Case studies of Advanced Construction and Demolition waste(CDW) Recycling initiatives and technologies In JAPAN

Affiliation	Research group for “Neko Chip” construction method	
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Position:		
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Title	**“Neko Chip” construction method**	
Theme classification		Prevention
	○	Re-use
		Recycle
		Reduce Co2
		Legacy
		Business to overseas
		Etc.
Technology development stage	○	Practical use
		Scheduled to be put into practical use by 2020
		Scheduled to be put into practical use after 2020
Specific content	-According to the Geofiber Method, the growth base is sprayed over the slope surface by a special machine. Such growth base is created by mixing wood chips (branches and leaves; root stocks) obtained locally with locally generated soil (including surface soil). -Deforestation trees are used after primary crushing into raw chips. -Since the growth base can be created in large quantity by means of the high-speed belt conveyor type sprayer and the pump feed method, the cost can be reduced.	
Appeal point	-Since the growth base of surface soil, including excavated soil, contains mixture of the local plant seeds, microorganisms, etc. This is advantageous for sprouting and growth of indigenous plants, which in turn causes rapid transition to indigenous plants and preservation of biodiversity.	

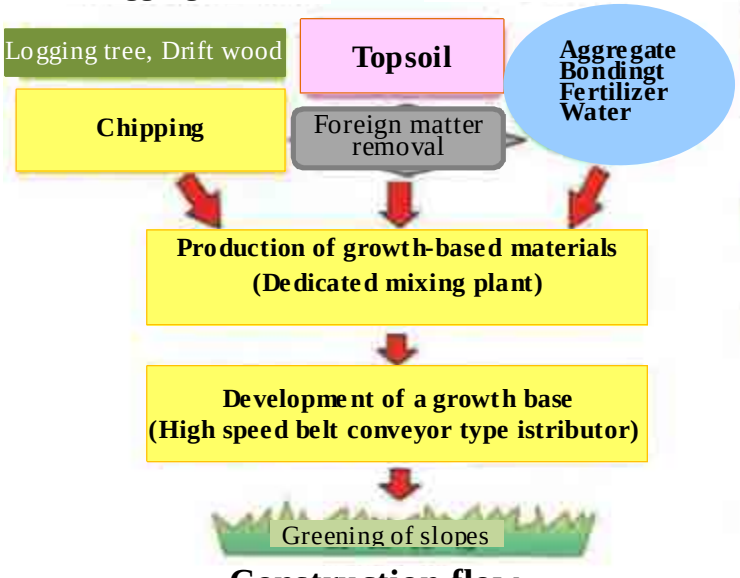
Geofiber Method

1. Outline

Wood chips obtained by crushing felled trees into needle shape are mixed with locally generated soil. The mixture is then sprayed over the slope by a high-speed belt conveyor. In this way, this greening method enables restoration of existing vegetation and recycling. Wooden chips as large as about 15 cm can be used in the green state. Locally generated soil mixed with the topsoil becomes the soil appropriate for vegetation, contributing greatly to restoration of existing vegetation and to creation of growth base that is stable and not deteriorated over a long time of period.

Logging tree

Chip material



Construction flow

Development of a growth base

Sprinkling on the side of the growth base material

2. Features

- Restoration of existing vegetation, diversification of vegetation, and conservation of the eco-system through utilization of locally generated topsoil
- Creation of the long-term stable growth base through use of soil mainly of inorganic elements
- Suppression of the generated amount of construction wastes and cost reduction through recycling
- Use of large green wooden ships to create the growth base. In addition, the top soil, roots contained in topsoil, soil with high clay content, etc. can also be used effectively.
- Efficient and economic work by means of a mechanical system using a dedicated plant and high-speed belt conveyor