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REVIEW

2013



Illegal logging in the Russian Far East: global demand and taiga destruction

The Forest Program of WWF Russia

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It is focused on the conservation of forests through their protection and regeneration, as well as their sustainable management.

The goals of the Forest Program of WWF Russia:

- promotion of the concept of sustainable forest management that considers the interests of all stakeholders;
- improvement of forest legislation in Russia;
- prevention of illegal logging;
- conservation of biodiversity and maintenance of high conservation value forests;
- support of ecologically responsible forest business;
- implementation of forest climate projects;
- promotion of voluntary forest certification under the FSC standards.





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ILLEGAL LOGGING IN THE RUSSIAN FAR EAST: GLOBAL DEMAND AND TAIGA DESTRUCTION

Illegal logging in the Russian Far East: global demand and taiga destruction.

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Illegal logging of valuable temperate hardwoods has reached crisis proportions in the Russian Far East. Comparative analysis conducted by WWF Russia shows that from the period 2004-2011 the volume of Mongolian oak (the most valuable hardwood species) logged for export to China exceeded authorized logging volumes by 2-4 times. Much of this illegal logging takes place in the habitats of the Amur tiger and leads to their degradation. The materials included in this report are pertinent in the context of new legislation in the European Union, United States and other countries aimed at the exclusion of illegally sourced wood products, given that a significant proportion of the illegal timber logged in the Russian Far East enters such markets in the form of Chinese-manufactured furniture and flooring. This report is applicable for use by public forest agencies, forest industry, NGOs, students and academics and all those who are not indifferent to the fate of Russian forests.

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On the cover: Illegal logging poses serious risk to the long-term survival of the Amur tiger.
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für Umwelt, Naturschutz
und Reaktorsicherheit

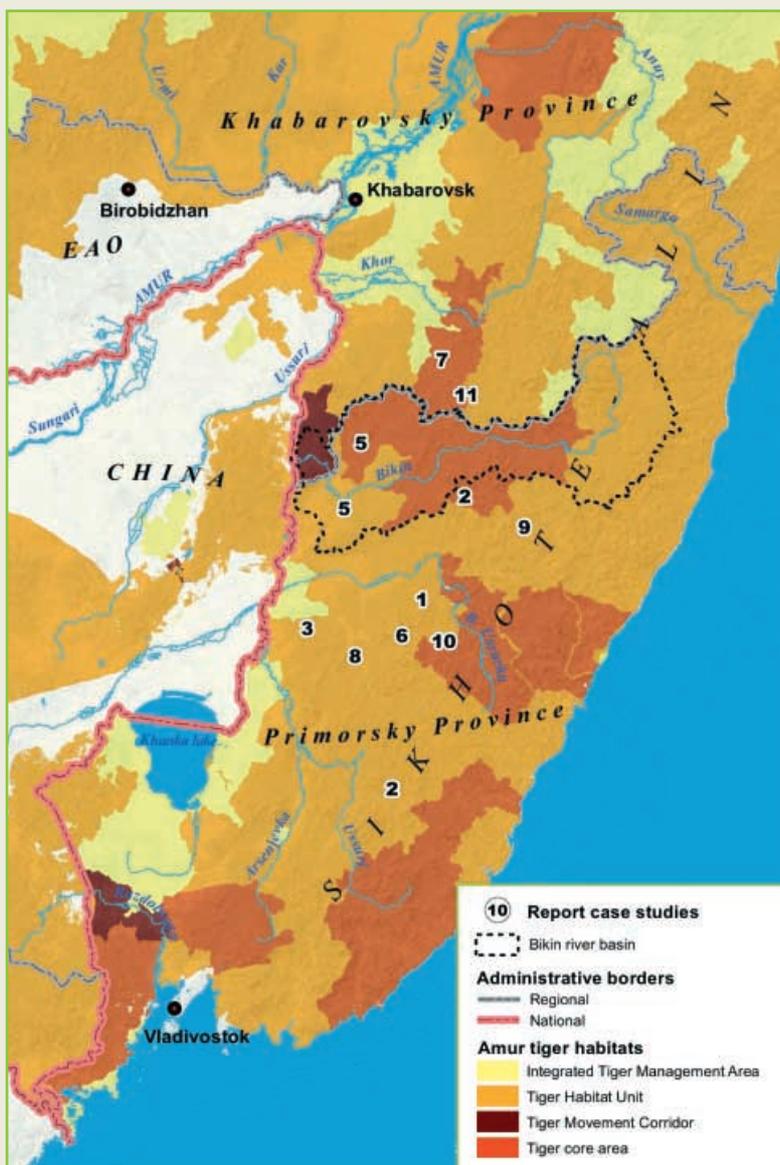


Executive Summary

Illegal logging of valuable temperate hardwoods has reached crisis proportions in the Russian Far East. Ten years ago WWF raised the alarm about the growing rate of illegal logging in the Far East and warned that without strong measures from federal and provincial authorities, criminalization of the region's forest sector and exhaustion of its valuable hardwood stocks were inevitable. Unfortunately, the reality in 2013 exceeds even these harsh predictions. Comparative analysis of export data show that from 2004–2011 2–4 times more oak timber was logged for export to China than was legally permitted.

Chinese flooring and furniture manufacturers are sourcing Russian Far East hardwoods such as Mongolian oak (*Quercus mongolica*), Manchurian ash (*Fraxinus mandshurica*), Japanese elm (*Ulmus propinqua*), Amur linden (*Tilia amurensis*) and Manchurian linden (*Tilia manshurica*) at a rate that far outstrips the legal and sustainable supply. Many of their finished products are destined for US, European and Japanese markets, where they are purchased by unsuspecting consumers. Global companies that are importing Chinese furniture and flooring made from Far Eastern hardwoods face major risks of violating legislation such as the US Lacey Act, EU Timber Regulations and Japanese Green Purchasing Policy.

This report summarizes case studies and on-the-ground field observations over 10 years of investigations. These investigations reveal a sobering reality:



The location of illegal logging case studies mentioned in this report and the range of Amur tiger in the Russian Far East.

the forest management system has become deeply criminalized, allowing illegal loggers to plunder valuable timber stocks with impunity.

The impacts of this rampant criminality in the “Ussuri Taiga” of the Russian Far East are devastating both for wildlife and local people and industry.

Law-abiding timber companies are undermined by illegal competitors. Illegal logging degrades key habitats of the endangered Amur tiger, reducing critical food supplies for the predators and their prey. It also exposes these wildlife species to heightened poaching pressure by increasing road access and human presence in previously remote forest areas. Forest degradation from illegal logging threatens traditional livelihoods of taiga villagers and indigenous people, including hunting, forest beekeeping and pine nut collection. The region's unique Korean pine – broadleaf forests, Russia's most biodiverse, face severe degradation.



The exhaustion of valuable hardwood stocks in managed forests by timber theft is driving legal and illegal loggers into sensitive forest areas not zoned for commercial logging (e.g. riparian buffers, pine nut harvesting zones, wildlife reserves). Such areas support some of the last intact virgin forests in the region. The best example is the virgin forests of the Bikin River basin, the largest tract of old-growth mixed temperate forests in the world, the homeland of the Udege indigenous people and critical habitat for the endangered Amur tiger. The struggle to keep logging out of these critically important forests has become constant.

Federal and regional authorities have recognized the importance of resolving the illegal logging crisis. This report also highlights positive examples of cooperative efforts by forestry officials, law enforcement and NGOs to counteract illegal logging, for instance in the south of Khabarovsk Province. This report constitutes WWF's recommendations for resolving the illegal logging crisis in Russia's last tiger forests.

Governments, Companies and Consumers can all play a role in solving this illegal logging crisis.

The **Russian federal government and provincial administrations** should take serious action to restore forest management in the Russian Far East by:

- Allowing public access to all timber harvest authorization documents, providing greater transparency and public participation to detect and prevent illegal logging;
- Increasing oversight and regulatory control of so-called “intermediate harvesting” to close widely abused loopholes for illegal loggers;
- Instituting new government regulation that holds forest leaseholders responsible for the detection and reporting of illegal logging on their territories;
- Regularly patrolling high-risk forest regions with joint participation of forest rangers, law enforcement officials, local citizens and NGO representatives to discourage corruption;
- Conducting a comprehensive re-assessment of valuable hardwood stocks to adjust permitted logging volumes to sustainable levels;

The Chinese and Russian governments should work together to integrate their respective documentation systems for the transportation of wood products, so that the specific origin of hardwood imported to China remains known throughout the supply chain.

Governments of importing countries such as China, Japan, the US and EU member states should strengthen implementation and enforcement of laws against importation of illegal wood, such as the US Lacey Act and the EU Timber Regulations.

Global companies that are importing high risk wood and wood products such as furniture and flooring can mitigate risks by adopting one of the following approaches:

- For products made with Russian oak, ash, elm or linden, exclusively purchase wood products certified by the Forest Stewardship Council (FSC), realizing the supply of certified Russian Far Eastern hardwoods is limited;
- If FSC is not available but sourcing must continue, establish rigorous legality confirmation systems that go far beyond “collecting the right documents” and that incorporate 3rd party auditors and Russian civil society stakeholders;
- In the case that neither of the above approaches is possible, avoiding any furniture, flooring or other wood products made from hardwoods that could be of Russian Far East origin (oak, ash, elm, linden).

Consumers can purchase FSC-certified flooring or furniture. This is the easiest way to ensure that purchases are not contributing to the degradation of the Russian Far East’s last tiger habitat.

Stocks of valuable hardwoods in the Russian Far East are being rapidly exhausted to feed unsustainable global demand for wood products such as furniture and flooring. Immediate action must be taken collectively by governments, companies and consumers to combat illegal logging and exclude illegal timber from the flooring and furniture market.

