

Road to recovery

GOVERNMENT OF JAPAN
September 2011

Table of Contents

1. The occurrence of The Great East Earthquakes

Unprecedented challenge for Japan since 3・11	・・・3
Emergency efforts	・・・4
Foreign assistance and rescue efforts	・・・6
Cause of the Accident and Damage at Fukushima Dai-ichi	
Nuclear Power Station	・・・7
Nuclear Power Stations Nuclear Reactors near Epicenter of the Earthquake	・・・8

2. Damages, current situation and the Government, the Local Government and Private sector of Japan's response

Macroeconomic impact	・・・9
Estimated Economic Damage of the Tohoku-Pacific Ocean Earthquake and Plan for Reconstruction	・・・10
Speedy reconstruction of infrastructure	・・・11
Impact on Energy Supply / Demand in Japan	・・・12
Electric supply/demand up to this summer	・・・13
Speedy recovery of supply chain beyond expectation	・・・14
Utmost effort to settle Fukushima NPS accident	・・・15
Rigorous and intensive monitoring	・・・16
Current Status of “Roadmap towards Restoration from the Accident at Fukushima Daiichi Nuclear Power Station, TEPCO” (Revised edition)	・・・17
Points of Progress Status of “Roadmap towards Restoration from the Accident at Fukushima Daiichi Nuclear Power Station, TEPCO”	・・・19
Atmospheric Readings within 100km	・・・20
Atmospheric Readings in Tokyo, Osaka and Sapporo	・・・21

Ensure the safety of food and products	・・・22
Safety of Food	・・・23
Government Actions to Ensure the Safety of Beef and Other Food	・・・24
Safety of Fishery Products	・・・25
Safety of Drinking Water	・・・26
Safety of Industrial Products	・・・27
Radiation in Dairy-life	・・・28

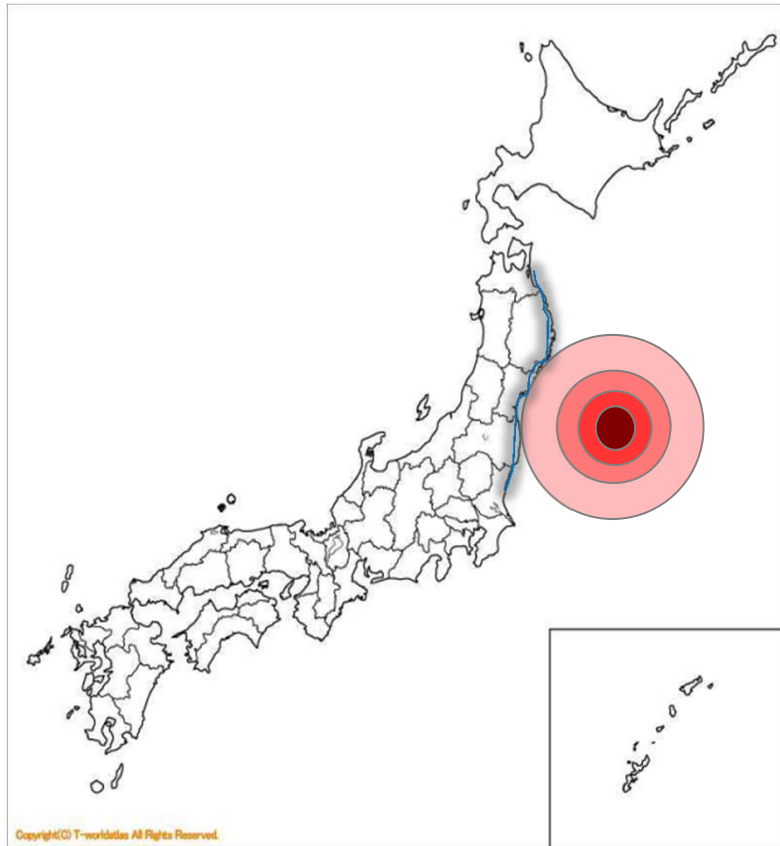
3. Road to recovery

Reconstruction open to the world	・・・29
Basic Guidelines for Reconstruction in response to the Great East Japan Earthquake (decided on July 29, 2011)	・・・30
On Strategies for Revitalizing Japan (August 5, 2011)	・・・31
Decision of the Energy and Environment Council (July 29, 2010)	・・・35

4. Assistance from overseas

Map of sites where rescue teams from foreign countries, regions, and international organizations are operating (3rd August)	・・・37
---	-------

Unprecedented challenge for Japan since 3·11



The Great East Japan Earthquake

Earthquakes

Main shock

- Magnitude : 9.0 (Mar. 11th)

Aftershocks

- Magnitude 7 or greater : 6 times
- Magnitude 6 or greater : 93 times
- Magnitude 5 or greater : 559 times
(As of Aug. 31st)

Casualties

- **Dead : over 15,700**
- **Missing: over 4,500**
- **Injured: over 5,700** (As of August 24th)

Evacuees

- **Over 124,000**

Enormous earthquake, tsunami and nuclear accident

Emergency efforts

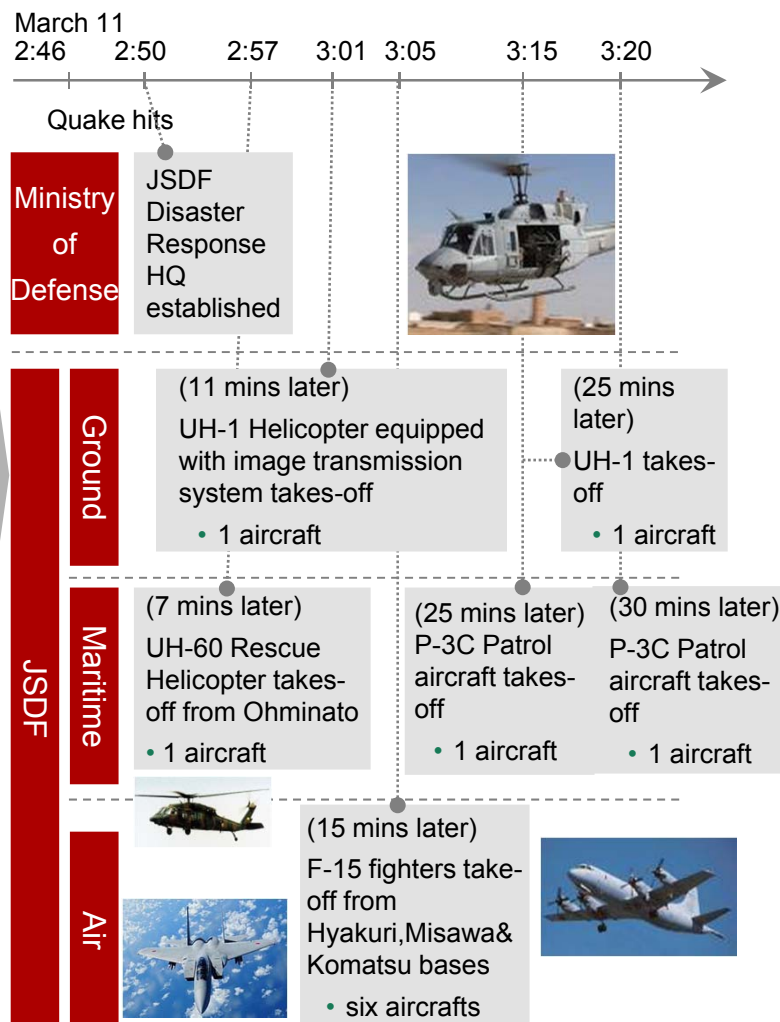
Example1)Self-Defense Force's immediate rescue activities

The JSDF held its largest emergency drill "Michinoku ALERT 2008"

11 aircraft responded within a mere 30 mins after the disaster headquarter established

Speedy expansion of rescue operations

- Drill dates** Oct 31 – Nov 1, 2008
- Hypothesis** Quake approx magnitude 6 off Miyagi Pref coast, tsunami hits Sanriku coast
 - Drill conducted in region badly affected by this disaster
- Participants** Total 18,000 participants in 22 towns in Iwate & Miyagi Pref, and 6 prefectures of Tohoku Region
 - 9,839 SDF personnel
- Drill Details** In cooperation with local authorities, fire dept, residents, practiced life rescue and welfare support
 - After the drill, held regular meetings between the city/town/village & the unit in charge during the drill
 - Each time, they checked on communities at risk of isolation from a tsunami



Ground JSDF No. 21 Infantry Regiment, stationed at Akita Garrison, arrived in Kamaishi City, Iwate Pref. approx 7:30am

- After establishing the ir base, they commenced rescue operations for Hakozaki Town, which was completely isolated due to roads being cut by the tsunami.

All debris was removed 2 days later, and emergency goods were delivered twice daily to the community



Emergency efforts

Example(2) Earthquake Early Warning system for Shinkansen

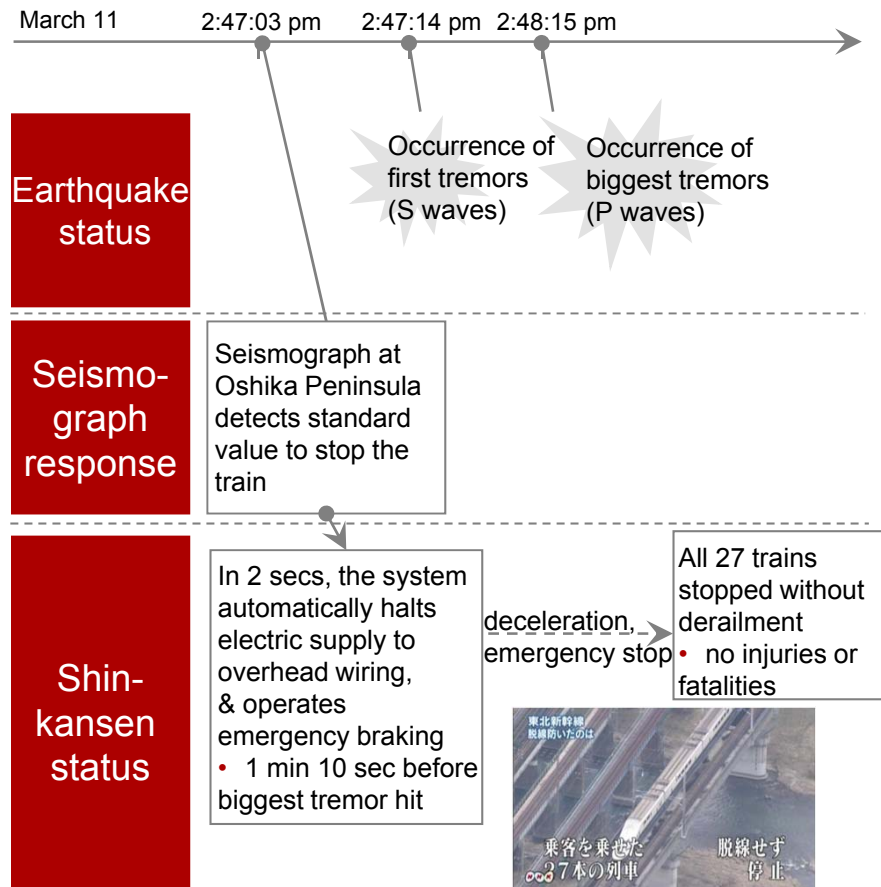
JR East introduces early earthquake warning system

Since the 2004 Mid-Niigata Pref. Earthquake, ¥50-60B has been invested in earthquake disaster prevention measures.

