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**REPORT ON THE FORUM ON TIMBER PORT LOGISTICS
Rotterdam (NETHERLANDS), 23-25 February 2000**

Note by the secretariat

"CAPACITY BUILDING TO IMPROVE TRADE FINANCE AND INVESTMENT PROSPECTS

Executive summary

The main topics raised during the Forum were timber port logistics and biomass as a new product. Speakers forecast that biomass trade will increase. They also showed that cooperation in the field of trade logistics is essential for the development of collaboration between Russian and European timber ports. The participants agreed on an agenda of actions regarding trade logistics, customs cooperation and marketing of biomass. They also agreed to pay attention to the certification process of forest products.

CONTENTS

	<u>page</u>
I. BIOMASS	3-5
A. BACKGROUND.....	3-4
1. Definition of biomass	3
2. The Kyoto protocol	3
3. Facts and figures about biomass in the Russian Federation	3
B. NEW MARKET PERSPECTIVES	4-5
1. The development of biomass use	4
2. Planning biomass	4-5
C. EXAMPLES OF BIOMASS USE: THE EPZ AMER CENTRALE AND THE USE OF GAS GENERATORS IN THE RUSSIAN FEDERATION	5
II. TRADE AND TIMBER PORT LOGISTICS	5-6
A. BIOMASS AND EXPORT COMPETITIVENESS	5
1. Packaging of biomass	5
2. Reducing the prices	5
3. The transportation network	6
B. TIMBER PORT LOGISTICS	6
1. Russian timber ports	6
2. Trade Facilitation	6
III. RECOMMENDATIONS AND FOLLOW-UP	6-7

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I. BIOMASS

A. BACKGROUND

1. Biomass is a new product on the timber market. It should gradually replace fossil fuel. Its definition, legal framework and production are explained hereafter.

1. Definition

2. Biomass is, largely defined, organic matter available on a renewable basis, including forest residues, wood and wood waste. A definition used by the Russian participants in the Forum was "waste wood and waste trees, which do not find their proper use yet. They are most often left in forests or at woodworking, pulp and paper enterprises causing contamination of the environment".

2. The Kyoto Protocol

3. The Kyoto Protocol (1997) to the United Nations Framework Convention on Climate Change (UNFCCC) contains the legally binding, quantified commitments for industrialized countries to limit or reduce greenhouse gas (GHG) emissions.

4. According to the Kyoto Protocol, the industrialized countries have to reduce their emissions by at least 5% below 1990 levels within the commitment period 2008-2012. For the European Union, the Protocol stipulates an 8% reduction in GHG emissions; for the Russian Federation this is 0%.

5. Among the greenhouse gases, carbon dioxide (CO₂) plays a prominent role. This gas causes 75% of greenhouse gas emissions. In general, CO₂ emissions are a consequence of burning fossil fuel.

6. CO₂ reduction can be achieved in several ways:

- By using forests as CO₂ sinks; the Russian forests will play a prominent role here.
- By substituting biomass for fossil fuel. For the Russian Federation this means either exporting biomass or using it as fuel in the Russian Federation. For the latter purpose, special facilities need to be built.

3. Facts and figures about biomass in the Russian Federation

7. Figures related to the Arkhangelsk Oblast show the real potential of the region in terms of biomass production. Forests cover 37% of that territory. The pulp and paper industry represents 40% of the forest production in that region, and 80% of the forest product exports.

8. The production of wood waste in the Arkhangelsk Oblast reaches 2.5 to 3 million m³, plus 2.2 million m³ of bark, chips and sawdust. Lignin, a by-product from the wood chemical processing industry, represents 14 million tons each year. These figures have to be considered bearing in mind that the forest harvesting capacity of the Russian Federation could be doubled.

9. Thus, in the context of sustainable development and global warming, there is a mutual relationship between the development of the Russian forestry complex and large-scale investment of international financial structures. The fact is that in the coming decades, the political and economic situation in Russia will influence significantly the environmental situation at a global level.

10. The Russian Federation demonstrates its enormous production capacities in the timber sector and the production of biomass is closely linked to the wood production. Timber resources, however, remain underexploited in both the Arkhangelsk and Leningrad Oblast.

11. Speakers showed that wood demand will constantly increase in Europe, and that the Russian Federation is the only country which can respond to this heavy wood and biomass demand.

B. NEW MARKET PERSPECTIVES

1. The development of Biomass Use

12. The development of biomass use is a new activity of the UN/ECE Trade Division's project "Capacity Building to Improve Trade Finance and Investment Prospects for the Russian Timber Sector".

13. The Director of the UN/ECE Trade Division underlined that there is an urgent need to work on new issues and to define a position in view of the increased importance of sustainable development. This project provides the framework for long-term cooperation to develop a coordinated approach to the use of biomass. Activities in Arkhangelsk Oblast and Leningrad Oblast may serve as a model for other regional initiatives. The use of biomass will be closely monitored by all institutions, which support the project's activities.

14. Biomass as an energy source can be developed in two different ways, as shown during the Forum discussions.

- (a) *Export of biomass to western Europe*
- (b) *Use of biomass in Russia as an energy source.*

(a) The Kyoto Protocol provided the starting point and framework for an increased production and export of biomass to the European States which are committed to implementing a renewable energy policy. The Netherlands, for example, will use 10% of renewable energies by 2020 out of its total energy consumption. These renewable energies will include 25% of biomass. Market opportunities are, therefore, open for the export of biomass from the Russian Federation.

(b) The Russian Federation is interested in developing cleaner energy for its regional heating system. This can be done using the considerable amounts of local biomass. The existing energy industry, however, does not allow the use of biomass as an energy source. Transforming the existing system would require investments.