Contents

Executive Summary	3
Glossary	7
Introduction	9
The Law Enforcement Crisis	11
Low detection rates of illegal logging by forest rangers	11
Abuse of loopholes in forestry legislation	14
Ineffective investigations by police – lack of prosecution by the courts ..	18
The Consequences of Illegal Logging	22
Exhaustion of timber supplies for forest industry and increasing pressure on protective forests	22
Undermining of traditional taiga resource use	23
Degradation of habitat and prey resources of the endangered Amur tiger	24
Solving the Crisis : Recommendations for combatting illegality in forests of the Russian Far East	26
Recommendation: Improved law enforcement	26
1. Regular patrolling of criminalized forest regions	26
2. Open access to all logging authorization documents	27
3. Comprehensive re-assessment of valuable hardwood stocks	28
4. Holding forest leaseholders responsible for timely reporting of illegal logging	28
5. Closing the “intermediate logging” loophole	28
Recommendation: Improved international coordination between governments	29
1. Coordination between Russian and Chinese governments	29
2. Coordination between Russia and other importing country governments	29
Recommendation: Reducing demand for illegal timber	29
1. Purchase products made from wood certified under the Forest Stewardship Council (FSC)	29
2. Establish rigorous legality confirmation systems that include field verification and the participation of 3rd party auditors and Russian stakeholders	30
3. If legality of sourcing cannot be rigorously confirmed, avoid furniture, flooring and other wood products made from hardwoods that could be of Russian Far East origin (oak, ash, elm, linden) ...	31
Appendix: Calculating the volume of illegally harvested oak exported from the Russian Far East	32
Citations	38

Glossary

- **Forest Stewardship Council (FSC)** – An independent, international non-governmental, non-profit organization established to promote the responsible management of the world’s forests. FSC has developed rigorous global standards for socially and environmentally responsible forestry, and associated chain-of-custody certification and labels for products made from those forests.
- **Illegal harvesting or illegal logging** – We use the terms synonymously to describe logging without authorizing documents, logging with documents but outside the permitted area, overlogging or the logging of trees not permitted for harvest.
- **Intermediate logging** – A legal practice under the Russian Forest Code designed to improve forest health by removing dying, dead and poorly formed trees. Often used as a loophole to conduct commercial logging in protective forests.
- **Korean pine-broadleaf forests** – temperate forest type found in the southern portion of the Russian Far East, northeast China, North Korea and parts of Japan. The dominant species are Korean pine (*Pinus koraiensis*) and various broadleaf species including ash, oak linden, birch. This forest type overlaps closely with the range of the Amur tiger.
- **Leaseholder** – A company or individual which has obtained a timber harvesting lease for a forest concession from the provincial government. Leases are typically for 25 or 49 years.
- **Logging for the Support of the Local Population** – A legal practice under the Russian Forest Code designed to provide fire wood and construction timber to local villages. Often abused as a loophole to conduct commercial logging in protective forests.
- **Ministry of Internal Affairs** – the Russian federal ministry responsible for police functions. All local police forces are branches of the ministry.
- **Pine nut harvesting zones** – a special category of protective forests zoned for the commercial collection of Korean pine nuts and related non-timber resources.
- **Protective forests** – Forests zoned to protect important resources such as soil, water quality or rare plants and animals rather than for commercial logging. They include riparian buffers, steep slopes, pine nut harvesting zones, green belts around towns and some wildlife reserves.
- **Roundwood** – Felled, de-branched tree in log form that has not been further processed.

- **Roundwood equivalent volume** – a measure of the volume of logs used in the manufacture of wood based products.
- **Russian Far East** – region at the eastern end of Russia bordering the Pacific Ocean and extending inland along the Amur River. This report regards the three southernmost provinces within the region – Primorsky, Khabarovsky and the Jewish Autonomous Provinces.
- **Ussuri Taiga** – popular name for the temperate forest region in Primorsky, Khabarovsky and the Jewish Autonomous Provinces of Russia. The Ussuri Taiga is made up primarily of Korean pine-broadleaf and spruce-fir forests.
- **Valuable hardwoods** – in this report the term will refer to Mongolian oak (*Quercus mongolica*), Manchurian ash (*Fraxinus mandshurica*), Japanese elm (*Ulmus propinqua*), Amur linden (*Tilia amurensis*) and Manchurian linden (*T. manshurica*). These high-value species are the primary object of illegal logging in the southern portion of the Russian Far East

Introduction

Illegal logging of valuable hardwoods has reached crisis proportions in the Ussuri Taiga of the Russian Far East. Volumes of hardwoods many times exceeding Russian legal limits are being exported to China to feed massive domestic and global demand for cheap furniture and flooring. This demand has strained the region's unique forest ecosystems to the breaking point, with dire ecological, economic and social consequences:

- Exhaustion of timber supplies for the region's legal forest industry
- Undermining of traditional forest resource use by local people
- Degradation of unique forest ecosystems
- Degradation of Amur tiger habitat and food resources of its prey

It is difficult to precisely quantify the wood flows from the Russian Far East through China to western and Japanese markets. But import-export figures provide some indications of the scale. With limited volumes of available timber within country, China is strongly dependent on log imports for its

manufacturing sector.ⁱ In 2011 Russia supplied around 25 % of the roundwood and sawnwood exports to China. From the Far East alone were exported more than 260,000 cubic meters of valuable hardwood logs (oak, ash, elm, linden) and 447,000 cubic meters of sawnwood from these species. In turn, China exported \$9.4 billion of wood furniture (primarily made from hardwood species) and \$393 million of solid hardwood flooring to the US, EU and Japan in 2011.ⁱⁱ Thus, the value of wood products made from Russian Far East valuable hardwoods entering western markets is likely in the hundreds of millions of dollars.



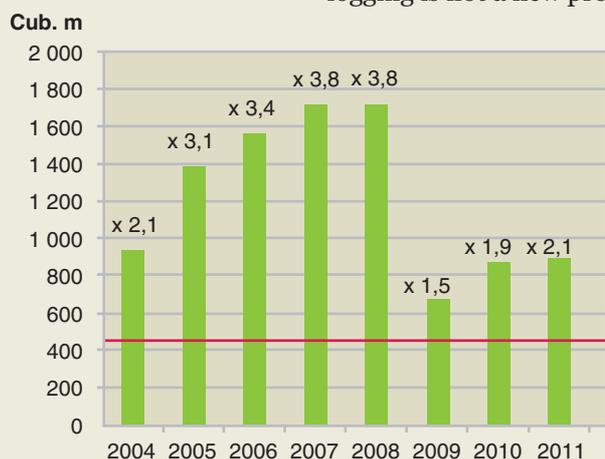
Illegal logging of old-growth oak timber on a commercial timber lease in Dalnerechensk County, Primorsky Province.

Illegal logging of Far Eastern hardwoods is not simply a widespread violation of the forest law – it is a entire parallel system, which far exceeds legal logging limits. These crimes are carried out by a variety of actors: “brigades” of local loggers that steal timber without any legal cover; forest leaseholders who conduct overlogging on permitted logging sites; logging companies that receive permission to conduct “intermediate logging” in unleased forests but use this opportunity log export quality timber in violation of forestry regulations and often above permitted volumes.

In 2010, the forest agencies of Primorsky and Khabarovsk Provinces authorized the logging of 452,213 m³ of Mongolian oak, the region's most valuable hardwood. From these two provinces 340,780 m³ of oak products (logs, boards, glued panels and veneer) were exported in 2010, mostly to China. But calculating the “roundwood equivalent” of these exported products shows that at least 905,702 m³ of oak timber would have to be logged to produce them, or **200 % the permitted volume. At least half the exported oak was stolen.** And customs data suggests that 2010 was not the worst year for illegal logging of oak. In 2007 and 2008, more

than 1,700,000 m³ of oak were logged for export according to calculation of roundwood equivalent. Assuming authorized logging levels similar to those of 2010, illegal logging of oak in those years could reach 400 %. A detailed analysis of data is included as in Appendix 1 of this report.

This was not the first analysis to show such shocking levels of valuable hardwood overlogging. A similar analysis conducted by WWF in 2001 showed that in that year the roundwood equivalent of exported oak, ash and elm from Primorsky Province exceeded the logging volume authorized by provincial authorities by 1.5–2 times.ⁱⁱⁱ According to data presented by representatives of the Primorsky Province Duma to the federal government, the permitted logging volume of Manchurian ash in their province in the period 1996–1999 declined from 272,000 m³ to 191,100 m³, while the actual exported volume rose from 267,000 to 363,000 m³.^{iv} It should be recalled that the latter figures show the export of high quality logs. The total volume harvested to produce these logs would be significantly higher. As visible in these figures, illegal logging is not a new problem for the Russian Far East.



Roundwood equivalent of exported oak products from Primorsky and Khabarovsk Provinces 2004–2010. The red bar shows the volume permitted for logging in 2010. Figures above the bars show how many times export volumes exceeded the legal harvest volume authorized in 2010. Table assumes that legal logging volumes remained approximately the same over the period.

