Fighting illegal logging in Romania: new principles and a new direction

What is happening to Romanian forests?

We have been speaking about the problem of illegal logging for three decades, and although significant progress has been made in recent years, combating illegal logging still represents a major challenge for the Romanian forestry sector. Illegal logging is undermining the responsible management of our forests, resulting in the reduction of the biodiversity and environmental services offered by the forestry ecosystems.

Illegal logging:

• has social implications, threatening the workplaces and livelihoods of the people depending on the resources offered by the forest;
• distorts market prices and deters investment; and
• facilitates tax evasion, erodes the rule of law and even results in the loss of human lives.

A radical change is necessary: simplicity, transparency, efficiency

The current control system based on marking and guarding the trees in the forest must be transformed into a system oriented towards the control of the wood as it leaves the forest. The moment a cut tree leaves the forest is the moment it first enters the market. In other words, it is like paying and passing through the checkout line at a shop.
Presently, the potential of a much more effective and safe integrated informational system for wood traceability (SUMAL) is completely unutilised. The current system depends on somehow guarding 1 billion trees in 7 million hectares of forest and, as a control measure, identification of unmarked stumps.

Instead, we are obsessively measuring - verifying – controlling the volume of the trees in the forest, where the standard legally allowed error exceeds 20%.

Then, after the wood has entered the market, we again attempt to control illegal logging by looking for differences between the documents and stocks in over 5000 warehouses, firewood in 3 million homes and timber in hundreds, if not thousands of sawmills. All of these are points where the illegally harvested wood can be swallowed by administrative tricks and high turnover.

These mammoth and ineffective efforts made at the resource end could instead be replaced by a simple and more efficient system verifying the transports of wood leaving the forest.

In effect, no one is verifying that the products leaving the "store" are paid for.

All the inadequate and costly administrative duties, including the ranger service, are paid for by the “forest” through wood sales. This practice causes the reduction of the sector’s competitiveness and exacerbates the spiral of problems. **SUMAL represents a much more cost-effective, practical, transparent and safe alternative.** SUMAL places equal legal responsibility upon both the foresters and the loggers. If the volume of wood coming out of the forest on a truck is not accurately recorded, this constitutes a crime, and both are liable.
Disadvantages of the current wood/timber selling and wood/timber control system

Romania is the only EU member state to implement this system to such an extent. The current system has proven its inefficiency for 30 years, exposing control personnel such as forest rangers to unnecessary risk while consuming budget resources and not bringing any cases to court.

**Costly**

The inventory and marking of trees complemented by repeated verifications and controls demands a huge consumption of time and resources. At least 5 field measurements for 18 million m³ must be undertaken annually as unmarked stumps are searched for and marked across 7 million hectares. In fact, over 50% of the total hours/person expended by each forest management unit (FMU) is allocated to selling wood and guarding the forest. Just some of the tasks include marking each tree twice, noting diameter, height, quality and the class of trees.

**Slow**

Control is performed following multiple administrative procedures necessitating huge resources, especially for the field inventories and investigations which involve numerous judicial and extra-judicial qualified personnel. An entire procedure to establish the difference in volume actually harvested could take months or years for evidence that is not even submissible in court. Even when the facts are evident, the author is difficult to identify.

In the case of illegal logging, wood thieves must be caught red handed, the specifically corresponding stumps must be located and the damage must exceed the value limit of 5 m³.

If these prosecutable conditions are not fulfilled, the violators get away with only an administrative fine.

**Imprecise**

Due to the relativity of the mathematical calculation methods and the errors in field measurements, estimation of volume is imprecise. Trees, as any living organisms, do not have regular shapes, and heights are hidden by foliage. Consequently, it is not precisely known how much wood is contained in a specific forest area or “standing wood.” Legally, the margin of error when determining the volume of “standing” trees exceeds ±20%, and depending on the objectivity of the assessor, the actual margin of error could exceed +50%.
Inconclusive in court

Countless legal cases demonstrate that the system is “rotten” and cannot present solid evidence in court. Most often, the legal process lasts such a long time that the evidence (marking – the print of the hammer on the wood) becomes degraded by the natural elements and in the end nothing can be proven. In the case of false marking, the person responsible must be identified, and this is nearly impossible to firmly establish.

Operators (the name of the company first placing the timber on the market as defined by EU Timber Regulation) are seldom called upon to verify the volumes they are transporting. Even when they are stopped for a check, the low fines are not dissuasive. Operators cannot often accurately attest to the quantity of logs they are transporting. Criminal liability cannot be proven if the wood is paid for in advance and there are no unmarked stumps to point to as evidence. Thus, even if a higher volume than the one stated in the contract is transported, most of the time the operator remains unsanctioned or at most, receives a slap on the wrist.

Inefficient

The current system enables opportunities for forestry operators to transport a higher volume than the one stated in their prepaid contract. The largest sanction possible is the confiscation of the surplus, and of course, only when one gets caught. Given these conditions, it is not strange that some forests “disappear” within the legal limits.

