Monitoring timber transports. Tool for prioritizing controls in order to fight illegal logging

Monitoring report

1st March 2021

Disclaimer

THE TESTS WERE PERFORMED IN ORDER TO DEVELOP A METHODOLOGY FOR MONITORING THE IMPLEMENTATION LEVEL OF THE TIMBER TRACEABILITY REQUIREMENTS. THE MONITORING POINTS DID NOT OBSERVE A STRICT MONITORING PROTOCOL (ONGOING).THUS, THE MONITORING RESULTS HAVE NO STATISTICAL RELEVANCE FOR CAPTURING AN OVERVIEW OF THE ILLEGAL LOGGING AT NATIONAL LEVEL, BUT SIMPLY SHOW A CASE BY CASE REPORT OF THE CONDITIONS FOUND DURING THE MONITORING PERIOD IN THE RESPECTIVE MONITORING POINTS. THE RESULTS OF THIS REPORT ARE PRESENTED IN ORDER TO ILUSTRATE THE POTENTIAL OF THIS TOOL.

1. Context

The current timber sale system, which estimates the standing wood without verifying the resulted timber products following the logging at the moment of market placement, represents one of the main causes of illegal logging[1], in Romania.

Less than 1% of the timber transports are verified when leaving the forest and, in most cases, the control is limited to verifying the existence of the timber materials delivery documents and less to verifying the volumes and types declared. The few controls following the transports leaving the harvest place are performed randomly or even discretionary. The control plans do not implement controls prioritization following a risks approach. In this context, important quantities of timber material are placed on the market infringing the provisions of the national laws.

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[1] Definition according to art. 2, point g) - EUTR

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The European Commission has launched an infringement procedure against Romania for not observing the provisions of Regulation (EU) no. 995/2010 (EUTR) which forbids the placement on the market of illegally harvested timber and stipulates the obligation to act cautiously for the operators[2] placing timber material and timber products. The decision of the European Commission to activate the infringement procedure against Romania finds real deficiencies of the illegal logging fighting system in Romania: (i) the authorities do not perform systematic and persistant controls of the timber's first placement on the market; (ii) the verifications are neither sufficient nor efficient; (iii) the lack of representativeness of controls (including as geographical area, prioritization criteria); (iv) the sanctions must be effective, proportional and dissuasive.

2. Scope

The scope is the prevention of illegal logging in Romania by developing and implementing a methodology for the statistical estimation of the level of timber materials transports without "legal origin" by monitoring the level of compliance with the norms on origin & traceability of timber materials for the first placement on the market of the timber products originating from the forests of Romania.

This tool is essential for the development of an updated analysis of the **risk factors** and the **modus operandi** of placing the illegal harvested timber on the market and establishing the performance / efficiency of the forest control and security systems. Thus, technical solutions can be put in place in order to **consolidate the capacity of exercising the monitoring and control attributions**, by **prioritizing controls** following a risk based approach and **concentrating our efforts on the timber's "placement on the market".**

3. Objectives

We propose the development of a (first) monitoring tool with the technical base and objective of **evaluating the level of compliance with the norms regarding traceability and legal origin** of the timber when it is first placed on the market (for the timber from Romania meaning the transports leaving the harvesting sites).

Such a tool is essential for **establishing performance / efficiency of the forests control and guard systems** and especially for **the annual development /revision of the control plans and procedures** which follow a **risks based approach (i.e. controls prioritization** based on objective and transparent criteria – according to the provisions of Reg. (EU) 995 /2010 art. 10 – EUTR).

The monitoring proposed regarding the legal origin of the timber materials in case of transports leaving the harvesting place would lead to a **better understanding of the "modus operandi"** by which the illegal harvested timber is placed on the market (i.e. • transports without delivery documents of the timber material / SUMAL code; • statement fraud regarding the quantities of timber transported – flagrant overloads), including the **prevalence** of the categories of transport means used, the period of the day / week when most non-compliant transports take place.

Also, the specific **risk factors** could be identified / updated which should be considered when establishing the control procedures for the operators, following a **risk based approach** (i.e. **controls prioritization**);

The interpretation of the results obtained by applying this methodology which could identify / update the best technical / practical solutions for the **continuous improvement** of the Integrated Information System for Timber Traceability (**SUMAL**).