The former head of the Primorsky Province Forest Management Agency, Pyotr Diuk, colorfully corroborated these statistics in a secretly filmed interview shown on the television expose “Dark Forest” in 2010. The director candidly described the scale of illegal logging in his province – “We’re supposed to cut about 200 thousand [m³] of oak, but we cut 800 or a million. Every year.” – Diuk predicted the oncoming exhaustion of the resource – “I want to say you, five [more] years and there’ll be no more oak here... Ash has 10 more years and that’s it”.^v He also warned that as hardwood stocks disappear in forests zoned for timber harvesting, logging pressure will only grow on so-called protective forests where logging has traditionally been limited – “That’s where the thieves work. And they’ll work there their whole lives.”^{vi}

WWF investigations confirm Mr. Diuk’s assessment of the critical situation with illegal logging in the Ussuri Taiga and the worsening outlook if this crisis is not addressed. The strong warnings put forward in 2001 and 2010, unfortunately, did not prompt the necessary changes. Precious little time remains to confront illegal logging before the unique ecological, economic and social wealth of the region’s forests will be irreparably damaged.

This report provides data on the extent of illegal logging in the Russian Far East, identifies the root problems that enable illegal logging and highlights them with selected cases studies, and offers recommendations for governments, companies and consumers which can all play a role in reducing the level of criminality in the Russian Far East forest sector.

The Law Enforcement Crisis

In the Russian Far East many forest management officials and police actively work to counteract illegal logging and the sale of stolen timber, as is demonstrated by examples shown in this report. But as this report will show, these efforts are insufficient to alter the basic reality: illegal logging remains largely uncontrolled, with severe consequences for the nature and economy of the Far East. The response of law enforcement to this crisis has proven ineffective.

The following problems have facilitated the criminalization of the forest sector in the Russian Far East:

- Low detection rates of illegal logging by forest rangers
- Abuse of loopholes in forestry legislation
- Poor investigations by police and extremely low rates of prosecution

Details about these problems including Case Studies are listed below.

Low detection rates of illegal logging by forest rangers

113,500 m³ of stolen timber were registered by forest rangers in Primorsky and Khabarovsk Provinces in 2010 according to data from the provincial forest agencies. Yet according to the comparison of permitted oak logging volumes and actual volumes logged for export (see Introduction) at least 451,300 m³ of Mongolian oak were stolen that year^{vii}. Thus, the volume of registered illegal logging in these two provinces may constitute only one quarter of the actual stolen volume of one tree species.

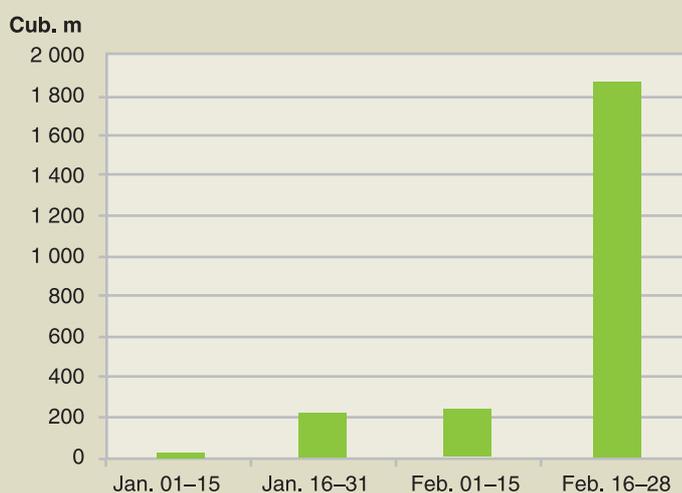
Independent investigations by many NGOs have demonstrated how much illegal logging goes undetected on the ground (Case 1). Frequently the extent of illegal logging only becomes evident when a fresh forest inventory is compiled for a timber lease (Case 2). There is evidence that provincial forest rangers often strongly underreport the volume of stolen timber at officially registered illegal logging sites (Case 3). Table 1 shows examples of such underreporting gathered by WWF over a nine year period.



Recording illegal logging in the riparian buffer of the Armu River, Primorsky Province.

CASE 1. Evidence of low rates of illegal logging detection by state foresters — Roschinskoe Forest Management Unit, Primorsky Province, February 2011

In February 2011, WWF specialists together with the vice-director of the Primorsky Province Forest Management Agency conducted an anti-illegal logging raid in the western portion of Roschinskoe Forest Management Unit (FMU). This state FMU is one of the most criminalized in the region: in the past ten years three directors have been removed for corruption related to illegal logging. In four days the WWF specialists and Agency vice-director detected 1,865 m³ of illegally logged oak and ash, or about 466 m³ per day. This volume constituted 78 % of all the timber theft registered in the FMU in the first two months of 2011. In contrast, the remaining volume in that period was detected by local forest rangers at an average rate of about 20 m³ per day. When working alone, state forest rangers detect illegal logging at a rate 23 times lower than when they work together with motivated stakeholders.



Detection of illegal logging in Roschinskoe FMU (Primorsky Province) January-February 2011. In the first three periods detection was conducted by forest rangers alone. In the last period it included participation of independent stakeholders (WWF specialists).

CASE 2. Koksharovka and Vostochnaya Pine Nut Harvesting Zones, Primorsky Province, 2009: New inventory reveals massive illegal logging

A fresh inventory of the Koksharovka pine nut harvesting zone in Primorsky Province conducted by state forest inventory specialists found that between 2000 and 2009 three times the area had been illegally logged (1779 ha) than had been legally harvested (533 ha)¹. In the Vostochnaya pine nut harvesting zone between 2005 and 2009, on average 728 ha had been authorized for logging each year but the average area actually harvested was 1591 ha. In addition, from each hectare on average 3 times more wood was removed than had been permitted, and in some cases as much as 13 times the legal volume was logged².

Species	Volume authorized to for logging (m ³)	Volume actually logged (m ³)	Illegal overcutting
Korean pine	290	3072	x 10,6
Manchurian ash	190	2592	x 13,6
Total (including 8 other species)	833	6528	x 7,8

Authorized versus actual timber volume harvested in forest block 9 of the Voctochnoe subunit in Vostochnaya Pine Nut Harvesting Zone in 2006.

¹ Federal enterprise "Roslesinforg-Dallesproekt". 2009. Forest management plan for lease of Production and Harvesting Base LLC in Chuguyevskoe forest management unit, Primorsky Province. Khabarovsk.

² Alekseenko, A.Y. 2009. Analysis of the quality and efficacy of forest management practices in the pine nut harvesting zone of Vostochnoe forest management subunit, Roschinskoe forest management unit, Primorsky Province in the last survey period. Far Eastern Forest Management Research Institute, Khabarovsk.

CASE 3. Dalnerechenskoe FMU, Primorsky Province, February 2012: Dramatic under-reporting of illegal log volume by provincial forest rangers

In February 2012, a WWF forest specialist detected large scale illegal logging in the basin of the Soldatskiy River (Dalnerechenskoe FMU) which had been conducted throughout the winter. He estimated that 2,000 m³ of elm, ash and linden timber had been stolen. This information was communicated to the Primorsky Province Forest Management Agency. From local residents the specialist learned that the crime had already been registered, but only 147 m³ of stolen timber had been recorded.

Over the next three months, WWF made multiple official requests for a full investigation. The Primorsky Province Forest Management Agency continuously delayed its official investigation, but eventually responded when it learned that the provincial prosecutor would become involved. The delay held off the investigation until mid-May when the spring thaw had made most of the area impassable. Still, a portion of the logging site could be measured and the registered volume of stolen timber increased **fivefold**.

This case does not represent an isolated example of underreporting by provincial forest rangers. A number of other examples detected by WWF demonstrate the systematic nature of this problem (Tab. 1, below).



Date of detection	Location of illegal logging	Volume of illegal logging (m ³)	Volume as reported by officials (m ³)
04.11.2001	Blocks 85,103 Novopokrovskoe forest management subunit	3 697	369
24.09.2002	Block 96 Martinovo-Polyanskoe forest management subunit	1 315	77
15.01.2004	Block 29 Novopokrovskoe forest management subunit	240	5,46
23.01.2009	Locks 84–95 Pozharskoe forest management subunit	5 000	0
30.04.2010	Blocks 290,302 Vostochnoe forest management subunit	>1 000	0
26.04.2010	Blocks 216,217 Tayozhnoe forest management subunit	250	0
24.08.2010	Block 454 Tayozhnoe forest management subunit	50 (Korean pine)	5 (reported as fir)

Table 1. Sample of illegal logging sites on which volume of stolen timber was underestimated by provincial forest rangers. Actual volume determined with participation of WWF specialists.

Abuse of loopholes in forestry legislation

A significant proportion of timber theft occurs on authorized logging sites, in the form of logging above permitted levels and logging of export quality timber in the place of low-quality trees authorized for harvest. Such abuses are particularly common during “intermediate logging” and “sanitary logging”, forestry practices intended to improve forest health by removing sick, dying and poorly-formed trees that inhibit the growth of healthy individuals. But according to the results of a federal investigation into the forest management in Primorsky Province, “during the conducting of such logging most of the trees removed are valuable species (ash, oak, spruce and others) while those trees requiring removal (dead, damaged, slow-growing, etc.) are left on the harvest site”.^{viii} Because these logging types can be conducted in “protective” forests where commercial logging is officially restricted (riparian buffers, pine nut harvesting zones, some wildlife reserves), intermediate and sanitary logging have become a huge loophole for harvesting valuable hardwoods.

The most active user of the intermediate logging loophole is the Primorsky Province State Logging Enterprise, a branch of the provincial forest agency. The Enterprise is tasked with conducting intermediate logging in protective forests not given out under lease. Under the guise of such “forest tending” this organization logs over 500,000 m³ of valuable timber annually, making it one of the largest timber harvesters in the province. The behavior of the State Logging Enterprise is well explained by two provincial foresters in an open letter to the regional Governor (Case 4).

