



Building Resilience for Europe's Forests Insights from Romania

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LIFE Platform Meeting on Forest Restoration in Europe

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Overview of the Proposed Focus

1. Enhancing the Resilience of Europe's Forests: A Strategic Necessity

The need for Forest Restoration and transition to Closer-to-Nature Forest Management.

2. Insights from the “Green Heart of Europe”

Best practices on CNFM system & Challenges faced by **Romanian** forestry .

3. Scaling Up CNFM and Restoration to Secure Europe's Forest Future

Forests at the Heart of Europe's Green Investment Future

Mounting Climate Pressure

- Increasing frequency and severity of **extreme weather events**:



Storms & wind breakers



Extensive bark beetle outbreaks



Prolonged droughts & heat waves



Wildfires

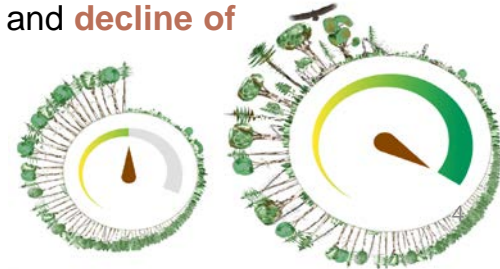
- Increased **large scale forest disturbances** & ecological degradation.



Legacy of Human Management

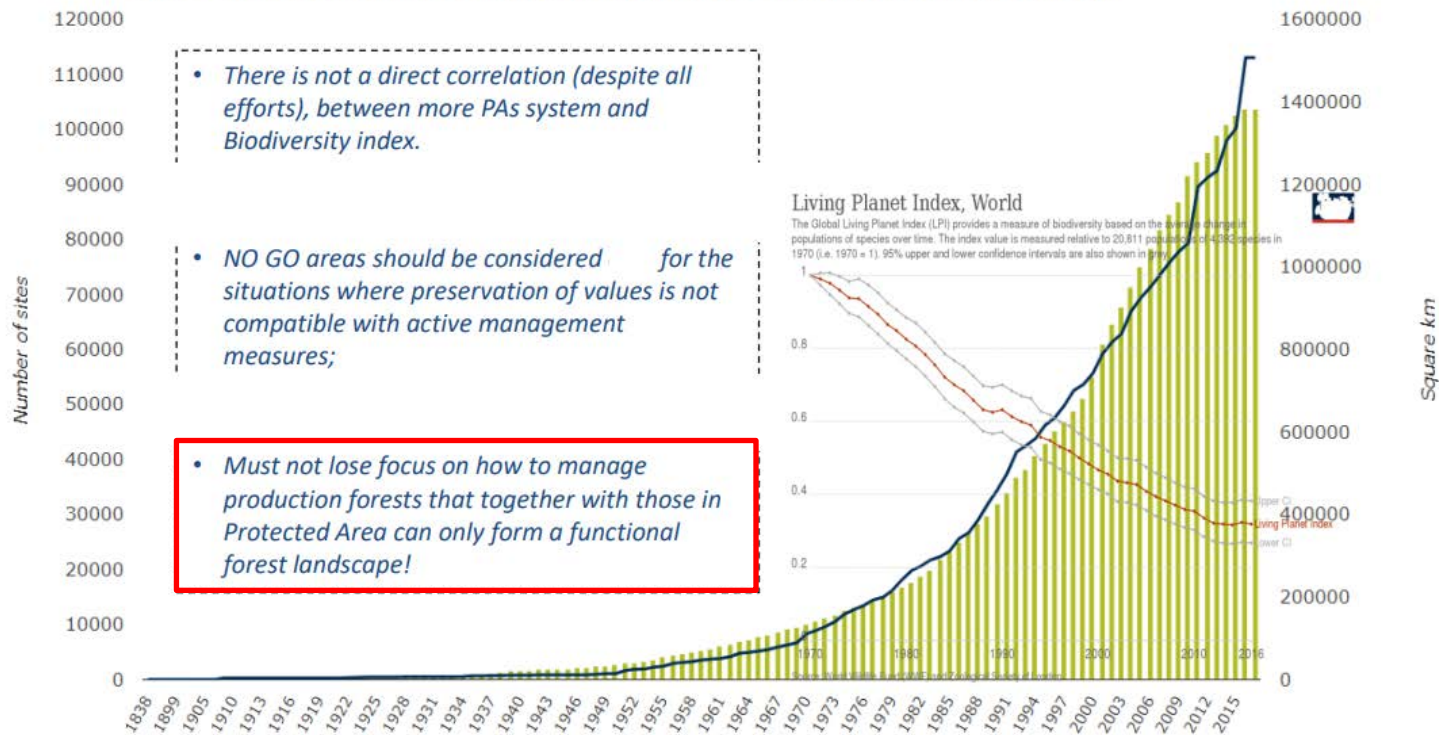


- Over **98%** of Europe's forests have been shaped by human activity. While many have been managed sustainably, critical **structural & ecological attributes have been lost** for extensive regions.