[2] Definition according to art. 2, point c) - EUTR

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4. Methodology

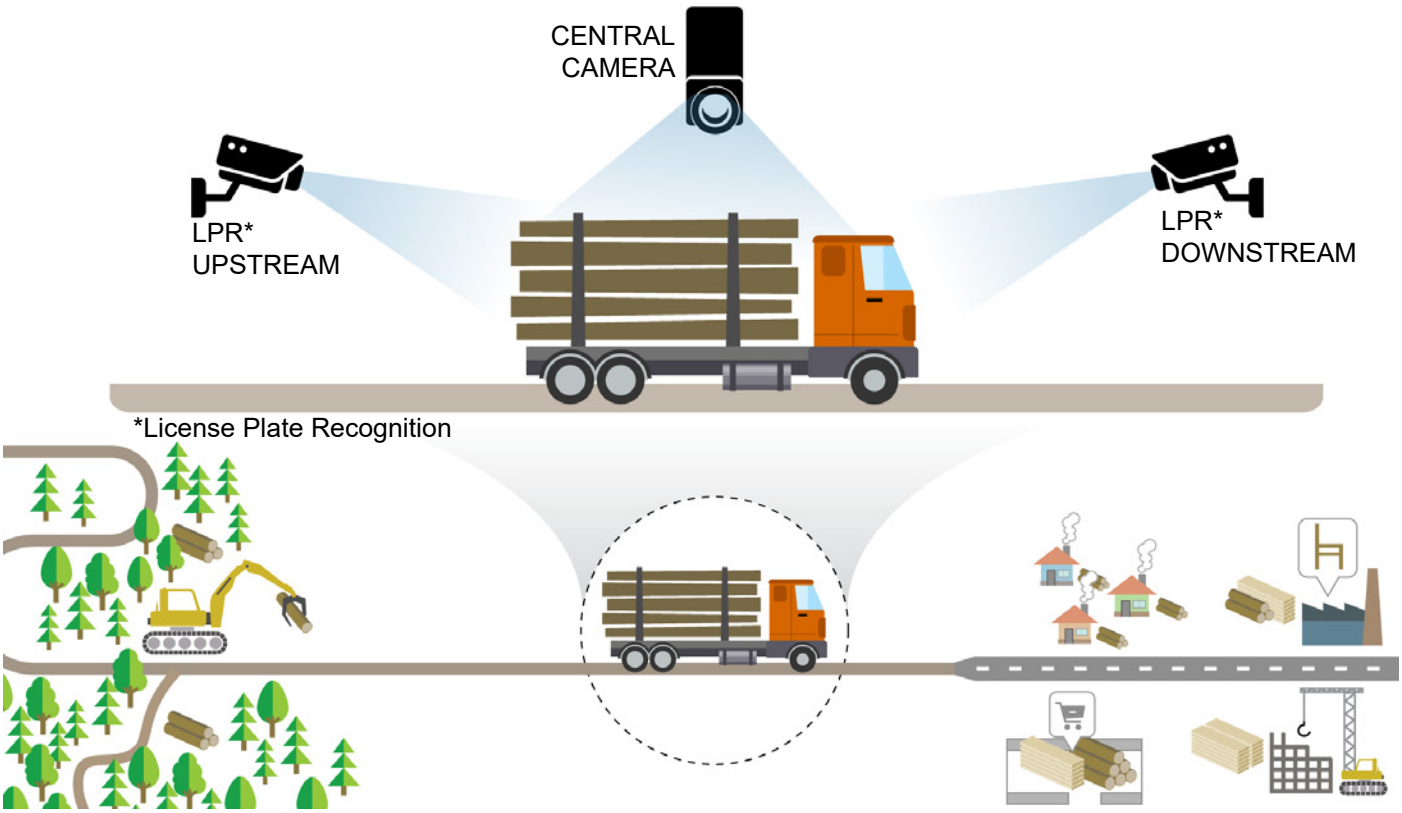
Methodology entails the monitoring of the timber materials circulation through a system of video cameras located on forest roads for a certain period of **time**, in certain locations (judiciously chosen according to a monitoring **protocol**), following the segment of first placement on the market of the wood (also in order to avoid "**double**" reporting).

Basically, the methodology is based on **comparative analysis** between the images captured and the data officially recorded in SUMAL. Thus, it counts on identifying transports without delivery documents, "multiple transports" and also **flagrant** differences between the real volume and the volume recorded in SUMAL.

Finally, the methodology should indicate an effective monitoring protocol in order to obtain a proper statistical representativeness / coverage at local, regional or national level. To this purpose, we take into consideration the necessity of a participatory process by involving the competent authorities, the academic environment, research institutions, forests administrators, operators and representatives of the civil society.

The tests have been performed in order to develop a methodology for the monitoring of the implementation level of the requirements related to the wood traceability.

The choice of the monitoring points has NOT been based on a monitoring protocol (a protocol which is ongoing and which should result following a series of repeated checks), being conditioned by the logistical requirements for testing/calibrating the procedures and techniques used.



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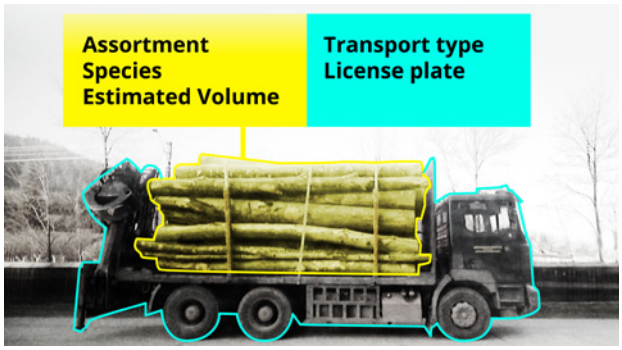
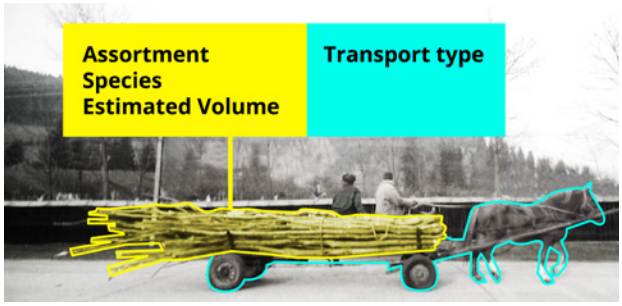
In order to extrapolate the data obtained at national level we require a judiciously established **monitoring protocol**. Thus, the monitoring results **have no statistical relevance** for capturing an overview of the illegal logging **at a national level**, but simply show a case by case report of the conditions found during the monitoring period in the respective monitoring points. The results of this report are presented in order to show the **potential** of this tool.

The data collection in the field was performed unexpectedly, with the help of a video surveillance system located in a fixed point. It entailed the permanent monitoring of the circulation of the timber materials in these locations 7 days /week, 24h / day. When choosing the monitoring points, the access networks was taken into consideration in the harvesting areas, avoiding any possible drop-off points (e.g. warehouse, processing point, households) existing between the harvesting place and the location of the monitoring system.

The timber transports have been exclusively verified with the help of public available data, using the mobile application Inspectorul Pădurii v 1.0.7, respectively the desktop version.

In order to estimate the quantities, species and types, **four** independent assessments have been performed by specialist in the field, according to the images collected by the video cameras. The interpretation of the assessments followed a **cautious approach** – the values presented being **minimal**, in our understanding.





5. Summary

Illegal transports of timber materials leaving the harvesting place continue to be a significant problem. The monitoring results show that the non-compliant transports have mainly a **non-uniform character**, with significant differences in frequency from one monitoring point to another. This shows the need to prioritize controls according to geographical areas, but also that they take place according to a **forseable/ predictable pattern**, following certain risk factors (e.g. time frame / days of the week).

Comparing to the situations before the implementation of Wood Tracking and Inspectorul Pădurii platforms (i.e. 2015), the modus operandi has evolved from transports without delivery documents /SUMAL code to multiple transports using the same delivery document /SUMAL code and, today, to frauding the statement regarding the quantities of timber transported – flagrant overloads.

