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Introduction to national WTS: definitions, objectives and trends, and recalling the Eastern Partnership context

DE LA ROCHEFORDIERE, ANTOINE | ONF International

Regional Workshop on Wood Tracking Systems (WTS) and EU Deforestation Regulation (EUDR) Compliance:
Strengthening Forest Governance in Eastern Partnership countries

Yerevan, Armenia, 22-25 October 2025

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Structure of the presentation

- Introduction
- Need: Prevention of illegal logging, control of legal harvesting and local distribution of wood products including wood fuel
- Opportunity: Strengthen production and export trade control, of high value wood products, in support of EUDR compliance
- Wood Tracking Systems (WTS) definition and objectives
- Benefits of National WTS (NWTS)
- Feasibility of introducing an electronic tracking system in Armenia, Georgia and Moldova
- The situation of Ukraine as regards NWTS

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Introduction

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Wood product traceability, a topic of global relevance:

- 15 - 30% of wood harvested worldwide, currently considered of illegal origin (FAO/WWF)

Responsible market players (buyers, distributors, consumers), and legislators, such as in the EU, increasingly need to be sure

- of the origin of wood, and
- that harvesting has not contributed to illegal logging or deforestation

Traceability, and verification of legal origin and compliance of wood products, critical tools to control production and trade, ensuring they are both traceable and legal

Focus of presentation: definition, role, users, and significance of national WTS for EaP countries, esp. Armenia, Georgia and Moldova

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Need: Prevention of illegal logging, and
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Illegal logging and illegal imports negatively impact market prices and sales

To justify investments in control measures, it is essential to revitalize the timber sector and ensure increased product value and increased export volumes and revenue

Innovation should also serve to reduce control costs for both governments and operators

Effective prevention of illegal logging hinges on the notion of "*timber flow control*", aiming to verify 1) the legitimate origin of a wood supply chain and 2) its integrity - through volume/mass checks and balances - from source to export or local market (Lavoisier's Mass Conservation Law)

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Such “verification of legal origin” (VLO) of timber, ensuring supply chain integrity, is where innovation is more likely to play a role

“Verification of legal compliance” (VLC), ensures adherence to forest management and timber processing and trade regulations

Both VLO and VLC are crucial for ensuring legal timber

Together, they encompass broader concept and scope of “legality”, required by international standards, including SFM certification and timber trade regulations, such as EUDR

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VLC is pointless, without VLO first verifying that products at export, or import into the EU, genuinely originate from the declared sources

Enhanced Chain of Custody and supply chain registration systems, including EUDR due diligence statements, can aid in meeting the EUDR geolocation requirement

However, a National WTS efficiently provides such assurance at any point in the supply chain, plus combines the *tracking* (for VLO) and *monitoring* (for VLC) functions, both necessary in any comprehensive control system

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Opportunity: Strengthening of production and export trade control, in support of EUDR compliance

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Exports of wood-based products to EU from the EaP countries of Armenia, Georgia and Moldova are currently very limited.

Exports of *high-value* products, in *significant volumes*, is what is needed, to ensure an enhanced contribution of the sector to the national economy.

The question is, how can this be achieved?

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The closest prospect in Armenia, Georgia and Moldova is a minimum of 3-5 years to organize exportable, certified production in existing old-growth forests:

- of high-value, quality saw-logs and derived semi-processed products, from the large diameter logs;
- and value-added charcoal or pellets, instead of simple wood fuel, in the smaller diameter logs

Given the current conditions for implementation, introducing new technologies to support legal export trade under the EUDR may seem a prospective necessity

However, this prospect also gives the countries some time to get prepared. Therefore, dynamic action plans are essential!

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Wood tracking systems: definitions and objectives

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Definition : *“A powerful IT-based data communication network and data management engine, centred around a central, online, electronic database platform, interconnected with other peripheral data tools”*

A WTS **operates within a community of users**, located in different sites, at the level of:

- a national forest and timber sector, or
- another type of organisation, for example **members of a certification scheme**, or of a **supply chain to an importer in the EU**

It could well be a **State enterprise** such as Hayantar SNCO in Armenia, the NFA in Georgia, and Moldsilva in Moldova

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Establishment of a NWTS is particularly essential, in the context of EaP countries, for:

- **State Control**, due to centralized forest ownership and management, which can lead to inefficiencies and lack of oversight and transparency. A NWTS enhances visibility in the timber supply chain, improving resource management
- **Combating Illegal Logging**: Illegal logging undermines SFM. A NWTS tracks wood resources from their origin, aiding in the identification and prevention of illegal activities

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A NWTs must combine both *tracking*, and *monitoring* functions:

- The tracking function will:
 - **Individually register every new product**, from national production or from importation, through an initial “*declaration*” data set, each with a unique ID, and
 - **follow, throughout the supply chain, any change in its location, ownership, shape or status** (through a transport / sale / transformation / process),
 - **while keeping the filiations** (from a specific tree to the saw logs obtained from the tree, from logs to sawn wood bundles etc.),
 - **allowing to track and trace the products**, back to forest source (or to a border-crossing point, for imports) and through to market/export

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- The monitoring function will:
 - **Follow information associated with the product, at each stage down the chain**, from inventories to harvesting, or from import, through to further transport, processing, storage, export etc.
 - **Verify the situation against what was permitted** (i.e., a specified set of rules, including applicable legislation, and including prohibited deforestation / forest degradation, under EUDR), **as well as tax payments due**,
 - therefore **detecting incompliances or discrepancies**, beyond set tolerance levels

