Miyagi Prefecture Earthquake Disaster Recovery Plan

➤ The bond between Miyagi, Tohoku and Japan - from Recovery to Prosperity ~

<Summary>

Musubimaru (Tourist PR character of Miyagi prefecture)



October 2011 Miyagi Prefectural Government



Purpose of plan development

The prefectural government decided to develop the Miyagi Prefecture Earthquake Disaster Recovery Plan as a result of the March 11, 2011 Great East Japan Earthquake that struck and caused catastrophic damage to Miyagi Prefecture. The Miyagi Prefecture Earthquake Disaster Plan is one of proposals because it is necessary to bring in new methods and design different from the past in order to achieve the recovery efforts.



(3) Targeted regions

The entire prefecture will be the targeted subjects of the plan. In particular, the focus of the plan will be on the damaged coastal regions.

(4) Progress management

Through the management method of the PDCA cycle, evaluations will be made on project achievements and the results of the evaluation will be reflected in the specific recovery efforts. In order to respond to changes in various factors including the social situation, the plan may be re-examined as necessary.



Urgent priority items

The prefectural government has set forth the following items as urgent items that must be dealt with immediately on a prefectural level in order to prioritize efforts to support the lifestyle of the victims and recovery of the disaster areas.

(1) Lifestyle support for victims

Maintaining temporary housing, providing public housing, housing reconstruction support, improving mental health care and health of victims, etc.

(2) Prompt restoration of public works facilities and public utilities

Restoration of roads, ports, airport, railway, waterworks and sewage, electricity, gas and communication, urgent restoration and countermeasures for flooding of coastal and river facilities

(3) Restoring administrative functions of the damaged towns and cities

Maintaining public facilities, securing personnel, recovering public documents, restoring work foundation, support to community development

(4) Disposal of disaster waste

Removing disaster waste to primary temporary scrap yard, transferring waste to secondary temporary scrap yard and disposing of it

(5) Securing educational environment

Restoring school facilities, strengthening personnel system, ensuring school entry of young victims, mental health care and means of transportation to and from school

- (6) Securing health, medical treatment and welfare
- Securing health of the victims, maintaining a medical treatment and medical supply provision system, and supporting the elderly and children who lost a parent
- (7) Securing employment and living expenses
- Supporting employment maintenance for stricken companies, securing employment and living expenses for victims (8) Early recovery of the agricultural, forestry and marine products industries
- reconstruction of businesses and constructing a stable supply system (9) <u>Reconstruction of the commerce and industry</u>
- Supporting the resumption of businesses with temporary stores, factories and other facilities, supporting the restoration and maintenance of stores, factories, etc. and supporting general finance and operations (10) Rebuilding a safe and comfortable regional society
- Restoring fire safety and disaster prevention functions, restoring disaster prevention facilities, re-examining disaster prevention system, restore and strengthen functions of police facilities and rebuild a safe and comfortable regional society
- (11) <u>Responding to nuclear power disaster</u>

Measuring radioactivity at schools and other locations in each municipality, maintaining radioactivity testing system for agricultural, forest and marine products, carrying out efforts to dispel harmful rumors, rebuilding a prefectural response system to nuclear power disasters, requesting to the national government the realization of complete compensation for damage and establishing radical reduction measures for radioactive materials and maintaining the surveillance of radioactivity throughout entire prefecture



As it is necessary to carry out radical reconstruction in addition to restoration and carry out innovative community development, the following 10 items have been adopted as the recovery points, and in order to realize these points the prefectural government will carry out joint efforts with the citizens and local municipalities as well as make proposals and requests to the national government.

- (1) <u>Constructing a Miyagi disaster-resistant community development model</u> The prefectural government plans to promote a disaster-resistant urban plan designed to incorporate ideas for tsunami countermeasures such as high ground relocation, separation of workplace and residential area and the establishment of multiple tsunami barriers, and promote an urban plan that maximizes the lessons learned from this disaster.
- (2) <u>Rebuilding Miyagi's marine products industry</u>

For the purpose of rebuilding and developing the prefecture's fishing industry, the prefectural government will re-examine areas, including the legal system, structure of operations and the state of the fishing port and will promote the creation of a new fishing industry and the reconstruction of the fishing cities.