*This type of information – permanently updated through a **national monitoring network**, is essential for the development of an effective, **dynamic** control plan which follows a risk based approach and finally leads to the deterrence of such practices.*

*Atthe same time, the monitoring results may be used as a barometer of the **efficiency of national forest policies** and may justify the relevance and opportunity of continuous improvement of the legal framework in order to support the prevention efforts of illegal logging.*

Evolution in time of Modus Operandi

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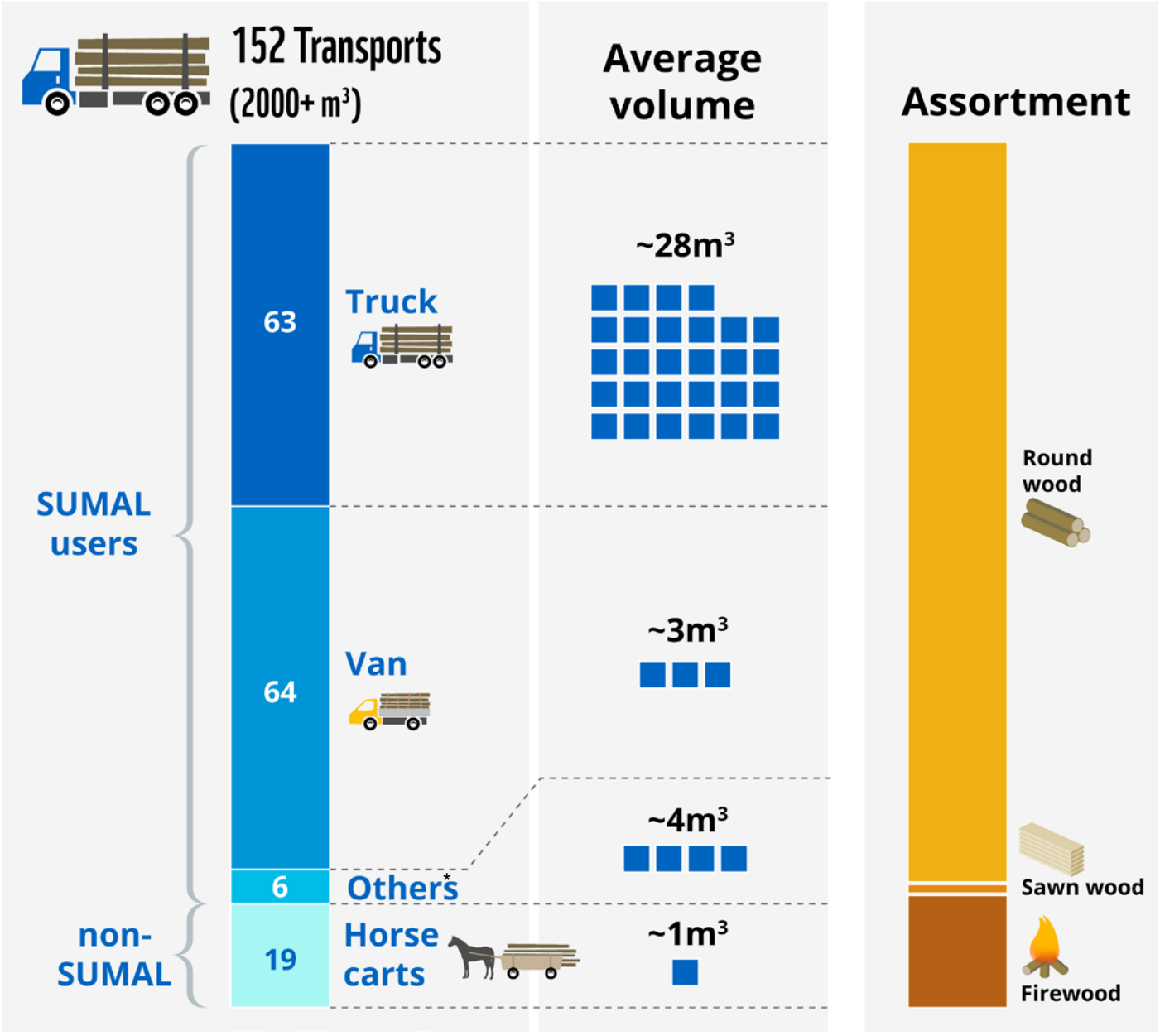
6. Results

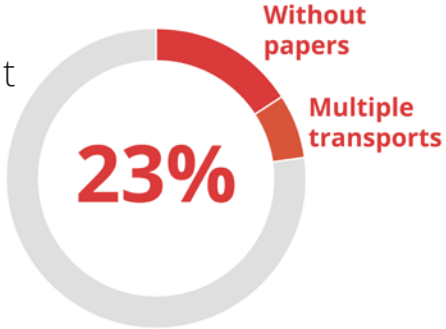
GENERAL

Monitoring was performed in the period November - December 2020, in 3 different locations, totaling 21 days of uninterrupted monitoring.



other types of vehicles (tractor, 1 axle trailer, cart)

