

# Illegal Tree Cutting: Economic and Legal Issues

Turkova V.N.

Institute of Economics, Management and Law  
Irkutsk National Research Technical University  
Irkutsk, Russia  
nikolaevna\_ur@mail.ru

Arkhipova A.N.

Department of Industrial Management  
Institute of Economics, Management and Law  
Irkutsk National Research Technical University  
Irkutsk, Russia  
nikolaevna\_ur@mail.ru

**Abstract**—Several million hectares of forest are cut down every year. One of the most important ways for preventing deforestation is improvement of forestry and criminal legislation. Not all organizations, enterprises and institutions are ready to comply with contractual agreements. It encourages loggers to commit crimes. The current forest legislation and measures taken do not reduce the number of offenses and crimes in the Russian forest industry. Researchers propose amendments to the Forest Code of the Russian Federation regulating the procedure of space monitoring over the forest. Deforestation is a Russian and global problem. Deforestation causes negative consequences affecting the environment, influences regional economies. Trees can be cut down for human needs and the needs of local governments, construction of facilities, sale, etc. According to the Russian Forestry Agency, the volume of illegally cut wood is several million cubic meters. The President of the Russian Federation pays attention to environmental issues and ecology. The forest area is decreasing at a rapid pace. Illegal logging and selling are detrimental to the national and regional economies. Non-transparent auctions are held. Illegally cut trees are exported to China and Japan.

**Keywords**—*illegal logging, economy, criminal liability, investigation*

## I. INTRODUCTION

In the last decade, the national timber industry has declined while the volume of wood exportation has increased. The total volume of wood production in Russia has decreased threefold, and the export of wood has become the only source of stable income for many enterprises. Unfortunately, the threat to Russian forests is increasing as corruption is permeating the timber industry, and the illegal exportation volume is growing. [1]

The Russian timber industry exports raw logs. Timber enterprises make significant profits by exporting second-rate logs sold to logging plants at a low price. Approximately 28% of wood was exported to Japan, and 65% - to China. [2] Currently, only about 10% of wood is processed in Russia. In some regions, this volume is even smaller.

Siberia and the Far East of Russia are among the largest suppliers of wood to China. Over the past two decades, Russia has been ranking first among the top three exporters of wood to China. There are five important reasons for this significant increase. First, wood imported from Russia is of high quality.

[3] Russia exports logs of a larger diameter (more than 24 cm). Second, the price is moderate, even cheaper than Chinese wood of similar species and specifications.

Third, in northeastern China, there are no sources of good-quality hardwood (Manchu ash and Mongolian oak) used for decoration. Fourth, the geographical proximity between the Far East, Siberia and China stimulates cross-border trade. About 90-95% of the wood trade is carried out at the border. Finally, the favorable tariff and tax policies of the Chinese party encourages timber trade. The Chinese government has taken a number of measures to protect the importers.

The temporary policy of collecting only half of the value added tax (VAT) when importing wood from Russia is significant [2].

It is difficult to identify illegally sold wood. From a legal point of view, there are no laws prohibiting illegal wood production or importation. Illegal logging destroys forests and biodiversity. It has negative economic and social impacts on the poor population. Many poor communities living near the forests enjoy forest products. However, these poor communities are suffering from the activities of logging companies and power players.

In addition, illegal logging is often associated with organized crimes, corruption, human rights violations, violent conflicts, and money laundering. [4] This undermines good forest management, reduces incomes of producing countries and leads to tax evasion and corruption.

Deforestation as a result of illegal logging causes soil erosion. The researchers found links between deforestation and global warming. Illegal logging affects indigenous peoples because they are deprived of legal rights to their land. Logging companies and governments can benefit from forests by evicting these people. Illegal logging, transporting, processing, purchasing or selling wood in violation of national legislation is a global problem affecting most of the forest countries. The concept "illegal logging" also refers to wood logging in protected areas, cutting down of endangered species of plants or trees, falsification of official logging documents, violation of licensing agreements and corruption. Due to illegal logging, it is difficult to measure the extent of destruction. [5]

The source of wood is only part of the problem. Wood importing countries do not know about illegal nature of wood or do not check its legal status.

