

## Utilization and environmental suitability of excavated and recovered soils

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Soil excavation and reclamation are fundamental steps of infrastructure development. For the re-development of urbanized areas, where the use of underground space is unavoidable since finding new land space is usually difficult, few construction works for infrastructure can be possible without excavation. As a result, excavated surplus soils are generated in large quantities. Management of such excavated soils discharged through construction works is therefore an important consideration in geotechnical and geoenvironmental engineering. Reuse of excavated soils either at the generating sites or at different places has been promoted, because disposal of unusable soils at landfill sites should be minimized due to the limited capacity of landfills. Limitation of available natural resources, as well as land spaces for landfills, has strongly promoted reuse of materials in Japan. Reuse of materials in construction works has particularly attracted a great attention because of the large capacity of application as well as the large generation of by-products including excavated soils. Since the establishment of Soil Contamination Countermeasures Law in 2002, natural contamination which may be contained in such excavated soils has been a concern, while proper method to evaluate the environmental suitability assessment is still under discussion. The 2011 East Japan earthquake and tsunami which occurred on March 11 generated a large quantity of disaster wastes and tsunami deposits which requires proper treatment and utilization. Use of the recovered soils obtained from disaster debris has been an issue in the affected area. In this presentation, these issues are presented.

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