Total transports without delivery documents / SUMAL code



6.1. Without papers + **6.2. Multiple transports**

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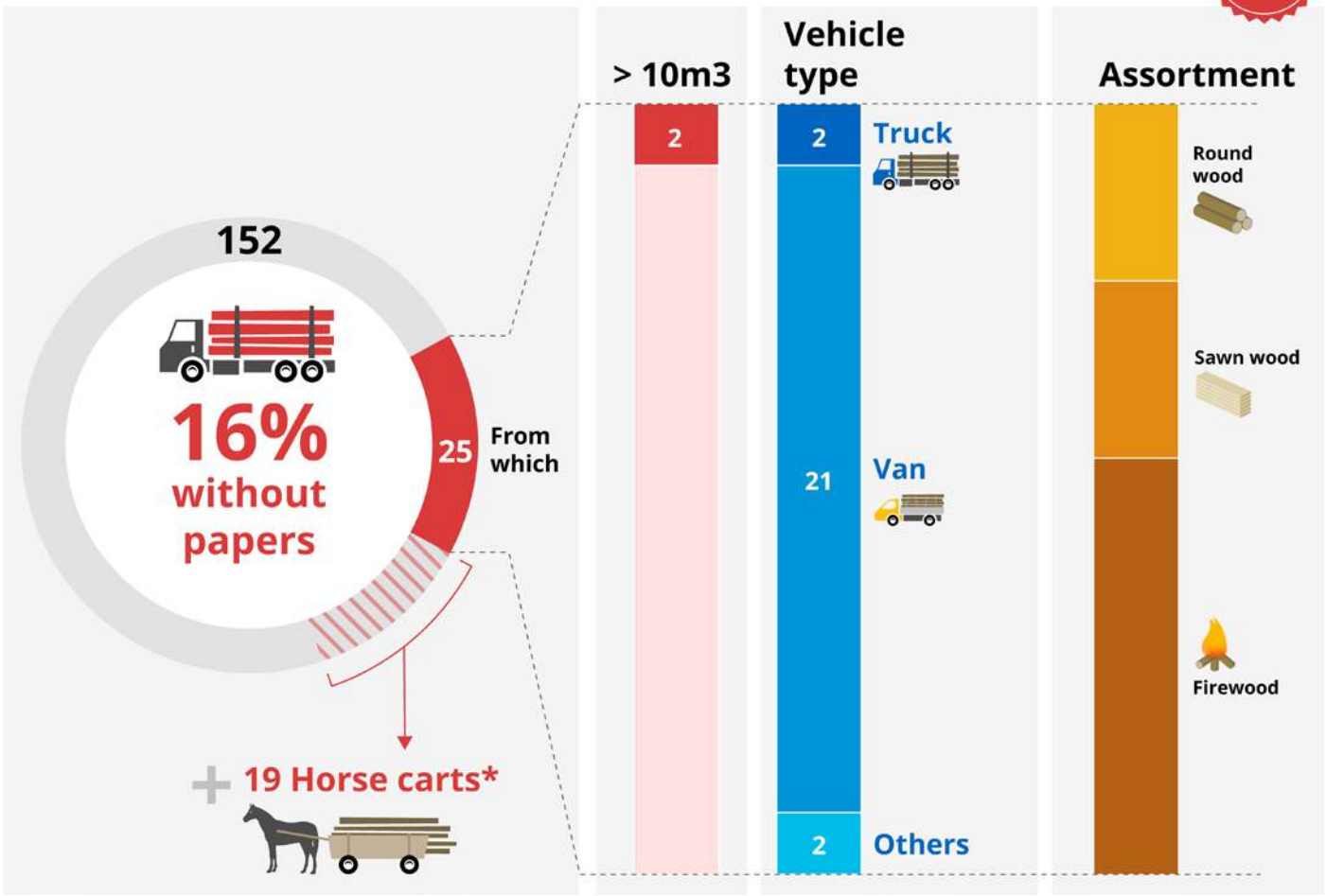
6.1. MODUS OPERANDI

Transports without delivery documents / SUMAL code

VOLUME RECORD
15+ m³



* *SUMAL and Inspectorul Pădurii V 1.0.7 did not provide sufficient data in order to verify the legality of the transports (N.B. the use of Wood Traking is not mandatory for horse carts). Thus, these transports have NOT been included in the assessments regarding transports legality.*

i *The majority of the transports without delivery documents / SUMAL code are represented by the **small trucks with firewood**, most likely in order to meet the basic needs of the local communities.*

None of the versions of SUMAL has any impact on these cases (transports without delivery documents). These illegal transports may be prevented only by performing unexpected guided controls which target the first placement on the market, doubled by proportional and dissuasive sanctions. The wood once placed on the market is subsequently impossible to identify (e.g. firewood for the population, yield statement of the processing technology etc.)

We also note the existence of transports without delivery documents which exceed the threshold of 10 m³ (actions which may constitute forest criminal offences), even if the number is relatively low (25 of 152 transports) which can only be discouraged by targeted controls at first placement on the market.

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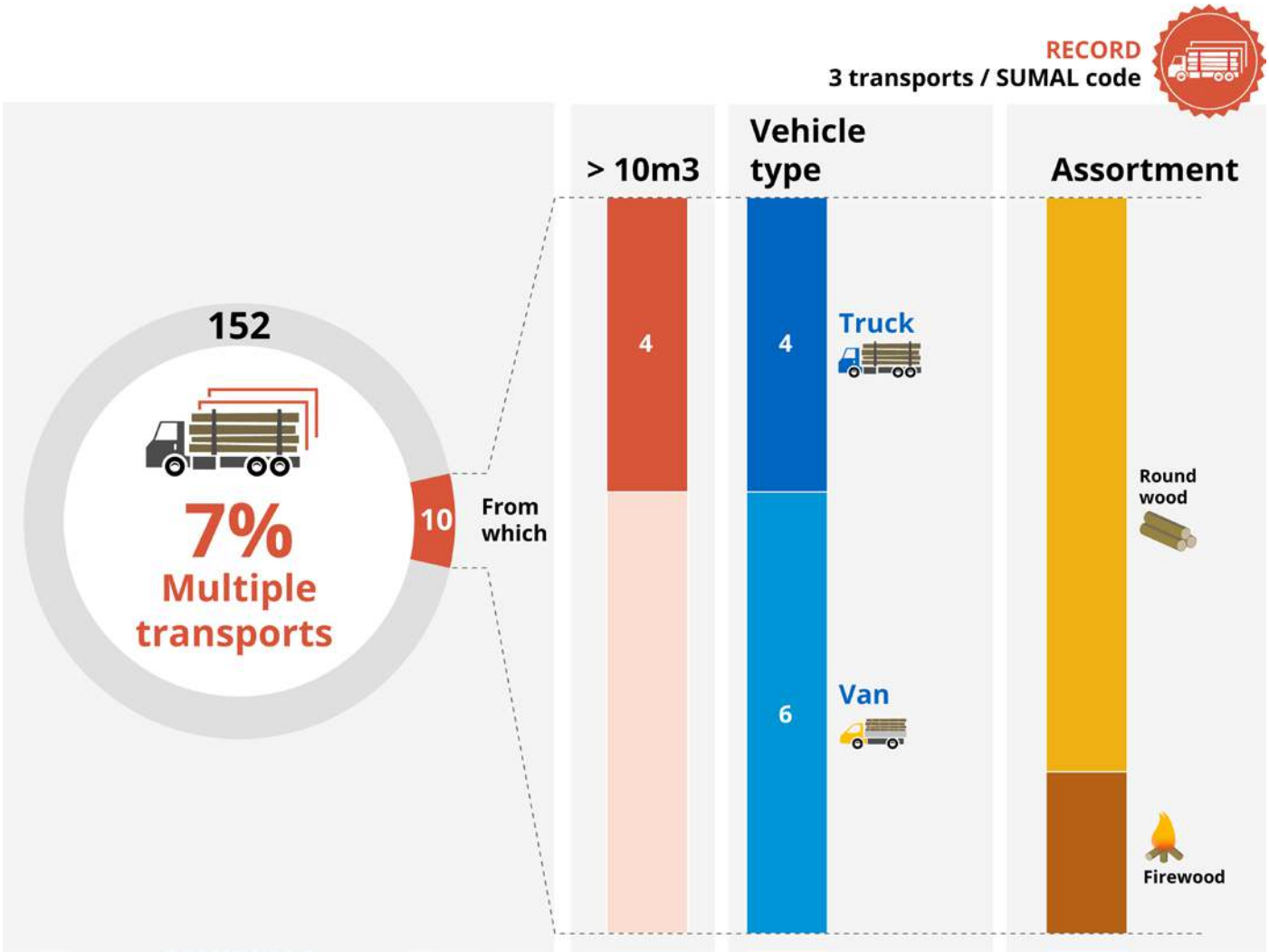
6.2. MODUS OPERANDI

