International joint research about selection of soft foundation countermeasure and its effect

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Soft foundation spreading in Southeast Asia has been made up of high moisture content marine clay and peat with bigger layer thickness, and conditions for constructing road earth structure are severe; however, there has been increasing number of projects that aim for applying soft foundation countermeasure for the purpose of economical improvement. In this study, based on agreement that was signed in 1998, five countries, Japan, Thailand, Indonesia, France, and Sweden, conducted numeric analysis, model experiment, and test construction for the purpose of developing soft foundation countermeasure construction method at a low cost. As a result,

- 1. Superficial chemical mixing construction method with wood pile that used material on site and PVD construction method were revealed to be applicable as a result of on-site test construction.
- 2. Settlement reduction mechanism of deep chemical mixing construction method with low rate of improvement was revealed as a result of model experiment.

Based on the above results, design method of each soft foundation countermeasure construction method was suggested.

Keywords: soft foundation countermeasure, International joint research, on-site adaptation technique, cost reduction technique, deep chemical mixing construction method with low rate of improvement