

ANOR Newsletter by JORA (No.3 December 22,2003 )

1. Events and Activities

(1) Biomass symposiums were held and are going to be held at nine big cities through out Japan from November this year till January next year under the auspices of local branch offices of the Ministry of Agriculture, Forestry and Fisheries (MAFF) and JORA. The aim of this symposium is to provide information to the public on the necessity of the Biomass Nippon Strategy decided at the cabinet meeting of Japan on 27/ December last year.

We are very pleased to see that all symposiums were fully booked with enthusiastic audiences.

(2) The Fourth Exhibition of Environmentally Friendly Agriculture, Forestry and Fisheries was held at Makuhari, Chiba from 25/Nov till 28/Nov and JORA opened a booth to advertise activities and also hosted a Forum on 26/Nov to explain the contents of books covering research and studies which JORA had been putting together under the name of the technical committee for about three years.

Titles of those books are “Compost Regulation and Criteria in Western Countries and Japan”, “Compost Manual”, “Environmental Measures at Compost Facilities”, “Material Recycling System of Wood”, “Utilization Organic Wastes as Bio Gas”, “Carbonization Organic Wastes” and “Utilization Organic Wastes as Feed”.

(3) Under the sponsorship of MAFF, JORA has been displaying dishes made from biomass and demonstrating practical use of these in the government dining rooms of MAFF, which was. broadcasted nationally by N.H. K on 10/December.

(4) The International Symposium on Organics Recycling 2004 in Akita (ISOR2004) will be held Oct 5-7, 2004 at Akita City, Akita Prefecture under the auspices of Akita Prefectural University and JORA.

Chairperson of this symposium is Dr. Chino, professor of Akita Prefectural University and chairperson of ANOR Steering Committee.

Dr. chino and JORA sincerely hope that ANOR members will be active participants in the oral presentations.

(refer : [www.jora.jp/ISOR2004/txt/eng.html](http://www.jora.jp/ISOR2004/txt/eng.html))

2. Outline of Biomass Nippon Strategy

(1) Background: Why ”Biomass Nippon” now?

- Prevention of Global Warming
- Creation of a Recycling-Oriented Society
- Fostering of New Strategic Industries with Competitive Edges
- Activation of Agriculture, Forestry and Fishery as well as Associated Rural Communities.

## (2) Goals of the Biomass Nippon Strategy

### 1) Direction of Evolution for Biomass Utilization

<Waste Biomass> An increased utilization of paper waste, livestock waste, food waste, construction-derived wood residues, black liquor, and sewage sludge can be promoted relatively quickly.

#### <Unused Biomass>

By around 2010, the utilization of biomass which has never been used before will become quite visible: e.g., unused portions of farm crops such as rice straw or rice husk and forestry residues left unused at sites, etc.

#### <Energy Crops>

By around 2020, energy crops will be widely cultivated so that they can be utilized as an energy or product source.

#### <New Crops>

By around 2050, newly developed crops such as marine plants and genetically modified crops will contribute to an increased production of biomass.

### 2) Specific Goals for the Materialization

It is essential to set specific goals for the parties involved so that they can promote the utilization of biomass effectively.

As a nationwide viewpoint, aim at 80% or higher for the utilization of waste biomass and 25% or higher for the unused biomass, in terms of their carbon equivalent.

## (3) Basic Strategies for Materialization

### 1) General aspects on the Promotion of Biomass Utilization

(a) Maturing of the nation's understanding (b) Designing the comprehensive system (c) Local ingenuity (d) Clear definitions of the roles taken by various parties and discussions among them (e) Development of competition conditions aiming the promotion of biomass utilization (f) Consideration of global perspectives

### 2) Strategies for the Production, Collection and Transportation of Biomass

- (a) Formulating an efficient collection/transportation system for biomass
- (b) Exploring possible means of expanding the boundaries of the recycling qualification of waste biomass which shall meet certain requirements; for example, the biomass should not decompose so easily
- (c) Producing biomass efficiently by utilizing zones for structural reform.

### 3) Strategies for conversion of Biomass

- (a) Developing conversion technologies and promoting their application
- (b) Supporting the establishment of a model facility
- (c) Exploring any possible means to simplify the entire approval procedure required for the installation of waste treatment facilities intended for handling biomass of the same kind of its properties.

### 4) Strategies for the Use of Biomass after its Conversion

- (a) Investigating a handling procedure to be applied to biomass-derived plastic materials as specific procurement items covered by the Green Purchasing law.
- (b) Arranging matters so that power generation from biomass can be handled in the same manners as other kinds of new energy under the New Energy Law
- (c) Promoting the kind of agriculture which is oriented toward environment conservation
- (d) Facilitating power supply by means of locally distributed power sources, including biomass power generation
- (e) Undertaking quality evaluation of biomass-derived automotive fuels, assessing their safety and environmental performance and conducting driving tests on those fuels as well as evaluating the merits and demerits of their introduction into Japan in view of Japan's situation.

