

# Lignin (a chemical derived from wood) has various uses, such as in the oil industry

Kayoko KOTODA, Toshie NEDACHI

In this research we review evaluations of biomass resources in policies administered by the Forestry Agency and other ministries of the Japanese Government, especially those in the “Technology Strategic Roadmaps” published by the Ministry of Energy, Trade and Industry in 2006. We also report practical research cases: project Shibugaki, project Karamatsu, and research and development utilizing biomass resources at the molecular level for cosmetic products in Kunitachi City and some communities in Nagano prefecture, such as Asahi Village, Shiojiri City and Yamagata Village.

As a result, it became clear to us that the concept of social common capital, differing from the market economy, is necessary to use biomass resources continuously. An overseas presence is needed only when the advantage of scale is pursued for economic motives, and a domestic forest will be left with roughness. It is necessary to achieve profits on a proper scale to attempt to develop the regional economy by biomass resources. That is, it is necessary to attempt phased use (we call it cascade use) for resources based on technical improvement and the tendency to heighten the added value of the product, as in the oil industry, while attempting to control the maintenance of the biomass resource. Moreover, the sociological aspects, such as the use of NPOs, exchange of residents in cities and farming villages, and regional currency are also important.