volcanic gas high concentration areas
	January	11/28 Ninth Miyakejima Island residents' communication meeting held
		11/30 Minor eruptions occur
	February	Approximately 2,000-5,000 tons of volcanic gas emission per day
		12/2 Minor eruptions occur
	March	12/17 Tokyo and Miyake Village Councils of Social Welfare decide to extend the deferment period of the welfare fund and unemployed support fund preferential measures
		12/23 Briefing session for residents in the volcanic gas high concentration areas
April	12/24 Village conference passed "Safety Ordinance Concerning Volcanic Gas in Miyake Village"	
	12/27 Metropolitan government donation collection and distribution committee meeting held	
May	12/26 Great Sumatra-Andaman earthquake	
	1/4 Application acceptance for village-owned housing starts	
June	1/5 Village mayor announces that evacuation order should be lifted on February 1	
	1/14 Shinjuku general office and Tachikawa office closed	
July	1/17 Metropolitan government decides to extend financial support for damaged small and medium-sized businesses that return to the island and resume operations	
	2/1 Evacuation order lifted, departure ceremony for first residents' group returning to Miyakejima Island held	
August	2/2 First returning group of residents arrives	
	2/7 First volcanic gas advisory announced	
September	3/8 Miyake Village Elementary and Junior High Schools closing ceremonies (Akiruno City)	
	3/31 Metropolitan government closes Disaster Management Headquarters	
October	4/1 Temporary office of Miyake Village Chamber of Commerce and Industry opens	
	4/1 Miyake Village Elementary and Junior High Schools reopen	
November	4/11 Nursing care service at "Ajsai no Sato" resumes	
	4/15 Seminar on volcanic gas safety at elementary school (drill on 4/19)	
December	5/1 Acceptance of tourists begins	
	5/9 Survey to confirm the households which returned to the island (as of 5/10, 1,928 residents lived on the island)	
January	6/13 Briefing session for farmers	
	6/24 Tokyo Island Shuttle helicopter special flights start	
February	7/1 Reorganization of village administrative system, establishment of reconstruction policy office	
	7/21 "Yomigaere Miyakejima," an event to celebrate the island tourism recovery, held	
March	7/22 Miyake Nature Center Akakokko Station reopened	
	7/31 Briefing session for residents in the volcanic gas high concentration areas (also on 10/19 and 29)	
April	8/4 Reconstruction Management Headquarters established	
	8/17 Survey on conditions upon returning to the island (As of 8/31, 2,522 residents lived on the island)	
May	9/3 First walking races to encourage reconstruction of Miyakejima Island (through 9/4)	
	9/11 Lower House election	
June	9/30 Request made to Ministry of Land, Infrastructure and Transport and All Nippon Airways to resume flight service to and from the island	
	10/1 Tokyo Island Shuttle restarts regular service	
July	10/5 "Kaze no Ie," Tokyo Volunteer Support Center, opens	
	11/2 Coordinating Committee for Prediction of Volcanic Eruption comments, "Stay vigilant against downwind volcanic gas. Also be cautious of mud flows caused by rain."	
August	11/7 Briefing session for residents (through 11/10)	
	Metropolitan government begins preparatory work to reopen airport	
September	2/17 Very minor eruptions, tiny amount of ash fall on eastern area	
	2/1 "Sonmin no Hi," an event to celebrate the first anniversary of returning to the island	
October	2/3 Gratitude gathering on the first anniversary of returning to the island (at Azur Takeshiba)	
	2/4 Medical check after returning to the island (through 2/8)	
November	3/1 Order acceptance for special postal stamps commemorating the first anniversary of returning to the island starts	
	3/7 Emperor and Empress visit Miyakejima Island	
December	3/31 Disaster Management Headquarters closed	
	Extension of grant application period for the Natural Disaster Victims Returning Island Relief Funds	
January	4/8 Second walking races to encourage reconstruction of Miyakejima Island held	
	5/13 Fifth forum of mutual support network of citizens' groups in volcanic areas held	
February	5/20 Consultation meeting for residents held	
	5/27 "Shimajima 2006," a promotion event of the islands in Tokyo, held	
March	6/8 Study group for Miyakejima Island air and sea routes implements petition campaign in Tokyo	
	7/3 Campaign to petition for reopening Miyakejima Island Airport	
April	7/29 12th "Fureai Island Miyakejima Marine Schole" held	
	8/23 Very minor eruptions	
May	11/2 Signatures submitted to All Nippon Airways	
	11/10 Briefing session for residents (through 11/12)	
June	12/1 Metropolitan government starts volcanic gas concentration research prior to resuming flight service	
	1/31 Extension of Natural Disaster Victims Relief Fund applicants' return to the island deadline	
July	2/1 Second anniversary of returning to the island	

