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Regional waste material recycling towards low carbon society: Sanitary waste treatment is a fundamental in solid waste management, moreover, it is required that “from waste to material” and “from waste to energy” to mitigate green house gases emission. Solid waste processes, such as waste separation at source, segregated waste collection, optimal waste transportation, material and energy recovery treatment, and safe landfill disposal, should be combined appropriately so as to shorten the environmental burden. Our laboratory studies on designing methods to establish a sophisticated solid waste management that is suitable for sustainable regional society, specially in Asia.



(Mixing kinds of biomass waste for composting)

Development of a disaster waste management training system: Japan is exposed by many risks of natural disasters such as earthquake, land sliding, tsunami, flooding and so on. Once a big natural disaster comes like the Great East Japan Earthquake, a huge amount of disaster waste generates in a short period. In order to recover the town from the damage speedy, initial countermeasure actions for disaster waste treatment by local government are quite important. Therefore, our laboratory is constructing a knowledge base of the actions and also developing a training support system for the local government.



(Waste characterization tests in Okayama city)

Evaluation of the biomass waste recycling in university campus: From view point of carbon neutral, biomass waste should be more utilized in a sound material-cycle society. By considering characteristics of various kinds of solid waste generated in our campus, such as kitchen waste, mowed grass, dead leaves, pruned branches, agriculture waste, animal dung in different seasons, our laboratory researches on effective biomass waste recycling methods.



(Disaster waste in Iwate prefecture)