- More direct human-induced pressures: **Habitat loss & fragmentation, forestland change**, introduction of **invasive alien species**.
- **Only 14%** of the assessed forest habitats listed in Annex I of the EU Habitats Directive show **good conservation status**, with notable differences among regions.
- **Simplification** and **homogenization** of European forests compositions – coupled with **shortened silvicultural cycles** have led to a significant under-representation of **mature attributes in forests** (deadwood, tree-related microhabitats, veteran trees) and **decline of dependent species**.



From Paradox to Solution

Chart — Increase in the number and size of nationally designated protected areas, 1838-2017



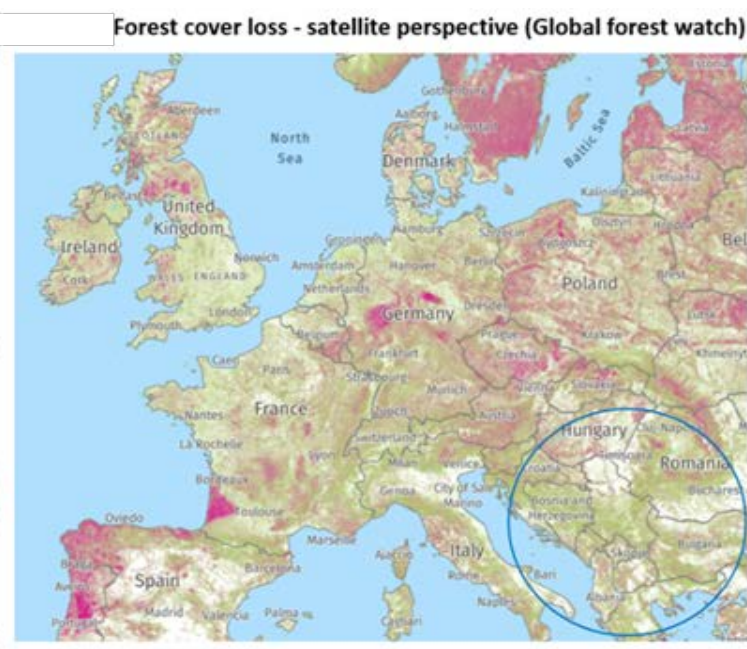
Forest Restoration & Closer-to-nature forest management

- ✓ Forest restoration must go **beyond afforestation**. It must rebuild ecosystem functionality and **structural complexity**, integrating biodiversity friendly and **close-to-nature** approaches for productive forest.
- ✓ **CNFM** - proactive set of practices designed to ensure **multifunctional** forests by combining **biodiversity goals**, **carbon stock** preservation and **timber-related revenues**



Insights from the “Green Heart of Europe”