CASE 4. Illegal logging under the guise of intermediate harvesting

In March 2012, senior forest rangers of the Dalnerechenskoe and Chuguyevskoe Forest Management Units sent an open letter to the Governor of Primorsky Province requesting that he address egregious violations by the Primorsky Province State Logging Enterprise:

“Sustainable forest management is implemented only on paper, while in fact under the protection of the State Enterprise barbaric harvesting of high value species is carried out. Under the guise of tending operations only the highest value commercial timber is extracted. Forests that actually require tending are ignored entirely. The existence of State Enterprise ‘Primorskoe Forest Management Association’ creates a loophole for the Forest Management Agency of Primorsky Province to harvest timber, which comprises one of the primary channels of illegal wood in the province.

...Logging is carried out by subcontractors to the State Enterprise, and they are given the right to carry out numerous violations, most importantly – the right to conduct illegal timber harvests, cutting much greater volumes than are authorized in the auction documents. In becoming a subcontractor to the State Enterprise, a company receives not only volume on the stump, but immunity from law enforcement agencies.”



The systematic abuse of intermediate logging by the Primorsky Province State Logging Enterprise is not atypical for the region. In 2010, this dubious practice resulted in the logging of 3.5 million cubic meters from leased and unleased forests of the Russian Far East. The Far Eastern Forest Management Research Institute estimates that 90–95 % of these harvests were conducted in violation of forestry regulations and actually should be classified as “commercial logging for extraction of high-value timber^{ix}.”

Investigations between 2008 and 2012 confirmed systematic forest law violations during the conducting of intermediate and sanitary logging:

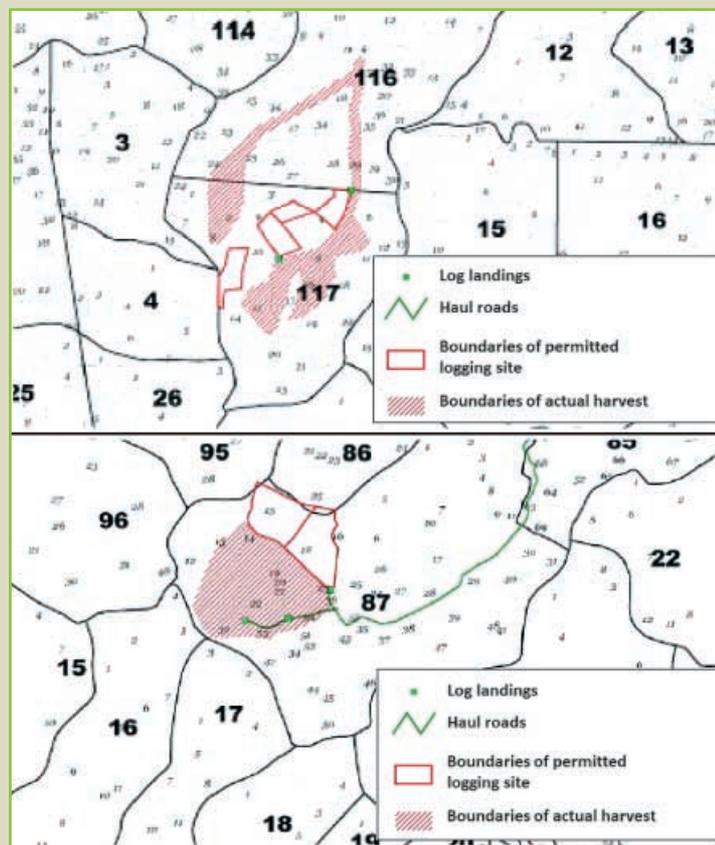
- Logging outside permitted harvest sites (Case 5);
- Overlogging of valuable timber species by as much as 400 % the permitted volume (Case 6);
- Harvesting of high-quality sawtimber instead of the poorly-formed trees authorized for harvesting (Case 6 and 7);

Intermediate and sanitary logging are not the only originally worthwhile forestry regulations to be subverted for the purpose of illegal logging. The authorization of timber harvest for the needs of local communities (firewood and building materials) serves as a similar loophole to steal export-quality sawtimber. Rogue logging brigades obtain the rights to harvest nearby forests to supply the needs of villages, but use this legal cover to conduct commercial logging in remote forests

CASE 5. Subcontractor immunity: Hunting for the “best” logging sites

Boundaries of permitted logging sites are regularly ignored by the State Enterprise and its subcontractors. In winter 2008–2009, WWF inspected logging sites in Kluchevskoe forest management subunit (Dalnerechenskoe FMU) and Pozharskoe forest management subunit (Verkhne-Perevalnenskoe FMU). On-the-ground investigations showed that in the first case not only the permitted harvest sites were logged, but also, with no legal basis whatsoever, a larger area covering the floodplains of two adjacent streams. In the second case, logging was found to have occurred 100 % outside of the permitted areas. The loggers appear to have simply gone “hunting” for the best logging site, and took what timber they saw fit from public forest lands.

Illegal logging by State Enterprise subcontractors outside the boundaries of authorized logging sites in Kluchevskoe (top) and Pozharskoe (bottom) forest management subunits in Primorsky Province. Solid red lines show the authorized boundaries, red crosshatching shows the actual logging sites.



CASE 6. “Forest tending” in a key tiger reserve: Overlogging of valuable timber up to 4 times

The Tayozhniy wildlife reserve was established in 1978 to protect the most productive tiger breeding grounds in Primorsky Province. The reserve’s management regime is strict, stating that “silvicultural activities with the goal of timber harvest are forbidden”. But the regime permits so-called “intermediate logging” to maintain forest health and logging to provide firewood to villagers. This loophole allows authorities to give loggers access to forests within the reserve that are then logged for export-quality timber.

In 2009–2010, the Primorsky Province State Logging Enterprise authorized such logging inside the reserve (forest block 231, 240 and 241 Dalnekutskoe forest management subunit) and sold the rights to three subcontractors. During the preparation and harvesting the following violations took place, according to investigations by forest rangers and game wardens together with WWF specialists:

- Logging was authorized in forest stands which according to forestry regulations were not in need of “tending”.
- Only large, high quality oak, ash and Korean pine were marked for logging, rather than the dead, dying and poorly-formed trees stipulated for cutting under these logging types.
- Two of the subcontractors exceeded the permitted logging volumes for oak, ash, spruce and pine by 4.2 times.

The baldly commercial nature of this logging is typical of “intermediate harvesting” in the region. Experts of the Far Eastern Forest Management Research Institute estimate that 90% of intermediate harvesting is oriented not on improving forest health but on producing valuable timber for sale.

Species	Permitted Volume, m ³	Harvested Volume, m ³	Overharvest
Mongolian oak	63	174	x 2,7
Korean pine	65	442	x 6,8
Manchurian ash	114	396	x 3,4
Ayan spruce	82	344	x 4,2
Total	324	1 355	x 4,2

Volume permitted for harvest in stand 1, forest block 231, Dalnekutskoe forest management subunit, Roschinskoe forest management unit and volume harvested by a State Logging Enterprise subcontractor in winter 2008–2009.



Export quality hardwood cut under the guise of “firewood for the local population” in the Tayozhniy Wildlife Reserve. Detailed in Case 6.



In violation of forestry regulations, prime oaks were authorized for harvest instead of dead, dying and damaged trees. Tayozhniy Wildlife Reserve.

and in protected areas (Case 6). Such abuses of “logging for the needs of the local population” take place at a time when many villages in remote areas face an acute shortage of firewood. In 2010, while thousands of cubic meters of export-quality wood were harvested in the Ussuri Taiga under the guise of “local needs” the residents of Ariadne village had to burn old tires to heat their schoolhouse.

In response to these practices, the Far Eastern Scientific Research Institute of Forest Management recommended banning “intermediate logging” in stands older than 90 years^x and the federal government has proposed banning the sale of “wood harvested for personal use”^{xii}. Until these worthwhile propositions are implemented, the degradation of protective forests will continue.

CASE 7. Avanskoe FMU, Khabarovsk Province: detection of illegal logging under the guise of sanitary logging

In December 2012 the control division of the Khabarovsk Province Forest Agency and the Khabarovsk Province branch of the Interior Department (police) conducted a joint operation against illegal logging. WWF specialists took part as invited experts. During the operation the group investigated so-called selective sanitary logging on the territory of a forest leaseholder in Avanskoe FMU. The leaseholder had received permission to remove dead, dying and poorly-formed trees on the harvest site.

The forest rangers and WWF specialists determined that in place of the low quality material permitted for harvest only large, export-quality trees were logged. Investigation revealed that the loggers had themselves selected the trees for harvest, at the orders of their superiors. On one logging site the specialists even observed a group of men, believed to be employees of the leaseholder, marking already-logged stumps with paint to create the impression that they had been permitted for logging. Besides these violations, it was determined that the loggers had exceeded the legal logging volume.

The damages incurred from the illegal activity were registered at 14 million rubles. Four criminal cases were opened based on the observed violations under Article 260, part 4 of the Russian Criminal Code (illegal logging of forest stands).



Commercial logging of commercial timber under the guise of sanitary logging: left An example of unhealthy trees which should in the first order be removed during sanitary logging, but which were left standing on the logging sites. Right An example of high-quality oak and linden which was logged instead.

**Ineffective
investigations
by police —
lack of prosecution
by the courts**

Despite the poor detection rates described above hundreds of forest violations are registered each year, due in large part to the work of forest rangers that have maintained their commitment to the law. For instance, specialists of the Primorsky Krai Forest Management Agency registered 691 cases of illegal logging in 2011.

But of the violations registered in 2011 only 16% made it to a trial, the lowest figure in the past 10 years. The picture in individual regions is even more alarming – in Dalnerechensk County (long a center for illegal logging) only 6 % of the registered cases made it to trial. These figures are especially poor considering that in half of the cases the identity of the perpetrator had been determined.

