Illegal Logging in Romania

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Illegal logging

WWF defines illegal logging and forest crime as the harvesting, transporting, processing, buying or selling of timber in violation of national laws. It lies within wider forest-related crime which includes both large- and small-scale theft of timber, breaking of licence agreements and tax laws, as well as issues of access to and rights over forest resources, corruption, and poor management.

Causes of illegal logging

Illegal logging stems from a variety of factors that are often inter-related. These can include - but are not limited to - overcapacity in the forestry industry, abuse of property rights of local communities, and a lack of transparency in the forestry sector.

The study looks at the nature of illegal logging in Romania. Although not all aspects in the definition above are covered the reports attempts to give an overview of key problems that need to be addressed in Romania on the issue of illegal logging.

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1. General information on forests and forest governance relevant for the study

1.1. General aspects on forest restitution and ownership

Romanian forests cover a total surface of 6.3 million hectares, representing about 27% of Romania’s land area. Two third of the forest area is located in the mountain area, 24% in the hilly area and 10% in lowlands.

Before 1989, almost the entire forest area was owned by the state. Starting with 1991 large areas of forestland was given back to the former owners, according to land restitution laws (Law No. 18/1991 and Law No. 1/2000). The restitution process leads to the current structure of forest ownership as presented bellow:

- 65% of forest area is owned by the Romanian State and managed by the National Forest Administration;
- 24% of forest area is owned by various entities/institutions, including local public administration and managed by private and public forest districts or contracted under the management of the National Forest Administration;
- Individual owners own 11% of the forest area. Part of individual owners is managing the forest by themselves whilst some of them are gathered in owner associations/other forms of group management. Individuals own areas from less than 1 ha to 10 ha.

The State Authority for Forests in Romania is currently represented by the Ministry of Agriculture, Forests and Rural Development and has overall responsibility for both state and private forests (GD 422/2004).

Aspects of violations in the forest restitution process:

- Although forests with special protection functions – such as forests around tourist areas and reservoirs, forests surrounding towns, forest belts around roads in mountains - are normally excepted from restitution, some areas have been restituted regardless and were clear cut for touristic and economic reasons
- An insufficient restitution strategy and lack of coherence in legislation lead to clear-cuts. In addition there is an insufficient number of personnel in the control institutions
- GO nr.127/2002 as a governmental emergency measure allowed restitution of forests even if no owner was present. The owners were not informed and land ownership titles were issued in the absence of the owners. This fact leads to illegal cuttings because for a period of time the forest was in the property of “nobody”.

1.2. Forestry legislative framework and illegal logging

The main laws with references to illegal logging are the Forest Code (1996) and GO 96/1998 which was modified and completed by Law nr. 141/1999 and by Law120 /2004, “The Forestry Regime Law”.

There are some other important legislative acts in force related to illegal logging: Law 31/2000 concerning illegal activities in forests and related penalties, law concerning the control of wood processing, transport and others, which refer to measures for enhancing the forest guard and forestry system control activities in order to avoid illegal logging. These legislative acts also stipulate punitive measures and penalties for illegal logging. The Governmental Ordinance (GO) 98/2003 stipulates, besides penalties related to Forestry Regime, that NFA will assure the guard for private forests where the administrative structures have not been established yet.

The Forest Code stipulates the main characteristics of the forest management in general, with reference to the private forests. The forests are managed through management plans issued either by
private companies or by FRMPI and approved by a Technical Committee of the State Authority for Forests (MAFRD). The main characteristics of Romanian forest management plans are in accordance with The Forest Code-1996 stipulations: management rules in accordance with the forest type, forest site, functional repartition by forest zone, the maintenance of natural composition in forests; the use of natural regeneration, maintenance of a high-level rotation age for native forest species, adequate wood harvesting technical solutions/treatments in order to maintain the ecological balance, evolution towards multi-use forests.