(3) <u>Building progressive agricultural and forestry industries</u>

While coordinating land usage, the prefectural government will make plans to improve agricultural output through agricultural land integration, large scaling of operations and transitions of crops planted. In addition, the agri-business for the "sixth industry" will be proactively developed for the revitalization and reconstruction of a competitive agricultural industry. There will also be plans to move along the rapid reconstruction of the lumber industry and revitalize a proactive forestry industry.

- (4) <u>Rebuilding the manufacturing industry promptly to achieve a prosperous Miyagi</u> The prefectural government will move ahead to support prompt reconstruction of the manufacturing industry and to further attract automobile-related industries. Plans will also be carried out to integrate and promote new industries that will lead the next generation, reconstruct the grand design for the manufacturing industry that will maximize the region's unique features and create an industrial structure that will balance primary to tertiary industries.
- (5) Revitalizing Miyagi's attractive tourism industry

The prefectural government plans to transmit tourism information, restore and enhance the transportation infrastructure, implement tourism campaigns such as Destination Campaign, strengthen the response to inbound tourism (attracting overseas tourism) and construct a new tourism route. The prefectural government will also carry out efforts for tourism recovery by maximizing the experience of the disaster and revitalizing the attractive Miyagi tourism industry.

- (6) <u>Reconstructing the health, medical and welfare fields together with community development plan for entire region</u> The prefectural government will promote the rapid restoration of medical and welfare institutions and the reconstruction of the health, medical and welfare distribution system throughout the entire region along with the community development plan. Furthermore, The development of a regional community where people of all ages can live comfortably will be promoted based on the lessons learned from the location of affected facilities, the importance of an extensive medical system and the importance of the collaboration among regional communities.
- (7) Developing "eco towns" that utilize renewable energy

The prefectural government will proactively promote urban planning that utilizes clean energy in the new urban foundation when rebuilding the disaster areas.

(8) Promoting disaster-resistant prefecture and nation

In conjunction with the promotion of a disaster-resistant, multiple transportation network and the coordination of a shift towards and high certainty disaster information collection and transition system, the prefectural government will propose to the national government the establishment of a central, extensive disaster prevention hub and the maintenance of a national alternative crisis management function.

(9) <u>Developing human resources of the future</u>

The prefectural government will promote the maintenance of the educational environment in the affected areas and improve mental care for children and disaster prevention education. While utilizing the lessons learned from this earthquake disaster, which also allowed the children to recognize again their relation with others and the society, the prefectural government will further carry out efforts in the prefecture's "education of the will" and promote the development of human resources that will support the development of this country and region.

(10) Building financial resources, systems and cooperative framework to support recovery efforts The prefectural government will propose to the national government new financial resource measures and the establishment of a "Special East Japan Recovery Zone" based on the events of the earthquake disaster. Because the affected areas cross over many prefectures with unprecedented widespread damage, the prefectural government will also establish a collaborative system that goes beyond the borders of the devastated prefectures and local municipalities.

Restoring the production base of agricultural, forestry and marine products industries by removing debris and salt, supporting the resumption and





Direction of recovery efforts by category

The basic direction of recovery efforts by category is adopted and there are plans to develop effective measures based on the restoration, rebuilding and development stages for the entire prefecture.

Recovery efforts for the entire region are being carried out by creating plans to develop transversal measures while integrating measures in welfare, urban, transportation and other fields of the community, and deepening collaboration between the inland and coastal regions in the categories of manufacturing industry, tourism and others.

Ultimately, the prefectural government will continue to work on the realization of a regional society where the citizens can actually sense the development of the prefecture's vitality based on the basic direction of the government's advancing policies, which include "realizing a prosperous Miyagi," "creating a safe and vital regional society," and "creating an attractive, safe prefecture where people and nature can live in harmony." These policies have been adopted in the "Miyagi's Future Vision" - the government's long-term, general plan for the prefecture.