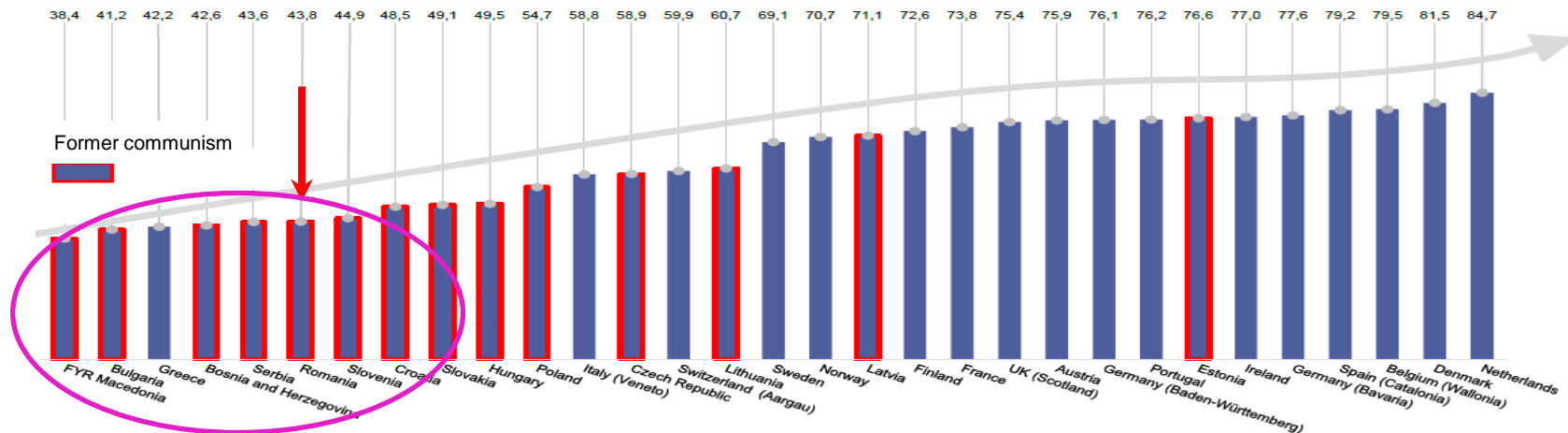
A satellite perspective



“Green Heart of Europe” is NOT a coincidence!

Insights from the “Green Heart of Europe”

Property rights index in forestry degree of freedom in forest management decisions



How private are Europe's private forests? A comparative property rights analysis.

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Livi Nichiforela,*, Kevin Kearby, Philippe Deuffic, Gerhard Weissd,e, Bo Jellesmark Thorsen, Georg Winkel, Mersudin Avdibegović, Zuzana Dobšínská, Diana Feliciano, Paola Gattok, Elena Goriz Mišudl, Marjanke Hoogstra-Kleinm, Michal Hribn, Teppo Hujalao,p, Laszlo Jagerq, Vilém Jarskyn, Krzysztof Jodłowski, Anna Lawrences, Diana Lukminet, Špela Pezdevšek Malovrh, Jelena Nedeljković, Dragan Nonić, Silvija Krajter Ostoićw, Klaus Pukallx, Jacques Rondeuxy, Theano Samaraz, Zuzana SarvašováA, Ramona Elena Scribana, Rita Šilingienė, Milan Sinkou, Makedonka StojanovskaB, Vladimir StojanovskiB, Nikola StoyanovC, Meelis TederD, Birger VenneslandE, Lelde VilkristeF, Erik WilhelmssonG, Jerylee Wilkes-AllemannH, Laura Bouriaud.

“Green Heart of Europe” is NOT a coincidence!

Key Best Practices from the National Forest Management Framework




 **The “mirror” of the silviculture system is the forest itself.**

If we admire the resilience and rich biodiversity of Romania’s forests, we must understand the silvicultural thinking and system that made these results possible.

 **Distinguish the system from illegal, individual failures**

Not to confuse the mistakes of certain foresters, landowners, companies, or politicians with the forest management system itself.

 WWF’s focus on promoting RFM:

Preserving these core practices while advancing forest governance reforms



Key Best Practices from the National Forest Management Framework

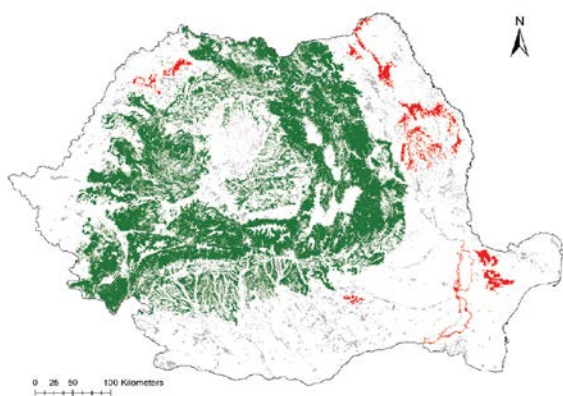


Integrity of the forestry fund – **strict restrictions** of forest land use change