In the rare cases of prosecution, punishment is given almost exclusively to small-scale violators. 66 % of sentences for illegal logging are carried out against perpetrators who harvested less than 10 m³ of timber, and only 8 % of sentences involve violations that exceed the average volume of an illegal harvest in the Far East – 90 m³^{xii}. To the knowledge of WWF, only a single case of large-scale illegal logging (greater than 1000 m³) has ever been tried in Primorsky Province despite the regular registration of such crimes. In 2005 the Russian president's representative in the Far Eastern federal district observed that "...law enforcement agencies show their inability to combat the lawlessness in the forest sector. They process criminal cases only against poachers and small traders, and not against the serious networks of forest thieves."^{xiii}

This unjust situation is common to many countries wracked by corruption and illegal logging. A World Bank report on global timber theft published in 2012 noted that "a misplaced focus on low-level criminals engaged in illegal logging... undermines the credibility of forest law enforcement by ignoring the organizations and 'masterminds' in control of the illegal activity. It also misleads the public by suggesting that concrete action is taking place—while, in fact, the powerful masterminds behind illegal logging operations remain protected".^{xiv}

This adequately describes the situation in the Russian Far East. According to Russian experts^{xv} and high ranking officials such as the president's representative and prosecutor general of the Far East region^{xvi}, corruption within public agencies plays a role in the low levels of prosecution of illegal logging. There are also more pragmatic causes: limited knowledge of and experience with forest regulations amongst law enforcement agencies; the absence of some effective methods for illegal logging detection from official procedures (such as the comparison of stump and log shapes, shown in Case 8) and premature closing of cases due to serious mistakes and irregularities during investigations (Case 9).

CASE 8. Taking sawmills to account for the purchase of illegal timber

Small, fly-by-night sawmills and log yards operated by Chinese citizens play a key role in the trade of illegal timber in the Russian Far east. These operations are typically located on the outskirts of remote villages and engage in the purchase of high-risk timber from local logging brigades. These enterprises are believed to have benefactors in the form of large Russian timber leaseholders who supply forest declarations that the mill managers. Such documents can be presented to law enforcement officials in the case of a raid on the mill as “proof” of the legal origin on purchased wood.

Dalnerechensk County sported 13 such sawmills, with 5 in the village of Malinovo alone. In 2011 local residents raised the alarm that valuable hardwoods were being illegally logged in nearby forests and sold to mills in the villages of Malinovo and Ariadnoe. In response official investigations were launched by the local branch of the Internal Affairs Ministry (police) while WWF specialists initiated an informal investigation as well.

The police officers reviewed the documentation offered by the mill owners, which formally appeared to cover the log volumes contained in the yards. The officers made no attempt to check the authenticity of these documents, which showed that the wood originated more than 200 km from forest leaseholders that have their own processing facilities.

At the same time WWF specialists proved the purchase of illegal timber by comparing the shape of stumps on illegal logging sites with the shape of butt logs in the mill yards (see examples below). But this method is not included in official police protocols, and so in the beginning officers were reluctant to accept the results as evidence. As a result, in many cases the chance was lost to disrupt illegal wood sale at its most sensitive “bottleneck” – the mill yard.

But as is visible in Table 2, after a number of cases law enforcement officials recognized the validity of the method and began accepting its results as evidence. The gradual introduction of this method is also occurring in Khabarovsk Province, where in 2012 and 2013 police officers twice accepted as evidence in criminal cases matches in form between stumps on illegal logging sites and butt logs in mill yards. This is an example of the productive role that non-governmental organizations can play in aiding law enforcement in its struggle with illegal logging and the sale of stolen timber.



Two example of “matches” between logging residue on illegal logging sites in Pozhiginskoe forest management subunit and butt logs in the yard of a sawmill in Ariadnoe village.



Location and date of illegal logging	Volume stolen, m ³	Evidence observed by forest rangers and WWF specialists	Reaction of police
16 forest blocks in Zimnikovskoe subunit, 20 km to south of Malinovo (Jan-March 2011)	3 730	Rutted logging road from area of illegal logging to neighborhood of Malinovo where mill is located	Perfunctory check of timber harvest authorization documents at mill; officers declined to compare logs in the millyard to stumps and allowed logs to be milled
Block 63, Pozhiginskoe subunit (July 2011)	69	Photographs of stumps from logging site matched to log butts in millyard in Ariadnoe; overgrown branch stub found on logging site matched to log in yard	Perfunctory check of timber harvest documents at mill in May; seized one pile of logs in July after link to illegal logging proven by rangers and WWF
Block 41, Pozhiginskoe subunit and block 93, Zimnikovskoe subunit (October 2011)	476	Photographs of stumps from logging site matched to log butts in millyard in Malinovo	Criminal case opened for illegal logging, but officers declined to compare logs to stumps and allowed logs to be milled
Blocks 62 and 63, Pozhiginskoe subunit (December 2011)	61	Photographs of stumps from logging site matched to log butts in millyard in Ariadnoe	Seized 400 m ³ of wood from millyard on basis of evidence collected by WWF

Table 2. Investigation of illegal logging and wood purchasing in Dalnerechenskoe FMU (Primorsky Province) by police officers and WWF specialists.

CASE 9. Industrial scale illegal logging in protective forests goes unpunished

In the winter of 2009–2010 the Primorsky Province State Logging Enterprise authorized three subcontractors to carry out intermediate logging in the riparian buffer of the Armu River. In this period massive overlogging of valuable hardwoods and Korean pine took place on all the authorized logging sites and large volumes of pine timber were stolen from nearby leased forestlands. As a result, some of the finest virgin riparian forests left in the province were subjected to severe degradation.



Investigation of the subcontractor logging sites by WWF revealed that shocking overharvest had taken place. On the logging site of **the first company 6.5 times more Korean pine was harvested than was authorized (635 m³ instead of 98 m³)**. On the site of the second Korean pine was overlogged by two times and ash by 4.2 times. On the third site Korean pine was overlogged by 2.7 times and elm by 8.4 times.

Besides these glaring violations on the authorized logging sites, a 3-kilometer logging road was illegally constructed through the territory of the neighboring forest leaseholder, along which more than 500 m³ of Korean

pine was stolen. A skid road led from this illegal logging site to the same log landing where the subcontractors worked. In addition, satellite monitoring of illegal logging by the Federal Forest Service revealed a further five illegal logging sites in close proximity.

WWF specialists provided information about all the violations to the Krasnoarmeisky County branch of the Internal Affairs Agency (police). Based on this information two cases were opened in May 2010 under article 260, part 3 of the Russian Criminal Code (illegal harvest of timber), and a further 5 cases were opened in November 2010.

In the course of official investigations testimony was received from witnesses about the illegal construction of the forest road and the choosing of trees for harvest by the loggers themselves, which directly contradicts forest law. There was even testimony about the post facto marking of cut stumps by loggers in order to create the impression that those trees had been marked by foresters for harvest.

But even in the presence of such evidence no suspects were identified by the authorities. All the cases were closed on several occasions, and only reopened after numerous official appeals from WWF. What is more, the following serious irregularities were carried out during the official investigations:

- Forest rangers incorrectly identified the forest stands in which the illegal logging took place. This might have been a deliberate attempt to confuse the investigation and set it off course;
- A number of illegal logging sites detected by satellite monitoring and WWF investigations were simply excluded from the materials;
- The volume and area of one illegal logging site were reduced by at least two times;
- None of the illegal overlogging purportedly conducted by State Logging Enterprise subcontractors was investigated. Because of this omission the vast majority of timber theft was ignored; the illegally logged volume of one species (Korean pine) on one subcontractor logging site – 555 m³ – exceeded the total volume from the five logging sites included in the cases.
- In the final report justifying the closing of the cases, no mention was made of witness testimony about illegal road construction or the illegal selection of trees for harvest by subcontractor loggers.



Three years after the conducting of massive illegal logging in the riparian buffer of the Armu River not a single guilty party has been brought to justice. At present WWF has no information about whether and when official investigations will be resumed.

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The Consequences of Illegal Logging

Exhaustion of timber supplies for legal forest industry and increasing pressure on protective forests

Twenty years of uncontrolled illegal logging is leading to the exhaustion of a hardwood resource that should have supplied forest industry indefinitely. Ecologists^{xvii} and timber companies^{xviii} agree that large swathes of forests have been emptied out of commercial timber for the foreseeable future and that far less commercial timber remains than provincial government agencies choose to acknowledge. As the former director of the Primorsky Province Forest Management Agency put it, *“It’s all a matter of overestimation. Let’s say that today according to the documents some volume of oak grows in the forest. Then somebody comes and cuts all the oak, not paying much attention to the law. That is, they were allowed to cut ten thousand, but they cut 50 thousand instead. That is – all of it. According to the documents the oak is still there, but in reality there’s just stumps. If today you see an unleased parcel, that means everybody else turned it down because it’s already been totally tapped out”*.^{xix}



Illegal logging of elm in protective forests (riparian buffer of the Soldatskiy River, Primorsky Province)

In a recent example, one of the last unleased parcels of exploitation forests in Primorsky Province was offered to a major regional timber company for lease. According to official forest inventory, it would be possible to harvest on average 0.40 m³ of timber from each hectare each year. In considering whether to take this parcel under lease, the timber company decided to order a fresh inventory of timber volumes there. The inventory revealed that in fact, actual standing volume could only support the harvest of 0.15 m³ per ha per year. Unreported illegal logging had lowered commercial timber volumes by 2.6 times.