## II. METHODOLOGY

The main reasons for illegal wood logging are as follows: a decrease in the number of official controllers; corruption; unemployment; poverty; imperfect forest legislation; low incomes; steady demand for wood; own needs; small trade; high profitability; poor forestry management; growing demand for wood, paper and forest products; poor forest industry and market management; failures of forest policy. Poverty is one of the causes of illegal logging. The most obvious cause of illegal logging is a high global demand for wood, paper and other wood products. However, not all cut-down trees are turned into parquet, paper and plywood.

Corruption, economic and political instability, poor democracy, insufficient regulation and weak government contribute to illegal logging. [6] There is an insufficient system of penalties: low risks combined with a desire to make a profit contribute to attractiveness of illegal logging. Since illegal timber is usually cheaper and revenues are five to ten times higher, illegal logging is difficult to prevent. Although timber trade is of significant economic importance, many timber consumers, such as the European Union, do not have a legitimate way to stop the import of illegal forest products. Until there are wood problems in the Asian markets, China will purchase large volumes of wood. Siberian wood processed in China for further importation contributes to this growth. Businesses transfer money from timber trade abroad — part of the problem of capital flight from Russia. They do not want to invest in the local community. In addition, logging companies export raw logs instead of investing in recycling, which brings little benefit to local communities. In these social and economic conditions, three events occurred simultaneously: the opening of Asian borders and markets, privatization and criminalization. They forced many large, previously state-owned Siberian timber companies to cut production volumes and fire workers. In response, many of the unemployed founded their own private logging companies using old military loading and transport equipment purchased at low prices in the Russian markets.

Using manual equipment and materials of the logging companies, these small businesses deal with illegal wood cutting and timber trade using fake documents. Production of timber and finished wood products could create jobs for local communities, increase incomes per tree and reduce the volume of waste. However, logging companies are often tempted by the opportunity to make easy money dealing with Chinese wholesalers using such strategies as fraud, transfer pricing and tax evasion. Due to the fact that wood is processed in China where the labor force is cheap, local Russian workers lose their working skills. In addition, equipment is often destroyed or stolen for scrap metal, and there are no chances to revive the local woodworking industry.

## III. RESULTS AND DISCUSSION

Using the data of the Unified Interdepartmental Information and Statistical System (UIISS) on the intensity of logging in the

Russian regions, environmentalists concluded that by 2018 forests would have been cut down in Irkutsk region.

The share of Irkutsk region accounts for 16% of all Russian "chipped" wood. Some other Russian regions - Krasnoyarsk Krai (11%), Vologda region (7%), Arkhangelsk region (6%), and Kirov region (4%) are also included in this share. [1]

Among the 15 largest Russian forest logging regions are Komi, Perm and Khabarovsk regions, Karelia, Tomsk, Leningrad and Kostroma regions, Primorsky Krai and Tver region. "In Vologda region, the volume of cutdown trees is the highest. It is 6.4 times higher than the average rate for the Russian Federation. In Ryazan region, the deforestation rate is 5.8 times higher, in Tambov region – 5.4 times higher, in Udmurtia - 5.3 times higher, and in Bryansk region - 4.6 times higher than the average Russian one.

Let us present the data on the cubic meters of forest per hectare cut down in the Siberian regions in 2017: Altai Krai - 0.68 m<sup>3</sup> / ha; Omsk region - 0.35 m<sup>3</sup> / ha; Tomsk region – 0.26 m<sup>3</sup> / ha; Kemerovo region - 0.24 m<sup>3</sup> / ha; Novosibirsk region - 0.23 m<sup>3</sup> / ha; Krasnoyarsk Krai - 0.19 m<sup>3</sup> / ha; Khakassia - 0.15 m<sup>3</sup> / ha; Buryatia - 0.13 m<sup>3</sup> / ha; the Republic of Altai - 0.09 m<sup>3</sup> / ha; Trans-Baikal Krai - 0.06 m<sup>3</sup> / ha; Tuva - 0.02 m<sup>3</sup> / ha. [3] According to the study of the World Wildlife Fund, for several years, black loggers have caused damage to Irkutsk region. Woodworking companies (mainly Chinese ones) hire people from nearby areas without proper documentation. For a cubic meter of first-class saw logs, loggers pay about \$ 40, and sell it to China at five hundred dollars. According to the environmentalists, if deforestation continues, it can destroy forest resources. In addition, damage is caused to the Siberian flora and fauna [7].

