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Forestry in Transition: Outlook for Production and Trade in Eastern Russia to 2000

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Executive Summary

Forestry Developments in Russia

- Russia's forestry sector has recently received increasing international attention. Previous analysis by CINTRAFOR and others have sought to better understand this sector under ongoing political and economic reforms. Russia's international role in forestry, however, is increasingly determined by regional and local conditions, with substantial differences becoming evident between European Russia and the forests of Eastern Russia, including East Siberia and the Far East. This analysis reviews the recent trends in production and trade, and examines the emerging role of these two dominant Eastern Russian territories relative to the timber situation in the Pacific Rim.
- Policies to assist Russia during the transition to a market economy have drastically altered production, consumption and trade. The Eastern Region of Russia, including the Far East and East Siberia is largely characterized by extensive undeveloped forest resources, a relatively low population, a lack of infrastructure and transportation, and low levels of industrialization (capital investment and capacity) for the forestry sector.
- Political and economic change is the norm throughout Russia. While the decline in industrial output has recently slowed, the lack of performance measures for the forestry sector under the slowly emerging market conditions makes it difficult to forecast the future. It is obvious, however, that Eastern Russia's forests will play a significant and increasing role in the Pacific Rim.

Recent Industry Performance

- The declines in Russia's forest sector performance, first evident in 1990, continued largely unabated in 1995. The disruptions have affected both production and export trade. The sector has been plagued by high interest rates, lack of credit, shortage of capital for investment to replace obsolete equipment, lack of marketing knowledge (especially export markets), tax and license issues, and steeply rising rail and transportation costs.
- The forest sector of the Eastern Russia (East Siberia and Far East) has not escaped the difficulties of the sector at the national level. The trends of declining harvest and production and spiraling costs hold significance for the near-term outlook for Eastern Russia's participation in the timber economy of the Pacific Rim.
- The Russian Far East (RFE) produced approximately 8 percent of the Russia's timber industry output prior to the wave of economic and political change. RFE roundwood harvest was estimated at 42 million cubic meters in 1989, but had declined to 13.5 million cubic meters for 1994.
- Harvest from East Siberia has also fallen sharply, from an estimated 73.4 million cubic meters in 1988 to only 24.7 million cubic meters in 1994.
- Declining harvests have lead to significant cutbacks in the domestic production of forest products throughout Russia as demand has shrunk. Export shipments have also declined, but by proportionately smaller increments as producers have sought to shift from disappearing domestic markets to hard currency foreign markets.

International Trade In Forest Products

- Trade in forest products from European (Western) Russia is primarily comprised of softwood lumber, plywood, and pulp and paper products. In contrast, trade from Eastern Russia is primarily unprocessed roundwood and smaller volumes of lumber and other processed material.
- Trade in industrial logs have been almost entirely to Pacific Rim markets (primarily Japan) and China. Lower grade logs (including pulpwood) are also important to Russia's Pacific region trade. Trade from Eastern Russia is primarily conifer logs. Almost all of Russia's exports destined for the Pacific Rim originate in the Far East, and to a much lesser extent, East Siberia. In 1994, total Russian industrial log exports were 14.85 million cubic meters, down from 18.7 million in 1989. Trade in conifer logs with Japan rebounded slightly in 1993, then reached 5.0 million cubic meters in 1995.
- Russia's total softwood lumber exports dropped to almost 5.4 million cubic meters (1994), down from 7.7 million in 1989. In contrast with logs, Russia's trade with Japan in softwood lumber has been small. Volume was below 200,000 cubic meters from 1983 through 1987, then reached 424,000 cubic meters in 1995..
- Pulp, paper and paperboard from the Far East region is largely utilized domestically.
- The majority of Russia's Pacific Rim wood exports have been directed towards Japan, both North and South Korea, and to a lesser extent to China (pulpwood). Chip exports were reported to be entirely to Japan. South Korea has emerged recently as an importer of Russia Far East timber, also in the form of unprocessed conifer logs. China has been an important market, from both the Far East and East Siberian regions.