As a result of the exhaustion of exploitation forests, pressure has been increasing on “protective forests” like riparian buffers, wildlife reserves and pine nut harvesting zones in which industrial timber harvesting is prohibited. A favorite loophole for accessing the valuable timber stocks in these forests is the organization of semi-legal or outright illegal “intermediate logging,” which can take place in unleased forests (see the section The Law Enforcement Crisis). But a shocking number of these forests have been directly given out under industrial timber lease, including 58 % of the forest buffers along salmon breeding rivers of Primorsky Province. A federal investigation into forest use in Primorsky Province in 2012 deemed the leasing of protective forests for commercial logging a direct violation of forest law, and also highlighted the systematic law violations that take place during intermediate logging in these forests.^{xx}

The push by loggers (whether legal or illegal) to open these protective forests is increasing tensions with civil society, local residents and indigenous peoples



Udege hunters in the middle reaches of the Bikin

who wish to maintain the unique ecological and social value of these forests. Four times in the past decade timber companies have tried to acquire leases for the protective riparian forests of the Bikin River and the surrounding pine nut harvesting zone. They form the largest tract of old-growth mixed temperate forests in the world and are a candidate UNESCO World Heritage Site. Only loud public campaigns and appeals by indigenous peoples to Moscow to protect their traditional rights have held off these attempts to open the Bikin to logging.

Undermining of traditional taiga resource use

The ever accelerating illegal logging of nut-bearing and pollinating species has become a serious threat to the livelihood available in many remote taiga villages. Pine nut harvesting, hunting, sable trapping and forest beekeeping generate essential income for villagers. In contrast to these centuries-old traditions of resource use, rampant illegal logging can lead to the “tapping out” of a region in a few short decades. Left are degraded forests with much fewer resources to support the villagers’ traditional livelihoods.



One of the organizers of the “Pine Nut Uprising” in Ariadnoe, Primorsky Province

For 15 years, the theft of prime Korean pine timber for short term profit systematically reduced the nut supply in remote villages with sad consequences for people and nature. It led to a popular movement for the protection of Korean pine, manifested in such events as the “Pine Nut Uprising” in Ariadnoe when residents began actively patrolling and disrupting illegal logging around their village. As one resident put it, “We kept quiet when they cut the oak and ash, because we understood that there will always be some logging... But now, it seems, the oak and ash are ending and they’ve come for the Korean pine and linden. Usually we just take it, but pine – that’s our limit. We’re fed up.”^{xxi}

The movement eventually achieved its goal with the banning of Korean pine logging in 2010. But the theft of other species continues. Conflicts are escalating in rural counties between forest beekeepers and loggers over the harvest of the prime honey tree of the Ussuri Taiga – linden. Formal and

Beekeepers on a forest “pasika” (apiary), and illegal logging of Amur linden in close proximity to a taiga village. Dalnerechensk County, Primorsky Province.



traditional “no-cut” zones around forest apiaries are regularly violated by illegal loggers, who are feeding the huge demand for linden logs from Chinese buyers.

Degradation of habitat and prey resources of the endangered Amur tiger

Illegal loggers primarily target Korean pine-broadleaf and floodplain forests. Such forests are prime habitats for the Amur tiger, the population of which is around 450 individuals in the wild. The widespread illegal logging of mature Korean pine and Mongolian oak in these forests reduces the food supply of pine nuts and acorns for the tiger’s most important prey, wild boars and red deer^{xxii, xxiii}. Russian Prime Minister Vladimir Putin responded to this issue when he supported a total ban on Korean pine logging in 2010. While the Korean pine is now set for recovery, the rampant theft of mature oak trees

from key tiger habitats continues unabated. This has generated resistance amongst local hunters, who see the disappearance of mature oak from Korean pine-broadleaf forests as one of the factors behind sharp declines in regional ungulate populations.^{xxiv}

Roads built for illegal logging create access to previously undeveloped, inaccessible forest massifs, which play an essential role as tiger population “core areas”. Core areas can replenish the tiger populations in surrounding degraded forests with greater levels of hunting pressure and habitat transformation.^{xxv} The illegal logging roads are immediately used by poachers as they allow them to penetrate into new forests with higher densities of tigers and their prey. Multi-year studies in the region show a strong negative influence of roads on female tiger and cub survival.^{xxvi}

The threats to Far Eastern biodiversity from illegal logging extend far beyond the oak-ungulate-tiger food chain. Encroachment of logging into riparian forests threatens endangered bird species (such as Blackinston’s fish owl (*Bubo blakistoni*), the world’s largest owl) that nest in the cavities of massive poplar, elm and ash trees. Multiple waves

of illegal logging have undone the rich vegetative mosaic of many Korean pine-broadleaf forests, Russia’s most biodiverse forest type and habitat for numerous rare plant species including Asia’s last population of wild ginseng.



CASE 9. Roschinskoe FMU, Primorsky Province. Connections between illegal logging and wildlife poaching

During an investigation of illegal logging sites in Roschinskoe FMU in 2010, provincial game wardens came across a local man along the side of a forest road near an illegal logging site. He was equipped with a walky-talky and admitted to being a “kukuskha” (cuckoo bird), slang for a person who warns nearby illegal logging crews about the arrival of law enforcement officials. A vehicle soon approached, and when the game wardens stopped it they found another walky-talky set and a rucksack containing eight freshly severed paws and internal organs from Himalayan bears. The driver admitted to having illegally shot two bears in their den tree near the illegal logging site, in order to sell derivatives from the animals to buyers for the lucrative Chinese traditional medicine trade. Upon inspection of the illegal logging site the game wardens identified the den tree and found two orphaned bear cubs inside, which they handed over to a wildlife rehabilitation center.



Poached Himalayan bear paws and internal organs recovered from the vehicle of an illegal logger.



Provincial forest ranger with orphaned bear cubs recovered from illegal logging site. Krasnoarmeisky County, Primorsky Province.

Solving the Crisis : Recommendations for combatting illegality in forests of the Russian Far East

This report has demonstrated the breakdown of the forest management system in the Russian Far East and the development of a criminalized regime that exports up to 200–400 %^{xxvii} the legal volume of hardwoods to China. Western importers and Chinese consumers have become dependent on these illegal and unsustainable wood streams for suppliers of inexpensive flooring and furniture. This poses two significant risks for such purchasers: (1) liability under US and EU laws for trading and purchasing illegally sourced wood products, and (2) supply chain risk due to dependence on rapidly disappearing Russian hardwood supplies.

Recommendation: Improved law enforcement

The Russian federal government and provincial administrations must re-establish control over forests in the Far East by:

1. Regular patrolling of criminalized forest regions

An important step towards restoring control is the establishment of mobile teams composed of representatives from various law enforcement agencies and independent stakeholders to conduct frequent, unannounced illegal logging raids. These teams should have access to regularly-updated high resolution satellite images and communications equipment linked to a central command. Such a structure has several advantages:

- Mobile groups are less susceptible to intimidation and personal pressure than local forest rangers, who often live in the same villages as the illegal loggers they are meant to control.



- Teams composed of various agencies makes it difficult for illegal loggers and their bosses to “come to an understanding” with individual officials.
- Secret raids by well-prepared teams greatly increase the perception of risk and uncertainty amongst illegal loggers and their customers.
- As is shown in Cases 1, 7 and 11, the participation of motivated and well qualified specialists from NGOs in illegal logging investigations can significantly increase their efficacy.

CASE 11. Successful experience with joint illegal logging raids

In June, 2012 rangers from the Khabarovsk Province Forest Agency, Internal Affairs officers from Lazo and Vyazemsky Counties and specialists from WWF Russia conducted two mobile illegal logging raids in the south of the province. This example demonstrates the significant results possible from such joint raids:

- **June 1, 2012:** 320 m³ of stolen yellow birch and ash timber registered adjacent to authorized logging site of leaseholder
- **June 4, 2012:** Illegal logging of linden and oak observed on different timber lease. Truckdriver showed authorizing documents for a different part of the leased area that were being used to “mask” movement of illegal wood. 56 m³ of stolen linden, ash, oak and elm registered.
- **June 5, 2012:** 122 m³ of stolen linden and oak registered on same timber lease. Illegal logging site located at end of dead-end forest road that runs through leaseholder’s logging camp. In course of June 4–5 observed that leaseholder has not harvested any of authorized logging sites, only illegal sites.
- **June 6, 2012:** Team conducts audit of third leaseholder. On first day illegal log yard found in forest with leaseholder’s logging crew parked 2 km away on the road. Logging supervisor claims they are on fishing trip. 36 m³ of illegal logged oak and ash logs registered in the yard. Audit team also inspects leaseholder’s authorized logging site. Crew claims to have started logging only two days ago, site only 20 % logged. But logging of linden timber already exceeds authorized volume for whole site.
- **June 8, 2012:** Team searches for another authorized logging site, finds it has not been cut but registers a large illegal logging site nearby. 362 m³ of stolen spruce timber.
- **June 18–19, 2012:** Team responds to tip-off about illegal logging near border of Khabarovsk and Primorsky Provinces. The illegal logging of 277 m³ of prime oak and ash timber is registered. WWF specialists successfully match stumps on illegal logging site to logs stacked at a purchasing yard in nearby Vyazemsky. On the basis of this evidence the logs were seized.

2. Open access to all logging authorization documents

Forest declarations” identify leaseholders of public forestland, list the volumes of timber they are permitted to harvest and the show location of their authorized logging sites. These documents are essential for all activities connected to illegal logging detection or legality confirmation. Yet with dubious legal justification forest agencies treat these documents as semi-classified and provide them only through personal connections or after extensive official requests. As a result, local residents cannot receive information about timber harvesting authorized in surrounding public forests and are more or less powerless to conduct any form of citizen oversight.