<Direction of recovery efforts by category: policy system>





4 Realize a profitable agricultural business

Rebuild a vital agricultural industry and community

② Revitalizing a vibrant forestry industry

- 1 Preserve industry and secure wood supply for recovery efforts
- 2 Support to restore damaged homes and central facilities
- Promote prompt restoration of coastal disaster prevention forests and effective use of woody biomass

③ Building new marine products industry

- 1 Efforts to promptly resume marine products industry
- 2 Support to rebuild fishing operation and production bases
- Rebuild the collective marine products industry center and collectively reorganize coastal fishing centers
- 4 Strengthen operation system, secure successors, general industrialization of the fishing industry by implementing new operational methods

④ Promoting food industry that pulls the primary industry

- **1** Support to promptly restore food production-related facilities and resume business
- 2 Expand market by strengthening information transmission
 - Rebuild "Food Kingdom Miyagi"

(5) Public works facilities

① Secure and promote the maintenance of roads, ports, airports and other transportation infrastructure

\bigcirc Roads

- 1 Maintain high-grade expressways
- 2 Support the maintenance of national and prefectural roads and roads maintained by local authorities
- 3 Measures to earthquake proof bridges, etc. and measures for long lasting

\bigcirc Ports, airport

Maintain Port of Sendai-Shiogama, Port of Ishinomaki and other ports
 Rebuild Sendai Airport

② Safe coasts and rivers in the prefecture

- 1 Maintain coasts
- 2 Maintain rivers
- 3 Promote measures against landslide disasters
- ③ Restore utilities including water and sewage
- 1 Maintain sewage
- 2 Maintain water and water for industrial use
- 4 Rebuild communities in the coastal cities and towns
- 1 Collaborate on various policies for community development

7) Disaster prevention, safety, comfort	Γ
 Rebuilding functions for disaster prevention Restoring administrative functions of disaster towns and cities Redeveloping the disaster prevention system Rebuilding the nuclear disaster prevention system Ensuring a medical system in times of disaster Strengthening school facilities and their functions to serve as the regional disaster prevention centers 	(1)E (2)F
 Preparing for massive tsunami and other disasters Maintaining tsunami evacuation facilities Create earthquake disaster records and foster a consciousness for disaster prevention 	(3) (4)
 3 Strengthening disaster prevention system at local level by self-help and mutual assistance 1 Developing leaders for regional disaster prevention 2 Earthquake disaster countermeasures for wooden housing 	(5)
 Building a safe and comfortable regional community Promptly restore and strengthen functions of police facilities Promptly restore and strengthen functions of transportation safety facilities Build a safe and comfortable regional society that takes into consideration anticrime and disaster prevention 	(6)
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(6) Ed	ucation
1	Securing safe and comfortable school education
1	Restore and rebuild school facilities
2	Support studies of affected students
З	Mental health care for students
4	Enhance disaster prevention education
5	Promote "education of the will"
② 1 2	Rebuild educational skills at home and in the region Maintain system to develop children throughout entire region Secure school safety through regional cooperation
3 1	Enhance lifelong learning, cultural and sports activities Restore facilities for social education, social sports and promote lifelong learning activities
2	Repair and restore damaged cultural assets, promote the regional culture