Multiple transports based on the the same delivery documents / SUMAL code



Multiple transports are essentially transports without legal documents and this modus operandi is specific to operators, as they are defined by EUTR (SUMAL users).

These non compliances cannot be traced during controls without a continuous monitoring. The only and most effective way is the implementation of the "digital fingerprint" – the electronic seal of the timber transports.

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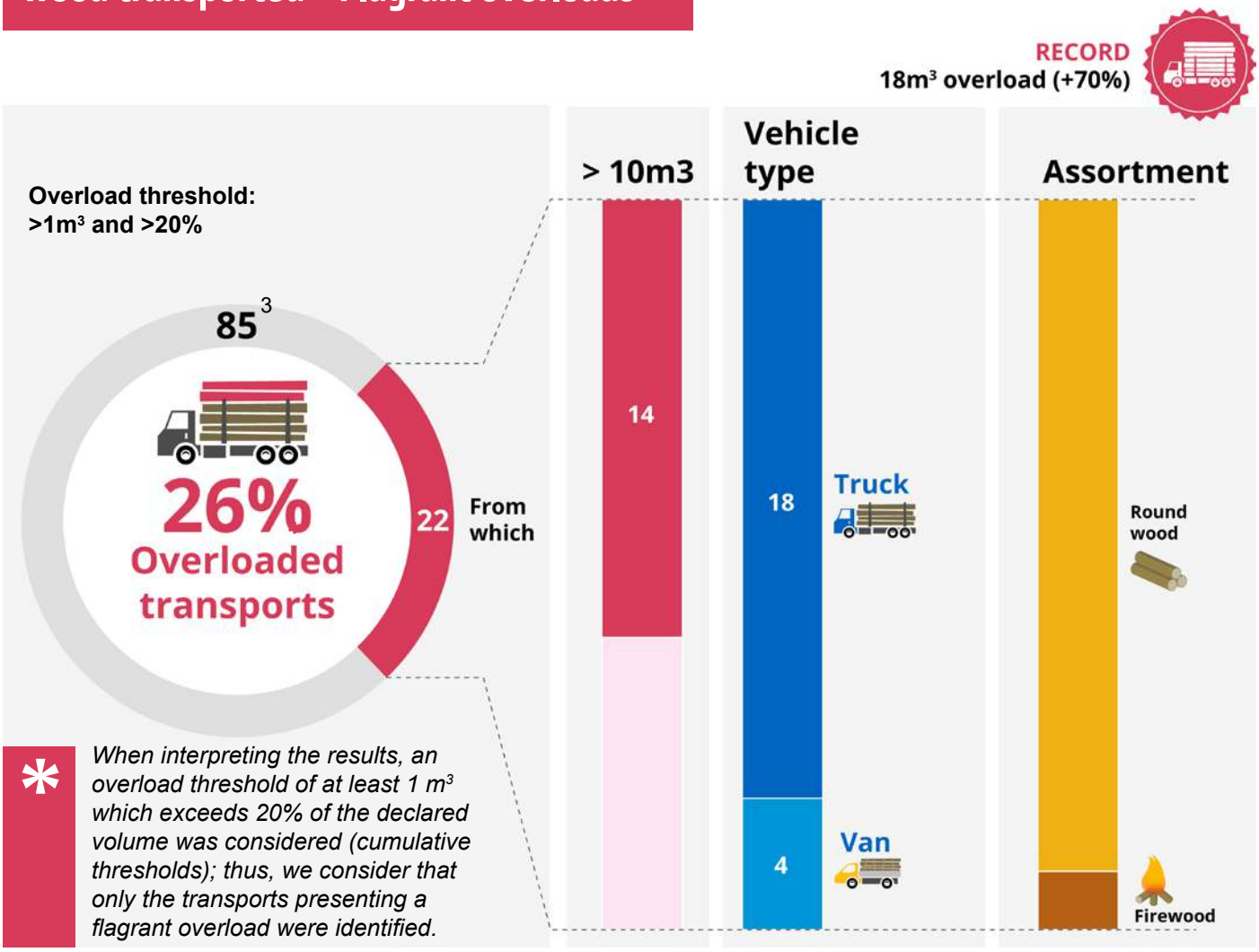
6.3. MODUS OPERANDI

Statements' fraud regarding the quantities of wood transported – Flagrant overloads



* *When interpreting the results, an overload threshold of at least 1 m³ which exceeds 20% of the declared volume was considered (cumulative thresholds); thus, we consider that only the transports presenting a flagrant overload were identified.*

i

When interpreting the results, an overload threshold of at least 1 m³ which exceeds 20% of the declared volume was considered (cumulative thresholds); thus, we consider that only the transports presenting a flagrant overload were identified.

The majority of the overloaded transports are represented by the trucks with round wood.

The overloading represents the most frequent modus operandi which is not adressed by SUMAL 2.0.

Modern technical methods must be developed in order to support the performance of guided controls which allow the simplified verification of the volume by scanning the transport and establishing the technical cubage with a maximum allowed tolerance and which, together with the graphical print, represent the "passport" for the placement on the market (mandatory for the timber transport from the forest to the first drop-off point).

[3] Only transports with delivery documents / SUMAL code were taken into acccount. Due to technical reasons, not all transports found could be rigorously analyzed (i.e. the quality of the images recorded did not allow the evaluation of the volumes).

