



Forests Rivers Sea & Satoyama

**Reconnecting with
Nature, and the Future**

*Green Reconstruction:
Creating a new National Park*

三陸復興



Goishikaigan Coast (Ofunato City)



Rural landscape (Ofunato City)



Myojinzaki (Yamada Town)

Interconnecting with Nature: the very foundation of Living

The Pacific Coastal region of Tohoku District is endowed with both a picturesque natural landscape and world-renowned fishing grounds offshore. This fertile natural bounty has always provided for the people through its local industries. However, this same natural environment also has its harsh side, in the form of bitter winters and periodic tsunamis. In order to coexist with these forces of nature, and the threats therein, the people of the region have accumulated knowledge, skills and culture accordingly.

The recent devastating earthquake and accompanying tsunami along the Pacific Coast of Tohoku, was hugely destructive not only to the people and properties that fell in its wake, but also to the natural environment along the whole coastal area. Nature, we have been reminded, can be a menace as well as provider.

For those who experienced it, the disaster was turning point in their lives. It has caused many to rethink how we and the threatening aspects of nature can coexist.

Immediately after the disaster, the people of the region rose to the challenge of recovery, working and supporting each other along the way. People now share a common awareness of the importance of maintaining bonds between each other, as they live under the threat of renewed nature's manifestations of nature and its dangers.

In order to prepare for future earthquakes and tsunamis, we need to pay more attention to nature and its own powers of recovery, utilizing those strengths as we proceed together towards reconstruction of a sustainable community lifestyle, in which future generations can live rich and fruitful lives in harmony with nature.



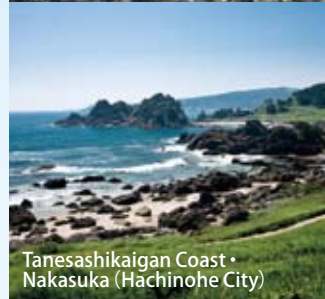
Nature foot path in Kitayamazaki (Tanohata Village)



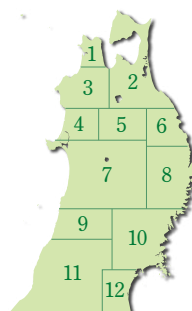
Dogtooth violets (*Erythronium japonica*) in bloom



Ascending salmon



Tanesashikaigan Coast • Nakasuka (Hachinohe City)



Pictures on the cover

1. Hachinohe Line (Hachinohe City)
2. Kabushima Island (Hachinohe City)
3. Hidejima Island and dailily (*Hemerocallis middendorffii* var. *esculenta*) (Miyako City)
4. Okubo Valley (Ofunato City)
5. Hand picked seaweed (Noda Village)
6. Jodogahama Beach (Miyako City)
7. Picking seaweed in Jodogahama Beach (Miyako City)
8. Unosu Cliff (Tanohata Village)
9. Brant Goose (*Branta Bernicla*) (Kesenuma City)
10. Oranda Island (Yamada Town)
11. *Machilus Thunbergii* in Kiyosaki (Ishinomaki City)
12. Soritary pine tree with hope (Rikuzentakata City)

Green Reconstruction: Creating a new National Park

Basic Principle

Forests Rivers Sea & Satoyama

Walking together with the natural environment fostered by the Forests, Rivers, Sea & Satoyama, towards reconstruction

Through various measures, such as establishment of the new Sanriku Fukko (reconstruction) National Park, the reconstruction aims to maintain the natural environment, which has been fostered through linkages between the forests, rivers, sea and Satoyama, and traditional lifestyle of the region for future generations. Throughout the reconstruction, both the blessings and threats that nature brings will be studied.



Main access routes between Tokyo and the Sanriku Region

Legends

- Airport
- Shinkansen (Bullet Train)
- Expressway
- Primary National Highway
Prefectural Highway
- Sanriku coastal Highway (partially opened)
- Railway (partially reopened)
Bus route



Basic Concept

<p>Make the most of the resources that Nature provides</p>	<p>Strive for a tourism industry that emphasizes the uniqueness of Tohoku, as seen in the harmony existing between Nature and the people's lifestyle, as well as the cultural value placed on the bounty that Nature provides.</p>
<p>Study the threats from Nature</p>	<p>Study and warn of the natural threats to the region learned from this recent earthquake and tsunami, to better prepare for the recurrence of such natural disasters in the future.</p>
<p>Strengthen interconnections between the forests, rivers, sea and Satoyama</p>	<p>Following the reconstruction, restore and protect the natural ecosystems that sustain the livelihoods of the region, and strengthen the interconnections between the forests, rivers, sea and Satoyama.</p>

Creation of the reconstruction area



Kesenuma Oshima Island
(Kesenuma City)

Project ①

Establishment of the new Sanriku Fukko (reconstruction) National Park

(In May 2013 this park was newly designated, integrating the Tanesashi Coast and Hashikamidake Area into the park.)