- Within the JR East area, earthquake measurement equipment has been improved and increased, and the time from early tremor detection, to electric supply cut has been reduced from 3 to 2 seconds
 - Seismographs at 62 locations were upgraded to the latest models in 2005
 - New seismographs were installed at 28 coastal locations in 2006
 - 97 installed in 2010
- By 2009, all carriages of the Tohoku Shinkansen were fitted with an early earthquake warning system



Succeed in making an emergency stop without derailing



Foreign assistance and rescue efforts



US Navy/US Pacific Command
(Operation Tomodachi)

Great support of the International Community

Assistance offered from

- 163 countries and regions
 - 43 international organizations
- (As of August 17th)

Rescue teams were sent from 29 countries, regions and international organizations

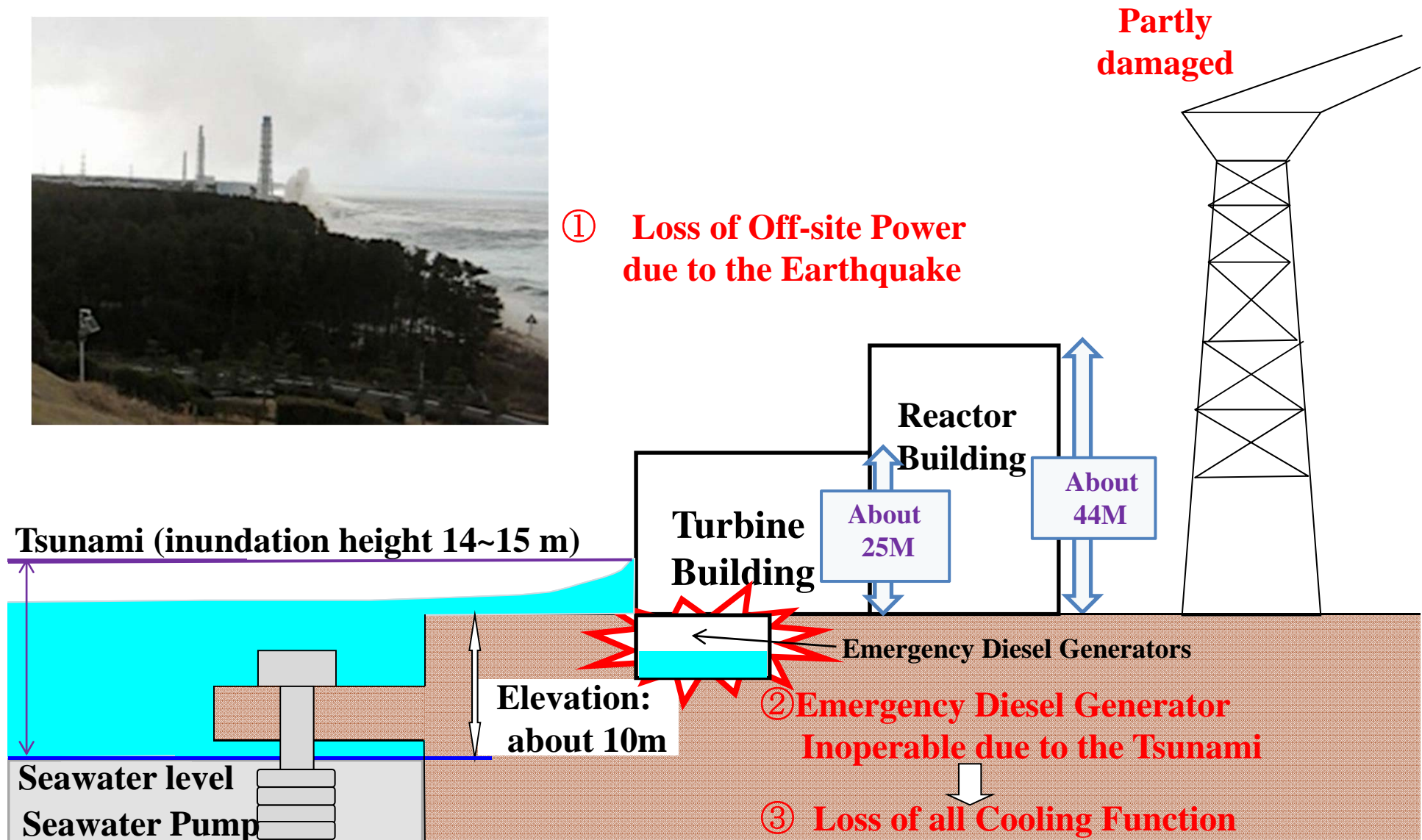
(As of August 18th)



Ministry of Defence

Source: Ministry of Economy, Trade and Industry

Cause of the Accident and Damage at Fukushima Dai-ichi Nuclear Power Station



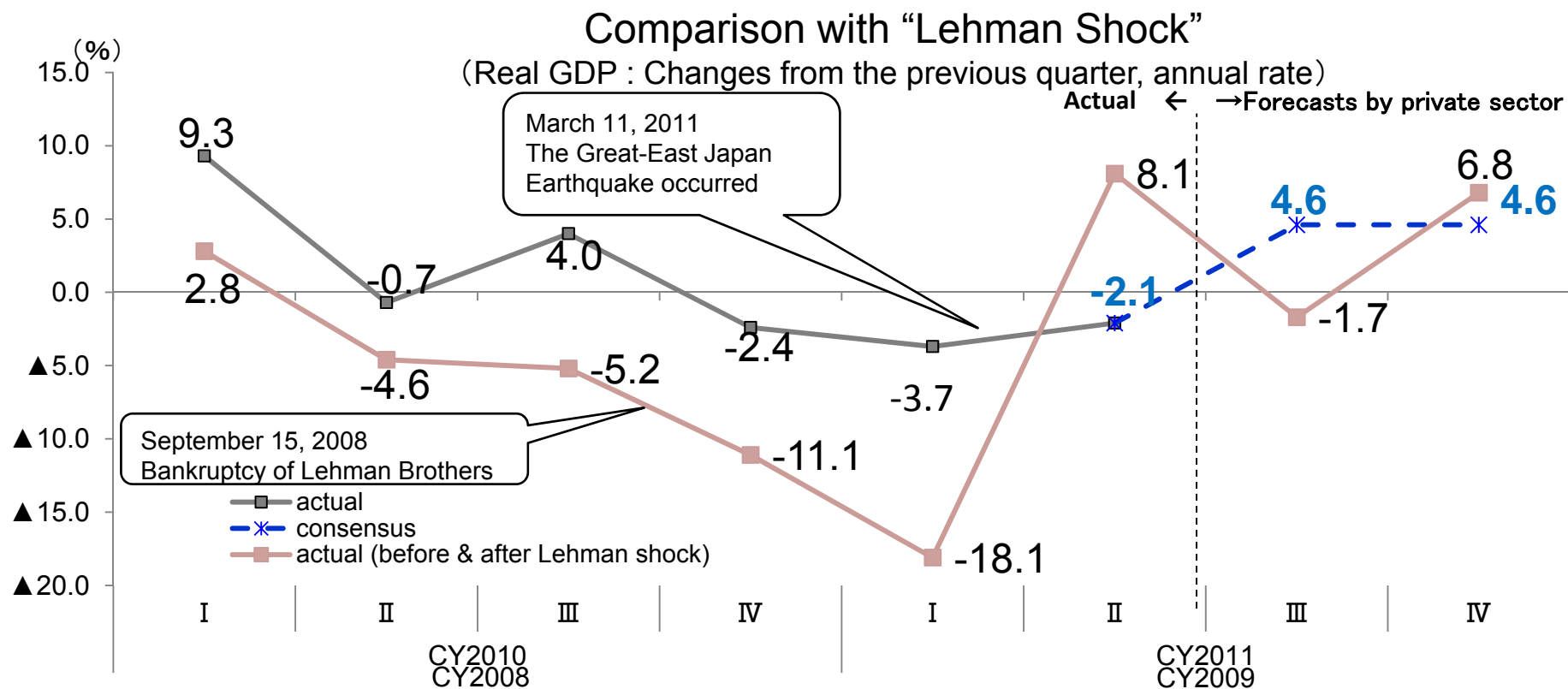
Nuclear Power Stations Nuclear Reactors near Epicenter of the Earthquake

4 Nuclear Power Stations with 14 Units



		automatic shut down	cold shut down
Onagawa			
Unit 1	524 MW, 1984-	✓	✓
Unit 2	825 MW, 1995-	✓	✓
Unit 3	825 MW, 2002-	✓	✓
Fukushima Dai-ichi			
Unit 1	460 MW, 1971-	✓	
Unit 2	784 MW, 1974-	✓	
Unit 3	784 MW, 1976-	✓	
Unit 4	784 MW, 1978-	Periodical inspection	
Unit 5	784 MW, 1978-		✓
Unit 6	1,100 MW, 1979-		✓
Fukushima Dai-ni			
Unit 1	1,100 MW, 1982-	✓	✓
Unit 2	1,100 MW, 1984-	✓	✓
Unit 3	1,100 MW, 1985-	✓	✓
Unit 4	1,100 MW, 1987-	✓	✓
Tokai Dai-ni			
Unit 1	1,100 MW, 1978-	✓	✓

Macroeconomic impact



【Source】“National Accounts” (Cabinet Office)、 “Monthly Survey of Japanese Economic Forecasts” (Economic Planning Association, August 11, 2011)

According to private sector forecasts, Japan’s economy will grow in Q3 and Q4 2011 after slowing down in the Q1 and Q2.

The degree of the slowdown is expected to be much less than after the “Lehman Shock.”

Source: “National Accounts” (Cabinet Office) 、 “Monthly Survey of Japanese Economic Forecasts” (Economic Planning Association, August 11, 2011)
 METI(Ministry of Economy, Trade and Industry) “Economic Impact of the Great East Japan Earthquake and Current Status of Japan” (September 1, 2011)

Estimated Economic Damage of the Tohoku-Pacific Ocean Earthquake and Plan for Reconstruction

Damaged Stocks in Disaster Areas

*estimated by the Cabinet Office of Japan(June 24,2011)

	The Great East Japan Earthquake
Buildings, etc. (housing, offices, plants, machinery, etc.)	approx. <u>10.4</u> trillion yen
Lifeline utilities (Water service, gas, electricity, and communication and broadcasting facilities)	approx. <u>1.3</u> trillion yen
Social infrastructure (River, road, harbors, drainage, and airport, etc.)	approx. <u>2.2</u> trillion yen
Others (including agriculture, forestry and fisheries)	approx. <u>3.0</u> trillion yen
Total	approx. <u>16.9</u> trillion yen

Plan for Recovery and Reconstruction

*from the speech of Prime Minister Kan on Apr. 1 and Apr. 12

Short-term: clearing debris, erecting temporary housing, rehabilitating industrial facilities

Mid and long-term: creating disaster-resilient local community, eco-friendly social system, and welfare-oriented society

“Reconstruction Planning Council” established

Compiling supplementary budgets and enacting / amending relevant laws

Speedy reconstruction of infrastructure

The Tohoku Express Way



The Tohoku Expressway

- transport and commercial artery which connects Tohoku and Kanto regions.
- 347 km out of 675 km of the expressway was damaged in the earthquake on March 11, but traffic restriction was lifted on March 24th, following the completion of emergency restoration measures.

Sendai Airport



Sendai Airport

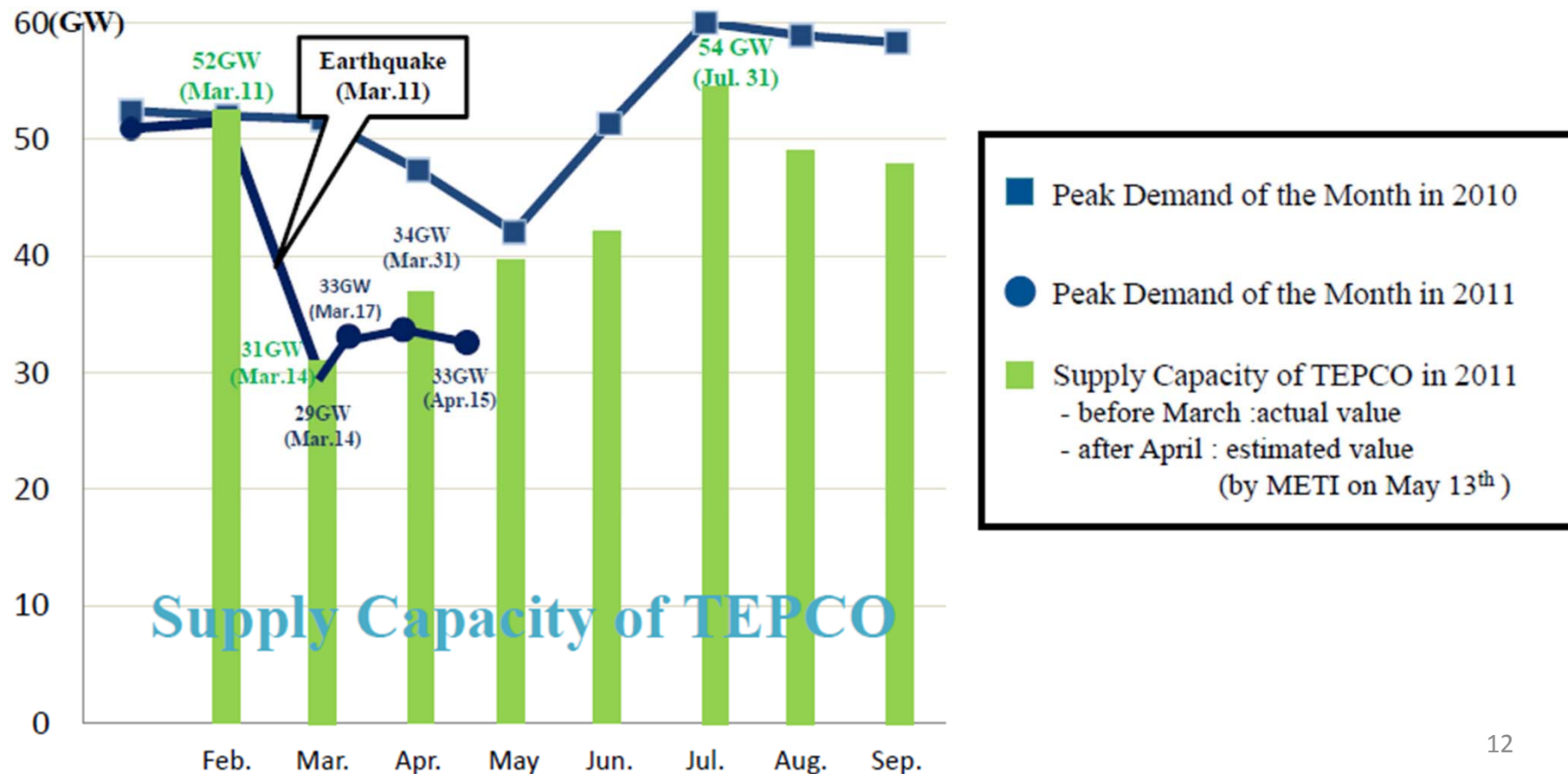
- The reconstruction of Sendai Airport which was badly damaged by the tsunami showed surprisingly rapid progress thanks to the cooperation between the US Armed Forces and Japanese Self-Defense Forces. The entire runway was restored and became useable by March 29th.
- Passenger flights from Haneda-Sendai and Osaka(Itami)-Sendai resumed operation on April 13th.