Map of Miyakejima Island

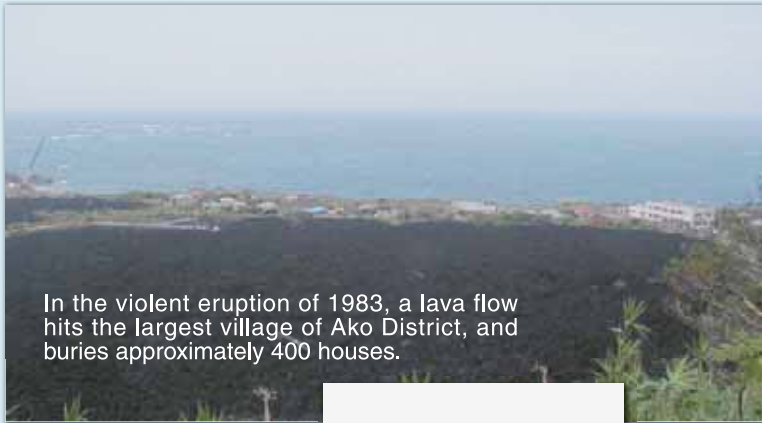
Living on a volcanic island



Disaster prevention wireless system



Lighthouse of Cape Izu



In the violent eruption of 1983, a lava flow hits the largest village of Ako District, and buries approximately 400 houses.



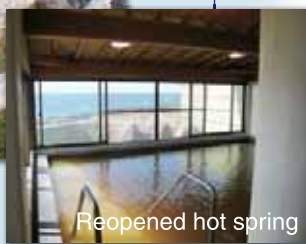
Megane-iwa Rock



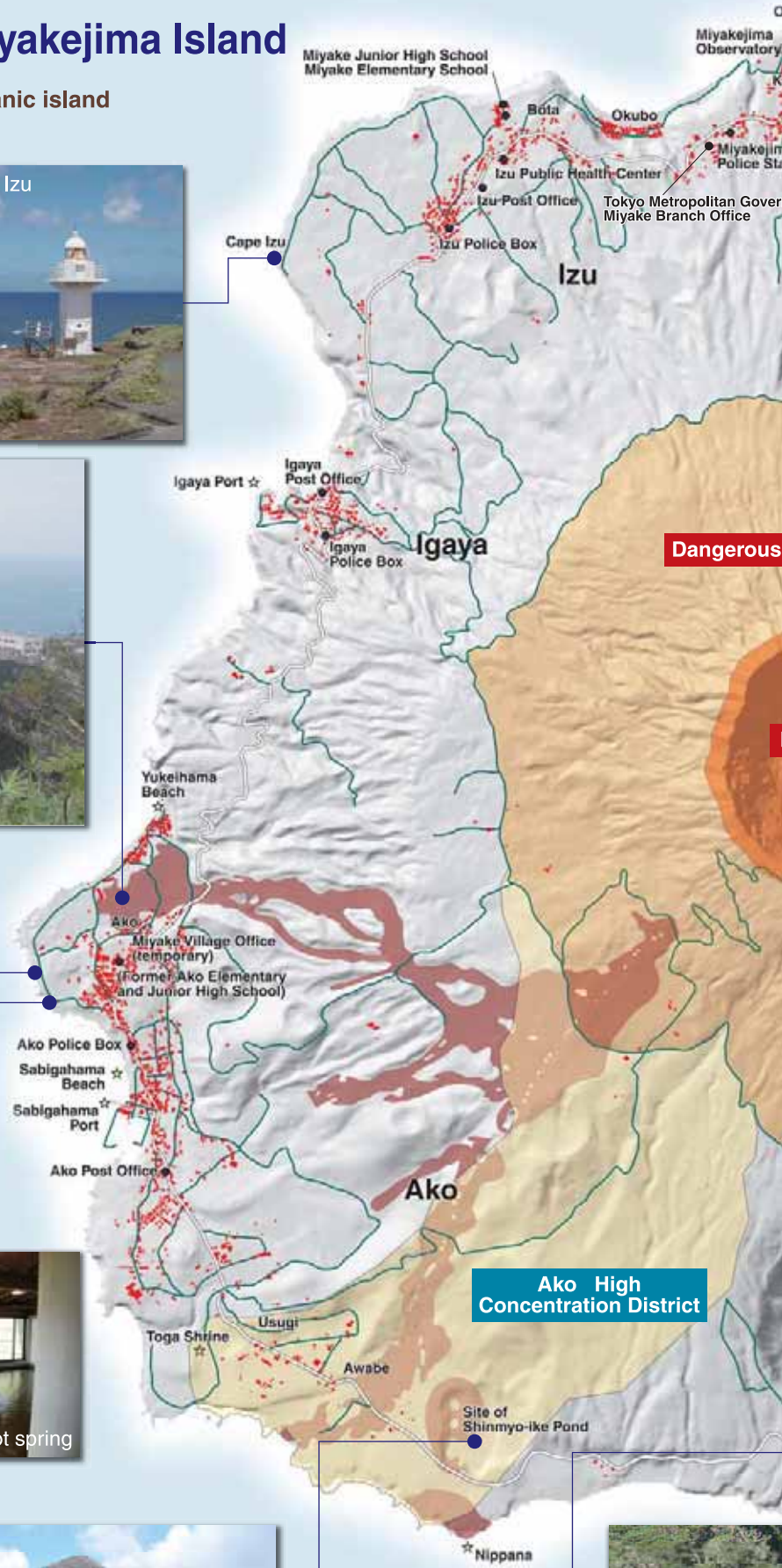
Shinmyo-ike Pond was created from an eruption in 1763, which had water in the eruptive crater. (Upper photograph) However, in 1983, the volcano erupted again. At the same time, there was a phreatomagmatic explosion which blew the pond away instantly. (Right photograph)