Sanriku Fukko (reconstruction) National Park will be established with areas of outstanding natural beauty, such as the Rikuchukaigan National Park at its core. As for the reconstruction, the promotion of wise use of the natural environment, with greater efforts at consultation with the region, will contribute to the region's development.

This reconstruction will on an unprecedented scale, promote new measures, such as provision of places for utilizing local culture and lifestyle, studying and reviewing the way to prepare for the threat of natural disasters, and how to deal with the waste arising from those disasters.

In order to hasten the reorganization of the new national park, revisions to regional classifications will be progressively introduced, placing priority on maintaining conservation. Management plans, park boundaries, and conservation policies will be revised to ensure the rich ecosystems remain intact, in accordance with the changes in the natural environment brought about as reconstruction proceeds.

The park will be assigned the provisional name Sanriku Fukko (reconstruction) National Park, in the light of the contributions made by many people, including those from outside Japan. In the future, as the reconstruction proceeds, a more appropriate name will be considered.

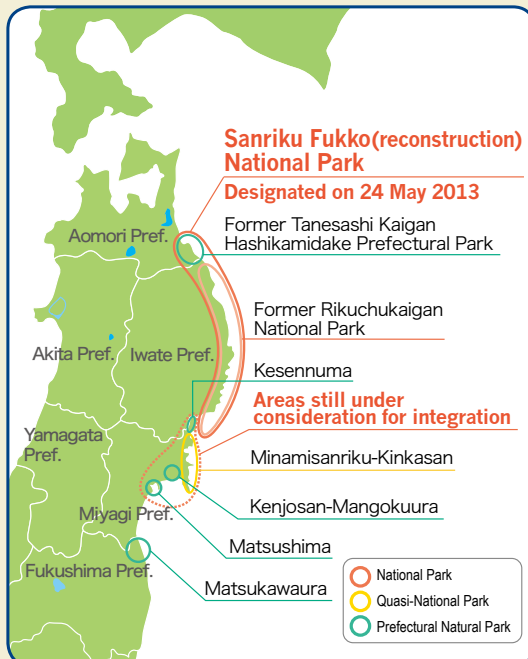


Lilium maculatum in Kitasamuraihama Beach (Kuji City)

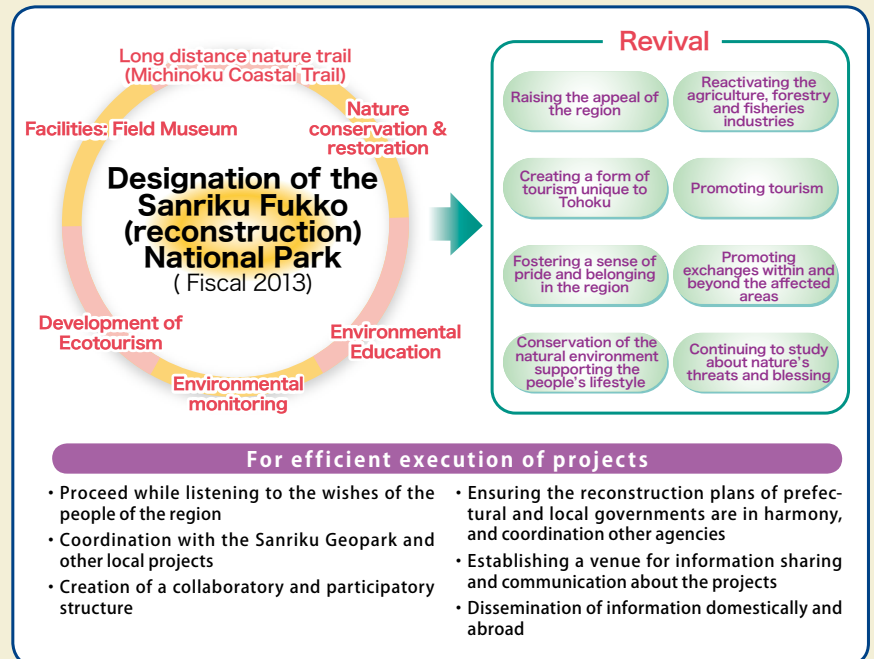


Sunrise at the
Tanesashikaigan Coast

Concept Map of Reorganization of Natural Parks



Aim of "Green Reconstruction Project"



Project 2

Long distance nature trail: Michinoku Coastal Trail



Way to Jodogahama Beach (Miyako City)



A long distance nature trail “Michinoku Coastal Trail” will be created to further deepen interchange between the north and south of the region.