Source: METI(Ministry of Economy, Trade and Industry) "Economic Impact of the Great East Japan Earthquake and Current Status of Japan" (May 30,2011)

Impact on Energy Supply/Demand in Japan

Tokyo Electric Power Company supplies electricity to an area with 42 million people and 40% of Japan's GDP, but lost 40% of its generation capacity after the earthquake and tsunami.

We are making the utmost efforts to match supply and demand during the peak-load summer on both the demand and supply side.



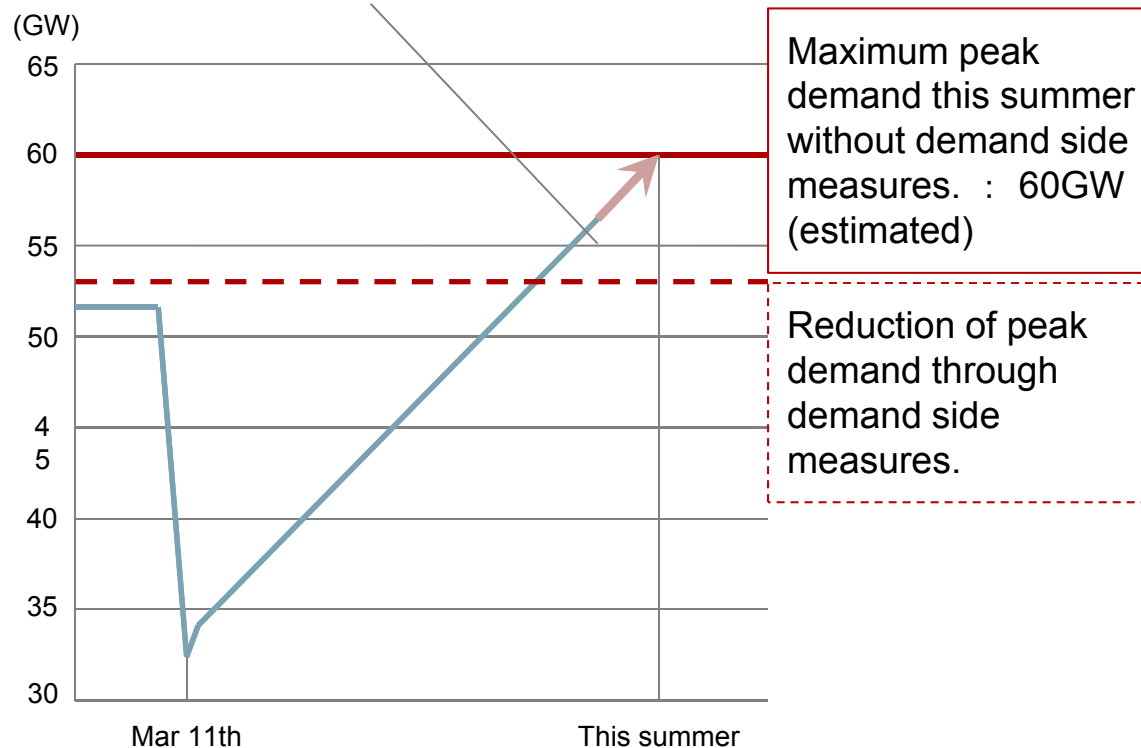
Electric supply/demand up to this summer

TEPCO's electric supply capacity

As of May 13, TEPCO is expected to be able to supply 56.2GW* of electricity this summer.

TEPCO plans to further increase power supply.

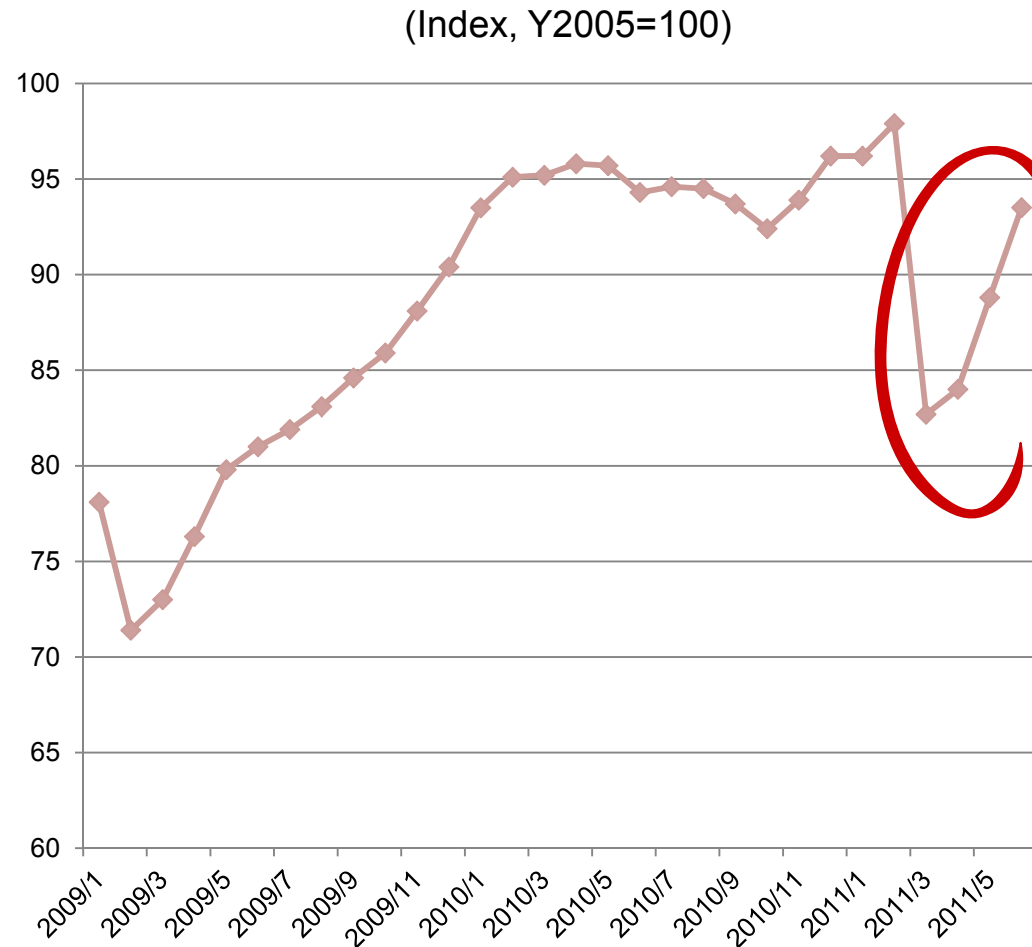
- TEPCO is expected to supply up to 1.4GW to Tohoku Electric Power out of its 56.2GW capacity.



- With reinforcement of the power supply, Tokyo Electric Power Company decided, in principle, to not carry out “Rolling Blackouts.”
- After March 29th, “Rolling Blackouts” have been discontinued.
- TEPCO expects that it will be able to supply electricity up to 56.2GW this summer.
- With TEPCO’s action to add further power supply and demand side measures, “Rolling Blackouts” is expected to be avoided throughout this summer.

Speedy recovery of supply chain beyond expectation

Production Index of mining and manufacturing industry



Month-over-month growth rate of mining and manufacturing industry production was 5.7% in May 2011

- the largest ever since recorded

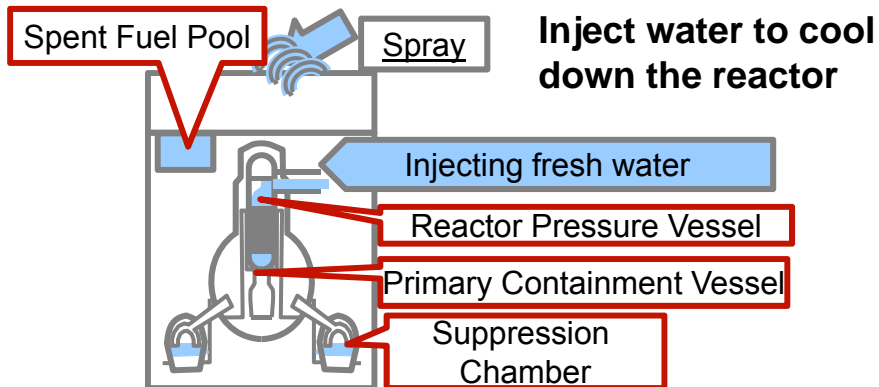
Automobile industry has lead the growth

- Has realized supply chain recovery at a speed faster than expected
- Related industries have also achieved high growth rate.
 - Metal
 - Chemical products
 - Transport equipment

Note: Data of 2011/6 is estimated based on production growth prospects 5.3% as of July 2011
Source: METI(Ministry of Economy, Trade and Industry) "Japan's Challenges Towards Recovery" (METI, July,2011),

Utmost effort to settle Fukushima Dai-ichi NPS accident

Various effort to cool down the reactor and prevent radioactive substances dispersion



Spraying synthetic materials on the surface of the ground and debris to prevent radioactive substances dispersion



Source: METI(Ministry of Economy, Trade and Industry) "Japan's Challenges Towards Recovery" (July,2011)

Contain the spread of radioactive substances

Apr. 2

- Highly contaminated water discovered leaking into the sea.

Apr. 6

- Leak of contaminated water into the sea was stopped.

Apr. 12

- Transfer of stagnant water in the trench of Unit2 to the condenser started.

Apr. 14

- Silt fence was installed to block the spread of contaminated water.

Apr. 19

- Transfer of stagnant water in the trench of Unit 2 to the radioactive waste treatment facilities started.

May 21

- Mega float arrived at Fukushima Dai-ichi NPS

July 1

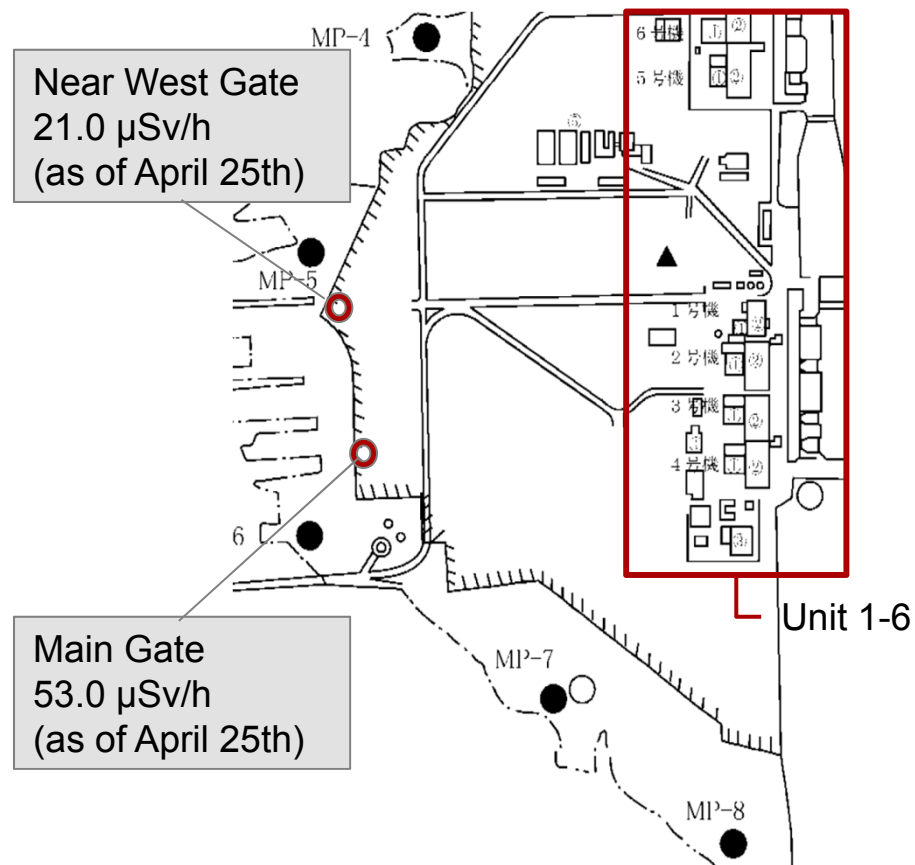
- Transfer of low radioactive accumulated water to Mega Float started