**Law 141/1999 regarding the “Forestry regime and forest administration rules”**, which approves GO 96/1998 contains regulations relevant for the forestry regime and management of the national forest resources. This Law promotes a unitary management system, enforcing a legal framework for sustainable forest management in both state owned and private forests. This management system includes constraints for forest owners and managers who do not respect the Law. The private owners are obliged to exercise their ownership rights “in the limits and conditions of the law” in order to promote a sustainable forest management and conservation. Law 141/1999 regarding the forest administration rules stipulates support for the private forest owners who do not harvest the wood in their protection forests, without indicating the funding source. Because of recent institutional developments and changes in Romanian forestry, a new **Law 120/2004** modifies and completes the previous “Forestry regime” Law:

- defines the protection forests as forests of national interest requiring adequate management measures,
- clearly defines for the first time that any forest property is under the jurisdiction of the forest district.(state, private or public administration)
- state forest roads located in private forests become public roads under the public local administration.
- stipulates obligations for private forest owners:
  - to elaborate summary management plans for private forests under 30 ha, with State budget financial support;
  - to guard the private forests through administrative structures (state or private structures);
  - to execute the forest protection measures (established by the State Authority bodies);
  - to execute all forest operations in accordance with management plans;
  - to include all the above mentioned obligations in the administration contract when the NFA-Romsilva administrates the private forest on contractual basis,

The implementation of the Law 120/2004 is the responsibility both by the State Authority for Forests and by the National Control Authority through their local bodies. However, lack of resources leads to inadequate enforcement, directly influencing also illegal logging.

The legislative framework for forests in Romania includes:

- **Law No. 18 / 1991** – Land restitution law modified by GO No. 1 / 1998; Law No. 54/1998; GO No. 102 / 2001; Law No. 545 / 2001 – establishes the legal basis for land and forest restitution, and regulates land use.
- **Law No. 81/1993** for establishing compensations for the damages brought to the forests; includes the evaluation methodology to evaluate economical value of damages.
- **Law No.26/1996** – Forestry Code – establishes the main legal provisions for all aspects related to ownership, management procedures, general harvesting rules.
- **Law No. 137 / 1995** – Environmental protection Act (re-published) - establish legal framework for environmental protection and MAFDR responsibilities on natural resources and biodiversity conservation.
- **MO No. 225/1997** regarding shape, registration, keeping rules and use of the forest hammer-markers.
• GO No. 96 / 1998 regarding forest management and national forests administration.
• Law No.141 / 1999 – Law for approving the GO No. 96/1998 regarding forest regime and national forests administration and Law No. 120/2004 modifies GO 96/1998 regarding forest regime and national forests administration.
• MO No. 71/1999 for approval of the Rules regarding producing and use of hammer-markers for harvested and transported wood (harvesting companies and private forest management units).
• Law No. 1 / 2000 – regarding restitution of agricultural and forest lands to the former owners according to Law No. 18/1991 and Law No. 169/1997 modified by: GO No. 2 / 2001; GO No. 102 / 2001; Law No. 400 / 2002 - regulates restitution of agricultural and forest land, establishing procedures to be followed, what is the maximum surface to be given back, where, how it should be managed.
• Law No. 31 / 2000 – legal measures for forestry law offences.
• GD 1046 / 2000 – for organizing and operating the control of enforcing forest regime at central and local level.
• GO No. 2/2001 - regarding procedures in case of law offences.
• MO No. 635 / 2002 for approval of the Norms regarding seasons, modalities and periods for wood harvesting in forests and other type of forest like vegetation.
• GD 427/2004 regarding specific norms for timber transportation as well as monitoring and control of timber transportation and sawmills activity.
• GO No. 41 / 2004 – regarding establishment of TDFH.
• GD No. 85 / 2004 – to approve timber selling Rules by the owners of public forests.
• Regulations for forests guarding system and prevention of illegal activities.
• Technical norms for establishing and implementing forest treatments (types of cuttings).
• Technical norms for evaluation of timber volume.
• Technical norms for forest management planning.