15. In 1999, the Ministry of Science and Technology of the Russian Federation published "Carbon Cycle on the Territory of Russia". In this framework, utilisation of biomass as a fuel includes:

- A rise in forest productivity,
- A reduction in the distance of timber transportation,
- A increase in the intensity of wood processing in the region of its growth,
- Increasing the share of plant fuel in the total power balance of enterprises,
- A transition to resource saving, mainly power saving, technologies.

2. Planning Biomass

16. The development of biomass must be carefully planned and monitored. The project "Capacity Building to Improve Trade Finance and Investment Prospects for the Russian Timber Sector" offers the framework for this planning.

17. Trade flows of biomass between western Europe and the Russian Federation are due to increase in the near future. In order to consolidate these trade flows, careful consideration must be given to related questions, such as certification.

18. This question was already discussed during a UN/ECE "International Workshop on Sustainable Development and Certification in the Russian Forest Sector", held in Saint Petersburg in December 1999.

19. It is important that the exporters of biomass take into account the question of biomass certification, as a premium on the market for the product. Consequently, this assistance regarding certification is provided in the framework of the project.

C. EXAMPLES OF BIOMASS USE: EPZ AMER CENTRALE AND THE USE OF GAS GENERATORS IN THE RUSSIAN FEDERATION

20. The Amer Centrale, in the south of the Netherlands, already uses biomass to produce energy.

21. The Amer wood gasification plant is designed to use up to 150,000 tons per year of low quality demolition (chipped) wood. The gas produced in the gasification process is cleaned and co-combusted in a coal-fired power station, replacing the coal input. The CO₂ emissions are reduced by 170,000 tons per year.

22. The use of biomass is also feasible in the Russian Federation, thanks to gas generators which produce electricity and steam from the combustion of waste wood. Gas generators can be used in the industry sector to produce a sufficient quantity of electricity for enterprises using them. The Russian Federation, however, has as yet no plans to build gas generators, or factories to produce pellets out of waste wood.

23. Biomass exports will increase, but the logistics question must be taken into consideration.

II. TRADE AND TIMBER PORT LOGISTICS

A. BIOMASS AND EXPORT COMPETITIVENESS

24. Marketing and exporting biomass implies the question of its competitiveness, and this question must be given careful attention considering the stakes for this new product. The main cost in exporting biomass is the transportation cost, as the raw material (waste wood) is usually of low cost. Thus, packaging and transportation are two major points of discussion.

1. Packaging of biomass

25. This question was evoked during the Forum. Pellets seem to be the more common way of transporting dried biomass from the Russian Federation to Europe. Logs are not always transportable on rivers, due to the severe climate conditions in the Russian Federation. Other forms of biomass (liquid fuel, chips and briquettes) are also used.

2. Reducing the prices

26. The participants agreed that biomass should be collected as close as possible to the processing plant, in order to avoid inland transportation costs. Biomass is then most often shipped from the Russian Federation to Europe, and timber ports in the Russian Federation try to produce biomass on their territory. Some ports own their forests (Vyborg port) and have established a domestic chain of logistics in order to reduce the costs linked to logistics and transportation.

3. The Transportation Network

27. The European inland transportation network is dense. Waterborne transportation, rail and road constitute a dense network to transport biomass to the final customer. Road transportation notably is getting overused and a good alternative to transport timber products is to use the water channels. Waterborne inland transportation, notably from the Port of Rotterdam, is dense, cheap and underused. Biomass comes to Europe through shipments, and is then forwarded to the hinterland to the final customer. Increasing the use of hinterland water connections should contribute to reducing transportation costs for biomass export.

28. These questions of competitiveness are closely linked to trade itself but the question of logistics in the timber ports also deserves attention.

B. TIMBER PORT LOGISTICS

1. Russian Timber Ports

29. The main timber ports are situated in the Arkhangelsk and Leningrad Oblast. A considerable amount of goods are shipped to Europe and notably to the Netherlands, Germany, Spain, Great Britain and Italy. Both regions hold leader ranks in terms of shipping trade.

30. The port of Arkhangelsk, in the Arkhangelsk Oblast and the port of Vyborg, in the Leningrad Oblast, are good examples of efforts made to increase trade. Biomass represents a good opportunity to increase trade flows from the Russian Federation to Europe.

31. The port of Ust-Luga is currently under construction and will be operational soon. The construction of an oil terminal is achieved, and the construction of other terminals, including timber, is being discussed.

2. Trade Facilitation

32. The question of trade facilitation and customs cooperation is essential for the development of trade among the project partners. As an example, the Customs Department of the Arkhangelsk Oblast has implemented a system for the electronic declaration of goods in order to simplify the trade and customs procedures.

33. The subject of trade facilitation and customs cooperation is to be further studied in the framework of the UN/ECE Trade Division project.

III RECOMMENDATIONS AND FOLLOW-UP

34. The participants in the Forum agreed on the following action plan as a follow up to the Forum:

- Maintain the extensive contact network that has been built up through the UN/ECE project "Capacity Building to Improve Trade Finance and Investment Prospects for the Russian Timber Sector"
- Continue to work on the following subjects:
 - customs cooperation
 - trade logistics for timber ports
 - sustainable development of the forest sector
 - development of the biomass industry
- Plan workshops on the use of biomass in Arkhangelsk (June), St. Petersburg (September) and Geneva (March 2001) to monitor the progress of work in the above-mentioned areas
- Liaise with the Permanent Mission of the Russian Federation in Geneva, as well as with the other project partners on the progress of the project activities.