July 2

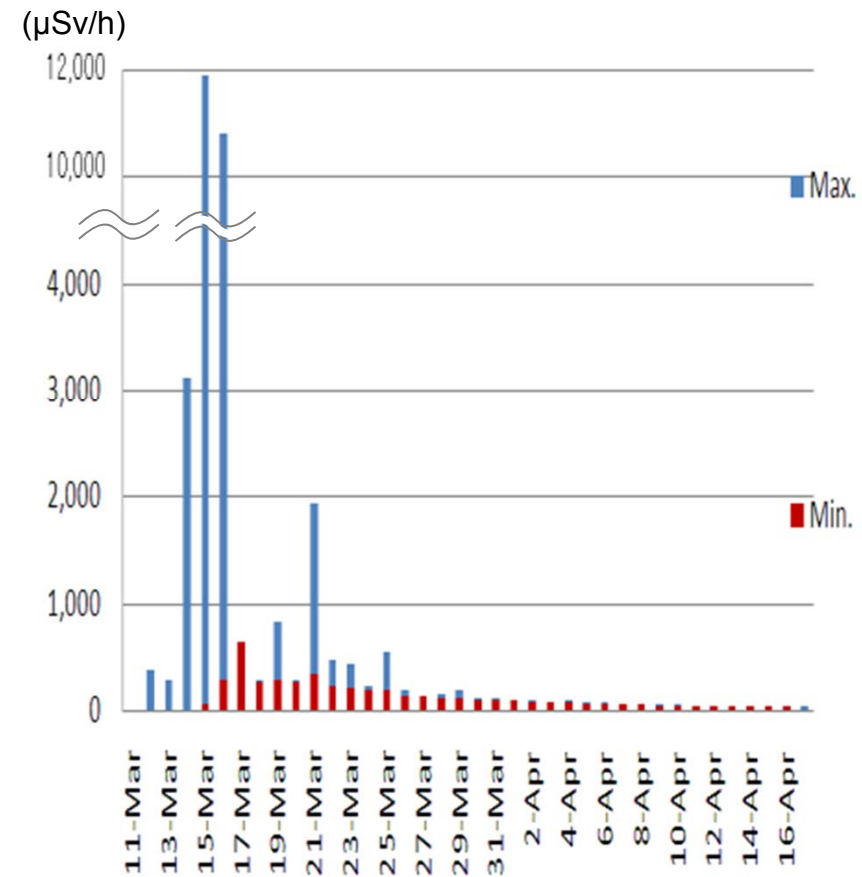
- Full scale operation of circulating injecting cooling started

Rigorous and intensive monitoring

Monitoring posts and the readings at the Fukushima Dai-ichi NPS



Environmental Radioactivity Level at the Fukushima Dai-ichi NPS



Current Status of “Roadmap towards Restoration from the Accident at Fukushima Daiichi Nuclear Power Station, TEPCO” (Revised edition)

August 17, 2011 Nuclear Emergency Response Headquarters Government-TEPCO Integrated Response Office

Red colored letter: newly added to the previous version, ☆: already reported to the government, Green colored shading: achieved object

Issues		As of Apr. 17	Step 1 (around 3 months)	Step 2 (around 3 to 6 months after achieving Step 1) current status (as of Aug. 17)	Mid-term issues (around 3 years)			
I. Cooling	(1) Reactor	Fresh water injection	Cooling by minimum injection rate (injection cooling)	Stable cooling	Cold shutdown condition			
			Consideration and preparation of reuse of accumulated water			Circulating water cooling (start) ☆	Circulating water cooling (continued)	
			Nitrogen gas injection ☆			Nitrogen gas injection (continued)		
			Improvement of work environment ☆					
(2) Spent Fuel Pool	Fresh water injection	Reliability improvement in injection operation / remote-control operation *ahead of schedule	Stable cooling	More stable cooling	Start of removal work of fuels			
		Circulation cooling system ☆ (installation of heat exchanger) *partially ahead of schedule				Remote-controlled injection operation	Consideration / installation of heat exchanging function	
II. Mitigation	(3) Accumulated Water	Transferring water with high radiation level	Secure storage place	Reduction of total amount of contaminated water	Installation of full-fledged water processing facilities			
		Storing water with low radiation level			Installation of storage / processing facilities ☆	Decontamination / desalt ☆ processing (reuse), etc	Continuous processing of accumulated water	
					Installation of storage facilities / decontamination processing	Storage / management ☆ of sludge waste etc.	Research of processing of sludge waste etc.	
						Mitigation of contamination in the ocean	Mitigation of contamination in the ocean	
	(4) Ground water	Mitigation of contamination of groundwater	Mitigate ocean contamination	Mitigate ocean Contamination (continued)	Mitigation of contamination of groundwater			
		Consideration of method of impermeable wall against groundwater			Design / implementation of impermeable wall against groundwater	Establishment of impermeable wall against groundwater		
	(5) Atmosphere / Soil	Dispersion of inhibitor	Mitigate scattering	Mitigate scattering (continued)	Dispersion of inhibitor (continued)			
		Removal of debris			Removal of debris (continued)	Removal / management of debris		
		Installation of reactor building cover (Unit 1) ☆			Removal of debris / installation of reactor building cover (Unit 3&4)			
		Removal of debris (top of Unit 3&4 R/B)			Start of installation work of reactor building container			
	Consideration of reactor building container							

Red colored letter: newly added to the previous version, ☆: already reported to the government, Green colored shading: achieved object

Issues		As of Apr. 17	Step 1 (around 3 months)	Step 2 (around 3 to 6 months after achieving Step1) ▼ current status (as of Aug. 17)	Mid-term issues (around 3 years)
III. Monitoring/ Decontamination	(㊟) Measurement, Reduction and Disclosure	Expansion, enhancement and disclosure of radiation dose monitoring in and out of the power station			Decontamination
				Consideration / start of full-fledged decontamination	Continuous environmental monitoring Continuous decontamination
IV. Countermeasures for aftershocks, etc	(㇏) Tsunami, Reinforcement, etc	Enhancement of countermeasures against aftershocks and tsunami, preparation for various countermeasures for radiation shielding			Mitigate disasters
			(Unit 4 spent fuel pool) Installation of supporting structure ☆	Consideration / implementation of reinforcement work of each Unit	Continue various countermeasures for radiation shielding Reinforcement work of each Unit
V. Environment improvement	(㊟) Life/work environment		Improvement of workers' living / working environment		Enhancement of environment improvement
	(㊟) Radiation control / Medical care		Improvement of radiation control / medical system		Enhancement of Healthcare
	(㊟) Staff Training / personnel allocation			Implementation of staff training / personnel allocation systematically	Exhaustive radiation dose control
Measures for Mid-term issues				Government's concept of securing safety Establishing plant operation plan based on the safety concept	Response based on the plant operation plan

Points of Progress Status of “Roadmap towards Restoration from the Accident at Fukushima Daiichi Nuclear Power Station, TEPCO”

August 17, 2011 Nuclear Emergency Response Headquarters Government-TEPCO Integrated Response Office

1. Basic policy (no change)

By bringing the reactors and spent fuel pools to a stable cooling condition and mitigating the release of radioactive materials, we will make every effort to enable evacuees to return to their homes and for all citizens to be able to secure a sound life.

2. Summary of the last one month and future plans

[Issue (1) Reactors]: Confirm functional securement of the water injection system

[Issue (2) Spent fuel pools]: Achieved “more stable cooling” for all Units 1 to 4

[Issue (3) Accumulated water]: Implementing reliability enhancement measures towards stable processing

[Issue (4) Groundwater]: Preparing installation of underground water shielding walls

[Issue (5) Atmosphere/Soil]: Began steel-frame work for the Unit 1 reactor building cover (Aug.10)

[Issue (6) Measurement, Reduction, and Disclosure]: Continue to assess current release of radioactive materials

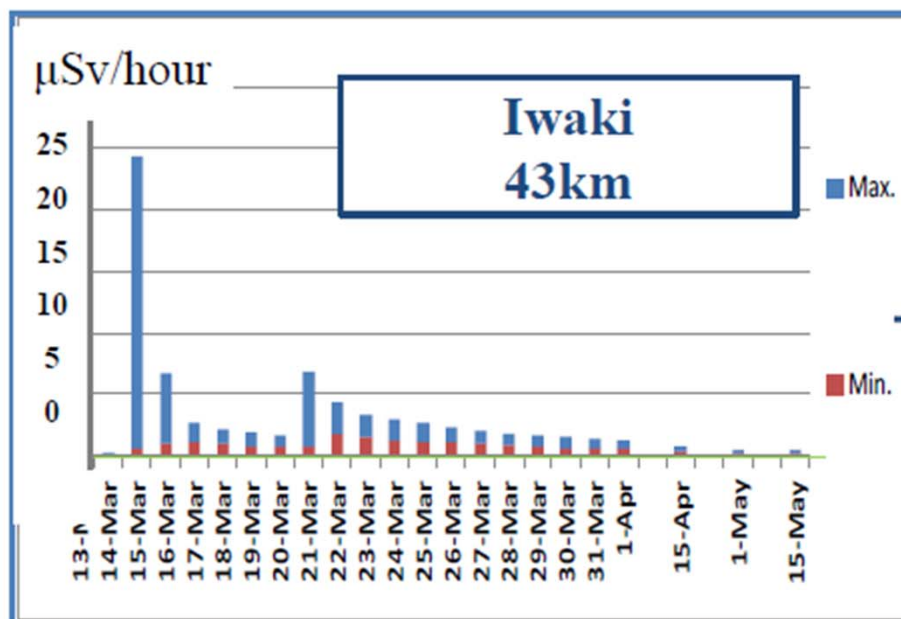
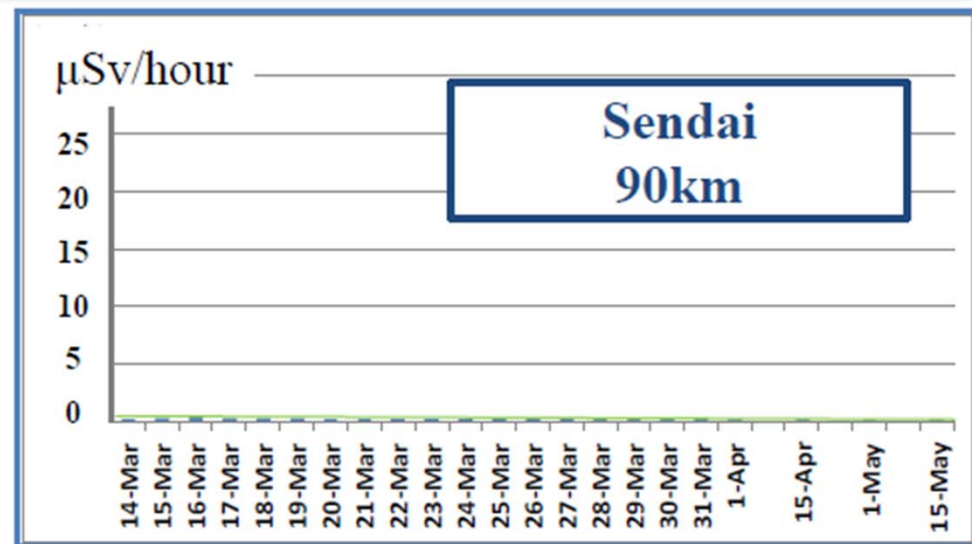
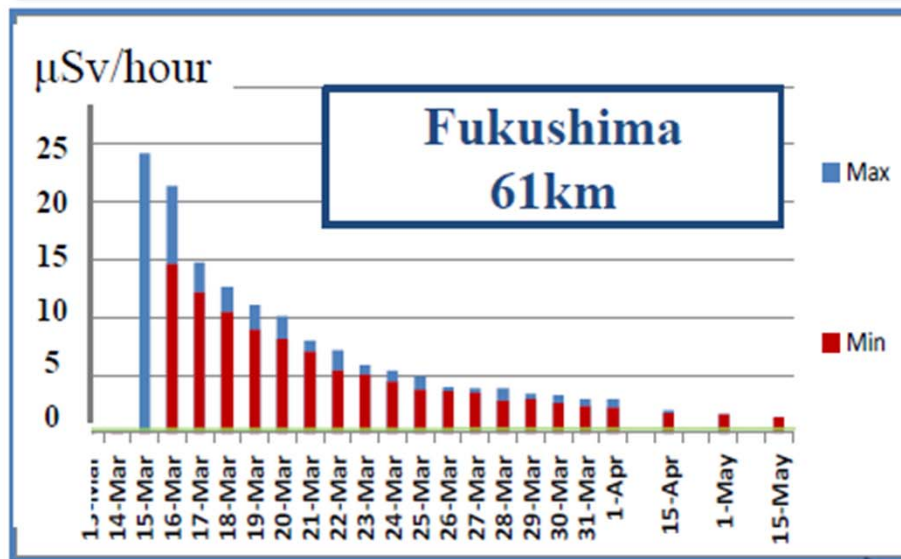
[Issue (7) Tsunami, Reinforcement, etc.]: Installed support structures at the bottom of the fuel pool of Unit 4 (Jul.30)