Direction of recovery efforts by category		The number of printing enterprises 【Total number】		The number of the house update businesses	
Environment, lifestyle, sanitation, waste	-	-			
① Securing life environment for the victims	25	(21)	0	(0)	
2 Properly disposing waste	5	(5)	0	(0)	
③ Achieving a sustainable society and preserving the environment	10	(0)	0	(0)	
Health, medical care, welfare					
① Securing safe regional medical care	15	(13)	1	(1)	
2 Supporting the children of the future	16	(7)	0	(0)	
③ Building a comfortable regional society	18	(13)	5	(3)	
Economy, commerce, tourism, employment					
 Rebuilding the manufacturing industry 	37	(21)	5	(3)	
② Revitalizing commerce and tourism	35	(16)	13	(10)	
③ Preserving and securing employment	21	(7)	8	(2)	
Agricultural, forestry, marine products industries					
1 Reconstructing an attractive agricultural industry and community	32	(19)	2	(2)	
② Revitalizing a vibrant forestry industry	15	(5)	6	(2)	
③ Building new marine products industry	26	(26)	8	(8)	
④ Promoting food industry that pulls the primary industry	24	(8)	6	(4)	
Public works facilities					
1 Secure and promote the maintenance of roads, ports, airports and	23	(5)	6	(3)	
② Safe coasts and rivers in the prefecture	16	(5)	0	(0)	
③ Restore utilities including water and sewage	8	(4)	0	(0)	
(4) Rebuild communities in the coastal cities and towns	11	(3)	5	(1)	
Education					
1 Securing safe and comfortable school education	20	(12)	2	(2)	
2 Rebuild educational skills at home and in the region	9	(0)	2	(0)	
3 Enhance lifelong learning, cultural and sports activities	13	(4)	2	(0)	
Disaster prevention, safety, comfort					
1 Rebuilding functions for disaster prevention	22	(15)	7	(5)	
O Preparing for massive tsunami and other disasters	4	(2)	1	(1)	
③ Strengthening disaster prevention system at local level by self-help and mutual assistance	2	(2)	1	(1)	
④ Building a safe and comfortable regional community	15	(15)	0	(0)	
· 	422	(228)	80	(48)	

Summary of projects listed in Miyagi Prefecture Earthquake Disaster Recovery Plan (proposal)

*Numbers in parenthesis are number of programs related to urgent priority items

Image of recovery efforts for affected coastal areas and entire prefecture

(1) Image of recovery efforts for affected coastal towns and cities

From a wide viewpoint, the images for the basic recovery efforts is laid out, dividing the efforts into three areas – Sanriku area, Ishinomaki/Matsushima area and Sendai Port/Southern Miyagi area.

While integrating the recovery effort plan for the prefecture and local municipalities, the prefectural government will continuously support the efforts of the local municipalities.



(2) Recovery effort image for entire prefecture

The prefectural government will view the future lifestyle of the prefectural citizens and fundamentally rebuild the role of the industries in the prefecture and the way of maintaining and establishing public facilities. While aiming to realize the future of the entire prefecture created in the "Miyagi's future vision" plan, a recovery model will be created to respond to the expectations of the national and international communities.

(3) Collaboration between prefecture and local municipalities, mutual collaboration between local municipalities

From this disaster, the necessity and importance of mutual collaboration among local municipalities was reconfirmed. The prefectural government will support efforts by local municipalities to strengthen even further the mutual collaboration with the less affected municipalities. Based on the specific features of the regions including disaster situation of each area, situation of land use and industry construction the prefectural government will considerably respect and support the recovery efforts of local municipalities.



Prefecture's basic administrative and fiscal management policy

(1) Intensely shifting and prioritizing recovery projects

While considering the ideas for the stable supply of absolutely necessary services for prefectural citizens and steady implementation of projects, the prefectural government will concentrate on gathering as much financial and human resources available for the recovery projects by boldly reexamining all the administrative projects and prioritize efforts carried out.

(2) Measures to secure financial resources

As financial measures through the national government's disaster recovery subsidy and local tax grants are absolutely necessary, the prefectural government will strongly encourage the national government to secure financial resources for the recovery efforts. In addition, the prefectural government will push ahead profitable activities in regards to the tax revenue received from independent tax and apply costs for recovery efforts without going against the system.

(3) Views of project development

In implementing the projects adopted in this plan, the creation and change of a flexible system, and securing financial resources and other solid support from the national government and private sector will be highly significant. During this 10-year recovery plan and based on the moment-to-moment needs for a change in the system or financial measures, the prefectural government will continue to request support from the national government and proactively utilize the strength and knowledge of the private sector. The prefectural government will implement individual projects necessary to rebuild Miyagi Prefecture based on the support received to date.