1.3. Forest management in Romania

The Forest Code stipulates the main characteristics of Romanian forest management: functional repartition by forest zones, maintenance of natural composition in forests, utilization of natural regeneration, maintenance of a high-level rotation age for native forest species, utilization of adequate treatments to maintain the ecological balance, evolution towards multi-use forests.

a. State forests management institutions

The National Forest Administration- Romsilva - (NFA), who manages all state owned forests, is a legal entity established in 1990, with 41 County branches. The present day situation is regulated by the Forest Code (law 26/1996) and by the GD 1.105/2003 which stipulate that the management of State Forest is assured by NFA. NFA Romsilva is a specific forestry structure of public service, under the State Authority for Forests. NFA-Romsilva has financial autonomy and manages the State Forest through its Regional Branches. NFA-Romsilva includes the Forest Research and Management Planning Institute (FRMPI), it performs the State forest inventory and undertakes forest management on private or community owned forests on contractual basis. The current organizational structure of NFA Romsilva is approved by its Administrative Council and consists of 41 County Forest Directorates. The management is assured by the Administrative Council and a General Director. The Administrative Council of NFA undertakes strategic decisions, whilst the General Manager is performing the day-to-day management.

County Forest Directorates – territorial structures - are responsible for supervising all forest districts activities in their area of authority. A Manager manages County Forest Directorates’ day-to-day
activities and the Steering Committee decides management strategies. County Forest Directorates have legal entity status delegated by NFA in certain area of responsibilities:
- supervising forest districts activities,
- organizing standing wood and log auctions,
- contracting the wood logging activities and signing the harvesting contracts,
- controlling wood harvesting activities (wood harvesting, felling reports, sanitation felling)
- participating to the revision of forest management plans.

*Forest Districts* – are the management units directly dealing with forest management, and are managed by the Head of the Forest District. Forest district do not have legal entity status, and is represented in all contractual issues by the County Forest Directorate. Forest districts are implementing the forest policy and norms according to management plans, undertaking specific management tasks as following:
- ensuring forest regeneration
- preventing and stopping illegal activities
- supervising and controlling the wood harvesting and transportation activities
- establishing and implementing operation plans mentioned in the forest management plans
- monitoring forest health
- game management, harvesting non timber forest products
- marking trees to be extracted during the harvesting process, with a numbered hummer-marker, both for state forests and private owned forests.

**b. Private and public forest management institutions**

The private and local public administration forests and can be managed by:
- Private Forest Districts – established by private forest owners or local public administration as requested in the Regulations published in Official Journal of Romania 597/12.08.1999 and Law 26/1996.
- NFA – County Forest Directorates through their Forest Districts, on a contractual base. The agreement is made between private owners and state Forest Districts.
- Individuals might also manage their forests by themselves, but there are specific activities, which are undertaken by state forest districts (e.g. selecting and marking trees to be extracted, providing documents for timber transportation etc.)

Extension services should be provided by the Territorial Directorates for Forestry Regime and Hunting.
c. Forest management plans and establishment of the annual allowable cut

*Forest management plans* – developed in accordance with sustainable forest management criteria, these plans are revised every 10 years; those plans form the basis for all forest management activities, including annual cutting allowance (per surface units and species).

The legal base for forest management planning is Law 26/1996. MAFRD and its territorial structures approve the revised forest management plans, both for state-owned and private forest area. Before 1989 management plans were developed/revised only by FRMPI, but starting 12 years ago, there were an increased number of private companies which produced/revised forest management plans.

**Forest management plans are the basis in establishing the regional and national inventory of forested areas and wood harvested volumes. The last national inventory was performed in 1986.**

**Historical data**

The historical data (official records of forest administration), for total allowable cut and wood harvest in Romania show that the calculation of the annual allowable cut, was very much influenced by the political and economic context-environment. An important moment was 1986, when the forest management was directed to close-to-nature forestry (clear-cuttings became forbidden on areas larger than 3 ha and allowed only in spruce forests).