[Issue (8) Living/Working environment]: Improve Living/working environment for workers

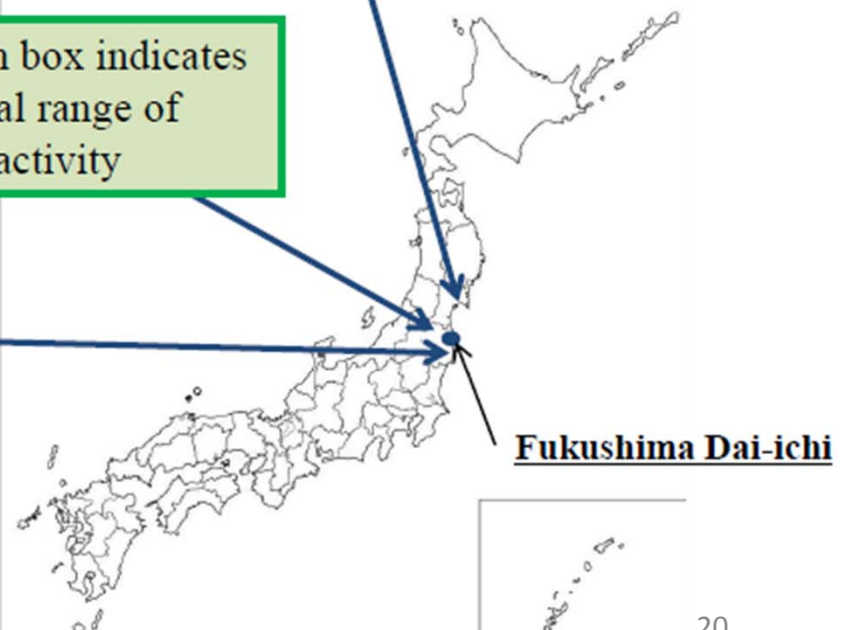
[Issue (9) Radiation control/Medical care]: Improve worker health care

[Issue (10) Staff training /personnel allocation]: Sort out as new issues

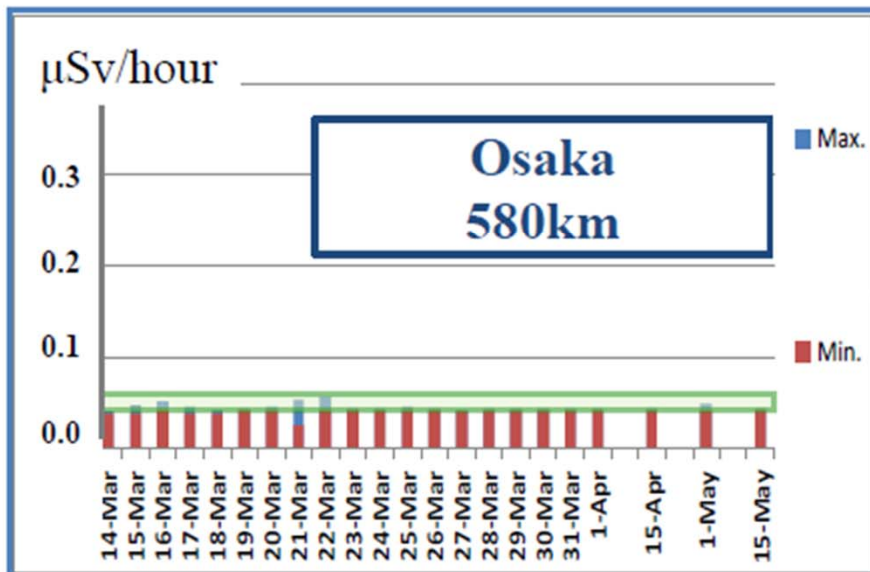
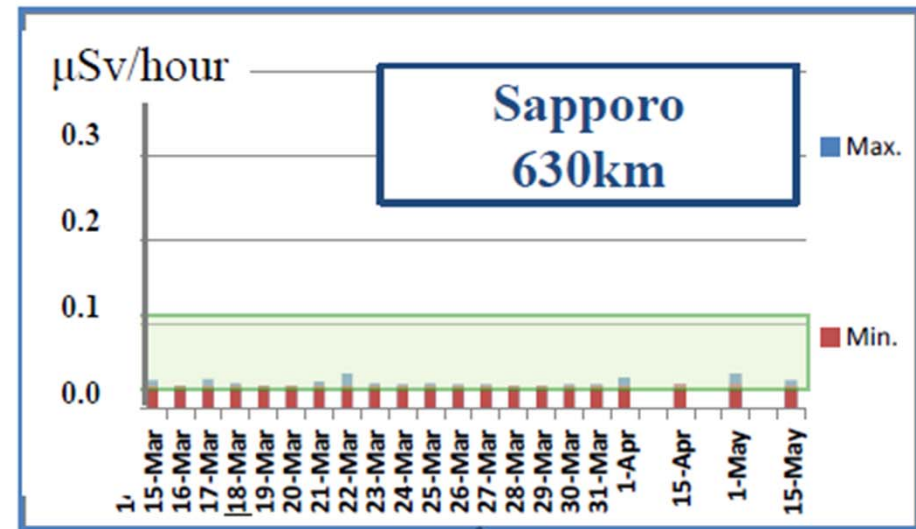
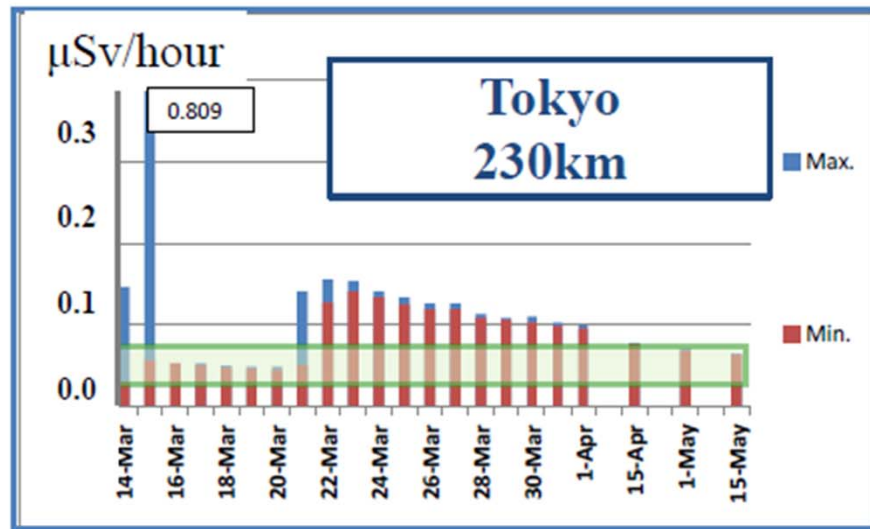
Atmospheric Readings within 100km



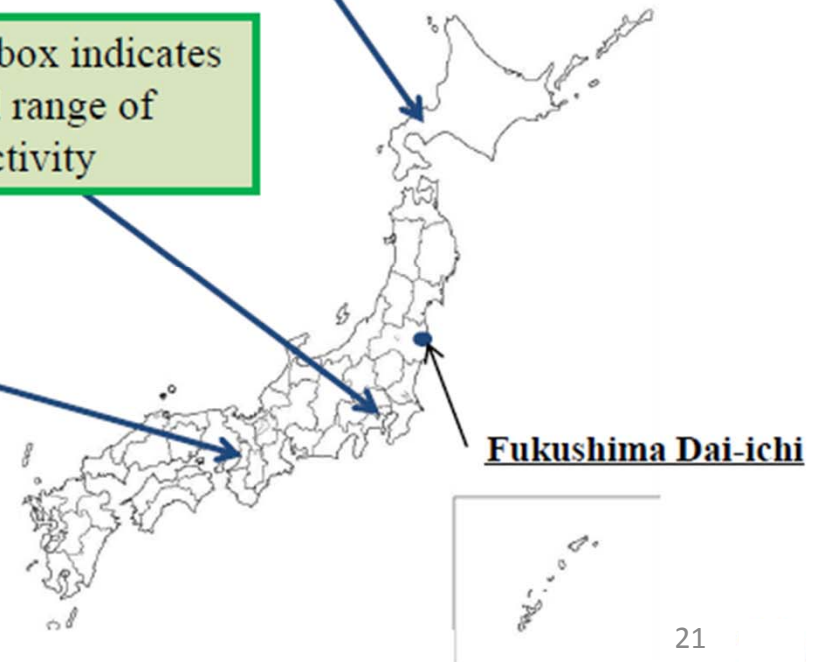
Green box indicates
normal range of
radioactivity



Atmospheric Readings in Tokyo, Osaka and Sapporo



Green box indicates
normal range of
radioactivity



Ensure the safety of food and products

Food

Inspects radioactive materials in food every day, and restricts distribution of food that fails to meet provisional regulation values taking into consideration the spread of contamination.

Fishery Products

Intensive inspections over a wide range of samples.

- Inspections are conducted on a weekly basis at each major port under the cooperation between prefectural governments, the Fisheries Agency and fishing industries.

Ensuring the safety of fishery products on the market.

- Weekly exploratory operations should be conducted in principle, and fishing operation should resume only under strict condition(e.g. after the levels of radioactive substances detected remain below the provisional regulatory values three times in a row.)

Industrial products

Inspection institutions and industry associations provide testing service of the radiation levels of export products

- Ex. The tests implemented by JAMA — which are conducted directly on various designated areas of the surface of vehicles — are showing results that fall within the range designated by the Nuclear Safety Commission of Japan as being unthreatening to human health, based on the daily readings performed by the Ministry of Education, Culture, Sports, Science and Technology in every prefecture since March25.

— Comments on Radiation Testing Related to the Fukushima Nuclear Power Plant Situation on JAMA website (April 18,2011)

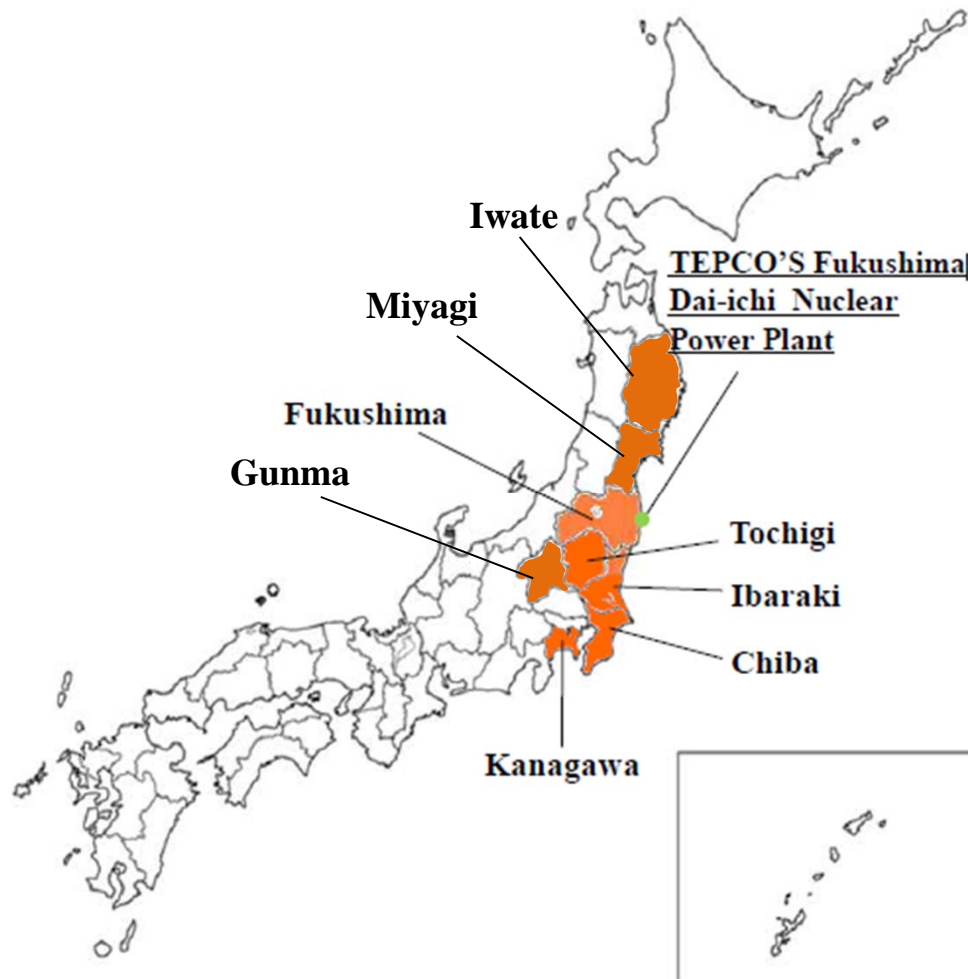


Note: JAMA = Japan Automobile Manufacturers Association)

Source: METI(Ministry of Economy, Trade and Industry) "Japan's Challenges Towards Recovery" (July,2011), JAMA website

Safety of Food

Japan inspects radioactive materials in food every day, and restricts distribution of food that fails to meet provisional regulation values taking into consideration the spread of contamination.