Forest Resources - Area and Volume

- The Russian Republic includes some 771 million hectares of forest, widely spread across the entire national landscape. Only 446 million ha. is considered as presently accessible, indicating current developed access or a likely potential for developing access within the next twenty years. For East Siberia, some 110 million ha. (47 percent) of the forest is inaccessible, while in the Far East 169 million ha (60 percent) is so considered.
- East Siberia and the Far East together account for approximately 438 million hectares of forest including 380 million hectares of conifer forests, comprising 72 percent of the Russia conifer forest total. The East Siberia and the Far East dominate most conifer species within Russia. Proportionately, these two regions account for the largest share of larch forests (271.6 million ha; 97.7 percent) and true fir (11.2 million ha; 71.3 percent). Pine, spruce, and cedar-pine forests are also nationally significant.
- While the forests of Russia contain an estimated 82 billion cubic meters of growing stock, only approximately 55 billion cubic meters are presently accessible (67 percent). For the Far East, just 12 billion board feet (57 percent) of the inventory is presently accessible, while in East Siberia 17 billion cubic meters are presently accessible - amounting to 59 percent.
- The forests of Eastern Russia account for some 47.4 billion cubic meters inventory, or over 64.6 percent of the total inventory for the Russian Federation.

Privatization

- A key strategy of Russian economic reform has been to privatize much of the state owned productive capacity, with unprofitable State enterprises as the primary target. Privatization has placed the responsibility for profits and losses squarely on local managers.
- Privatization has, however, not extended to the ownership of forest lands. Overall use and regulation of forests now falls under the Russian Federation "Fundamentals of Forestry Act" enacted in March 1993. Assignment of rights to utilize forests rests with the Russian Federation "Forest Authority" and "its subordinate units.." In practice, control of forest use (as allocated by the State) has been asserted at the Republic, Territorial, or District levels, resulting in considerable conflict and uncertainty as to actual legal authority and reliability of contracts.

Development Outlook for Eastern Russia's Trade

- The bulk of direct harvest from forestry operations ("principal harvest") is directly linked to the calculated "Annual Allowable Cut" (AAC) which is determined for both currently and "potentially" accessible forest lands (primarily Group III forests) as well as the total forest area including inaccessible and reserved forests. The total physical AAC for the Far East is reported at 188 million cubic meters, while the East Siberia AAC is 279 million cubic meters.
- For the Far East, the total "currently and potentially accessible" AAC is 105 million cubic meters, with 87 million cubic meters of conifer and 18 million cubic meters of deciduous timber. Of the total, about 57 million cubic meters are derived from currently accessible forests while 48 million cubic meters could only be made available from developing "potentially" accessible forests.
- East Siberia has an estimated "currently and potentially accessible" AAC of 179 million cubic meters, including 129 million cubic meters of conifer and 51 million cubic meters of deciduous timber. Some 109 million cubic meters of the AAC is from currently accessible forests, while 70 million cubic meters would be from "potentially" accessible forests.
- Even the "currently and potentially accessible" AAC can be misleading, particularly in the present economic and political climate of the Russian Republic. A part of the AAC is estimated here to be economically "not realistically" accessible under either the prevailing 1992 economic conditions nor is expected to become economically "realistic" before the year 2000.
- The estimated currently and potentially available AAC for the Far East of 105 million cubic meters based on currently accessible and "potentially" accessible forests falls to only 74 million cubic meters, excluding the near-term "unrealistic" component. This lower economic volume would be made up of 57 million cubic meters of conifer and 17 million cubic meters of deciduous timber. This is only 30 percent of the physical AAC of 188 million cubic meters which incorporates inaccessible and reserved forests as well. For conifer species, the current economically accessible AAC is only 27 percent of the physical total. Total 1994 actual harvest for the RFE was reported at 13.6 million cubic meters, including 12.5 million cubic meters of conifer timber
- For East Siberia, the "currently accessible" AAC of 109 million cubic meters contrasts with the gross physical AAC of 279 million cubic meters (39 percent). Including the "realistic" potential harvest brings the estimate to 166 million cubic meters, or to just 59 percent of the physical total.. Actual harvest was 24.7 million cubic meters including 23 million cubic meters of conifers.

