Progress Report on Japan's Recovery from the Tragedy of 3.11, 2011

By *Japan SPOTLIGHT* Editorial Section

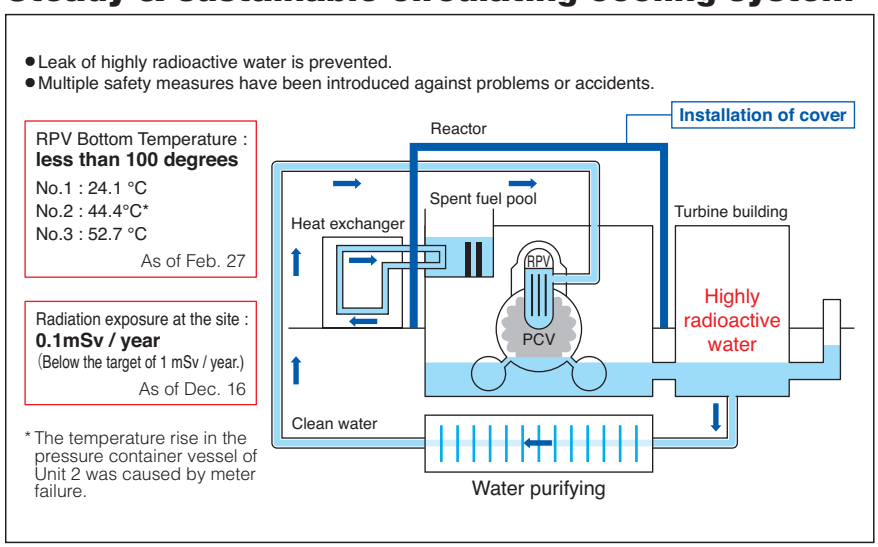
Introduction

Japan SPOTLIGHT has made an assessment of the calamities caused by the earthquake and unprecedented tsunami in March 2011 and has analyzed the impact on the economy and society of this devastating disaster and the subsequent crisis at a nuclear power plant. More than one year after the tragedy, we think it would be of interest to readers to have a progress report on the process of Japan's recovery from the disaster. In particular, there is one important thing to be noted in this process, namely the generous and thoughtful assistance provided to Japan from all over the world. Such assistance has come from 163 countries and regions, including 43 international organizations and rescue teams from 27 countries and regions that came to Japan.

We Japanese greatly appreciate such goodwill and friendship from all over the world, and would like to offer a progress report for our friends overseas to reassure them that our recovery is underway thanks to their help. We will mainly focus on the unstable nuclear power plant and concerns about possible contamination of food by radioactivity, and finally on how the Japanese economy is recovering from a significant shock to its supply side.

CHART 1

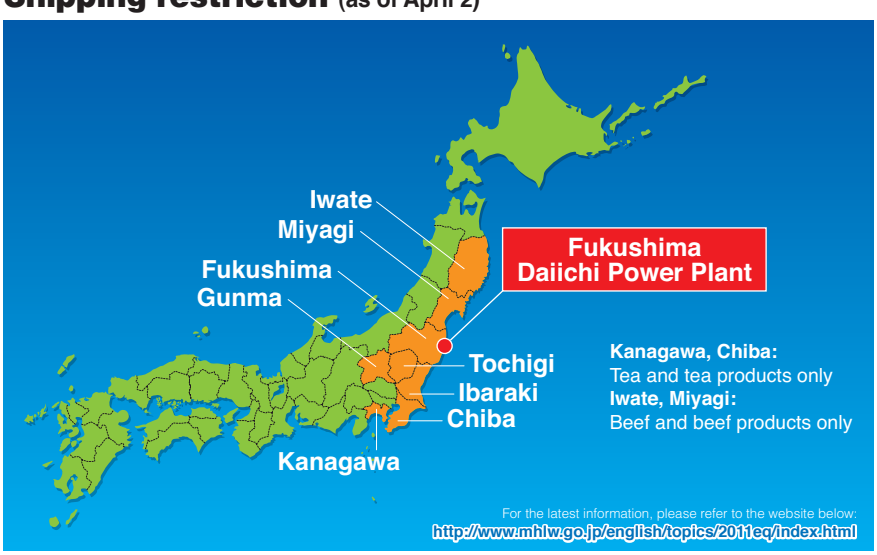
Steady & sustainable circulating cooling system



Source: Ministry of Economy, Trade and Industry

CHART 2

Shipping restriction (as of April 2)



Source: Ministry of Economy, Trade and Industry

Nuclear Power Plant

The Fukushima Daiichi Nuclear Power Plant is now in a stable condition, since Step 2 of the restabilization plan has been completed. This is the state of "cold shutdown" (declared on Dec. 16, 2011) through the installation of circulating systems for the reactors. Revision of the evacuation zones is also now being carried out *(Chart 1)*. After the completion of Steps 1 & 2, TEPCO and METI decided the following mid- and long-term roadmap which shows the decommissioning process for the Fukushima Daiichi Nuclear Power Plant *(Table 1)*. Finally, the decontamination process is underway in the affected areas. Soil is being replaced in school fields, parks and farm land, and high-pressure water cleaners are being used to decontaminate roofs, gutters and the walls of houses. The Ministry of the Environment used a three-way zoning structure based on radiation levels to determine priority for decontamination, as shown in *Table 2*.