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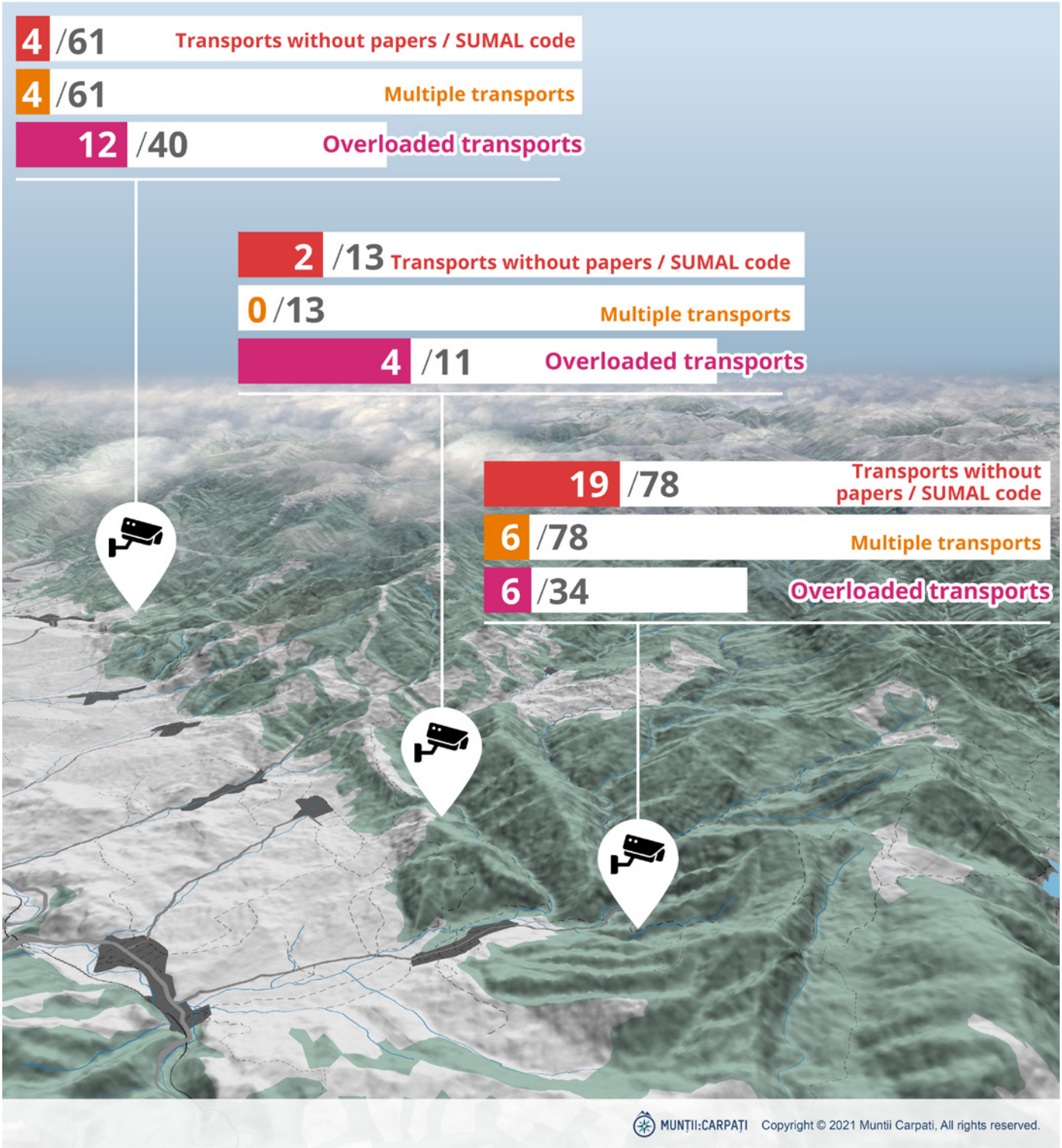
6.4. Comparative overview between the 3 monitoring points (P1, P2, P3)



The modus operandi and frequency of non compliant transports are different between the monitoring points.

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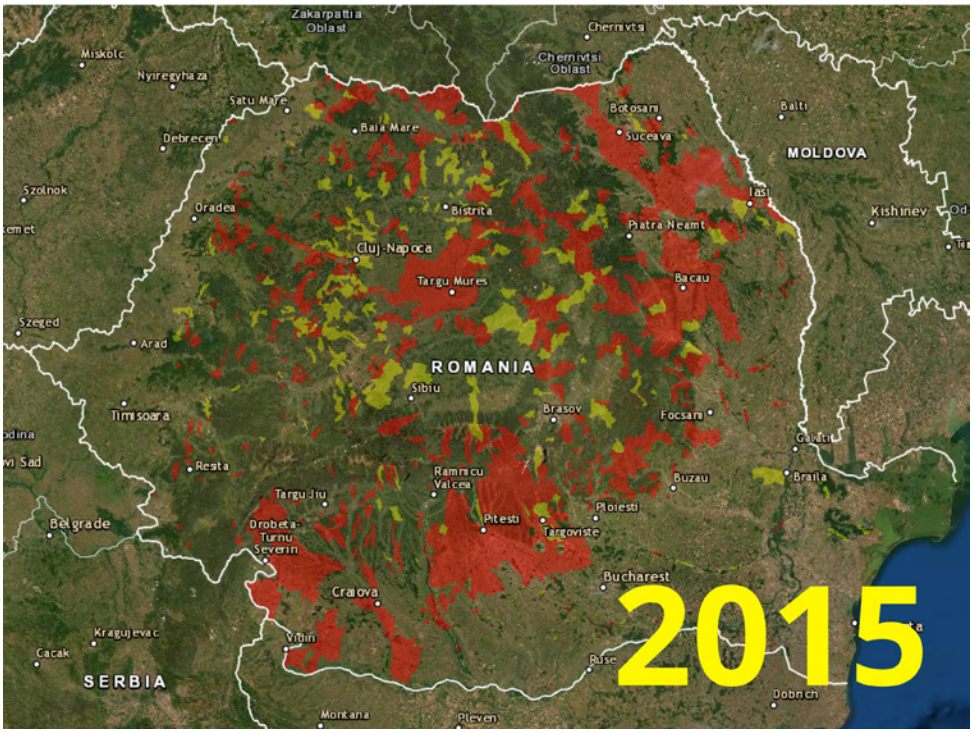