<table>
<thead>
<tr>
<th>Year</th>
<th>Annual allowable cut (million m3)</th>
<th>Annual wood harvest (million m3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1962-1975</td>
<td>24</td>
<td>25-27</td>
</tr>
<tr>
<td>1976-1980</td>
<td>21</td>
<td>22</td>
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<tr>
<td>1981-1985</td>
<td>21</td>
<td>23</td>
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<tr>
<td>1986-1990</td>
<td>18</td>
<td>18,5</td>
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<tr>
<td>1991</td>
<td>19</td>
<td>15,3</td>
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<tr>
<td>1993</td>
<td>15</td>
<td>13,6</td>
</tr>
<tr>
<td>1994</td>
<td>14,5</td>
<td>12,9</td>
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<tr>
<td>1995</td>
<td>14,4</td>
<td>13,8</td>
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<tr>
<td>1996</td>
<td>14,6</td>
<td>14,8</td>
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<td>1997</td>
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<td>1998</td>
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<td>17</td>
<td>16,8</td>
</tr>
<tr>
<td>2003</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>2004</td>
<td>18</td>
<td>17,5 (estimated)</td>
</tr>
</tbody>
</table>
Annual allowable cut – calculation at the country level

The annual allowable cut at the country level is being established by cumulating the allowable cut for each forest district of the national forest area (state owned forest and private forest), based on data from the informational system for Romanian forests, provided through the management plans developed for all forest districts.

The allowable cut for each administrative unit is calculated using a method which is based on the data of management plans. The current method used to determine the allowable cut is based on a traditional sustained yield approach: it takes into account rotation length, average species composition, forest structure according to site indices and the existing distribution of age classes. Rotation length is calculated according to the maximum rent principle, and have been set according to the average increment of the target dimensional class, reflecting a very conservative policy.

The conservative approach in calculating the allowable cut in Romania was a “political method”, used by the forest administration to react to the wood industry pressure and limit the cuttings during the last part of the communist period. This method is still in place, not adapted to present realities.

The calculation of the allowable cut does not take into account the wood coming from other wooded areas:
- forested pastures (areas used by villages as pastures, but covered with forests, or former pastures abandoned and afforested naturally) - which are not included in the national forest fund,
- abandoned state or private agricultural land afforested naturally.

Allowable cut – distribution to forest districts

The allowable cut at national level is distributed by the MAFRD to NFA-Romsilva for the State Forest and to its territorial branches (TDFRH) for private forests. NFA–Romsilva and TDFRH distribute the allowable cut to each forest district, according to provisions of the management plans and to past and current situation of harvesting in the area (e.g. in case of unforeseen events - like wind falls - changes might occur in the distribution of allowable cut).

An inventory of the forest area is important and a significant part of any strategy that will address illegal logging. The last national inventory was performed in 1986.

2. The nature of Illegal logging during Wood harvesting

a. Illegal aspects of Planning harvesting areas, planning the type of cuttings to be performed and marking trees to be extracted

Harvesting areas are planned based on provisions of 10 year plans from the management plans developed for each forest unit. The type of cutting is recommended by the management plan, depending mainly on species composition. According to the provisions of forest management plans, forest districts are responsible for selecting, marking and measuring trees (diameter and height) to be harvested in each stand/forest unit. Therefore, forest district employees are locating the harvesting areas, taking into consideration the management plans and establish the size of the future harvest place (according to provisions from Technical norms for establishing and implementing forest treatments - type of cuttings).

Illegal activities are favoured by incorrect management planning and violations of forest management planning:

1. Overestimation of the real age of stands with the purpose of including some valuable forests in the harvesting plan. This practice is usual for the stands of 80-90 years old where the allowed harvesting age is 100-110.
2. Registration of a small canopy coefficient (forest density) of the stand with the purpose of including them into the harvesting plan for clear cuttings. A stand with low canopy coefficient indicates the necessity of reconstruction of the forest, which allows to clear-cut and reforest the area.

3. Harvesting wood which normally must be harvested in two to four cuttings in one single cutting (shelterwood system felling).

4. Artificial growth of the standing volume of the forest with the purpose of obtaining a bigger annual allowable cut. This allows to cut less than the annual allowable cut but more than the correct value and to introduce the rest of the volume in the illegal wood circuit.

5. Incorrect registration of the forest in functional categories. For instance registration of protection forest as production forest. These changes in registration aim to eliminate harvesting restrictions.

6. There is an area of 300,000-350,000 ha of afforested pasture lands which is not included in the national forest fund but is instead considered as pasture. Clear cuts are allowed in these areas, making it an important source of wood with illegal provenience.