Safety of Food

Since radiation was significant in the initial stages of the crisis, there have been concerns about possible contamination of food not only among Japanese consumers but also overseas consumers of Japanese food. In responding to those concerns, Japanese authorities inspect radioactivity in food every day, and restrict distribution of food that fails to meet provisional regulation values, taking into consideration the spread of contamination *(Chart 2)*. Radioactive cesium which exceeded provisional regulation values (500Bq/Kg) was detected in beef. Using the traceability system established in Japan, the government determined the location and status of all the meat concerned. Testing systems for food safety have been introduced and shipment restrictions were lifted by Aug. 25 *(Photo 1)*.

It was not only actual contamination of food in Japan itself but also rumors based on misinterpretation by other nations of the current situation of Japanese food that threatened Japanese agriculture. In certain countries and regions, reinforced regulations against exports from Japan, mainly agricultural products, such as import bans or inspections for radioactivity, were implemented. So far, restrictions on mining and manufacturing products have generally been lifted, but restrictions on agricultural products have not, except in Canada, Mexico and Chile *(Table 3)*. South Korean imports of Japanese agricultural products are on a recovery trend of recovery at this moment among the Asian countries, while EU and US imports have just returned to the original levels before the disaster *(Chart 3)*. In order to encourage smooth acceptance of Japanese goods (in particular food) by the importing countries, the Japanese government has been providing exporting firms with subsidies for the cost of inspections for radioactivity, and issuing certificates for inspection and origin of products to guarantee their safety.

PHOTO 1

Contamination was caused by eating radioactive rice straw.

Blanket testing has been introduced by prefectures and prefectural JAs (Japan Agricultural ooperatives).

The individual history of all beef can be traced by identification numbers given to all cattle for meat throughout Japan.

Individual Identification Numbers

TABLE 1

Mid-and long-term roadmap

Decommissioning of Fukushima Daiichi Nuclear Power Units 1-4, TEPCO

Present (Completion of Step 2)	Within 2 Years	Within 10 Years	After 30-40 Years
Step1,2	Phase 1	Phase 2	Phase 3
	Period to start of fuel removal from spent fuel pool	Period to start of fuel debris removal	Period to end of decommisioning (after 30-40 years)
	• Radiation dose: Less than 1 mSv/year at site boundaries • Maintain stable reactor cooling • R&D of radioactive waste processing and disposal	• Fuel removal from spent fuel pools at all Units • Period to start of fuel debris removal • Continue stable reactor cooling • Complete processing of accumulated water	• Complete fuel debris removal (in 20-25 years) • Complete de-commissioning (in 30-40 years)

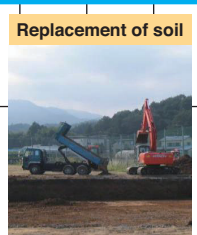
Source: Tokyo Electric Power Company

TABLE 2

Decontamination planning

	2011FY	2012FY				2013FY				After 2014 FY
	Jan.	Apr.	Jul.	Oct.	Jan.	Apr.	Jul.	Oct.	Jan.	
Zones being prepared for lifting evacuation order (20mSv/year or less)	• Technology demonstration by pilot programs • Decontamination of town halls, schools etc in advance • Radiation monitoring of buildings, etc. • Obtaining of residents' consent	Areas with doses of 10~20mSv/year (5~20mSv/Y for schools)								
		Areas with doses of 5~10mSv/year								
		Areas with doses of 1~5mSv/year								
No-residence zones (20~50 mSv/year)		Areas with doses of 20~50mSv/year								
No-return zones (exceeds 50mSv/year)	Pilot decontamination programs									