Economic Implications- Near Term Projections

- The reform of costs and prices in Russia and the liberalization of economic transactions and accountability highlight the importance of understanding economic accessibility as increasingly reflected by market-based costs and prices and the influences on harvesting and production decisions. A hypothetical ten percent increase in real prices, would, for example, increase the feasibility of accessing some larger portion of the present unrealistically available AAC. Such a real price increase could result in an potential economic AAC of 126 million cubic meters (vs. 117 million cubic meters at 1992 real prices) for Eastern Russia, a level well above the actual harvest of recent years which have been seriously impacted by market disruptions, lack of credit for operations, and the unavailability of investment capital required for industry restructuring and modernization.
- Near-term projections were formulated using the Russian Forest Sector Model which integrates information related to the forest and resource base, timber harvesting, timber processing and markets, reflecting constraints imposed by both resources and the performance of the Russian economy under continuing reforms. Domestic consumption was related to the trends in gross domestic product but constrained to meet minimum politically acceptable levels in the face of economic collapse.

Projected Domestic Consumption and Trade

- Total Russian annual wood supply was estimated at 227 million cubic meters for 1990-1995 with total domestic consumption of wood materials (which compete with exports) at an annual average of 207 million cubic meters. Wood exports were projected at an estimated 20 million cubic meters annually.

Regional consumption projections for Eastern Russia were not estimated separately. Approximately 49 million cubic meters of the estimated Eastern Russia commercial wood supply (57 million cubic meters) would be delivered to domestic mills in Eastern Russia for further processing into manufactured products, while approximately 8 million cubic meters would be exported (6 million cubic meters) or shipped to other parts of Russia for processing (2 million cubic meters).

- For the five year period ending in 2000, the estimated harvest and the volumes potentially exported fluctuate widely under the three alternative future scenarios representing a range of possible economic conditions.
- For the baseline (or “middle”) scenario, the annual total Russian available wood supply was estimated at 225 million cubic meters, with 204 million consumed domestically, and about 20 million cubic meters available for export. Eastern Russia was estimated to produce about 63 million cubic meters, with 47 million cubic meters ‘consumed’ for processing within the region, 9 million cubic meters shipped to European Russia or the former Soviet Republics, and 7 million cubic meters shipped into the Pacific Rim.
- Under the pessimistic scenario, a total of 199 million cubic meters would be available annually within Russia, with 190 million consumed domestically and only 9 million cubic meters would likely be exported. Eastern Russia would produce about 64 million cubic meters, consuming about 50 million cubic meters within the region, and shipping 13 million cubic meters to European Russia or the former Soviet republics. Without political intervention, exports could drop to zero in favor of protecting domestic consumption at minimum levels.
- With the most optimistic scenario, total annual wood supply increases to 302 million cubic meters of which 256 million cubic meters would be domestically consumed. Wood potentially available for export could be as much as 46 million cubic meters annually. Eastern Russia would produce as much as 102 million cubic meters, consuming 56 million cubic meters within the region for domestic processing. Significantly larger volumes (34 million cubic meters) would be consumed within European Russia (17 million cubic meters) or the former Soviet Republics (17 million cubic meters), while as much as 12 million cubic meters would be exported to the Pacific Rim.
- The baseline projection of Russian total roundwood and chip exports for 1996-2000 indicate that a static level would be achieved relative to pre-reform years. Under more pessimistic near-term conditions, exports could fall. The optimistic scenario indicates a substantial increase in hard currency exports, with the national volume growing to almost 30 million cubic meters. Possible trends in gross domestic product within Russia are the primary determinant of production and consumption decisions.
- Under optimistic conditions, Pacific Rim exports would increase, for both high grade and lower grade materials. Lower grade exports (pulpwood and chips) would increase to just over 5 million cubic meters for Pacific Rim markets. Sawlog exports would increase to about 8 million cubic meters, equaling pre-economic reform levels.
- For 1996-2000, baseline Russian lumber exports would be 3.2 million cubic meters, falling slightly over 1990-95 levels.
- Under pessimistic conditions, total Russian domestic use of lumber could drop sharply, and a total of 5.1 million cubic meters would be potentially exported, but primarily from European Russia. Eastern Russia exports would remain flat due to the lack of investment capital to improve processing quality for international markets.
- The optimistic scenario would see Russia’s lumber exports increase to a total of 5.7 million cubic meters, with 5.5 million cubic meters originating in European Russia since almost all near-term investment in modernization and equipment would first take place in western Russia.
- Eastern Russia lumber exports to the Pacific Rim would remain at only 200 thousand cubic meters under all scenarios due to the deteriorating productive capacity and quality limitations of the existing sawmill sector in East Siberia and the Far East.