7. The preferential location of a harvesting area is difficult to be tagged as illegal practice, but can affect the structure of the forests, where over-harvesting occurs. (Flexibility of the management plan in establishing the areas for harvesting can lead to high pressure on very accessible forest areas where the harvesting costs are low).

8. Using certain types of cuttings hides forms of illegal logging: for example ”sanitation” and “conservation” harvesting could be used to harvest high quality trees, sometimes at a very low price. –This type of harvesting neglects the original goals of sanitation and conservation cuttings, i.e. to extract damaged trees through sanitation felling and to promote natural regeneration through conservation felling in forests where other types of harvesting are not allowed.

9. Underestimation of wood volume and quality:
   - underestimation of total volume (underestimation of height and diameter of the trees marked for logging)
   - underestimation of the average wood quality, leading to smaller official prices for high quality trees

b. Illegal aspects of in the Estimation of the volume of trees to be logged

Illegal logging can be also facilitated by incorrect estimation (underestimation) of total standing wood volume and average quality of the trees planned to be extracted.

All data regarding marked trees, species, diameter, average quality of the trees and an average height calculated from a limited number of measurements of “average” trees that will be harvested, are introduced in a computer program for calculation of total volume to be logged in one harvest area (according to the Technical Norms for Evaluation of Timber Volume). Wood volume purchased by companies is usually estimated as described above. The final harvested volumes differ up to 5% - this gives possibilities for unreported income.

c. Illegal aspects of Wood sale

The wood is sold standing, except the wood harvested by the NFA Forest Districts (logs sold roadside or in special locations - deposits).

After establishing the harvesting areas in accordance with the available allowable cut, the forest district follow bidding procedures (auction) for each harvesting area (according to GD No. 85/2004 for approval of timber selling procedures by the owners of public forests). A small volume of wood, in an amount that is decided through GD is harvested directly by forest districts of NFA-Romsilva. These quantities are designated to satisfy forest management units needs. Each forest district has also allocated a certain quantity of firewood to be sold to private individuals.
Standing wood/logs auctions are organized by NFA County Forest Directorate or by private Forest Districts under TDFRH guidance and contracts are signed with the winning companies. The NFA which has been for a long time the main actor for the forest management in Romania, improved his wood sale policy working with three types of contracts: for short-terms, for middle terms and for long terms (up to 10 years), for different types of clients in close connection with the direct use of wood. The new type of long-term contract between NFA (minimum 3 years, maximum 10 years) for standing timber is stipulated in the GO/2002. This new type of contract is available as a result of auctions for selected companies producing secondary wood products only. The companies are accepted to compete in auctions only if they prove the capacity to use minimum 20,000 m³ of wood/year/company. The total amount available for long-term contracts will not exceed 20% of total annual allowable cut.

The starting prices in wood auctions are established by the National Competition Authority.

A study on collusion in timber auction in Romania was performed in 2003 by IRIS Centre of the University Research Corporation on request from the World Bank and Food and Agriculture Organization of the United Nations (“Governance in the Romanian Forestry Sector”).

d. Illegal aspects of Wood harvesting

The harvesting operations should take place in a specific period of time, depending on species and harvest area size and should follow certain harvesting rules (according to MAFRD Order No 635/2002 for approval of the Norms regarding seasons, modalities and time schedule for wood harvesting in forests and other type of forest like vegetation).

Forest districts are regularly controlling harvesting areas; county forest districts, NFA-Romsilva, TIFWM and Environmental Guard are controlling them occasionally.

However, illegal activities are performed in some cases by logging trees that were not selected for harvesting and not included in the volume estimation or by logging trees outside the planned area.

e. Illegal aspects of Timber transportation

Wood logging companies are responsible for the transportation of the harvested timber. Before transportation, each log is marked with a hammer–marker by the harvesting company. The hammer-marker is specific for each company (specific mark number). The mark number allows identification of the owner of each log (to what company belongs).