Replacement of soil

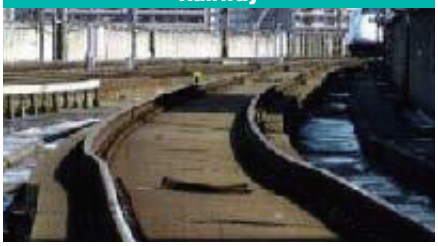


High-pressure water cleaners

Source: Tokyo Electric Power Company

PHOTO 2

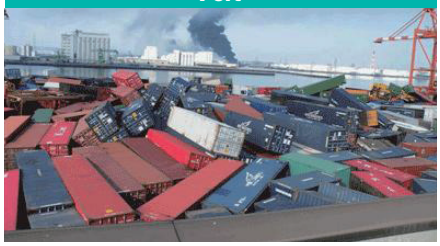
Railway



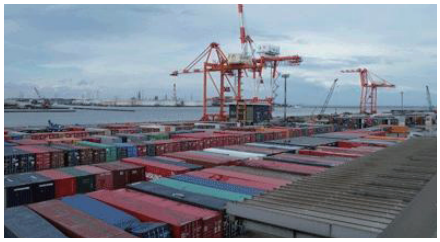
1 week later

Sendai Station

Port

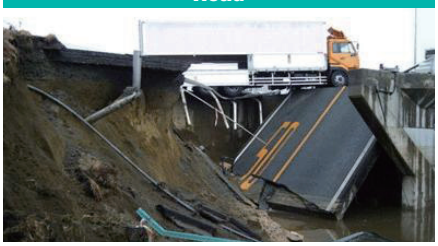


1 month later



Sendai-Shiogama Port

Road



3 weeks later

Miyagi prefectural road, Route 240

East Japan Railway, Miyagi prefectural government

PHOTO 3

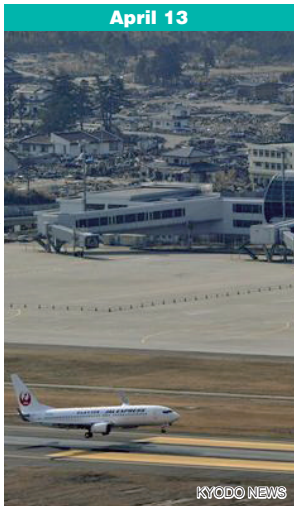
First of all, infrastructure such as roads, railways, seaports, airports and utilities such as electric power, gas and water have been rapidly and steadily recovering their functions. As the following photos reveal, the rapidity of the restoration of the infrastructure in the devastated areas is truly amazing, and most residents in these areas are resuming their usual lives.

March 13

Sendai airport

1 month later

April 13



Sendai airport

PHOTO 4

Ishinomaki, Miyagi

Sendai Station

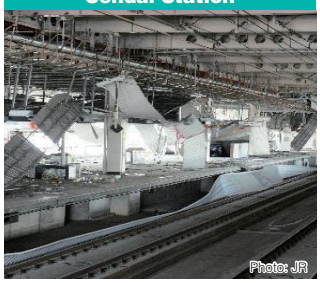
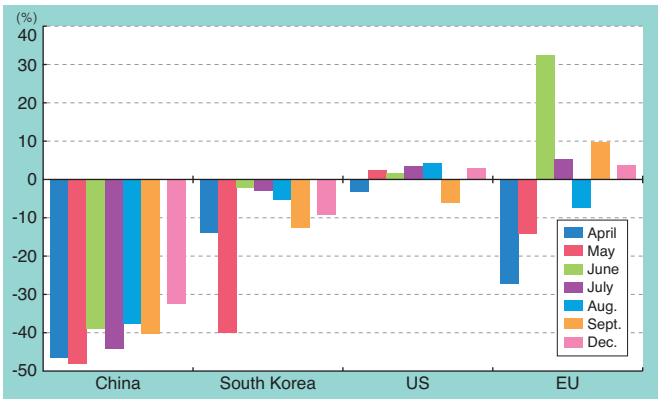


CHART 3

Change in imports of Japanese agricultural products (over same month in previous year)



Source: Ministry of Finance

TABLE 3

Restrictions on imports of Japanese agricultural products in major countries

Country/region	Specific measures
Canada	**All restrictions lifted** (June 13, 2011)
Chile	**All restrictions lifted** (Sept. 30, 2011)
Mexico	**All restrictions lifted** (Jan. 13, 2012)
Australia	**Only inspection by sampling**
US	**Import ban on designated items**
South Korea	**Import ban on designated items**
Singapore	**Import ban on designated items**
Taiwan	**Import ban on designated items**
China	**Import ban** (all items)
Saudi Arabia	**Import ban** (all items)
EU	**Request for certificate of inspection for radioactivity** (all items except sake, shochu, whisky)
Brazil	**Request for certificate of inspection for radioactivity** (all items)

Source: Ministry of Agriculture, Forestry and Fisheries

Remarkable Recovery of Japanese Economy

Japanese business and the economy have been performing an amazingly rapid recovery from the disaster. People's daily lives are steadily returning to normal. We would like to give readers a number of facts about this rapid recovery.

First of all, infrastructure such as roads, railways, seaports, airports and utilities such as electric power, gas and water have been rapidly and steadily recovering their functions. As the following photos reveal, the rapidity of the restoration of the infrastructure in the devastated areas is truly amazing, and most of the residents in these areas are resuming their normal lives *(Photos 2-4)*.