In 2011, a bill was introduced to the Duma (Russian parliament) “On government regulation of roundwood trade” with the intention of improving oversight of timber harvesting and transport. This bill proposes the creation of an online database of forest declarations and open access to these documents for all Russian citizens. The bill also requires that timber sale agreements and wood transport documents provide information about the origin of the wood in the form of the forest declaration number. If passed, this bill would significantly improve the ability of law enforcement officials to audit the legality of wood sold on the open market.

This report has shown the critical role that civil society can play in improving detection and prevention of illegal logging. Free, open access to all timber harvest authorization documents is essential for enabling local residents and non-governmental organizations to participate more fully in the sustainable management of public timberlands.

3. Comprehensive re-assessment of valuable hardwood stocks

Highly inaccurate official government forest inventory data allow forestry officials to authorize unsustainable levels of timber harvesting and ignore true levels of illegal logging.



We propose re-assessment of the region's hardwood stocks by conducting professional forest inventory on selected, representative territories throughout Primorsky, Khabarovsk and the Jewish Autonomous Provinces. Should these surveys reveal significant differences to existing government forest inventory records, they could be used to adjust the annual allowable cut of valuable species across the region and in specific forest management units. It is critical to issue a moratorium on valuable hardwood exports until inventories have been obtained and the annual allowable cut has been readjusted.

4. Holding forest leaseholders responsible for timely reporting of illegal logging on their territories

It is highly unlikely that forest leaseholders are unaware of large-scale illegal logging occurring on their territory. The constant movement of heavy equipment and fully loaded timber trucks to depots and saw mills, and dozens of people living in camps supplied from local villages for many weeks and months will be noticed. It is widely believed that leaseholders regularly permit outsiders or their own crews to illegally log their territories in exchange for part of the proceeds or a cut of the stolen timber. They thus gain access to timber on their territory that they have no legal right to harvest while shielding themselves from legal liability.

Leaseholders should be held responsible for the timely detection and reporting of all illegal logging on their territory. Should forest rangers discover unreported illegal logging on a leaseholder's territory, that company would be held liable and fined in accordance with the scale of the violation, and have its annual permitted harvest adjusted downward by the stolen volume. This would eliminate the incentive for leaseholders to steal from their own territory and instead would establish an incentive to protect their leases from genuine intruders.

5. Closing the “intermediate logging” loophole

Well-meaning regulations on “intermediate logging”, designed to keep forests healthy and stimulate the growth of valuable timber, have become an important loophole for gaining access to valuable timber stocks in protective forests. As a result, hundreds of thousands of cubic meters of export-quality

hardwood are logged in place of the dying and poorly formed trees intended for removal.

We propose the immediate enactment of the proposal of the Far Eastern Forest Management Research Institute to ban intermediate harvesting in forest stands older than 90 years.^{xxviii}

**Recommendation:
Improved
international
coordination between
governments**

1. Coordination between Russian and Chinese governments

The Chinese and Russian federal governments should coordinate their various documentation systems for the movement of wood products, so that a clear paperwork “chain of custody” extending from the Russian supplier across the border to China and onward to furniture and flooring manufacturers is maintained. The passage of the proposed law “On government regulation of roundwood trade” in Russia would greatly improve the rigor of this paperwork chain on the Russian side; linking this documentation to import and transport documents on the Chinese side would create an unprecedented level of transparency and traceability. The existence of such a chain is critical for Chinese manufacturers that must provide information to EU and US customers, who are obligated to conduct due diligence on the origin of imported products.

2. Coordination between Russia and other importing country governments

Governments of importing countries such as China, Japan, US and EU member states should strengthen implementation and enforcement of laws against import of illegal wood, such as the US Lacey Act and the EU Timber Regulations.

**Recommendation:
Reducing demand
for illegal timber**

Global companies have a critical stake in the illegal logging crisis in the Russian Far East. The fact that that Chinese-made oak, ash, elm and linden wood products has a high risk of containing illegal Russian timber has been publicized by western NGOs for years^{xxix, xxx}. North American, European and Japanese companies who have still been buying hardwood products could face legal risks related to the Lacey Act, EU Timber Regulation and other laws and policies that address illegal wood sourcing. Demand for inexpensive hardwood furniture and flooring far outstrips legal supplies from Russia, so companies can also face risks of diminishing supply for their products. Until logging levels are brought under control and stronger Russian forest governance is established, even “legal” hardwood from the region cannot be considered entirely sustainable. For global companies that wish to be compliant with their countries’ laws and offer their customers responsibly sourced products, there are only three options:

1. Purchase products made from wood certified under the Forest Stewardship Council (FSC)

Companies that purchase Chinese-made hardwood furniture and flooring from Russian Far East oak, ash, elm or linden should limit their purchases

to products certified under the international Forest Stewardship Council (FSC) standards. FSC-certified manufacturers must develop chain of custody systems, undergo regular audits and promptly respond to stakeholder concerns. These requirements provide reasonable assurance about the legality of these wood sources. However, the supply of FSC-certified oak, ash, elm and linden is very limited in the Russian Far East and can meet the demands of only a small proportion of buyers. Greater demand from importers could stimulate further certification in the region, but until then this option will be limited.

2. Establish rigorous legality confirmation systems that include field verification and the participation of 3rd party auditors and Russian stakeholders

Companies that insist on buying Chinese-made hardwood products and cannot find FSC-certified supplies must establish their own rigorous legality auditing systems.

As a first step, it is essential for importers of any oak, ash, elm or linden products from China to demand greater clarity about the species and country of origin. This is important, as suppliers often identify only the genus (for instance, oak) and not the species (Mongolian oak). In this way, high-risk Russian Far Eastern timber can be mixed into lower-risk supplies from other regions without this being clear. Even if the species is identified, the same valuable hardwoods species grow in Northeast China and are often labeled as being of Chinese origin. Importers should avoid any timber for which the species and country of origin cannot be confirmed.

Should it be revealed that hardwood was sourced from the Russian Far East, the following steps should be taken to confirm legality:

a. Request and thoroughly check logging authorization documents.

Request Russian timber harvesting authorization documents from Chinese suppliers.

- i.** If suppliers cannot provide these documents, no legality confirmation is possible and the supplier should be dropped immediately.
- ii.** If suppliers provide these documents they need to be thoroughly checked by professionals qualified to identify violations. WWF investigations found that such documents are regularly forged, falsified or misused (i.e. legitimate documents issued for one single shipment are used multiple times to accompany shipments of illegal wood).

b. Confirm authenticity of documents through field audits.

Once documentation has been received and reviewed, an independent audit of a sample of the logging sites identified in the documents should be organized. The documentation provides the location, boundaries, volume and composition of authorized logging. Site visits are essential to reveal the real situation on the ground. The following questions should be asked during such field visits:

- i.** *Could the imported wood possibly have come from this site?*
- ii.** *Did illegal harvest (overharvesting, harvesting beyond authorized boundaries, harvesting of unauthorized species) take place on this logging site?*



c. Assemble a professional audit team for the site visits.

Field tours conducted by suppliers are an ineffective means of uncovering hidden violations. It is in the interest of Chinese and Russian suppliers to make their transactions appear legal, so a significant degree of independence from suppliers must be maintained during the audit process. Experienced third party auditors should be hired to check timber authorization documents and visit logging sites, with obligatory participation of local civil society representatives.

Further recommendations on confirming legality of wood supplies from Russia can be found in the “Keep It Legal” country guide, produced by the Global Forest and Trade Network^{xxxix}.

3. If legality of sourcing cannot be rigorously confirmed, avoid furniture, flooring and other wood products made from hardwoods that could be of Russian Far East origin (oak, ash, elm, linden)

Importers of products made from Far Eastern hardwoods must take concrete steps to confirm the legal sourcing of these materials. Two potential strategies were presented above: exclusive purchase of FSC-certified products or establishment of rigorous independent due diligence systems. If importers are unable to take such steps, the only option is to exclude from their supply chains furniture and flooring made from valuable hardwoods that could be of Russian Far East origin.

Consumer action

Individual consumers of wood flooring and furniture can also contribute to the effort to reduce demand for illegal timber. The best means is to purchase FSC-certified products, which, as mentioned above, must undergo a rigorous auditing process. Consumers can also request information from retailers and manufacturers about what they are doing to comply with the requirements of the US Lacey Act and EU Timber Regulations. More and more flooring and furniture suppliers are including “Lacey compliance” and “EUTR compliance” information on their corporate websites. Consumers can compare the methods for legality confirmation cited by suppliers to those suggested in this report.

Appendix

Calculating the volume of illegally harvested oak exported from the Russian Far East

WWF Russia, Amur branch
(Vladivostok, Russia)
March, 2012

The problem of illegal logging of high value hardwoods in Primorsky and Khabarovsk Provinces is well known, but there is contention as to the scale of this activity. One approach to determining the scale of this problem is to compare volumes of high value hardwoods permitted for harvest with volumes exported in the form of roundwood and sawnwood from the two provinces. This document presents the results of such an analysis for Mongolian oak (*Quercus mongolica*), the most commercially important hardwood species in the Russian Far East.

Volume of Mongolian oak permitted for harvest in 2010

In the Russian Federation all forests are held by the government, but are leased by provincial forest agencies out to private individuals and companies for harvesting. Each year leaseholders apply to the agencies with requests for harvest certain volumes. The volumes permitted for harvesting by the forest agencies are included in “forest declarations” that are presented to leaseholders. In addition, sanitary harvesting and thinning is carried out in forests not held under lease. Auctions are held for the right to conduct this logging, which are nearly always won by Provincial Logging Enterprises. Officially, such logging should only be for improving or maintaining forest health, but usually it takes on an entirely commercial character.