Timber is transported with transportation documents, which include the following information:
- The document series and registration number
- Provenience identification (forest district, harvest place name and number)
- Vehicle registration number and driver’s name
- Place of destination
- Species, length, diameter and volume for each log
- Total volume of timber transport
- Date and hour of transportation

The hammer-marker number from the logs is also put on the transportation document.

f. Illegal aspects of Providing timber for local communities

A certain part of cutting allowance is designated through Governmental Ordinance to local communities as wood for constructions and firewood. The harvest process follows the same steps as
above, but forest districts perform it. People buy timber from the forest districts at roadside or from wood deposits.

People can also buy timber from harvesting companies. Both forest districts and harvesting companies provide transportation documents that specify, in addition to the above-presented information, the name of the buyer.

3. Problems in controlling and monitoring wood logging, transporting, processing and importing/exporting system

The whole process of selecting, marking, volume estimation, logging and wood transportation is subject to a control and monitoring system which aims to check if legal provisions are respected at different stages. The system includes, among other things:

- Control of selected and marked trees, harvest place location and compliance of the cutting with management plans. It is undertaken by county forest districts, NFA-Romsilva, Environmental Guard, TIFWM;
- Checking logging operations at the harvest places, done by forest districts, county forest directorates, NFA-Romsilva, Environmental Guard, TIFWM;
- Patrolling on forest roads, done by various level forest management units with or without police, on a planned time schedule base as well as unplanned controls;
- Check points on public roads done by various bodies: NFA – Romsilva structures and/or TIFWM with or without police support;
- Controls at sawmills, done by various level forest management units, in cooperation with police, Environmental Guard etc.;
- Thematic controls in high risk forest areas especially at moments when the probability of illegal activities is high, mostly in fall and winter period, done by forest districts, county forest directorates, NFA-Romsilva, police, Environmental Guard etc.
- Regular inspections in areas of responsibility of each forest ranger minimum twice per year, done by forest districts, and some unplanned inspections by county forest directorates and NFA-Romsilva.

The control system is well designed and should prevent/discover most of the illegal activities. However, lack of personnel and equipment at the level of institutes in charge with controls at various levels and also corruption generated mainly by the low salary levels of the foresters with direct responsibilities related to forest/harvesting area management might make possible illegal cutting activities.

Description of some of the control activities

Tree selecting, marking and measuring operations are checked on regular basis by county forest directorates and NFA-Romsilva for state forests and Environmental Guard and TIFHM for private structures.

The management plan and the “valuation act - APV”, containing all tree measurement data, are the basic information for controlling the legality of cuttings/harvesting. The actual method for controlling the legality of cuttings/harvesting is:

- before harvesting: controlling the inventory of volume and quality of standing wood (measurements of the trees marked for harvesting)
- after harvesting (after performing illegal logging):
  - inventory of trees that were logged without being stamped with the marking-hammer as a prove that they should be harvested. This inventory is undertaken by foresters. This is a method that cannot be used when trees are completely removed with modern tractors;
- the inventory of volume and quality for the remaining standing wood after harvesting or after illegal logging and deduction of the illegally harvested wood, if the illegal logging was performed on large areas.

Illegal logging recorded by one of the institutions in charge with the control with no identified offender will be charged on the forester who has the area in his responsibility. He/she will have to pay penalties and could be even fired if the total volume of recorded illegally harvested wood exceeds 15 cubic meters. This provision may also be a reason that illegal logging occurrences remain unreported.
Diagram of wood harvesting and transportation control

Involved bodies:
- Territorial Inspectorate for forest and wildlife management (TIFWM)
- Territorial Directorate for Forest and Hunting (TDFH)
- Environmental Guard (EG)
- County Forest Districts (CFD)
- Forest District (FD)
- Police
- Financial Guard
- Custom (import/export)
- Legal experts or technical experts working by demand

[Diagram of wood harvesting and transportation control with labeled bodies and arrows indicating flow]
4. Estimates on the level of illegally harvested wood at the national level in Romania

There is strong anecdotal evidence that illegal logging is a major issue in Romania. There is common knowledge in the population about illegal logging related violations. By describing the nature of illegal logging above WWF has utilised information obtained from direct interviews and reports from the population. However there are no systematic reports on the scale of illegal logging in Romania to date. There are only very few fragments of information available on past reports.