The trail will be set up by utilizing the existing network of foot-path and forest roads, progressively building up as each region becomes sufficiently prepared. Sections of the trail within inhabited areas will also serve as evacuation routes in the event of natural disasters.

The trail will appeal to multiple users : those who prefer a “through hike” , walking non-stop through the trail from start to finish, as well as those who prefer to do a “section hike”, exploring individual segments of the trail. In order to facilitate this and other multiple forms of utilization the trail, location of signboards, toilets and parking areas will be incorporated. Access to existing tourist locations, as well as train, bicycle and boat access will also be considered.

In addition, maintenance, management approaches, publicity campaigns to promote utilization will be considered on a wide variety of topics.



Kabushima Island (Hachinohe City)



URL: <http://www.tohoku-trail.go.jp/>



Marching together with local industries



Seaweed farming experience (Ofunato City)

Project 3

Fukko (reconstruction) Ecotourism

Ecotourism will be developed to create tourism that maximizes the enjoyment obtained from the unique features of the region, such as natural environment and traditional way of life.

Ecotourism resources such as food, “fishing experience” run by small boat operators, and guided tours in which the guides can pass on their personal accounts of the recent tsunami, are being considered. Another is to showcase the geology and fossils of the region in “Geotours”. All of these will contribute greatly to the reconstruction.

Support will be provided for development of tour programs and guide training, information dissemination, setting of rules for sustainable use, so as to enable the region to operate its own independent ecotourism in the future.



Sappa boat tour

Project 4

Reconnecting the Forests, Rivers, Sea & Satoyama

Programs to increase public awareness on the importance of the role of natural environment in sustaining livelihoods of the region and of the connectivity of the forests, rivers, sea and Satoyama, along with nature restoration activities undertaken, at the same time, will re-establish the connectivity between the forests, rivers, sea and Satoyama.

Ecosystems* affected by the earthquake and tsunami, such as tidal flats and seagrass areas will be studied and monitored to assess their condition and potential for recovery, and the best approach for their protection and restoration will be considered taking into account the wishes of the people of the region.

In rural areas where the connectivity between nature and the people has declined, restoration will begin with nature restoration activities to bring back the ecosystems, following which ecotourism and environmental education will be introduced, to re-establish linkages with the forests, rivers, sea, Satoyama, and the people, again of course taking into account requests from the region.

* Including new rich habitats affected by the tsunami and earthquake.



Brant Goose (*Branta Bemicla*)

Helping Nature Recover



Eelgrass (*Zostera marina*) beds diminished following the tsunami

Project 5

Promoting development of human resources who play a major role in sustainable society



An environmental education activity in action

Human resources who can develop the region whilst maintaining harmony with nature, and who can pass on the knowledge of both the threats and blessings from nature will be created.

The capacity-building process will center on an understanding of the way nature functions, connectivity between the forests, rivers, sea and Satoyama, and the people's way of life, as well as disaster prevention in the face of threats from nature.

Knowledge will be gathered from people with first-hand experience of the disaster, which will be compiled into a base of knowledge and recommendations in the event of future disasters.



Enburi Festival (Hachinohe City)

Project 6

Monitoring the Natural Environment

The Natural Environment is not only the foundation of the people's lives in the region, but is also the basis of various approaches being undertaken in the reconstruction.

The impact of the recent tsunami and earthquake on the natural environment will be studied in terms of its affect on biodiversity and changes in the natural environment will be monitored over time. In addition record of prior tsunamis and other such events will compiled by examining "tsunami rocks" and other evidence of prior disasters.

In collaboration with the research community, a comprehensive archive of information on earthquakes and tsunamis will be produced and made available to the public so that the impact on the natural environment of tsunamis can be appreciated.