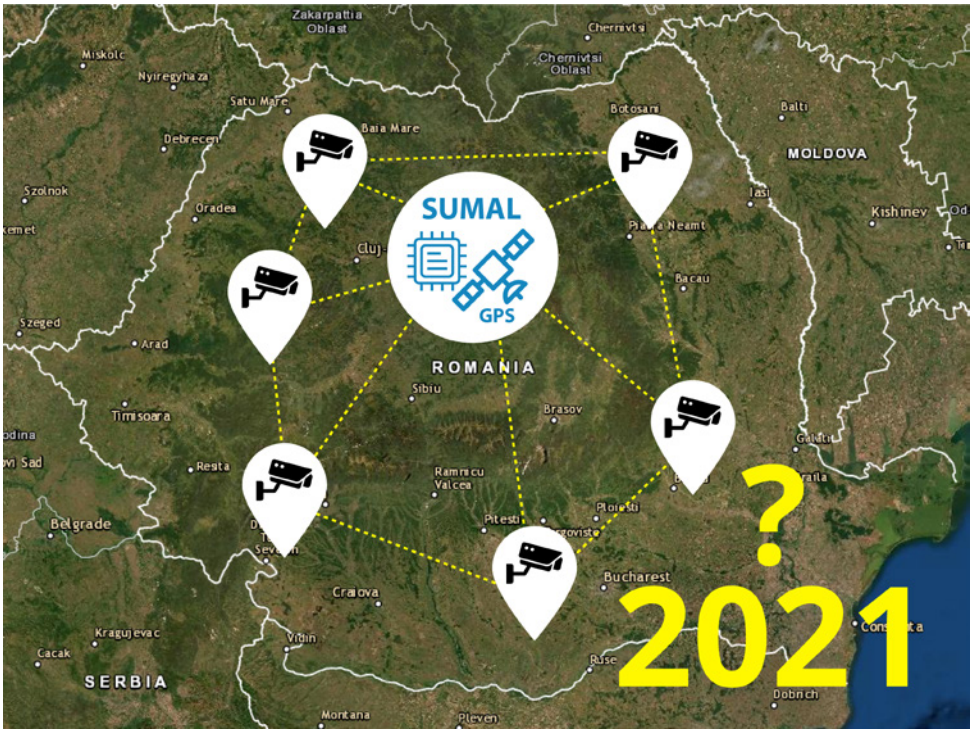

Map of risks area regarding illegal logging - The map represents an own assessment of the Competent Authority (MMAP), for the year 2015, based on the information gathered in the period 2012-2014

In the future this data could be compared with the administrative reports of the forest fund or local social and economic context and thus, the risk factors and favouring reasons of illegal logging will be objectively identified / updated.This way a geographical prioritization of the controls can be possible according to risk factors identified (e.g. frequency of non compliances notified / found, saltelite alerts generated by SUMAL, management form and distribution of forest fund according to ownership forms, extreme values of the tender's results regarding the selling of the timber, etc.).

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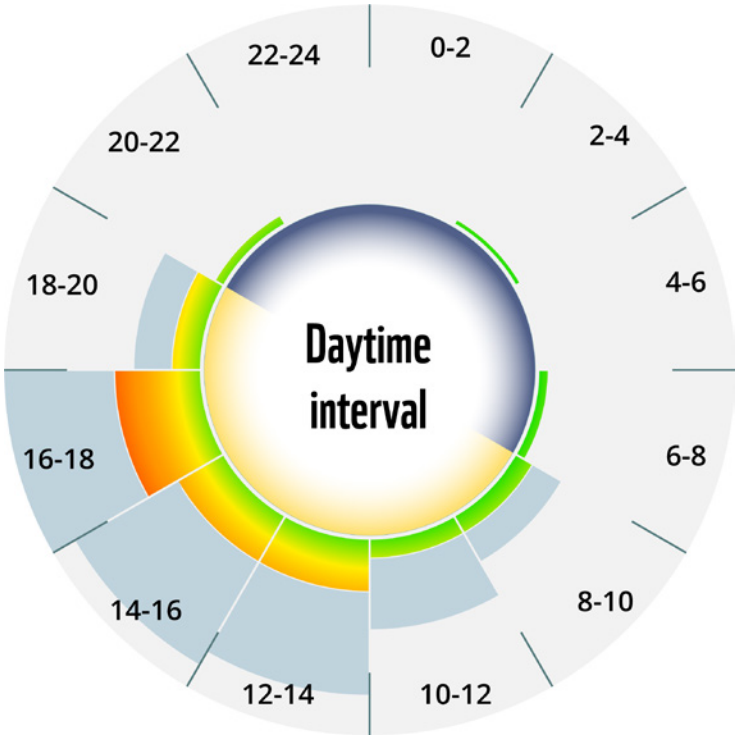
6.5. Transport's performance according to time frames

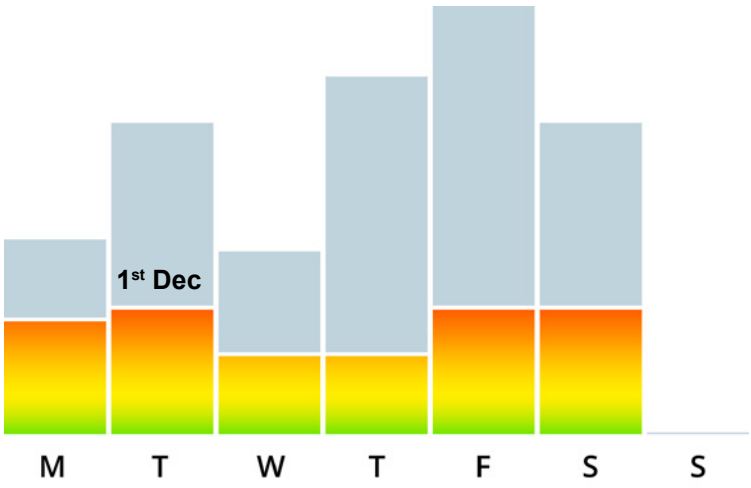
Non compliant transports / time frames

The frequence of non compliant transports shows a peak within the timeframes 16:00 – 18:00, outside of normal working hours (08:00 – 16:00) of the authorities that have guarding and control duties. The correlation with the working hours in the forest is also obvious (the harvested timber is transported at the end of the working day).



