

Towards rapid support activities by regional construction contractors when a giant earthquake has occurred

MATSUDA Naoko, Senior Researcher

TAKEYA Shuichi, Head (Dr. Eng.)

Construction Economics Division, Research Center for Land and Construction Management

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1. Introduction

Immediately after the Great East Japan Earthquake occurred, regional construction contractors quickly began activities to support the restoration of infrastructure functions, which was linked to large-scale rescue and live-saving activities. The NILIM conducted a questionnaire survey concerning the actual state of support activities by regional construction contractors in cooperation with Tohoku Regional Development Bureau and Tohoku Federation of Construction Contractors Associations, receiving responses from 806 companies. From the survey results, many facts about future disaster management were learned. This report introduces the results of an analysis of factors behind the rapid support activities.

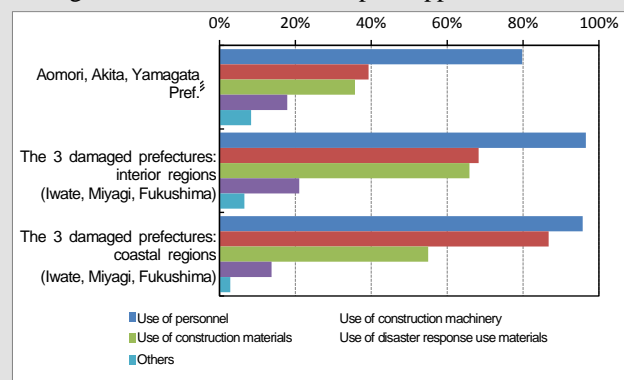
2. Resources contributing to the support activities

The Figure shows the results of aggregating resources used for rapid support activities by Aomori, Akita and Yamagata Prefectures where the damage was relatively light and by the interior regions and coastal regions of the three prefectures where the damage was large (Iwate, Miyagi and Fukushima Prefectures). In all regions, “Personnel” showed a high percentage. In the coastal regions of the three damaged prefectures, “Construction machinery” showed over 80%. In the interiors of the three damaged prefectures, “Construction materials” showed a relatively high percentage. It can be concluded that in order to conduct rapid support activities immediately after an earthquake, it is necessary to provide construction machinery and construction materials in addition to personnel.

3. Methods of securing resources

An analysis was done to clarify how to secure the personnel, construction machinery and construction materials required for rapid support activities, by Aomori, Akita, and Yamagata Prefectures and by the interior regions and coastline regions of the three damaged prefectures. The results for personnel (operators) are introduced below.

Figure. Resources Used for Rapid Support Activities



In all regions, to obtain sufficient operators, they secured most from among their own employees followed by employees from cooperating companies inside the prefecture. In addition, on the coastlines of the three damaged prefectures, many operators were contributed by cooperating companies outside the prefecture. This was conspicuous on the coastlines of Iwate Prefecture and Miyagi Prefectures in particular.

Similar results were obtained concerning resources other than operators. In severely damaged regions, where insufficient resources were secured by cooperating companies inside and outside the prefecture, permitting rapid support activities.

4. Conclusions

We wish to carry out research to find out how to smoothly secure resources needed for support activities from cooperating companies and leasing companies etc and in which regions to make priority investments in order to prepare for great earthquakes.

[Sources]

TECHNICAL NOTE of NILIM No. 729

<http://www.nilim.go.jp/lab/bcg/siryounn/tnn0729.htm>