The volume of Mongolian oak permitted for harvest by forest leaseholders in 2010 consisted of 228,753 m³ in Primorsky Province and 52,900 m³ in Khabarovsk Province. These data were obtained from the Forest Management Agency of Primorsky Province and the Forest Agency of Khabarovsk Province.

The volume of oak permitted for harvest by the Primorsky Provincial Logging Enterprise was 162,720 m³. This figure was obtained from the authorizing documents associated with the 2010 auction for logging rights in unleased forests. In Khabarovsk Province 7840 m³ of oak were permitted for harvest in unleased forests. This figure was determined by summing the volumes contained in multiple auction documents for different forest management units.

Forest user	Volume permitted for harvest (m ³)
Leaseholders (both provinces)	281 653
Primorsky Provincial Logging Enterprise	162 720
Khabarovsk Provincial Logging Enterprises	7 840
Total	452 213

Tab. 1: Volume of Mongolian oak permitted for harvest in Primorsky and Khabarovsk Provinces in 2010.

Export of oak products in 2010

In 2010 141,702 m³ of roundwood, 184,878 m³ of undried sawnwood, 12,666 m³ of dried sawnwood, 156 m³ of glued panels and 1378 m³ of veneer made from Mongolian oak were exported from Primorsky and Khabarovsk provinces.

In order to compare these figures with the volume permitted for harvest, it was necessary to calculate the volume of timber harvested to produce the exported products. We will refer to this as “equivalent harvested volume”. The first step in the calculation of equivalent harvested volume is converting the volume of finished products (green and dry sawnwood, veneer, glued panels) to roundwood equivalent. For this calculation we used figures on sawnwood production from roundwood found in the table “Normatives on output of hardwood unedged sawn materials according to Government Standard 2695-83”. For the output of glued panels and veneer from roundwood we used figures recommended by specialists from wood processing faculty of regional universities. The output coefficients for these products are shown in Table 2.

Product	Coefficient of output from roundwood during processing
Roundwood	1,0
Sawnwood	0,56
Glued panels	0,3
Veneer	0,7

Tab. 2 Output of products from roundwood during processing.

The second step in calculating equivalent harvested volume is determining the total volume of oak timber logged in the forest to produce the roundwood that is either exported in unprocessed form or used for production of sawnwood, glued panels and veneer. We used two tables from the “Reference Book on Forest Inventory in Forests of the Russian Far East” to produce the coefficients necessary for this calculation. The first table was “Maximum output of merchantable logs from the total volume of oak stands”, which provides the output of sawlogs and “technical firewood” (which can also be used for production of low-grade sawn boards) from the total volume of merchantable, semi-merchantable and firewood grade oak trees in a given stand. The second table was “Maximum output of merchantable logs from oak trees of merchantable grade oak trees.” We decided to take the mean of

the output figures shown in these two tables for the following reasons: during harvest of Mongolian oak in the Far East not only “merchantable” grade trees are cut, but also a significant number of “semi-merchantable” trees. So the output of sawlogs and technical firewood shown in the second table could be unrealistically high. However, we also believe that the output shown in the first table could be unrealistically low, because during harvest a greater proportion of “merchantable” trees are cut than is shown in the authorizing documents. That is, the true output of sawlogs will be higher than the output calculated for an “ideal” mixture of merchantable, semi-merchantable and firewood grade trees.

The calculated mean output figures are shown in table 3.

Log grade	Coefficient of output from total harvested volume
Sawlogs (with “technical firewood”)	0,55
Veneer logs	0,32

Tab.3 Output of roundwood used in the production of sawnwood, glued panels and veneer from total harvested volume.

The “equivalent harvested volume” of the volume of Mongolian oak exported from the Russian Far East in 2010 was thus calculated using the coefficients used shown in tables 2 and 3 (Table 4). Comparison of the resulting figure (905,703 m³) with the permitted logging volume (452,213 m³) shows that **the volume of Mongolian oak logged for export in Primorsky and Khabarovsk Provinces in 2010 exceeded the permitted logging volume by 2 times**. The most plausible explanation for this discrepancy is large scale illegal logging above the permitted volume.

Product	Export (m ³)	Coefficient of output from roundwood during processing	Coefficient of output from total harvested volume	Equivalent harvested volume
Roundwood	141 702	1	0,55	257 640
Green sawnwood	184 878	0,56	0,55	600 253
Dry sawnwood	12 666	0,56	0,55	41 123
Glued panels	156	0,3	0,55	946
Veneer	1378	0,7	0,32	5 741
Total	452 213			905 703

Tab. 4. Equivalent harvested volume of Mongolian oak exported from Primorsky and Khabarovsk Provinces in 2010.

It is important to note that in this analysis only the volume harvested for export was considered. Volumes logged for sale within Russia were not considered. A significant part of the sawnwood products made from oak in the Primorsky Province are sold on the internal market.

Data about the volume of Mongolian oak permitted for harvest in Primorsky and Khabarovsk Provinces were available only for 2010. But customs data about the export of oak products were available for the period 2004–2011. The merchantable volume equivalent of these products was calculated with the same methods used for the 2010 data. The results are shown in Tab. 5.

2004				
Product	Export (m ³)	Coefficient to roundwood	Coefficient to total logged volume	Equivalent harvested volume
Roundwood	421 737	1	0,55	766 795
Green sawnwood	52 611	0,56	0,55	170 815
Glued panels	53	0,3	0,55	320
Dry sawnwood	2 953	0,56	0,55	9 588
				947 518
2005				
Product	Export (m ³)	Coefficient to roundwood	Coefficient to total logged volume	Equivalent harvested volume
Roundwood	638 193	1	0,55	1 160 351
Green sawnwood	75 541	0,56	0,55	245 263
Glued panels	107	0,3	0,55	651
Dry sawnwood	1 017	0,56	0,55	3 301
Charcoal	685	0,8	0,8	1 071
				1 410 636
2006				
Product	Export (m ³)	Coefficient to roundwood	Coefficient to total logged volume	Equivalent harvested volume
Roundwood	718 257	1	0,55	1 305 922
Green sawnwood	68 040	0,56	0,55	220 910
Glued panels	441	0,3	0,55	2 672
Dry sawnwood	5 168	0,56	0,55	16 778
Charcoal	336	0,8	0,8	525
				1 546 806
2007				
Product	Export (m ³)	Coefficient to roundwood	Coefficient to total logged volume	Equivalent harvested volume
Roundwood	843 864	1	0,55	1 534 298
Green sawnwood	57190	0,56	0,55	185 681
Glued panels	689	0,3	0,55	4 176
Dry sawnwood	2 807	0,56	0,55	9 114

Tab. 5. Equivalent harvested volume of oak products exported from Primorsky and Khabarovsk Provinces 2004–2011.

Parquet	135	0,3	0,55	818
				1 734 087
2008				
Product	Export (m³)	Coefficient to roundwood	Coefficient to total logged volume	Equivalent harvested volume
Roundwood	871630	1	0,55	1 584 782
Green sawnwood	47 076	0,56	0,55	152 844
Glued panels	316	0,3	0,55	1 918
Dry sawnwood	1 511	0,56	0,55	4 906
Parquet	156	0,3	0,55	944
				1 745 394
2009				
Product	Export (m³)	Coefficient to roundwood	Coefficient to total logged volume	Equivalent harvested volume
Roundwood	196 977	1	0,55	358 140
Green sawnwood	89 451	0,56	0,55	290 427
Glued panels	104	0,3	0,55	632
Dry sawnwood	7 719	0,56	0,55	25 063
Parquet	140	0,3	0,55	849
				675 111
2010				
Product	Export (m³)	Coefficient to roundwood	Coefficient to total logged volume	Equivalent harvested volume
Roundwood	141 702	1	0,55	257 640
Green sawnwood	184 878	0,56	0,55	600 253
Glued panels	156	0,3	0,55	947
Dry sawnwood	12 666	0,56	0,55	41 123
Veneer	1 378	0,7	0,55	3 579
				903 543
2011				
Product	Export (m³)	Coefficient to roundwood	Coefficient to total logged volume	Equivalent harvested volume
Roundwood	95 548	1	0,55	173 724
Green sawnwood	231 885	0,56	0,55	752 873
Glued panels	166	0,3	0,55	1 006
Dry sawnwood	4 795	0,56	0,55	15 568
Dry sawnwood	4 384	0,7	0,55	11 387
				954 559

Tab. 5. Equivalent harvested volume of oak products exported from Primorsky and Khabarovsk Provinces 2004–2011.

Without data about the volumes permitted for harvest it is not possible to precisely determine the level of illegal logging in the periods 2004–2009 and 2011. But great concern is raised by the fact that the equivalent harvested volume of exported oak in 2007 and 2008 was almost 2 times greater than the volume in 2010, which itself exceeded permitted harvest by 2 times. The permitted volume is determined based on the annual allowable cut (AAC) of oak that is deemed sustainable by forest inventory specialists. This figure cannot vary significantly in the short timespan shown in this analysis, since there is no way for the oak supply to significantly expand (in fact, the AAC has become progressively more inaccurate since stolen volume is not removed from forest inventory materials). It is impossible for the forest management agencies of Primorsky and Khabarovsk Provinces to give permission to harvest 1.8 million cubic meters of oak in a single year; the maximum should hold steady at 400–500 thousand m³.

Various theories exist to explain the sharp decline in oak exports in 2009, including the global economic crisis and new export tariffs on roundwood (which greatly influenced the ratio of roundwood to sawnwood in the total exports). But a third theory is possible as well – **the exhaustion of the oak resource in the Ussuri Taiga after ten years of massive, uncontrolled illegal logging.**

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