	Data *As of Oct. 20, 2011	
1	Earthquake-related Date & time: March 11, 2011, 14:46 Epicenter: Off the sanriku coast (38.1°N 142.8°E, approx. 130km east of the Oshika Peninsula) Depth: Approx. 24 km Size: Magnitude 9.0 Greatest seismic intensity: Seismic intensity 7 (Kurihara City) Tsunami: 7.2 m (Port of Sendai) – Recorded by JMA on Apr. 5, 2011 More than 8.6 m (Ayukawa, Ishinomaki City) – Recorded by JMA on June 3, 2011	 2 Damage situation Human toll (continuing in Deaths: 9,446 Missing: 2,026 Seriously injured: 429 Slightly injured: 3,579 Damage to homes, nonre Completely destroyed: Half destroyed: 92,234 Partially destroyed: 175 Above ground flooding: Below ground flooding: Damage to nonresident

*Tsunami pushed at most 5 km inland *327 km² of the region was flooded (4.5% of pref.)

Progress outline of Miyagi Prefecture Earthquake Disaster Recovery Plan

Date	Progression	Notes
March 11,2011	Great East Japan Earthquake	
"	Establish prefectural disaster task force	
Api111,2011	Develop Miyagi Prefecture Earthquake Disaster Basic Policy (proposal)	
Apil22,2011	Establishing Miyagi Prefecture Earthquake Disaster Recovery Task Force	
и	First Miyagi Prefecture Earthquake Disaster Recovery Task Force meeting held	
May2,2011	First Miyagi Prefecture Earthquake Disaster Recovery Efforts meeting held	Regarding the development of the basic policy and recovery effort plan
June3,2011	Second Miyagi Prefecture Earthquake Disaster Recovery Efforts meeting held	Regarding the recovery plan (First draft, administration proposal)
June 15, 2011	Second Miyagi Prefecture Earthquake Disaster Recovery Task Force meeting held	Recovery Plan (first draft) decided
JU/6,2011	Third Miyagi Prefecture Earthquake Disaster Recovery Task Force meeting held	Recovery Plan (second draft) decided
JU/13,2011	Third Miyagi Prefecture Earthquake Disaster Recovery Efforts meeting held	Regarding Recovery Plan (second draft)
"	Collecting opinions from prefectural citizens (public comment)	Collection period: Until Aug. 2, 2011 (200 opinions on 679 items received)
JU/16,2011	Briefing for prefectural citizens (Sendai area, Ogawara area)	Sendai: Approx. 260 participants; Ogawara: Approx. 150 participants
JU/17,2011	Briefing for prefectural citizens (Northern region, eastern region)	Northern area: Approx. 150 participants; Eastern region: Approx. 300 participants
JU/18,2011	Briefing for prefectural citizens (Kesennuma area)	Kesennuma: Approx. 270 participants
August17,2011	Fifth Miyagi Prefecture Earthquake Disaster Recovery Task Force meeting held	Final draft of recovery plan decided
August22,2011	Fourth Miyagi Prefecture Earthquake Disaster Recovery Efforts meeting held	Regarding final draft of recovery plan
August26,2011	Sixth Miyagi Prefecture Earthquake Disaster Recovery Task Force held	Recovery plan (proposal) decided
September 15,2011	Proposed plan as a bill to the prefectural assembly during the regular Sept. meeting	
Ottber18,2011	Approved by the prefectural assembly	

More detailed information on the Miyagi Prefecture Earthquake Disaster Recovery Plan is available on the Miyagi Prefectural Government website (in Japanese).

Contact information

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uation oll (continuing investigation) : 9,446 - 2, 225	■Evacuation situation (at peak time) Evacuation shelters: 1,183 Evacuess: 320,885
g: 2,026 sly injured: 429 r injured: 3,579 to homes, nonresidential housing etely destroyed: 76,078 stroyed: 92,234 y destroyed: 175,294 ground flooding: 7,061 ground flooding: 11,194 te to nonresidential housing: 27,627	 Damage to utilities (at peak time) Electricity: No. of homes without power 1,545,494 Water: Water supply problems occurred in 35 municipalities Gas: Gas supply problem in 13 municipalities Sewage: 124 places damaged at facilities Total damage costs (continued investigation) 7,378,100,000,000 JPY