Source: Ministry of Economy, Trade and Industry

Instructions (as of 31 August 2011)

... To suspend the distribution of the following items.

* Fukushima Prefecture

- Raw milk *
- Non-head type leafy vegetables (e.g. spinach) *
- Head type leafy vegetables (e.g. cabbage) *
- Flowerhead brassicas (e.g. broccoli, cauliflower) *
- Turnip *
- Log grown shiitake (grown outdoor, hothouse cultivation) *
- Bamboo shoot *
- Ostrich fern *
- Ume *
- Yuzu *
- Sand lance (juvenile)
- Yamame-Cherry salmon (excluding farmed fish) *
- Japanese dace *
- Ayu (excluding farmed fish) *

* Ibaraki, Tochigi, Gunma, Chiba and Kanagawa Prefecture

- Tea leaf

* Fukushima, Miyagi, Iwate and Tochigi Prefecture

- Beef (excluding cattle which are managed based on shipment and inspection policy)

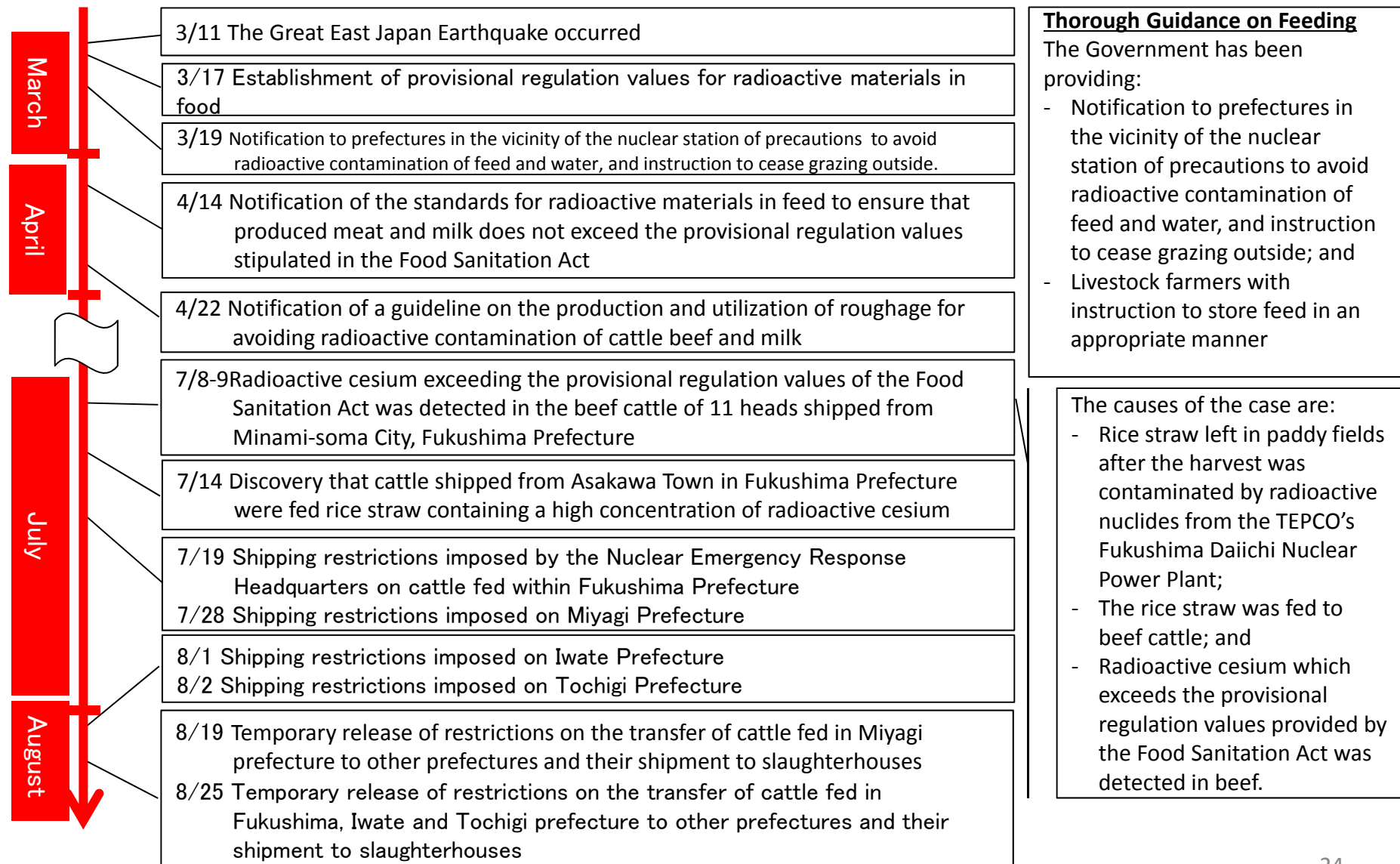
** Instructions are applied to specific areas.*

Please refer to the following URL for the details of Instructions

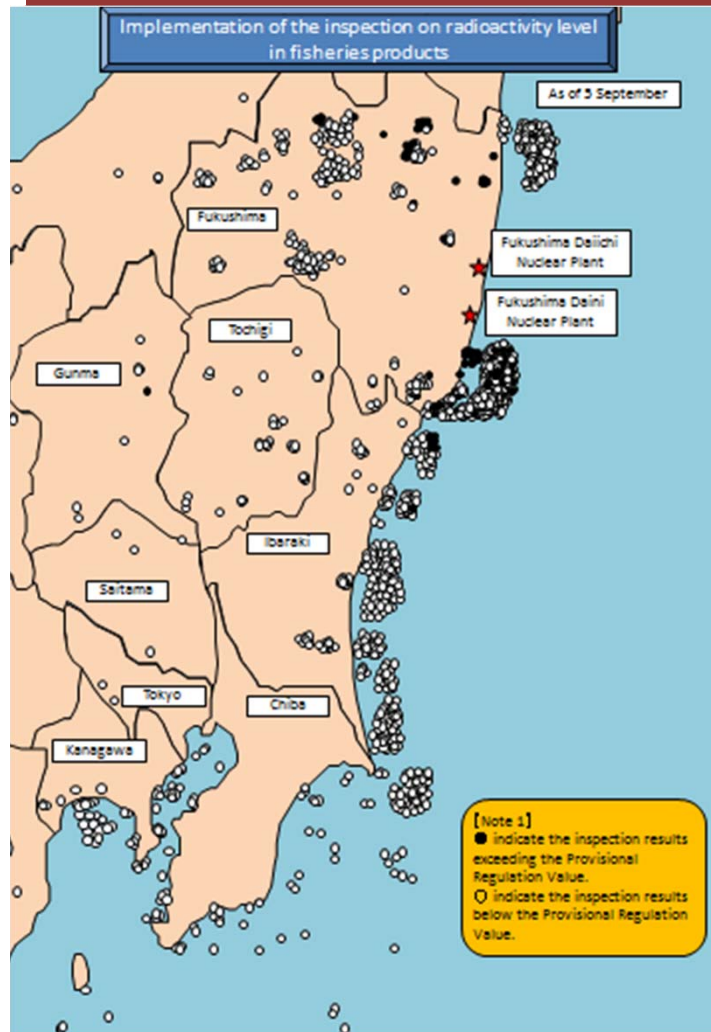
<http://www.mhlw.go.jp/english/topics/2011eq/index.html>

Government Actions to Ensure the Safety of Beef and Other Food

1. Overview and Background



Safety of Fishery Products



【As of September 5th】

- Samples over provisional regulatory value:105
- +○ Samples tested:1741

Intensive inspections over a wide range of samples.

Inspections on radioactive substances in fishery products are conducted on a weekly basis at each major port under the cooperation between prefectural governments, the Fisheries Agency and fishing industries.

Variety of samples

Ranging from coastal species to migratory species, as well as from surface species to bottom water species.

Samples which exceeded the provisional regulatory value

Japanese sand lance(juvenile), Japanese anchovy(juvenile), Fat greenling, Brown hakeling, Stone flounder, Goldeye rockfish, Rockfish, Ocellate spot skate, Slime flounder, Olive flounder, Marbled flounder, Mediterranean mussel, Surf clam, Northern sea urchin, Japanese mitten crab, Wakame-seaweed, Hijiki-seaweed, Arame-seaweed, Cherry salmon, Japanese smelt, ayu-sweetfish, Japanese dace, White spotted char, Willow gudgeon)
(※Exceeding values are detected only in Fukushima Prefecture, except for Japanese sand lances and Brown hakeling in Ibaraki Prefecture and Japanese smelt in a lake of Gunma Prefecture as well.)

Ensuring the safety of fishery products on the market.

Weekly exploratory operations should be conducted in principle, and fishing operation should resume only under strict condition(e.g. after the levels of radioactive substances detected remain below theprovisional regulatory value three times in a row.).

(※) No fishery is currently conducted in Fukushima.

Safety of Drinking Water

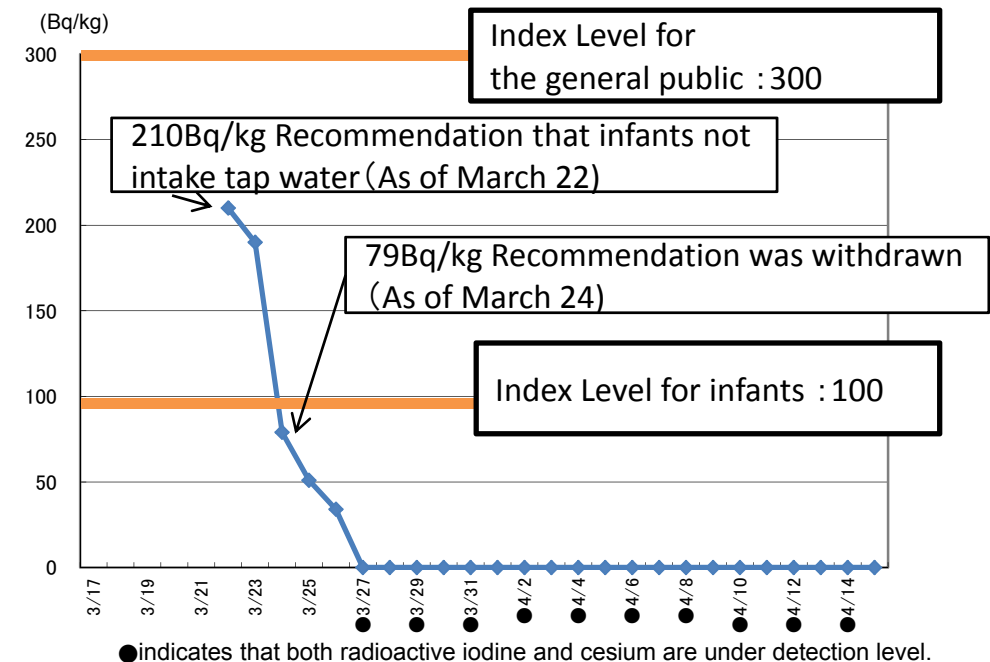
The Japanese Government has been implementing necessary measures based on its stringent criteria for radionuclides in drinking water, and monitoring radionuclide levels every day.

Index Levels for the restriction of Drinking Water intake

(Bq/kg)	Japan
radioactive Iodine(I 131)	300 (for infants)100
radioactive cesium	200

Ministry of Health, Labour and Welfare

Radioactive Iodine(I131) in Drinking-Water in Tokyo (Kanamachi purification plant)



Bureau of Waterworks, Metropolitan Tokyo Government

*On March 23, Tokyo Water Utility announced that its residents should refrain from giving infants tap water. The restriction was cancelled on March 24.