Starting with 1990, the volume of illegal cutting rose significantly, according to the Ministry of Agriculture, Forests and Rural Development. Few official reports however exist to date on illegal logging in Romania; only some references can be found in scientific abstracts. For instance, a report on the economic sustainability of small-scale forestry by the Forest Economics Laboratory and ENGREF/INRA deduced that harvests in Romania’s private forests were legal only in 60% of situations, based on interviews with inhabitants of 7 communities.

Examples of anecdotal illegal activities:
Borsa State Forest District
- In summer 2004 a volume of 14000 m3 was illegally cut

Gheorgheni State Forest District
- A volume of 42,000 m3 illegally cut from private forest was legalized using legal wood transportation documents

Bucegi National Park
- A harvesting company who was authorized to harvest 550 m3 had harvested and sold 2100 m3

Agas State Forest District
- 444 ha of private and state forest have been illegally cut

As little official information was available and unofficial and official reports on scales differ widely, WWF attempted a systematic analysis and with this an estimate on illegal logging levels in Romania. WWF has previously done this successfully to estimate illegal logging levels in Russia, Bulgaria, the Baltic States and Slovakia.

For Romania WWF wanted to establish estimates on illegal logging through the following formula:

\[
\text{Volume of wood harvested illegally} = (\text{vol. consumed wood} + \text{vol. exported wood}) - (\text{vol. legal harvested wood} + \text{vol. imported wood})
\]

The following sources were used:
- “Statistical inquiry on the wood volumes harvested in 2002 by companies with official allowance for harvesting”, all published by the National Institute for Statistics (NIS),
- SILV 3, a statistical report developed yearly by the National Forest Administration (NFA). SILV 3 is a yearly statistical report on harvested volumes and cutting areas, by owners, type of cuttings and species groups, according to evidences of the NFA.

1 SOME ASPECTS ABOUT THE ILLEGAL LOGGINGS IN ROMANIA By Viorel MARINESCU
Director, Forestry Regulation Department Ministry of Agriculture, Forests and Rural Development
ROMANIA – paper submitted to the UNECE

2 Sustainable Forest Management: with or without Privately Owned forests? A Romanian Case Survey by Laura Bouriaud, Forest Economics Laboratory (LEF), Joint Research Unit: ENGREF – French Institute of Forestry, Agronomic and Environmental Engineering; INRA – French Institute of Agronomic Research, Nancy France
Analysing available official data, it can be concluded that in the national statistics there is not sufficient information for the use of the above formula for estimating levels of illegal harvesting.

The official statistics in Romania regarding forest harvesting, wood processing and forest exploitation are not consistent and not complete to allow control/monitoring of wood-flows at the national level. Analyzing the official statistic dates, in order to complete the parameters mentioned in the above formula the following conclusions emerge.

Details of missing data and information

a. important data is missing:
   - raw volumes of wood harvested by authorized companies (a study was conducted only for year 2002) and/or raw volume of wood (logs) purchased/transformed in various products (other than furniture) by companies
   - volumes of wood (logs) used for constructions
   - volume of wood used for producing furniture

b. reports on various wood products are not always consistent (products are grouped in different ways in the different reports, therefore data is not comparable)

c. measurement units used in the different reports are not consistent for the same group of products and not convertible in standard units for wood volumes (m³), mainly because different type of products are mixed in the same reporting category.

Based on existing statistical data it is not possible to estimate levels of illegal harvesting, as the reporting system does not allow estimates of wood consumptions, exports and imports.

Possibilities to trace wood-flows do not exists, mainly because wood harvesting/processing companies do not have any reporting obligations with respect of volumes of harvested wood and raw wood purchased and used for wood products.

Wood for industrial use

Harvesting companies and retailers are not reporting the quantities of raw material (logs) sold to processing companies and the processing companies are not reporting quantities of raw material bought and used.

Volume of exported wood

In the official statistics wood exports are reported with their total value (‘000 Euros) and only for some categories of wood products data is available also as quantities (usually tonnes). The measurement units used and the way exported products are grouped do not allow an estimate of the wood exports.