Let us give some examples. K. was convicted of illegal logging. For several months, he cut down trees of different species without permitting documents. Two episodes of illegal logging were committed by L. and P. in Shelekhov and Taishet districts. They combined their efforts to commit a crime. When transporting wood, they were arrested by road patrol officers. They were convicted of illegal logging. Two friends created a criminal community for illegal logging in Nizhneudinsk district. They planned to make as much money as possible for a long period of time, but the group was detained by law enforcement officers and convicted of illegal trading.

In Kachug district, two businessmen acting in collusion cut down trees and caused loss and damage to the region. One of them had a criminal intent aimed at illegal cutting down of pine trees. In pursuance of his criminal intent, knowing the illegal nature of his actions, in the absence of permits for logging operations (cutting down, i.e. separation of trees from roots and damaging them), he offered the second criminal to join him in order to cut down trees for criminal purposes.

The criminals took a chainsaw and went to the forest area, acting intentionally by prior agreement, for mercenary motives, without having appropriate permitting documents for carrying out logging operations (a forest plot lease agreement, a forest auction protocol, a logging operator ticket, a warrant, a forest ticket, or a forest sale contract), causing social danger, anticipating and wishing the onset of dangerous consequences,

violating the environmental safety of society provided by protection, rational use and reproduction of trees and shrubs in forests, the ecological balance and viability of trees and shrubs, in violation of forest legislation (Articles 29, 30, 75, 77, 94 of the Forest Code of the Russian Federation of December 4, 2006 No. 200-ФЗ, as amended on June 23, 2016 No. 218-FZ “On Amendments to the Forest Code of the Russian Federation and legislative acts of the Russian Federation improving regulation of forest relations”) and “The wood logging rules”, approved by the Order of the Ministry of Natural Resources and Environment of the Russian Federation of September 13, 2016 No. 474 “On Approval of the wood logging rules and wood logging in forest areas and forest parks, specified in Article 23 of the Forest Code of the Russian Federation”, as amended on 11.01.2017), cut down pines using a chainsaw brought for this purpose.[8]

Using this chainsaw, acting together with B., A. cut a pine tree into chocks 30-45 cm in length and prepared them for loading. Continuing to implement his criminal intention and acting in collusion with B., A. loaded the illegally cut down pine tree into the back of his car with a state registration sign and an engine number. 13 hours 50 minutes later, they were caught by police officers. They were convicted of illegal logging by the Kuybyshev District Court of Irkutsk. These cases show that it is necessary to implement additional legislative measures to prevent illegal logging.

Illegal logging is wood production violating national regulations. This may include timber harvesting in protected areas, cutting down protected species or exceeding logging quotas. Illegal logging is often carried out in areas with poor management and a weak law enforcement potential. The consequences of illegal logging are varied: from uncontrolled deforestation to violation of sustainable development of local areas. According to the World Bank, due to illegal deforestation, the governments lose about five billion dollars each year. Poor regulation hampers a decrease in world wood prices by 7–16%. Illegal timber is sold in markets without being taxed. It is cheaper than legal timber which reduces legitimate timber prices. [9]

In addition to economic costs, deforestation caused by illegal logging changes the climate as a result of carbon sequestration potential reduction. However, more sustainable new markets (China, Vietnam and India) reduce the impact of this legislation on the demand. One study estimated that about half of exported wood (22.2 million m<sup>3</sup> of roundwood equivalents) was obtained from wood processing. About a two-third of trees was illegally cut down. Over the last decade, China has become a large timber market which accounts for half of the world illegal wood importation volume. Efforts of industrialized countries decreased illegal importation to these consumer markets, but the growth in raw material consumption in China can compensate for any reduction in the illegal pine and larch timber trade.

In developing countries, illegal logging is often facilitated by organized criminal networks collaborated with corrupt government officials. Trees are cut down in protected areas due to inaction of law enforcement agencies in the forest sector. In some cases, it is particularly difficult to distinguish between

illegal use of forest land for agricultural purposes and illegal logging for timber trade. Illegal logging is devastating local forests, despite the efforts of the authorities aimed at reducing deforestation.

Every month hundreds of trees are smuggled out of the area by traffickers to satisfy the demand of the lucrative construction market and furniture industry.

The investigative practice shows that loggers often cut down valuable tree species at night. Loggers are very well organized and armed. Unfortunately, local forest guards are not able to resist them. Forests play a crucial role in combating global warming by removing carbon dioxide from the atmosphere, which can hold back an increase in global temperatures.