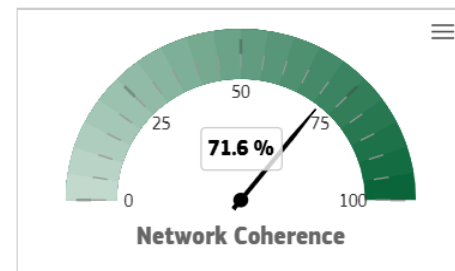
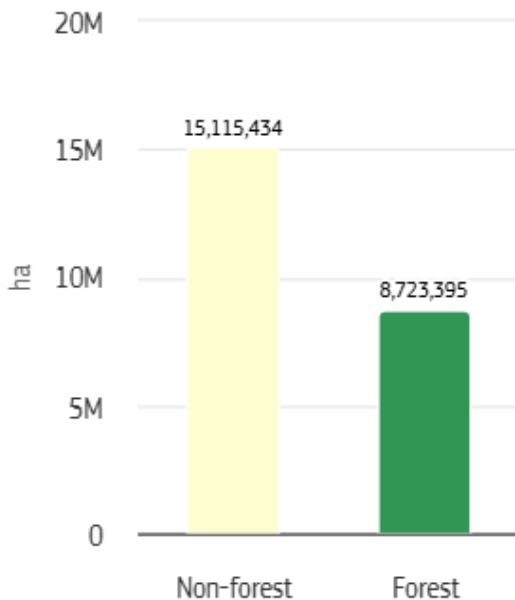
⚠ **Growing** & **well connected** forestland: **+41K ha/year** (FAO)

⚠ Traditional **Silvopastoral mosaic landscape** (+2.4 M ha) completing the functional ecological connectivity

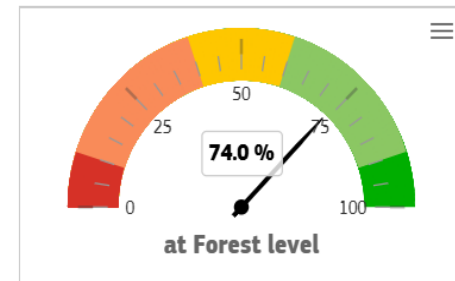
✓ Fostering **Adaptation** and strengthening **Resilience** to Environmental Change



Forestland connectivity in Romania (Tudor Stancioiu, 2018), for 1 km buffer distance about 86% of all forests are connect in one cluster around the Carpathians) – **6 M ha**.



Connectivity



Key Best Practices from the National Forest Management Framework



★ Diverse **natural compositions** consisting of native species adapted to local site conditions (**77%**)

⚠️ **400+ natural forest types** (10 Groups), corresponding to various site conditions (**5** Biogeographic Reg.)

⚠️ The **conversion** of natural forests into plantations **does not occur** in silvicultural practice ('86).

⚠️ The suppression of economically less valuable species is **prohibited**

⚠️ Native species (**95%**)

★ **Natural regeneration** - Locally adapted genetic provenance adapted to site-specific conditions (**72%** from seed).

