Ports and harbors to help ensure recovery from both the Great East Japan Earthquake and the deteriorated Japanese trade environment

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1. Ports and Harbors Damaged by the Great East Japan Earthquake

The Great East Japan Earthquake of the 11th of March, 2011 caused outsized ground motions and tsunamis, inflicting tremendous damage in ports and harbors along the Pacific coast of Tohoku. Ports and harbors almost entirely stopped functioning under the effects of the following factors: deteriorated port and harbor wave protection functions due to collapsed seawalls, sea routes clogged with stranded shipping and floating/piling of disaster debris and other materials, impaired berthing functions because of leaning/subsided quay walls, loading and unloading activities obstructed by collapsed/impaired materials handling equipment (Photo 1) or subsidence or loss of flatness of aprons, difficulty storing goods due to the destruction of sheds/warehouses, roads clogged with disaster debris, etc.

2. Influence of Damage to Ports and Harbors

Disaster-stricken ports and harbors stopped functioning and this had huge impacts on economic activities in Tohoku and Northern Kanto areas.

Livestock raising had been one of the core industries in Tohoku and many of the region's farmers reared cattle. Tsunami stopped functioning of grain wharfs and silos at harbors in Tohoku, and adjacent feed mills were also devastated. So cattle were in danger of dying by the disruption of the supply of feed. In response, feed producers in Hokkaido and Kyushu rapidly increased outputs and provided supplies to Tohoku by way of harbors alongside the Japan Sea coast.

Also, as oil refineries and terminals located at harbors in Tohoku or Kanto stopped functioning, the fuel supply stagnated, resulting in fuel shortages at transport facilities and in households and business offices. To tackle this situation, oil refineries throughout the nation increased production and transported their products by sea or by rail (Figure 1).

Various other forms of emergency transportation were adopted, and marine transport in particular is thought to have been far more effective than other forms of transportation. We must quickly conduct research to learn how to prepare for or deal with disasters by making use of such experiences with a view to saving lives from the Tokai, Tonankai, Nankai Earthquake or an inland earthquake directly underneath the Tokyo metropolitan area.

Photo 1. Collapsed Unloaders at Soma Harbor

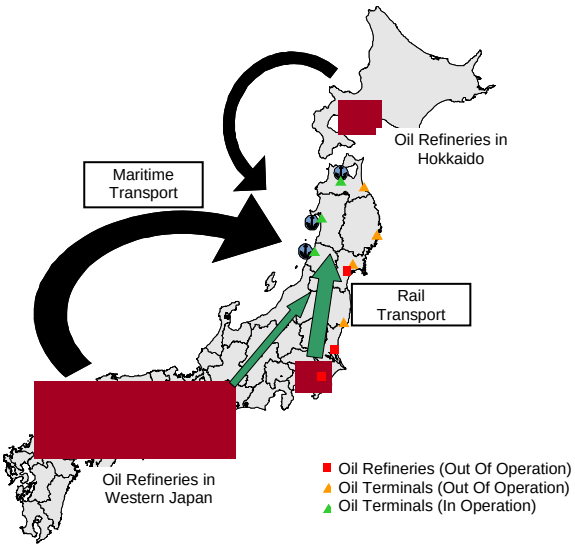

Figure 1. Alternative Provision Routes of Petrochemical Products after the Quake

Income bearing industries will be necessary when people resume their normal daily life one year after the earthquake and tsunami (March, 2011). We also need to quicken the pace of the regeneration of factories in the harbor areas along the Pacific coast of Tohoku, which were broadly and terribly damaged by

tsunami. So we have to effectively and promptly restore the distribution functions and disaster-prevention functions which factories or other entities require. We need to solve a number of problems to make that happen.