Tsunami rocks in Karakuwa Peninsula



Rocks thrown up from the sea floor by the tsunami

Creation of a Bastion of Learning & Enjoyment

Project 7

Satoyama Satoumi Field Museum



Cape Ashigezaki Observation Tower (Hachinohe City)

An area will be set aside which will include the reorganized national park and the surrounding traditional rural and coastal countryside, known as Satoyama and Satoumi. In which a range of traditional locations across the landscape will collectively comprise an open-air "field museum".



Jodogahama Visitor Center (Miyako City)

Core facilities of the national park will serve the surrounding region as a base for ecotourism development and environmental education.

To hasten the restoration of basic tourist infrastructure lost in the disaster, Existing facilities will be quickly restored.

Remnants, artifacts and information relating to tsunamis and earthquakes of the past will be made available to those wishing to learn more about ways to live with the threats from nature. There will also be facilities showcasing the nature and lifestyle of the region.



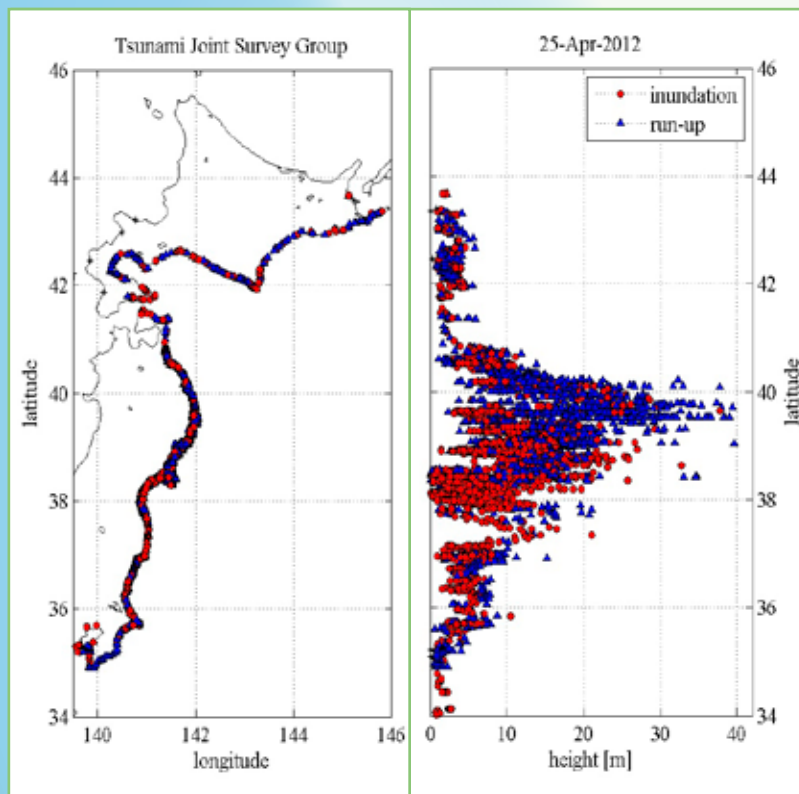
THE GREAT EAST JAPAN EARTH

Impact of the earthquake, tsunami and land subsidence.

Known as the Great East Japan Earthquake, the quake that occurred on March 11, 2011 had a magnitude of 9.0, making it the largest in recorded history in Japan, and the fourth largest in the world.

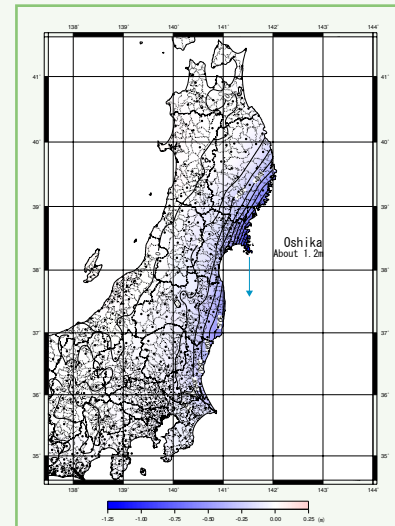
The huge tsunami struck the Pacific Coast of Japan, rising to as high 43 meters in (recorded in Kasagai Island), and causing massive deformations in the landscape, as observed in Oshika Peninsula which sank 1.2m and shifted 5.3m laterally towards the earthquake epicenter.