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- The **combination of both functions** will make it possible to eventually **determine with certainty whether, for example, a particular export consignment is “legal”**, for either its Customs clearance, or retention until the situation has been redressed or sanctioned
- Note: Importance, for international recognition, of having measures in place to guarantee that only reliable proofs of legality are issued by the relevant authority, as a result of the NWTs, like official ‘Export permits’, not in contradiction with evidence provided by the system

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Compulsory use of the NWTS: systematic registration in the system, of all products generated in the formal sector, or imported, will also allow:

- **to detect other products** (thus presumably illegally harvested), identified visually during transport or storage for **not bearing the official marking system**, and checkable electronically; and
- **to also reveal illegal production / supply chains and routes** destined for domestic and neighbouring (cross-border) markets

Meeting specific EUDR requirement for geolocation of wood product forest origins means and implies, in practice, traceability throughout entire supply chain:

only NWTS can provide such full and undisputable traceability, also transferring the exact geolocation, and time of harvest, information

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Users of National NWTS

- Government: regulation, monitoring and enforcement
- Forest/timber companies: logging, processing, trading
- Certifiers, NGOs: independent third-party monitoring / auditing, scrutiny
- International buyers: demanding proof of legality

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Key benefits of implementing a NWTs

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A National WTS helps ensure:

- Traceability and legality of wood from all categories of land uses going for export, which can then be extended, to monitor domestic consumption
- Effective tax and fee collection to maximise government revenue
- Automatic stock inventory at each node in the supply chain (ready for inspections)
- Tackling illegal / under-reported, and therefore most likely unsustainable, logging; and more generally detecting discrepancies, anomalies and inconsistencies
- A level playing field among all forestry operators

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- Creation of industry / market / civil society / international community confidence and trust by enhancing transparency in timber sourcing and promoting sustainable practices
- Reduction of reputational and financial risks for State / operators
- The mutual support / promotion of FM/CoC certification, whose processes also require legal sourcing and distribution, through systems, procedures, documentation and independent auditing
- Same for EUDR compliance
- Harmonization and consolidation of accurate national data, which will guide forest governance and may reveal issue of *true wood demand / consumption, in wood fuel, particularly, exceeding sustainable production capacity*

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Feasibility of introducing an electronic tracking system in Armenia, Georgia and Moldova for wood products, including wood fuel

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Taking Hayantar SNCO in Armenia as an example:

- 100% of harvesting is carried out by Hayantar and its 17 Forest Enterprises
- Firewood accounts for 75 to 99% of the total annual harvest (depending on estimates and whether informal/ unreported harvesting is included)
- Any solution implemented by Hayantar to track wood-based products must work for wood fuel

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The problem with tracking wood fuel, from a cost efficiency viewpoint, is that, unlike large, valuable saw-logs, wood fuel pieces cannot be individually enumerated, measured or weighed, numbered, and marked or tagged

Possible solutions

- Firewood logs in bundles, or entire truckloads of wood fuel in bulk can be used as “tracking units”, during transport from one storage point to another
- Alternatively, the movement of a stock of wood fuel properly measured and dated at source and reconstituted at destination can also be documented

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- Tracking can therefore be implemented, and quantities reconciled after transfer, and electronic tracking envisaged for data collection and processing through the chain (no more paper-based system)
- The system may not be as secure as with itemised products like large saw logs. Some movements can always go unrecorded and undetected anyway, and ill-intentioned groups willing to cheat the system would be able to do it...
- ...unless
 - the system is managed by a trustworthy, independent operator who also provides field checks and data verification, or
 - there is a significant rate of sample checking from a truly independent inspection body, and efficient public scrutiny measures are implemented

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- Limitations will probably include:
 - 1) Cost of developing, operating a tailor-made tracking system,
 - 2) Cost of independent third-party monitoring
- Small scale of firewood harvesting and transport operations, and the low product economic value will make it difficult to develop a viable, self-financing business model
- Also, the market driver may be lacking for Hayantar, due to its vertical monopolistic situation, and in absence of competitors and challenging clients for proofs of legality
- Political and financial support may therefore be needed, but, surely, developing a solution is technically feasible

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The situation of Ukraine as regards a National WTS

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Digitalisation, and increased revenues from timber sales, are the results of on-going forestry reform (extract):

“Currently, no logging tickets or certificates of origin are issued on paper. We have converted them into digital form, and in fact ensured the traceability of timber circulation from place of harvesting to export sales. Every m3 of timber is now electronically recorded and more than 42,500 certificates and almost 74,000 logging tickets have already been issued through the system,”

(Ruslan Strilets, Minister of Environmental Protection and Natural Resources)

Ukraine: a different situation from other EaP countries, more advanced in terms of a National WTS. Closer to that of Romania, with its SUMAL system? See next presentation.

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Conclusions, Key takeaways

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National WTS ensure that wood products are legal and traceable

Effective control aims to prevent illegal logging, and support legal timber trade, both at home and for export

Opportunity/trend: strengthen production and trade control, of high value wood products, based on NWTs, in support of exports and EUDR compliance

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NWTS also support SFM at home, global compliance (SDGs) and market access

Points of attention: design, roles & responsibilities, enforcement and integrity, financing, interoperability, capacity building, adoption...

A sustainable future in ensuring future efficiency of WTS lies in technology, transparency, and international collaboration

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Thank you for your attention !

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