Shinmyo-ike Pond



Reopened hot spring



Dangerous

Ako High Concentration District



Shiitori-jinja Shrine



Vicinity of a former village-owned ranch



Hyotanyama Hill



Tairo-ike Pond



Chotaro-ike Pond

Information of Miyakejima Island

Regular Events

Every year on Miyakejima Island, a number of events are held for the enjoyment of both residents and visitors in honor of the island's nature and landscape, and to pass on Miyakejima Island's culture.

January 2 Boat Festival

A festival of prayer for a year of bountiful catches and safe voyages to the vessel spirit. Boat owners, captains, and others involved in fishery share sacred sake against the sides of their boats and pass Mikan oranges to the crowds standing on the docks. The fishing port is filled with hustle-bustle and smiling faces as young and old pick up the fruit.



January 8 Gozai Shrine Grand Festival

Sacred Kagura music and dancing accompanied by Taiko drumming courtesy of the head priest himself. The final Kagura scene features dancing with waving swords and dangling wooden phallus, called "Chin no Yodare." The origin of this dance is the story of how the powerful deity, Kotoshironushi no Mikoto, forgot to put on clothes as he went to battle a gigantic snake on Miyakejima Island.

Early June Bicycle Road-Race

Bicycle races were held on Miyakejima Island until the severe volcanic eruptions in 2000, but after the disaster, they started again in 2007 as part of the "Tour of Japan." Entrants can take part in a variety of races including hill-climb and category races.



Third Sunday in July Gozu Tenno Festival

The festival, continuing from the Edo Period, takes place at Oshaku Shrine in the Kamitsuki District. The festival parade combines three traditional elements- Taiko drumming, the bearing of portable Mikoshi shrines, and Kiyari singing- in supplication for a good harvest, generous catches, domestic safety and continued health.

Inquiries

Tourism Promotion Team, Reconstruction Policy Office
TEL: 04994-5-0984

Late July Marine Schole 21 Festival

The festival of the Miyakemura Society of Commerce and Industry, one of Miyakejima Island's signature summer events. The festival re-opened in 2006 after the volcanic eruptions, and features performances by island bands as well as local performing arts from other parts of the Izu island chain. The whole of Miyakejima Island comes alive as all sorts of produce from the Izu and Miyakejima Islands are sold, local food and refreshment stalls etc. are opened and a lucky lottery is held.



Late August (every other year) Toga Shrine Grand Festival

This festival is celebrated throughout the island every other year. Mikoshi portable shrines set off from the Toga Shrine in Ako District, and pass through five other districts: Igaya, Izu, Kamitsuki and Tsubota. The Mikoshi stay overnight in shrines in each district and are transferred through formal rites, completing a circuit of the whole island in six days.

October- November Surf Fishing Festival

A big fishing event attracting keen anglers from the island itself and further afield. Competition categories include the "Ishidai" (parrot bass) section, "Mejina" (Girella) section, ladies' section, children's section and boat fishing section. The highest placing anglers in each group are commended in evening assemblies at a venue ringed with grand fish banners.



November Motorcycle Festival

The Motorcycle Festival was first held in 2007 on Miyakejima to liven up the island.



Miyakejima Nature Information Postings! Miyake Econet

Miyake Econet opened in July 2005 with the aim of promoting the renewal of Miyakejima Island. It is a web portal helping to invigorate the community and tourism, at the same time introducing the island's nature with a mixture of photography and video (The Wild Bird Society of Japan is the principal operator, with co-operation/systems provided by NTT Data and sponsorship from Miyake Village). On Miyake Econet, islanders and fans of Miyakejima Island's nature can join up, and post their pictures of its magnificent natural scenes and seasonal information in a blog format. Miyake Econet's homepage is full to bursting with information on the natural world of Miyakejima Island.