There is an important note to make: industrial production refers to sawn timber, export data refers to wood from the various species group, not mentioning if that is round wood (logs) or sawn timber. If the two categories are different, or the export data refers to both roundwood and timber, the analysis cannot be conducted without having more detailed information on wood products produced internally.

Volume of imported wood

In the official statistics wood imports are reported with their total value (‘000 Euros) and only for some categories of wood products data is available also as quantities (usually tonnes). The measurement units used and the way imported products are grouped do not allow an estimate of the wood exports.
A comparison of exported and imported wood for the years 2001 and 2002 shows that the level of export is much higher than most of the import levels, excepting the wood panels.

5. Summary of the study

Based on existing statistical data it is not possible to estimate levels of illegal harvesting in Romania. This of great concern. As a first step to be able to address the problem of illegal logging the inventories and data should be sound enough to be able to trace the problem.

The nature of illegal logging was described in detail in this study. Summarising it the most important aspects of illegal logging in Romania are:

- incorrect estimations (underestimations) of wood volume and quality:
  - underestimation of the volume (diameter and height) and quality class of individual trees selected for harvesting;
  - marking trees without including them in the marking notebook. In this case, the stamp has the mark print, which proves in the future that tree was legally harvested, although the volume of the tree was not registered in the official documents.

- illegal harvesting operations:
  - cutting unmarked trees from State owned forest areas or private forest areas
  - cutting marked trees from the stands which are marked but not included in the approved harvesting area, according to the signed contract
  - logging in core zones of the protected areas. Although this aspect was not detailed in the study, it is important to mention that in many cases the forest management plans do not respect the zoning of the protected area.
  - Logging in protected areas, in private forests – even if in some cases the forest management plans do respect internal zoning of protected areas, if the forests are now in private ownership, logging is performed.

- illegal wood transport (misuse of transport documents, controlling personnel from police or financial guard with no knowledge on timber)
  - on the road: use of the same document for several transports (data and hour not registered on the document);
  - on railway: difficulties in estimations of wood volume and wood quality for the railway staff when controlling the transport, especially in import/export commercial operations;
  - boating: difficulties in estimation of wood volume and wood quality when controlling the transport, especially in import/export commercial operations)

- illegal wood imports: misuse of import documents, volume and quality difficult to be estimated by untrained custom or police personnel

- illegal exports: misuse of export documents, wood volume difficult to be estimated by untrained custom or police personnel

- illegal logging from areas covered with forest trees which are not included in the official statistics (management plan database). No clear evidence and almost no control exists for these forests outside the officially registered national forest land.

The weak points of the forestry system related to illegal logging are
- weak law enforcement of the existing legislative framework for forestry;
- gaps in the reporting system that does not allow a monitoring of the wood-flow;
- no reporting system in place for wood harvesting and processing companies that would allow to track wood coming from illegal activities;
- lack of data on wood volumes processed by the very many existing small companies;
- lack of human and financial resources and equipment at the control institution (EG and TIFWM);
- lack of forest extension services and public awareness activities to support sustainable forest management in private forests;
- lack of financial resources of private owners in developing new forest management plans;
- lack of subsidies for private forest owners that have their forests in protected areas.

**WWF calls on the Romanian government to urgently address the problems in the availability of data, the loopholes in the forestry system, legislation and governance to address illegal logging practices in Romania**

**WWF calls on the EU institutions to address the problem of illegal logging in the new member states and accession countries. The new member states and accession countries should be supported by the EU to create conditions which make abuse of natural resources less attractive and less likely, through capacity building and by providing financial support to reform forest governance to deal with this issue**

**Acronyms**

Legislation:
- GO – Governmental Ordinance
- GD - Governmental Decision
- MO – Ministerial Order

Institutions:
- MAFRD – Ministry of Agriculture, Forests and Rural Development
- MEWM – Ministry of Environment and Water Management
- EG – Environmental Guard
- NCA – National Control Authority
- TIFHM – Territorial Inspectorate for Forest and Wildlife Management
- TDFRH – Territorial Directorate for Forestry Regime and Hunting
- NFA – Romsilva – National Forest Administration - Romsilva
- FRMPI - Forest Research and Management Planning Institute