Safety of Industrial Products

- Japanese manufacturing industries spare no effort to ensure the safety of their products.
- Inspection institutions and industry associations provide testing service of the radiation levels of export products.

Example of Inspection Institutions

- Nippon Kaiji Kentei Kyokai
(International Inspection & Surveying
organization)
- SK(Shin Nihon Kentei Kyokai)
- ANCC (All Nippon Checkers Corporation)

Reference: JETRO Homepage

http://www.jetro.go.jp/world/shinsai/20110318_11.html



etc.

JAMA(Japan Automobile Manufacturers Association)

Comments on Radiation Testing Related to the Fukushima Nuclear Power Plant Situation (April 18,2011)

<extracts>

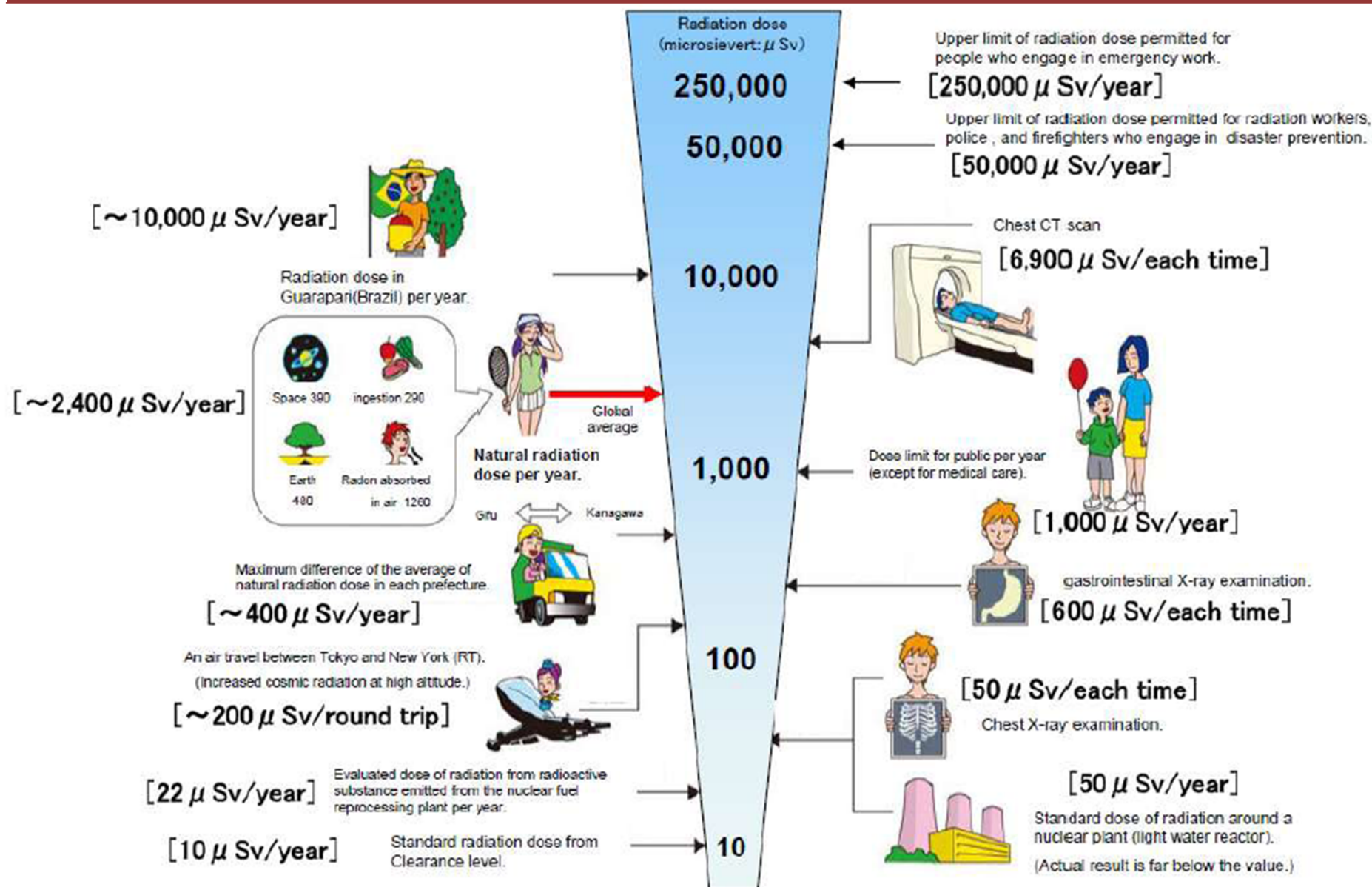
The tests implemented by JAMA — which are conducted directly on various designated areas of the surface of vehicles — are showing results that fall within the range designated by the Nuclear Safety Commission of Japan as being unthreatening to human health, based on the daily readings performed by the Ministry of Education, Culture, Sports, Science and Technology in every prefecture since March 25.

Reference : JAMA Homepage:

<http://www.jama-english.jp/release/comment/2011/110418.html>



Radiation in Daily-life



※ Sv [Sievert] = Constant of organism effect by kind of radiation (※) × Gy [gray]

※ It is 1 in case of X ray and γ ray.

MEXT makes this, based on "Nuclear power 2002" made by Agency of Natural Resources and Energy.

Reconstruction open to the world

Reconstruction open to the world

Based on the compassion shown by the international community, Japan must move forward strongly and quickly on reconstruction efforts, becoming an even more attractive country. The disaster brought great damage on international supply chains, and once again raised awareness among people within and outside Japan of the deep linkage between Japan and the world. In light of this, Japan must strengthen kizuna with the international community, and aim for reconstruction not inward-looking but open to the international community.

– "Toward Reconstruction ~ Hope beyond the Disaster" (Reconstruction Design Council)

Promoting understanding of Japan's revival within and outside Japan

Economic revitalization open to the world

- Prevent the spread of reputational damages through the dissemination of accurate information
- Restore faith in the "Japan Brand" by putting out a call to people all over the world
 - Appealing safety, High quality of products, advanced scientific technology etc.
- Maintain and develop the links established through the crisis among people around the world
 - Promote exchanges between the affected areas and other countries
- Promote foreign direct investment
 - encourage global companies to establish research bases and Asian headquarters functions in Japan
- Develop an environment to employ and accommodate foreign nationals who possess exceptional technical skills and knowledge
 - A points-based incentive immigration system¹ etc.

1. A system that awards points for career and research achievements, and grants incentive measures to foreign nationals who have acquired the requisite number of points, such as allowing them to prolong their period of residency in Japan
Source: "Toward reconstruction ~Hope beyond the Disaster" (Report to the Prime Minister of the Reconstruction Design Council in response to the Great East Japan Earthquake)

Basic Guidelines for Reconstruction in response to the Great East Japan Earthquake (decided on July 29, 2011)

“Basic Guidelines for Reconstruction in response to the Great East Japan Earthquake” was decided by the Reconstruction Headquarters in response to the Great East Japan Earthquake on July 29, 2011. The Guidelines constitute a blueprint for the Government and other actors to tackle numerous challenges in the reconstruction process.

BASIC CONCEPT

- Main administrative actors are municipalities.
- The central government will present guidelines for reconstruction and provide support on finance, human resources, know-how and other aspects.
- Reinforce bonds (*kizuna*) with the international community; “reconstruction open to the world”

TIMEFRAME

- 10 years for the reconstruction period (the first 5 years for the “concentrated reconstruction period”)

RESPONSE ACTIONS TO BE IMPLEMENTED

- Measures for the recovery and reconstruction of the disaster-afflicted areas and for the restoration of lives of affected people
- Measures to be taken in areas closely connected with disaster-afflicted areas;
- Measures for nationwide disaster prevention and reduction.

BUDGET SCALE (estimation, national and local governments)

- ¥ 23 trillion in the next 10 years (¥ 19 trillion in the first 5 years)

SUPPORT FOR RECONSTRUCTION

- Create “system of Special Zone for Reconstruction”
- Establish “easy-to-use” grant for implementation of reconstruction plans formulated by local governments
- Work towards reconstruction with the vitality of private sector

POLICIES AND MEASURES

Building Disaster Resilient Regions

- Build regions which respond to challenges of aging society and population decline and mobilize measures on the concept of “disaster reduction”
- Realize swift reorganization of land use

Revival of Local Economic Activities

- Mobilize public and private funds for affected business enterprises, reduce corporate effective tax rate
- Assure quick recovery of logistic infrastructure, promote the use of renewable energy and improve energy efficiency
- Promote foreign investment to Japan and acceptance of foreign nationals with skill and knowledge.

Nation-building incorporating lessons from the Earthquake

- Promote international cooperation to share lessons learnt as global knowledge asset
- Verify measures to be taken in case of future earthquakes and strengthen response capacity to disasters
- Conduct in-depth study on the Great Earthquake including international joint study to contribute to disaster prevention

Reconstruction from Nuclear Accident

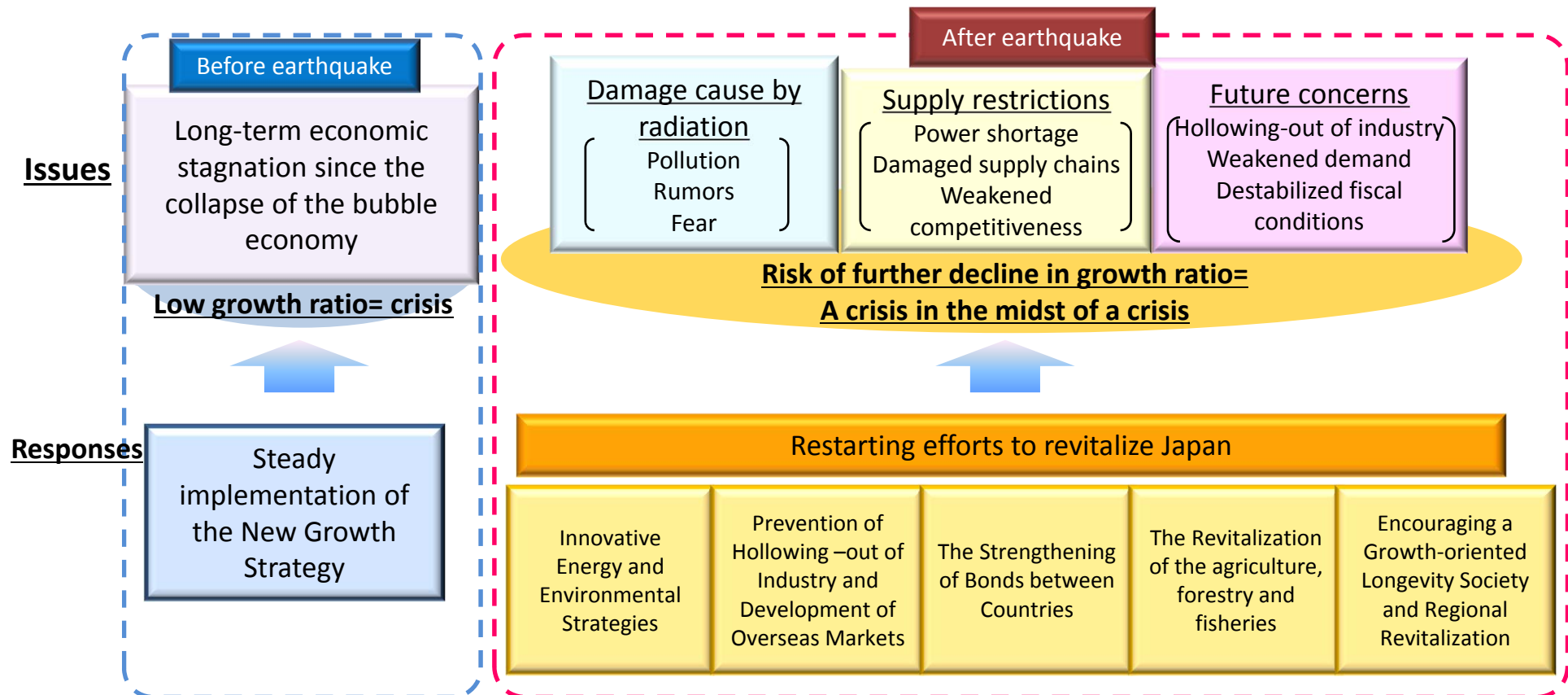
- Implement emergency, recovery and reconstruction measures and solve the nuclear accident as soon as possible.
- Monitor and provide information on radiation dose and develop system to assist inspection to assure food safety.

Interim Report on Strategies to Revitalize Japan (August 5, 2011)

1. Necessity of revitalizing Japan

The Great East Japan Earthquake was a “crisis in the midst of a crisis.” Even before the earthquake, Japan had been facing a crisis, namely, the stagnation of the economy and a societal impasse.