3. Deterioration in Trade Environments of Japan

The Japanese trade environment is quite severe. The Japanese trade balance fell in 2011 (Figure 2) due mainly to its stagnated exports and increased energy imports. Exports were dragged down by debt crises in European countries, declining trade volumes among Asian countries as a result of the negative impact on the US economy of the Lehman shock after effects, the unprecedentedly high yen, suspended operations of nuclear power plants after the Great East Japan Earthquakes, parts shortages affected by the flooding in Thailand, restriction on electric use, hike in electric charges, rising energy prices, labor costs and social welfare expenses of firms which are perceived to be expensive by world standards, and the subsequent overseas transfers of offices. We fear that deteriorating Japanese competitiveness and overseas transfers of offices might continue, and that more overseas transfers might result in lower domestic employment and tax revenues. Therefore, it is essential for us to develop an environment in which firms can maintain their offices in Japan.

4. Enhancing International Competitiveness of Ports and Harbors

Japan lags behind the other East Asian nations in the competition to increase the size of ports and is even in danger of losing primary container routes to prosperous East Asian ports accommodating themselves to the global trend of enlarging vessel sizes.

Japan must enhance its port competitiveness and, by doing so, drive competitive advantage of our economy and thus reduce the cost of importing consumer goods.

Also, we have to capture growth in Asia and plug it into revitalization of our domestic economy. To achieve these goals, we will have to take steps to quickly give our ports the ability to handle larger vessels and improve corresponding services. In light of Japan's severe budget conditions, it will be necessary to carefully select feasible ports and then to concentrate investments in them. With these in mind, the Ministry of Land, Infrastructure, Transport and Tourism chose two regions as "international container strategic ports" in August 2010. MLIT also took steps to select "international bulk strategic ports" in May 2011.

The Japanese government is also in the process of stepping up its trade liberalization to reinforce international competitiveness of Japanese firms through various measures such as overcoming tariff-related disadvantages (Figure 3). Provided that trade liberalization advances, the Japanese trade environment will significantly change.

To promptly and precisely respond to trade liberalization and other changes in trade environments, it is necessary to grasp economic conditions of the countries concerned, barriers against international transport and transactions, fuel prices, management policies of shipping firms, performances/dimensions of vessels, maintenance status of maritime and land infrastructure, and so on. It is also necessary to predict the speed of changes in two-way distribution flows between ports, vessel size/performance, frequency of port calls and cargo volume flows at each distribution port. We in the Port and Harbor Department are firmly determined to pursue our forecasts and analyses in an attempt to achieve our aims.

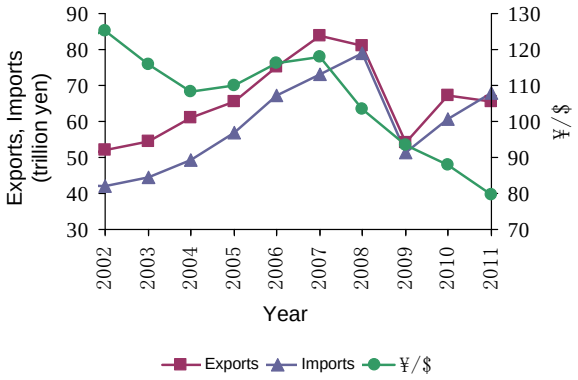

Figure 2. Trade Value and Japanese Yen to 1 USD

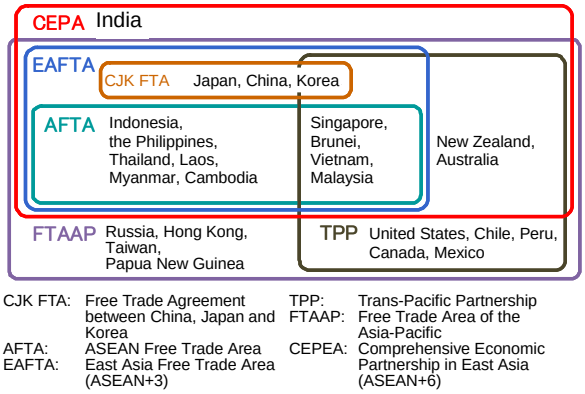

Figure 3. Free Trade Areas IncludingJapan