Non compliant transports / days / week

The highest frequence of the non compliant transports is at the beginning and end of the week. The frequency of non compliant transports has tripled in non-religious holidays (e.g. Saturday, Tuesday, December 1st).



Two thirds of the non compliant transports have been performed outside the normal working hours of the structures with guarding and control duties.

There is no transport activity in religious holidays such as on Sundays.

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7. Conclusions and recommendations

The efforts in fighting illegal logging must support as a priority the application of the Regulation (EU) no. 995 /2010 (EUTR), respectively guarding the forests by verifying timber transports at the first placement on the market (the only point when prevention can be applied). The current guard and control system must be transformed from a reactive one into a preventive one.

The prioritization of the controls at the first placement on the market and the implementation of a sanctions regime which discourages illegal practices are the background solutions also requested by the European Commission through the infringment procedure launched against Romania.

For the improvement of the control activity it is necessary to implement control procedures which follow a risks based approach, meaning the prioritization of controls based on objective and transparent criteria.

The lack of controls prioritization at the first placement on the market encourags those willing to break the law – they continue to perform transports without delivery documents and overloads which exceed the threshold of 10 cubic meters (facts which constitute criminal offences).

The overload of the transport, meaning the fraudulent statement of the quantities of wood, represents the main modus operandi noticed, by which timber is placed on the market breaching the legal norms (undeclared volume). The recent updating of SUMAL to the 2.0 version fails to solve this problem.

The non-uniform character of illegal logging and the evolution of the modus operandi show the relevance and necessity of elaborating a tool which would help with the continuous determination / updating of the risk factors and modus operandi.

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! *Furthermore, a **SYSTEMIC** change following a **NEW FOREST POLICY VISION** is much needed, aligned with European values, principles and norms that take into consideration national specific.*

*To reach that,a legislative package is necessary: starting from a NEW Forest Code, but also adapting the penalties regime, wood selling regulation, operation of the Forest Guards, fiscal code, and of course … a **New SUMAL integrating all these.***

IMPORTANCE AND RELEVANCE OF LEGAL AMENDMENTS:

Currently, about 80% of the timber is sold under the form of “standing stock”, which generates systemic conflicts of interests. Wood products must be received at the declared market entry point (amendment of the Regulation of timber capitalization from the public property forest fund, which also should take into consideration the principle of superior capitalization at local level).

In most situations, even if the non compliant transports (regardless of modus operandi) would be noticed, the operators only risk an administrative fine whose value is most of the time less than the prejudice. It is necessary to implement an effective, proportional and dissuasive penalties regime (amendment of the Forest Code, Law 171/2010).

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There is a need to set adequate performance indicators related to compliance with DDS requirement by the operators (amendment of the Regulation on the organization and functioning of the Forest Guards).

The black market of firewood is mainly generated by the elevated price and also the VAT quota. For example, 1 m3 of firewood plus VAT represents in many situations 25% of the average income of a person in rural environment. In order to discourage the selling on the black market, the amendment of the Fiscal Code is necessary in order to reduce the VAT for the firewood and rural constructions.

RECOMMENDATIONS FOR THE IMPROVEMENT OF THE METHODOLOGY:

The simplified assessment of the volumes through visual evaluation represents a true challenge which is why it is necessary that the interpretation of the results be made automatically and objectively, with the support of IT technologies (i.e. artificial intelligence), according to strictly modeled algorithms.

Starting with the utility of the methodology (i.e. continuous updating of the field data), testing and development of the methodology must have a continuous character, taking into consideration the dynamics of the illegal logging phenomenon.

For a statistical relevance at regional / national level, it is necessary to develop a monitoring protocol established through a participatory process which proactively involves the representatives of the academic field, technical experts, authorities / institutions with control duties and also civil society.

i

*Without a tool which objectively indicates **WHERE? WHEN? HOW?** the control plans must be targeted, the controversy of illegal logging will continue endlessly, we will continue to see an evolution of the method of its performance according to "possibilities" and not a prevention of this phenomenon.*

*Without addressing the causes of the illegal logging in an integrated manner (**WHY?**), they will remain a reality with serious negative implications on the responsible management of the forests and sustainable development of the local communities.*

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8. References

Inspectorul Pădurii, v. 1.0.7 (together with the implementation of SUMAL 2.0, this version is no longer available).

Regulation (EU) No 995/2010 of the European Parliament and of the Council of 20 October 2010 laying down the obligations of operators who place timber and timber products on the market.

Decision 470/2014 for the approval of the Norms relating to the origin, circulation and trade of timber materials, the regime of the storage units of the timber materials and the processing installations of round wood and also implementation measures of Regulation (EU) no. 995/2010 of the European Parliament and Council from October 20th 2010 establishes the obligations of the operators placing timber and timber products on the market.

Order 837/2014 for the approval of the Methodology relating to the organization and operation of SUMAL, the obligations of the SUMAL users and also the structure and communication method of the standard information.

WWF CITI Vision

Risk assessment and mitigation -2020

Guide of good practice for the national operators regarding the implementation of the provisions of Regulation (EU) no. 995/2010 EUTR

Decision 497/2020 for the approval of the Norms relating to the origin, circulation and trade of timber materials, the regime of the storage units of the timber materials and the processing installations of round wood and also those relating to the origin and circulation of timber materials for own consumption of the owner and also implementation measures of Regulation (EU) no. 995/2010 of the European Parliament and Council from October 20th 2010 establishes the obligations of the operators placing timber and timber products on the market.

Order 118/2021 for the approval of the Methodology relating to the organization and operation of SUMAL 2.0, the obligations of the SUMAL 2.0 users and also the structure and communication method of the standard information and the costs of the delivery documentss issuing services for the situations stipulated under art. 11 of the Norms relating to the origin, circulation and trade of timber materials, the regime of the storage units of the timber materials and the processing installations of round wood and also those relating to the origin and circulation of timber materials for own consumption of the owner and also implementation measures of Regulation (EU) no. 995/2010 of the European Parliament and Council from October 20th 2010 establishes the obligations of the operators placing timber and timber products on the market, approved by Government Decision no. 497/2020.

Law 171/2010 relating to establishing and sanctioning forest offences.

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Why we are here

To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.

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