Data on forestry incomes suggest that more than 70 percent of wood is not accounted which causes huge losses in government revenues deriving from fees and taxes. The residents accuse district foresters of conspiracy with illegal loggers. They say that the officials issue fake logging permits or show safe paths for illegal timber transportation. The government regulations require that logging in the forests surrounding districts be carefully controlled, and the wood be stamped after legality checks. However, these rules are often violated. According to the survey, logs are transported along unofficial routes with the assistance of local police officers who often pretend to check vehicles for wood smuggling.

According to the environmental authorities, fines and penalties for illegal logging are low. [10, 11]

Despite the fact that criminal cases are initiated and the Russian logging legislation is extremely strict, logging companies violate these rules due to corruption in the Forestry Agency, municipal administration and the police. As a result, illegal logging has become widespread. Indecisive government attempts to control illegal activities are held back by corruption and a number of other problems. Indeed, it is difficult to control illegal logging and timber trade due to the involvement of government officials and structures responsible for protecting forests in illegal logging and timber trade. [12]

A decrease in the government funding for the Forest Service created a lack of resources for conducting forest inspections. The level of corruption in the Forestry Agency has become staggering, and workers are often involved in illegal logging and timber trade. Poor government funding and management caused disruptions in the Forest Agency.

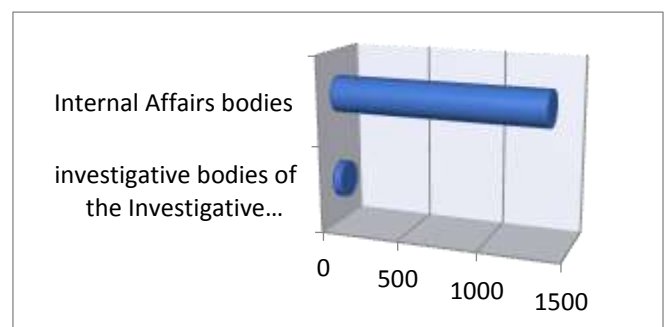


Fig. 1. Number of environmental crimes



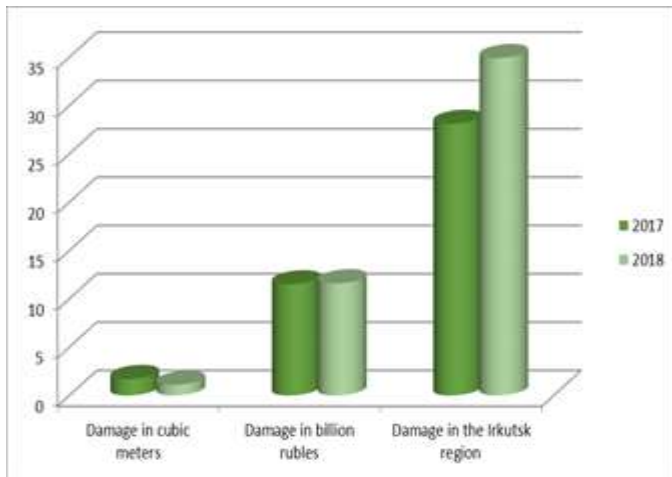


Fig. 2. Illegal logging and forest grazing requests

#### IV. CONCLUSION

Having studied the statistical data, investigative and judicial practice, we can suggest the following measures aimed at preventing illegal logging: formation of an expert group for auditing the most important regulatory forestry acts in order to identify obvious errors, provisions that promote corruption or impede development of small businesses, implementation and approval of relevant changes; establishment of areas for legal logging (for Russia, this is one of the urgent problems); labelling of cutdown forests in order to control their further legal movement; creation of a road control system in order to reveal logging violations. One of the loopholes is sanitary logging when companies receive permissions to cut down damaged or diseased trees in protected areas but cut down valuable tree species instead.

The Russian Federation pays special attention to illegal logging and timber trade. On the contrary, it is unknown who is struggling against illegal loggers and timber traders.

The struggle against illegal logging and timber trade formed international legal relations involving governments, intergovernmental organizations and non-governmental organizations, objects of illegal logging and trade and rights and obligations of the participants. It is evident that the starting point and theoretical basis for discussing such issues as prevention of illegal logging and timber trade should be under the government control carried out by authorized bodies. Thus, this study breaks through the existing research framework and the line of thought and is of great theoretical and practical importance.