Essentially, the system is more concerned with following specific procedures than obtaining results (knowing the amount of wood actually leaving the forest). Less than 1% of the wood transports from the forest to market are verified through primary delivery documents by those with control responsibilities. If and when irregularities are identified, both the operators (performing multiple transports or loading a higher volume than the one stated by the documents) and the forestry personnel (who may erroneously measure the standing volume before the sale) may only be administratively sanctioned or fined a symbolic value.
The advantages of the new wood selling and control system

Control when wood is first placed on the market

The current control system based on marking and stump location must be urgently transformed into a system oriented towards the control of the wood being placed on the market, for example through graphic fingerprints of wood transports. A graphic fingerprint is a picture of how logs are arranged on a truck. Since one cannot have the same arrangement of logs on two different trucks, the image is as unique as a fingerprint. This concept is found in the Vision for Forest Policy Development 2020 – 2030, a plan developed and proposed by WWF together with academic experts, environmental NGOs, forest administrators and wood industry representatives.

Cost-effective and efficient

A single determination or verification of the volume of the wood materials is made by the operator/administrator at the point of exit from the forest, essentially marking its entry on the market. The volumes will be recorded in the SUMAL wood tracking system, and according to these quantities, the operator will pay for the wood to the owner/administrator at the price awarded at the logging permit auction.

Implementation of this model would require only a single verification of primary delivery documents by forestry personnel in the field (< 5% of the total hours/person available within an FMU). The proposed system directly targets the result (wood leaving the forest), and relegates the procedure to a supporting role. Moreover, a logging truck driver would have to declare both the loading point and the point of entry into the forest.

Precise

The precision of determining the volume of wood materials (industrial logs, firewood or chips) under SUMAL does not exceed a ± 4% margin of error, even in the case of technical cubage (for example when calculating loads of firewood. The length, height and the width of a truck is used to estimate the volume using some official factors). The subjectivity of the operator may be eliminated by using a modern technique such as a graphic fingerprint or the scanning the transport to determine technical cubage.
The measurements can be made at a stable point (a point on the road out of a forest which also signifies the market entry point) by a single responsible person. The technical cubage calculation may be performed using modern, fast and cheap IT solutions (scanning of the transport and the generation of a graphic fingerprint of the transport) and then recorded in SUMAL. In high risk areas, a complementary video monitoring system can be emplaced with real time analysis and response capacity.

**Wood transport graphic fingerprint**

Unique way of distribution / standing of the logs in the vehicle.

---

By doubling transparency and changing offence classification to the more serious criminal liability, the new system will result in an effective wood selling and wood control system in which those tempted to break the law will be more easily held accountable with proportional and dissuasive sanctions that correspond to the deed.

The new system would be capable of generating all the elements necessary to prove the deed and provide genuine evidence which can stand up in court:

- real time recordings in SUMAL;
- obligation for wood transport vehicles to declare their point of entry into the forested area to the Forestry Fund using SUMAL;
- electronic verification;
- wood material;
- vehicle; and
- an identified perpetrator.

By doubling transparency and changing offence classification to the more serious criminal liability, the new system will result in an effective wood selling and wood control system in which those tempted to break the law will be more easily held accountable with proportional and dissuasive sanctions that correspond to the deed.
The volume estimation document (VED) through which an estimation can be made of the standing wood volume must become a support document; accepting that it offers only an indicative volume. Thus, when selling wood as standing stock, the VED could be useful for organising the auction by establishing the unit price/m³, and easing logistics for the operator to whom the auction was awarded. Finally, according to a joint verification procedure by both operator and administrator, the operator will pay for the volume leaving the forest at the auction price and record the transaction in SUMAL. Any excess volume placed on the market by the operator will incur criminal liability.

Eg: Selling method of timber coming from first tending operations of hardwoods forests
The changes necessary in Romania involve the adoption of a legislative package which includes the following points:

**Elimination of the systemic conflict of interest generated by the current regulations regarding wood sales as “standing stock.”** The basis for wood selling contracts should be the quantity of wood leaving the forest (volume which can be measured with a precision of ±4%), and not the “standing wood” whose volume can only be approximated with a legally allowed ±20% margin of error. The volumes should be systematically performed, verified (operator – administrator) and recorded in SUMAL for each transport upon exit from the forest (essentially entry on the market);

**Improvement of the integrated information system in order to identify wood origin and better trace wood materials (including chips) through SUMAL, with an emphasis on wood placement on the market and the implementation of effective prevention mechanisms;**

**Development of an international integrated platform (GIS database) for Romanian forests, including complete and updated information regarding the flow and traceability of wood products at market entry points (beginning with the GIS borders of the harvesting site up until placement on the market following a GPS recorded route);**

**Establishing proper performance indicators for fulfilment of the monitoring and control duties, with emphasis on the verification of the wood placement on the market and compliance with the due diligence obligations by the operators; and**

**The elimination of VAT for firewood and rural construction wood for individuals - an essential measure for discouraging the black and grey firewood market.**

Verification at first market entry points and subsequent control follows a risk-based approach that is already applied by other countries such as the US, Australia and Japan, and is stated as an underlying principle of EU Timber Regulation 995/2010 (EUTR).