The nation must restart efforts to revitalize Japan in order to support the reconstruction of east Japan and address issues that already existed before the earthquake.



2. Outline of Strategies for Revitalizing Japan (Interim discussion points compiled by the Council on the Realization of the New Growth Strategy)

To review discussions for the realization of the New Growth Strategy that took place after the earthquake and to present policies of strategies for new growth in order to overcome issues facing the Japanese economy.

To list items to be discussed in a prioritized manner after autumn of 2011, with an aim to formulate Strategies to Revitalize Japan by the end of the year.

I. Basic Policies for Economic and Fiscal Management and the Macroeconomic Outlook

It is possible to achieve in a period between FY2011 and FY2020 average growth ratios of approximately 3% (nominal) and 2% (real). The Government shall take firm actions as necessary for the exchange market.

II. Policies of Strategies to Revitalize Japan

1. Innovative Strategy for Energy and the Environment

- The Government shall (a) reform demand structures; (b) diversify supply methods; (c) reform electricity systems supporting these structures and methods; and (d) take thorough safety measures and use the nuclear power stations where safety has been confirmed in order to stabilize the energy supply and demand situation immediately. Planned power outages and restrictions on the use of electricity shall be avoided. The risks of a power shortage of almost 10% next summer and of electricity costs rising by approximately 20% on an annual basis shall be minimized. Measures shall be materialized in autumn of 2011 by mobilizing each and every policy including the third supplementary budget for FY2011 and reforms of regulations and systems.
- Mid- to long-term strategies shall be materialized based on the Interim Compilation of Discussion Points for the Formulation of Innovative Strategy for Energy and the Environment. The Government shall review the existing Basic Energy Plan from scratch, draw up a scenario for reducing dependence on nuclear energy, and reinforce and accelerate the Green Innovation strategy.

2. Prevention of Hollowing-out of Industry and Development of Overseas Markets

- The Government shall clear away concern caused by electricity restrictions and the nuclear station incident, thereby seeking to restore and reconstruct supply chains and the "Japan brand."
- Measures to be taken to make a shift towards new structures of industries and markets include the strengthening of competitiveness of business locations through steps such as a 5% reduction in the effective corporate tax rate; the fostering of world-class talent; efforts to build infrastructure abroad; support for small- and medium-sized enterprises' expansion to overseas markets; and the reinforcement of the functions of the financial, capital markets.

3. The Strengthening of Bonds between Countries

- The Government shall reinforce efforts to promptly start Japan-EU EPA negotiations and to complete within 2011 a joint study with China and the ROK on a Japan-China- ROK trilateral FTA to launch negotiations in 2012. Efforts on Japan-Australia EPA negotiations as well as Japan-ROK EPA negotiations shall also be strengthened.
- Taking the point that the TPP is a matter affecting the reconstruction of agriculture in the afflicted region – as well as other points such as the status of progress in international negotiations and concern over the hollowing-out of industry – into account, the Government will discuss the matter thoroughly. The timing of a decision on whether to join negotiations for the TPP Agreement will be considered from an overall perspective and decided as early as possible.

4. Revitalization of Agriculture, Forestry and Fisheries

- The Government shall work in an concentrated manner over five years to enhance the competitiveness and soundness of Japan's agriculture, forestry and fisheries and to promote regional economies, based on an interim proposal by the Council to Promote the Revitalization of Food, Agriculture, Forestry and Fisheries.
- In order to make compatible high-level economic partnerships and the revitalization of agriculture, forestry, and fisheries, it is necessary to resolve issues specified in the interim proposal and secure the public's understanding as well as stable financial resources in addition. Considerations shall thus be made in a concrete manner on issues such as changes of the bearers of burdens from consumers to taxpayers, reform of direct payment schemes, and a distribution mechanisms for benefits accrued from opening up the country.

5. Encouraging a Growth-oriented Longevity Society and Regional Revitalization

The Government shall:

- seek to realize an all-participatory society securing decent work;
- promote medical innovation by putting innovative pharmaceutical products and medical equipments in use and prioritizing injection methods for policy resources;
- establish a one-stop support system, review regional revitalization systems, vitalize small- and medium-sized enterprises, and promote the building of disaster-resilient regions and nation.

III. Revision of New Growth Strategy

The objectives and schedules shall in principle be adhered to, with some revisions made in light of matters such as the impact of the earthquake.

Decision of the Energy and Environment Council (July 29, 2010)

- The Council chaired by Mr. Koichiro Gemba, Minister for National Policy, decided to “Reduce dependence on nuclear power generation”.
- The Council released two reports, “Measures to stabilize energy supply and demand” and “Interim compilation of discussion points towards the creation of innovative energy and environmental strategies.”

1. Measures to stabilize energy demand and supply

(1) Power shortage at the peak hour and rising electric power cost

- ① Possibility of about 10% power shortage at the peak hour in summer next year
- ② Risk of about 20% increase of electric power cost

(2) Measures

- ① Peak cut measures
 - Expanding introduction of energy saving products such as LED lights
 - Promotion of energy saving investment
 - Hourly fee menu using smart meter
 - Expanding introduction of solar cells and batteries and etc.
- ② Cost decreasing measures
 - Expansion of renewable energy through the introduction of feed-in tariff
 - Improvement of environment to facilitate various actors to enter
 - Improvement of electric wholesale market
 - Cost reduction through procurement reform of electric power companies
- ③ Nuclear safety measures including re-operating nuclear power plants
 - Verification of the accident
 - Ensuring high standard safety
 - Re-operating nuclear power plants on the above mentioned conditions

(3) Review

Materialization of work schedule and list of regulatory reform by autumn

2. Interim compilation of discussion points towards the creation of innovative energy and environmental strategies

(1) Four energy challenges after the Great East Japan Earthquake

- ① Construction of strategies from zero base
- ② Verification without exception
- ③ Construction of energy market where invention and competition of various actors are encouraged
- ④ Construction of strategies from various points of view

(2) Strategies basic philosophy

- ① The realization of new best-mix of energy resources
 - Drawing up scenario for “Reducing dependence on nuclear power generation”
 - Drafting clear and strategic work schedule
 - Thorough verification of nuclear policy
- ② The creation of new energy system
 - Realization of dispersed energy system
 - International contribution as a problem-solving advanced country
 - Short-, mid- and long-term approach from various points of view
- ③ The formation of national consensus
 - Overcoming the confrontation between the opposition to nuclear power generation and its promotion
 - Verification of objective data
 - Dialogue with wide range of national people

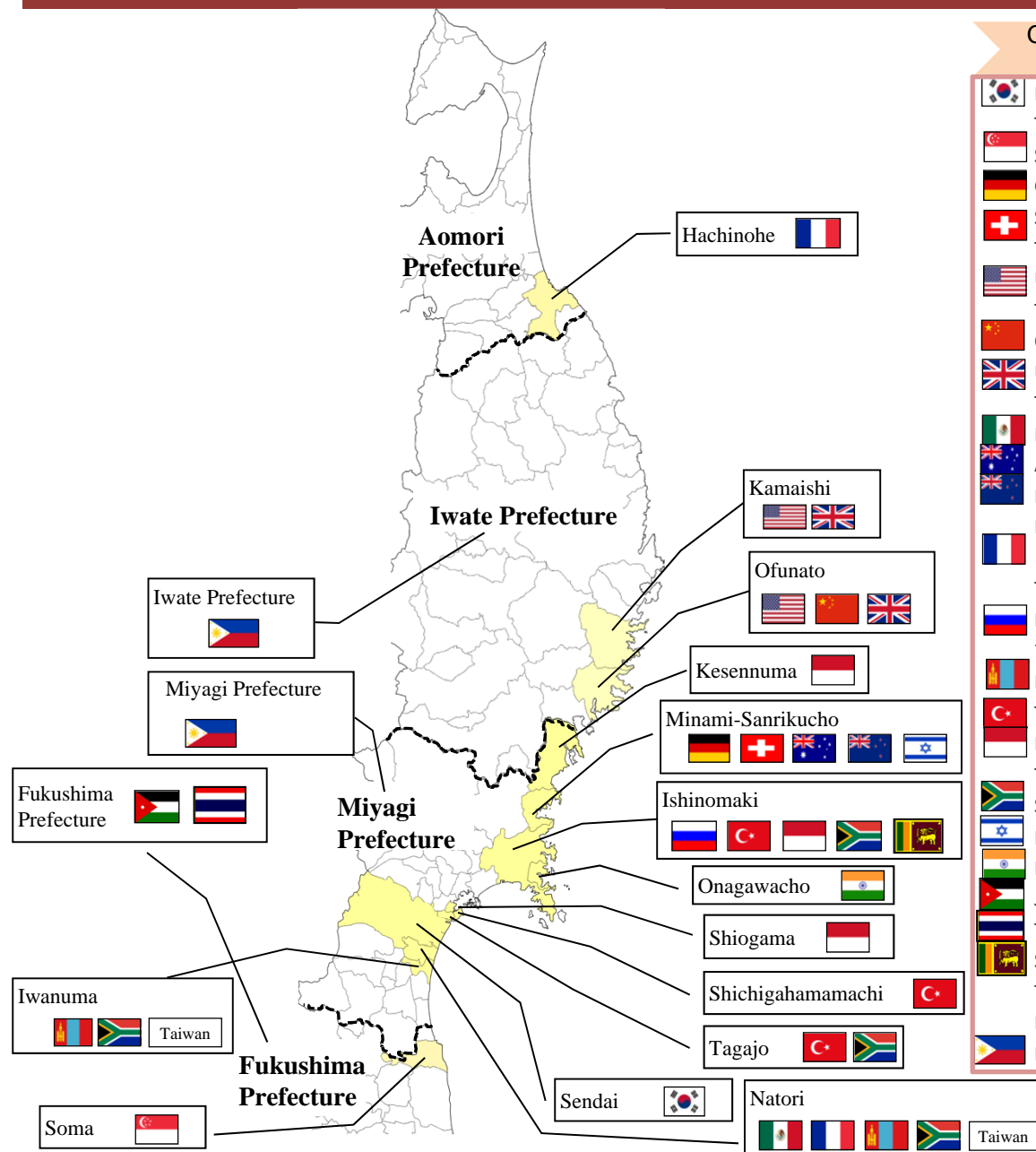
(3) Discussion points of six important issues (short-, mid-, and long-term)

- ① Energy saving: energy management focusing on demanders
- ② Renewable energy: technological innovation and market expansion
- ③ Resources and fuel: efficient uses
- ④ Nuclear energy: reducing dependence, verification without exception
- ⑤ Electric power system: new dispersed electric power system
- ⑥ Energy and environment industry

(4) Schedule

The end of 2011 : Basic principles of innovative energy and environmental strategies
Next year : innovative energy and environmental strategies

Map of sites where rescue teams from foreign countries, regions, and international organizations are operating (3rd August)



Outline of Operations of Rescue Teams from Foreign Countries, Regions and International Organizations

-  Republic of Korea (14th - 23rd March)
Team of 107 rescue members, 2 rescue dogs
-  Singapore (13th - 15th March) Team of 5 rescue members, 5 rescue dogs
-  Germany (14th - 15th March) Team of 41 rescue members, 3 rescue dogs
-  Switzerland (14th - 16th March)
Team of 27 rescue members, 9 rescue dogs
-  U.S. (15th - 19th March)
Team of 144 rescue members (including 12 rescue dogs)
-  China (14th - 20th March) Team of 15 rescue members
-  U.K. (15th - 17th March)
Team of 77 rescue members (including 8 reporters), 2 rescue dogs
-  Mexico (15th - 17th March) Team of 12 rescue members, 6 rescue dogs
-  Australia (16th - 19th March) Team of 75 rescue members, 2 rescue dogs
-  New Zealand (16th - 18th March) Team of 52 rescue workers
-  France (16th - 23rd March)
Team of 134 rescue members (including 11 Monacans)
-  Taiwan (16th - 18th March) Team of 28 rescue members
-  Russia (16th - 18th March)
75 rescue members in Team 1, 80 rescue members in Team 2
-  Mongolia (17th - 19th March) Team of 12 rescue members
-  Turkey (20th March - 8th April) Team of 32 rescue members
-  Indonesia (19th - 23rd March)
Team of 11 rescue members, 4 members (official and medical staff)
-  South Africa (19th - 25th March) Team of 45 rescue members
-  Israel (29th March - 10th April) Team of 53 medical staff
-  India (29th March - 6th April) Team of 46 relief members
-  Jordan (25th April - 12th May) Team of 4 medical staff
-  Thailand (8th May - 3rd June) Two teams of 2 medical staff
-  Sri Lanka (12th May - 1st June)
Team of 15 recovery assistance staff (Staff of the Ministry of Disaster Management and Human Rights)
-  Philippines (28th June - 11th July) Team of 3 medical staff