

Semi-aerobic landfill sites are increasing in Asia

The semi-aerobic landfill structure developed and commercialized in Japan was first introduced overseas at an open dump site in Penang, Malaysia. Before that, all waste generated in the city was brought into this 20 hectare site and fire erupted daily affecting the health of residents living near the site and the waste pickers who collect recyclable resources from the waste.

Measures for improvement began with controlling fire incidents. Degassing was performed by setting up degassing tubes and the ground was covered with earth. In one year, the foliage that had stopped growing due to gas returned to the site; and in two years, the site was reborn as a non-pollution generating ground.

A new disposal site was then constructed with a semi-aerobic landfill structure standing 5 meters high and 10~20 meters wide, which made it possible to treat polluted water and turn the disposal site into a sanitary location.

The semi-aerobic landfill structure is technology that quickly transforms open burning sites into sanitary ground that emit no smoke. This is a low cost, low-tech method, which is being introduced and spreading to Asian countries, such as Malaysia, Pakistan, China, Thailand and Vietnam, as well as Samoa, the Dominican Republic, Mexico, Italy and many others.



Before and after the improvement (Malaysia)



Source:Hydraulic Sanitary Engineering Laboratory,
Faculty of Engineering, Fukuoka University



Leachate Treatment Facility



Before and after the improvement (The Dominican Republic)



Source:Santiago City CASA



Semi-aerobic landfill facility
under construction

Column

Final Disposal Site in Tokyo



Site is managed appropriately today



Former disposal site where wild birds swarm

Source:Clean Association of Tokyo 23 「Waste Report for Tokyo's 23 wards」

Legal System for Establishing a "Sound Material-Cycle Society"

Japan has a legal system for establishing a "Sound Material-Cycle Society", in which consumption of natural resources will be conserved and the environmental load will be reduced to the greatest extent possible.



Ministry of the Environment
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