The height of tsunami caused by the Great East Japan Earthquake
 (2011 Tohoku Earthquake Tsunami Joint Survey Group.
<http://www.coastal.jp/ttjt/>) (2012/4/25))

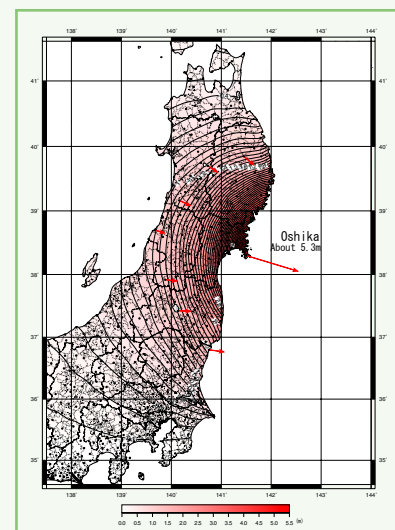


Inundation height:
 Elevation of local water mark(from sea level at the time the tsunami struck)
 Run-up height:
 Elevation at landward edge of tsunami inflow(from sea level the moment the tsunami struck)

Ground deformations : Vertical movement
 (Geospatial Information Authority of Japan)



Ground deformations : Horizontal movement
 (Geospatial Information Authority of Japan)



Before and after the tsunami

Campsite in Rikuchukaigan National Park (Miyako City)



QUAKE

- 1 Fishing vessel left high and dry (Kesenuma City)
- 2 The "Solitary pine tree of hope", the only one to remain standing among tens of thousands on a beach inundated by the tsunami (Rikuzentakata City)
- 3 The base of the Hirota Peninsula where the tsunami swept across
- 4 Pine trees on the coast damaged by the tsunami
- 5 Amur adonis (*Adonis ramosa*)



Impact on the Natural Environment

Distinctive natural landscapes such as cliff faces, Rias Coasts, strangely-shaped rocks, and archipelagos were largely devastated by the tsunami/earthquake.

Sandy areas were reduced or disappeared altogether from some beaches. Impacts to ecosystems include severe disturbance to estuarine vegetation such as pines on sandy beaches, reed banks, tidal flats, sand dunes as well as to areas of Japanese Rose (*Rosa rugosa*), and Eelgrass beds.

In parts of the coastline that were submerged, rich new habitats are possibly emerging in such forms as tidal flats.

Impact on National Park Utilization

68 out of the total 121 facilities of the Rikuchukaigan National Park were damaged by the tsunami. Those damaged include campsites, public toilets, public grounds and walking trails.

Around 100, or almost half the total number of nature experience programs that offered immersive enjoyment of nature, such as sea kayaking, fisheries experience, and sea sightseeing were affected by the disaster.

Before and after the tsunami

Sendai Kaihin National Wildlife Protection Area (Gamo tidalflat) (Sendai City)
Even now, the landscape is still transforming: evidenced in eroding beaches and disappearing lagoons tidalflats.

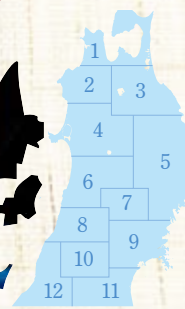


(Geospatial Information Authority of Japan)



The system of national parks has preserved and allowed citizens to visit areas of natural beauty and significance for 80 years. Drawing on this history of national park management, the government plans to reconstruct the national park in accordance with the philosophy of “green reconstruction.” It is important for the revitalization of the disaster area that the national park is reconstructed. By reconstructing the national park, people will be able to interact with nature and can learn about the beauty, power and potentially dangerous aspects of nature.

In this region, fishermen have an old history of venerating the gods of the mountains. Similarly, the connection between the forest and the sea has been regarded as important. Through interaction with nature as well as strengthening the connection between forests, rivers, sea and Satoyama; each region’s way of life, culture and traditions can be enriched. We strongly hope that green reconstruction activities will encourage local development action through citizen participation.



1. Hachinohe Sansha Grand Festival
2. Ichigoni
(Soup made of fresh sea urchin and abalone)
3. Dried persimmons
4. Aramakisake (Salted salmon)
5. Market
6. Hachinohe Senbei-Jiru
(Broth adding “Nanbu Senbei” crackers)
7. Soba-kakke (triangle-shaped buckwheat food)
8. Morning market
9. Landing Sanma(Pacific saury) in Kesenuma
10. Hachinohe Ramen
11. Female divers in Kuji
12. Mameshitogi
(Rice cake made of rice and green soybean)

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