The economic recovery is also rapidly progressing, which is quite remarkable. Damage to production facilities in the disaster areas amounted to 16.9 trillion yen, corresponding to around 4% of total production (GNP), a significant supply shock to the economy. However, although real GDP contracted during the 2nd quarter by 0.5% (annualized 2.1%), Japan's economic activity had almost recovered from the earthquake by the summer, as seen in *Chart 4*. Most of the manufacturing bases that had been afflicted by the earthquake and tsunami have already recovered their production levels (93% of those directly afflicted; 83% of those indirectly afflicted). Thus, the supply chains in the affected areas are now back *(Chart 5)*.

The remaining issue to be resolved for the restoration of the Japanese economy is electricity and an energy policy to deal with the absence of nuclear power supply due to the complete shutdown of all the nuclear power stations in Japan, if the government fails to gain the approval of local residents to restart the suspended power plants. *Japan SPOTLIGHT* will be introducing later to readers the highlights of Japan's new energy policy, which will be made public this coming summer.

But for now we would like to report that the restrictions on electricity use under Article 27 of the Electricity Business Act *will not be invoked this winter.* And the supply-demand balance will not be as tight as that of the summer of 2011 even if the suspended nuclear plants are not restarted, thanks to electricity-saving efforts and continued civilian usage of other energy sources than nuclear power.

Finally, Japan is committed to the speedy dissemination of accurate information. All necessary information can be found on the following websites.

Japan's Countermeasures

1. http://www.kantei.go.jp/foreign/incident/index.html
2. http://www.kantei.go.jp/foreign/incident/road_to_recovery.html
3. http://www.meti.go.jp/english/index.html
4. http://www.nisa.meti.go.jp/english/

Measurement of Radioactivity Levels

1. http://radioactivity.mext.go.jp/en/
2. http://www. nisa.meti.go.jp/english/
3. http://www.tepco.co.jp/en/press/corp-com/release/index-e.html
4. http://www.nsc.go.jp/NSCenglish/geje/index.html

Drinking Water Safety

1. http://www.mhlw.go.jp/english/topics/2011eq/index.html
2. http://www.waterworks.metro.tokyo.jp/press/shinsai22/index.html

Food Safety

1. http://www.maff.go.jp/e/index.html
2. http://www.mhlw.go.jp/english/topics/2011eq/index.html

Ports and Airports Safety

1. http://www.mlit.go.jp/page/kanbo01_hy_001428.html
2. http://www.mlit.go.jp/koku/flyjapan_e/index.html

Tourism

1. http://www.mlit.go.jp/kankocho/en/index.html

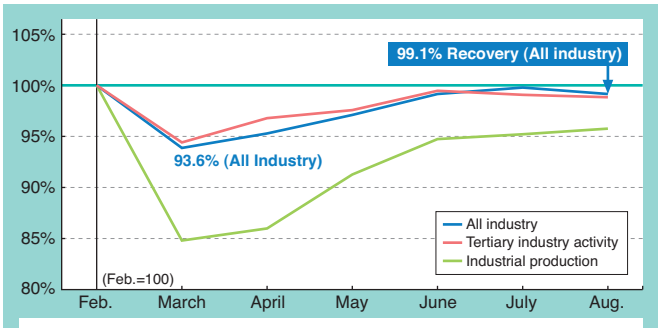
Reconstruction

1. http://www.reconstruction.go.jp/english/

As readers can see from our report, as well as from the information available on these websites, Japan is now back to work as a leading player on the global stage after strongly recovering from the disaster. Japan is now ready to start thinking about how to repay its friends for all their generosity during the difficult times brought about by last year's great tragedy, and to contribute to their own happiness and welfare.

CHART 4

Indices of all industry activity
(seasonally adjusted)

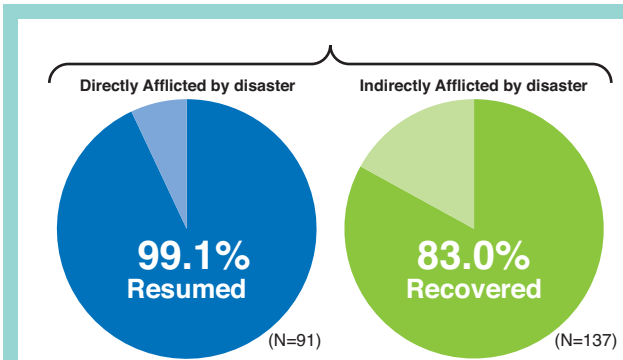


Industrial production reached 95.6% of the pre-disaster level and tertiary industry activity (services) reached 98.8% by August.

Source: Research and Statistics Department, METI

CHART 5

Production level of manufacturing bases



Source: Ministry of Economy, Trade and Industry