( refer: [www.maff.go.jp/biomass/eng/biomass\\_honbun.htm](http://www.maff.go.jp/biomass/eng/biomass_honbun.htm))

## **3. ABOUT THE CONDITION OF JAPANESE FORESTS (refer:**

[www.japanfs.org/en/newsletter/200311.html](http://www.japanfs.org/en/newsletter/200311.html))

Japan is a land of forests and mountains. About 25 million hectares are forested, covering some 67 percent of the country. This figure is over twice as large as the world's average 29 percent forest cover of land. However, Japan's forest area per capita is a meager 0.2 hectares due to the country's large population. The total forest area has remained unchanged for the past 30 years.

Traditionally, people valued the mountains and forests that provided the resources they needed for their livelihood, including firewood. This secondary forest created and managed in conjunction with human activities is called "satoyama."

After the Second World War, Japan's forests changed dramatically. Many forests were turned into farmland to solve food shortages. During the late-1950s, people shifted from using firewood and charcoal as their fuel sources to coal and petroleum. These changes weakened the relationships between humans and the forests.

Many of the plantation forests created after the Second World War are now approaching the age when thinning is required to ensure the optimal growth of the remaining trees. But due to the declining profitability and activity of the lumber industry, forest-thinning and logging tend to be neglected, leading to an expanded area of forests that have weakened soil-conserving and water-retaining and purification functions.

Despite the fact that 67 percent of Japan is forested, 80 percent of domestically-consumed lumber in this country consists of lower-cost timber imported from abroad. Much of Japan's domestically-produced timber comes from steep mountain slopes, making it difficult to use large equipment for maintaining, cutting and transporting trees. On the other hand, the countries that export timber to Japan (the United States, Canada, Indonesia, etc.) can supply relatively cheap timber thanks to more accessible forest land (meaning low transportation costs) and relatively cheaper labor costs. As a result, Japan's self-sufficiency for lumber decreased from 98 percent in 1950 to 45 percent in 1970, and further to the current 20 percent.

Due to the declining forestry industry in Japan, the number of forestry workers dropped from about 440,000 in the early 1960s to the current 67,000. More than 30 percent of these workers are over 65 years old, a symptom of the rapid aging of the working population.

Japan consumes about 100 million cubic meters of wood annually, 45 percent of which is used for construction and 40 percent for paper. Although per capita wood consumption in Japan is much lower than in the United States or northern Europe, for example, Japan's total volume of imported wood chips (for paper) and logs is the world's largest.

The annual growth of Japan's forests is estimated at 70 million cubic meters, and net timber volume increases annually by 50 million cubic meters. The absence of an effective system to utilize domestic forests, in the face of the huge wood imports, remains a major problem in Japan.

Forest conservation has become an urgent issue for Japan, which is aiming to achieve 3.9 percent of the country's greenhouse gas emission reduction target of 6 percent, promised in the Kyoto Protocol, through CO<sub>2</sub> absorption by forests. To achieve this goal, the Japanese government has been promoting the "Green Employment Program," which is expected to create new jobs in forest management.

Various measures have been taken particularly to carry out the urgent task of promoting the use of wood gathered from the thinning of plantation forests. For example, the national government has issued

instructions to prefectural governments that they should proactively use timber from the thinning of domestic forests in public works projects. In addition, this wood is now used to produce interior finishing products, tables, chairs, pencils, and disposable chopsticks that are sold with a special logo indicating their source as being from the thinning of forests. In another example, by using thinnings instead of concrete as a construction material, a wooden dam was built in Kyoto Prefecture. In addition, paper manufacturers, in collaboration with environmental groups, have developed envelopes and paper made of wood from the thinning of forests.

[Envelopes Made of Wood from Forest Maintenance Hit the Market](#)

Many domestic forests have acquired certification from the Forest Stewardship Council (FSC) for sustainable forest operations.

[Latest Trends in Forest Certification in Japan](#)

Japan's own certification body, called the "Sustainable Green Ecosystem Council," was established in June 2003.

<http://www.sgec-eco.org/> (Japanese only)

Ricoh Co., a major Japanese manufacturer of office equipment and supplies, made a new move as a paper user to protect forests in other countries. The company has established environmental standards that exclude the use of materials from precious forests, including old-growth, native, and natural forests inhabited by endangered species. While conventional green purchasing standards for paper products in Japan are designed mainly to promote the use of recycled paper, the innovative Ricoh standards venture into the actual preservation of forests.

[Ricoh Establishes Environmental Standard on Paper Products](#)

Forests are also drawing attention as energy sources. Under the National Strategy of Biomass Utilization formulated by the Japanese government, biomass energy is being researched and developed for practical use.

[Outline on Japan's National Strategy of Biomass Utilization Announced](#)

In Aomori and other prefectures, there are widespread efforts for biomass utilization, such as classic wood stoves, stoves that use pellets made of wood waste that cannot be used as timber, and steam boilers that burn pellets for local heating and power generation. (Search using the key word "biomass" at [the Information Center of the JFS website](#) to find more about activities in this area.)

In addition to wood utilization, efforts for forest conservation are widespread across the country, in recognition of the valuable functions of forests. Increasing numbers of local municipalities are carrying out projects to protect forests as a water source through levying a tax for forest conservation or adding a certain

amount of forest conservation fees to a water bill, such as a forest environment tax adopted in Kochi Prefecture.

[Kochi to Introduce Forest Environment Tax](#)