Illegal logging and timber trade have numerous economic, environmental and social consequences. International measures aimed at preventing these illegal activities are taken annually. At present, these measures are not sufficient to prevent and curb illegal logging and timber trade. Some measures have positive effects in regions, but on a wider scale, much remains to be done. Further research and alternative measures are needed to reduce illegal logging and timber trade. There is no 'quick' solution to the issue of illegal logging and timber trade. Successful solutions should be focused on several levels of the issue and have long-term applications.

In particular, although the law provides for a significant increase in the size of fines and criminal liability for illegal logging and destruction of young forests, all these measures do not deter illegal loggers. [13–15] At the same time, the heads of regions were ordered to develop comprehensive programs for restoring the forest fund of Russia and identifying priority areas for forest restoration and silviculture, protection of forests from fires, pests and diseases and implement other forest management measures.

These measures can improve the forest management system. There is no doubt that joint efforts of the parties interested in restoring order in the forest sector can help achieve desired results. It is worth noting that Russia has implemented measures aimed at preventing illegal logging, mainly in response to concerns about Siberian cedar. Russia imposed a ban on Korean pine logging and successfully implemented a plan aimed at banning international trade in Mongolian oak and Manchurian ash.

#### References

- [1] On the National anti-corruption plan for 2014–2015: The Executive Act of the President of the Russian Federation No. 226 of 11.04.2011 in Collection of the legislation of the RF, Article 1729, No. 15, 2014.
- [2] D. Alemagi and R.A. Kozak, "Illegal Logging in Cameroon: Causes and the Path Forward," *Forest Policy and Economics*, vol. 12, pp. 554-561, 2010.
- [3] L. Bouriaud, "Causes of Illegal Logging in Central and Eastern Europe," *Small-Scale Economic Manage Policy*, vol. 4, pp. 269-292, 2005.
- [4] Corruption perception index-2016: Russia's situation has not changed. Retrieved from: <https://transparency.org.ru/research/indeks-vospriyatiya-korrupsii/indeks-vospriyatiya-korrupsii-2016-polozhenie-rossii-ne-izmenilos.html>.
- [5] The Ministry of internal Affairs of the Russian Federation. Official website of the Ministry of internal Affairs of the Russian Federation 2018. Retrieved from: <https://en.mvd.ru/Ministry/Ministry>
- [6] V.N. Turkova, "Corruption and its negative influence on economic, education and healthcare systems," *RPTSS 2018 International Conference on Research Paradigms Transformation in Social Sciences*, pp. 120-127.
- [7] The investigative Committee of the Russian Federation. Retrieved from: [http://sledcom.ru/sk\\_russia/leaders/item/686/](http://sledcom.ru/sk_russia/leaders/item/686/)
- [8] The Criminal Code of the Russian Federation No. 63-FZ of 13.06.1996 in Collection of the legislation of the RF, Article 2954, No. 25 of 17.06.1996.
- [9] M.A. Cohen, "Environmental Crime and Punishment: Legal/Economic Theory and Empirical Evidence on Enforcement of Federal Environmental Statutes," *Criminal Law*, vol. 82, pp. 1054-1108, 1992.
- [10] Convention on Criminal Responsibility for Corruption (ETS N 173). Signed in Strasbourg on January 27, 1999 and ratified by Russia (The Federal Law No. 125-FZ of July 25, 2006) in Collection of the legislation of The Russian Federation, Article 2394, No. 20 of May, 18 2009.
- [11] D. Brack, "Illegal Logging and the Illegal Trade in Forest and Timber Products," *International Forestry Review*, vol. 5, pp. 195-198, 2003.
- [12] A.N. Archipova, "Corruption in Healthcare System of Russia: Challenges and Effects," *RPTSS 2018 International Conference on Research Paradigms Transformation in Social Sciences*, pp. 129-135, 2018.
- [13] M. Boecher, "A Theoretical Framework for Explaining the Choice of Instruments in Environmental Policy," *Forest Policy and Economics*, vol. 16, pp. 14-22, 2012.
- [14] J. Carle and P. Holmgren, "Wood from Planted Forests: A Global Outlook 2005-2030," *Forest Products Journal*, vol. 58, pp. 6-18, 2008.
- [15] F. Reborado, "Socio-Economic, Environmental, and Governance Impacts of Illegal Logging," *Environment Systems & Decisions*, vol. 33, pp. 295-304, 2013.