- Estimated exports of wood-based panels (including plywood) are small with essentially all exports derived from the European regions of Russia and going to western European hard currency markets. Export of market pulp, processed paper, or paperboard products will also be very limited from East Siberia and the Far East to the Pacific Rim.
- Trade relations between Russia and its neighbors has been determined in part been by past political relationships as well as new economic realities, including the need to earn foreign exchange. Relations with Western Europe and the Pacific Rim (primarily Japan) have opened, where hard currency exports have provided considerable strength to the overall Russian Federation trade balances. The emergence of new trade partners include the Middle East, North Africa, South Korea, and potentially North America.
- Foreign participation in the forestry and forest products sector of the Russian Far East has been limited but is growing. The oldest bilateral linkages have been with North Korea and China. Japan has also had a long involvement with the forestry sector in Eastern Russia. South Korea has been actively involved since about 1990, although the level has declined significantly since 1995.
- As relations with the United States have improved in the post-reform period, there has been a very active interest in the Eastern Russia as a potential new source of timber. Imports of unprocessed logs into the Pacific Northwest have been prohibited due to regulations based on potential for pest and disease risks to US forests and the higher cost of treatment which would be required prior to importation. Interest in importing processed and dried lumber has grown, however, yet volumes imported to date have been small.

Conclusions

- The forestry sector in Eastern Russia, including East Siberia and the Far East, has substantial potential for future development. Timber resources are relatively abundant but utilization is presently limited by lack of access, high transport costs, shortages of investment capital, political uncertainty, and high comparative costs due to inappropriate and outdated technology.
- Substantial capital investment will be required to transform the existing industry to standards of technology and product quality required for the industry to become truly competitive in international markets of the Pacific Rim. Domestic sources are scarce and credit difficult, while international investors remain highly cautious of risks associated with political uncertainty and unstable economic conditions under ongoing reforms.
- Overall, large investments in infrastructure (access, transportation, housing, etc.) will also be required to make the harvesting and processing of timber economically viable under more market-oriented criteria of profit and loss. In Eastern Russia, territorial and local governments simply do not have the required funds required to undertake such infrastructure investments.
- The export of unprocessed timber and primary lumber products will, in the near term, remain as the most attractive export even as domestic prices continue to rise towards international levels. Eastern Russia has not yet become competitive for exporting a wider variety of manufactured wood products.
- Prospects for the period ending in 2000 will depend on the success of emerging policies to promote investment, and the re investment of a larger share of the hard currency earnings by the owners-managers of enterprises within the forest sector.
- The longer term prospect for wood exports remains clouded. Economic realities, together with sustainability limits imposed on forest resource management may effectively limit future utilization to levels near or below the historic centrally-planned levels. The wood contribution from Eastern Russia to the Pacific Rim beyond the turn of the century will ultimately reflect the economic realities of the region's comparative forest products competitiveness in both international and domestic markets in European Russia.

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