⚠️ Over 60 main tree species in forest composition

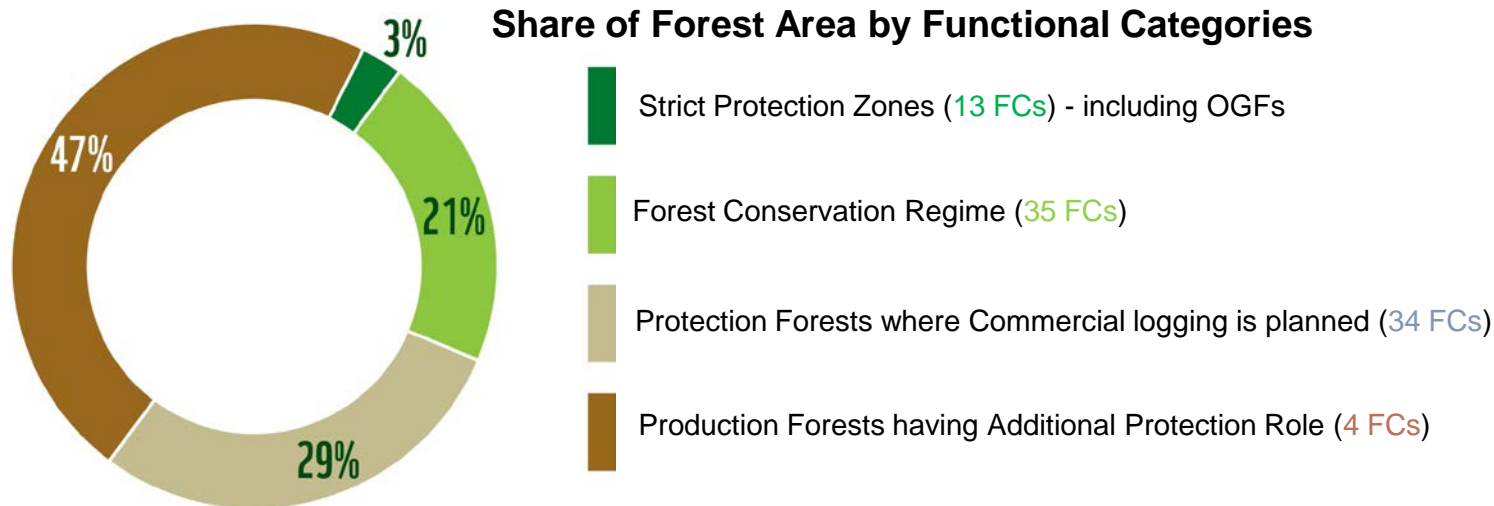


Key Best Practices from the National Forest Management Framework



Unique national system for the **functional classification** of forests, emphasizing the safeguarding of **high conservation values**.

- ❗ Diverse **forest landscape conservation** approach
- ❗ Functional category **thresholds set by Technical Norms**.
- ❗ Management plans developed by **accredited & independent** bodies.

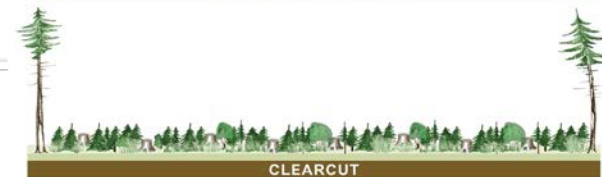
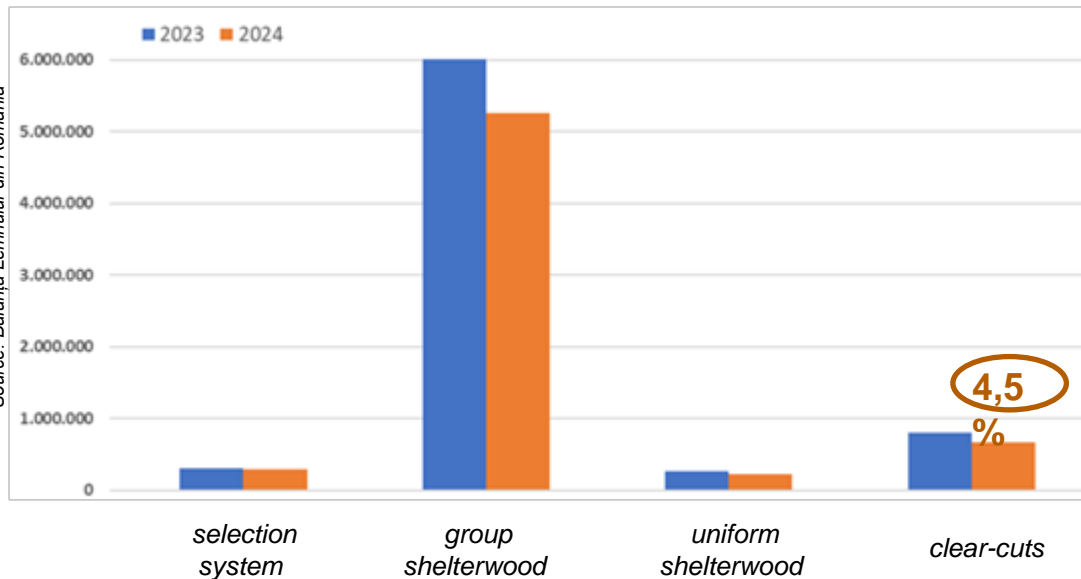


Key Best Practices from the National Forest Management Framework



Diversity of silvicultural **regeneration treatments** emulating **natural processes**.

- ⚠ Gradual transitions via repeated interventions (**90%**)
- ⚠ Structural diversity of stands

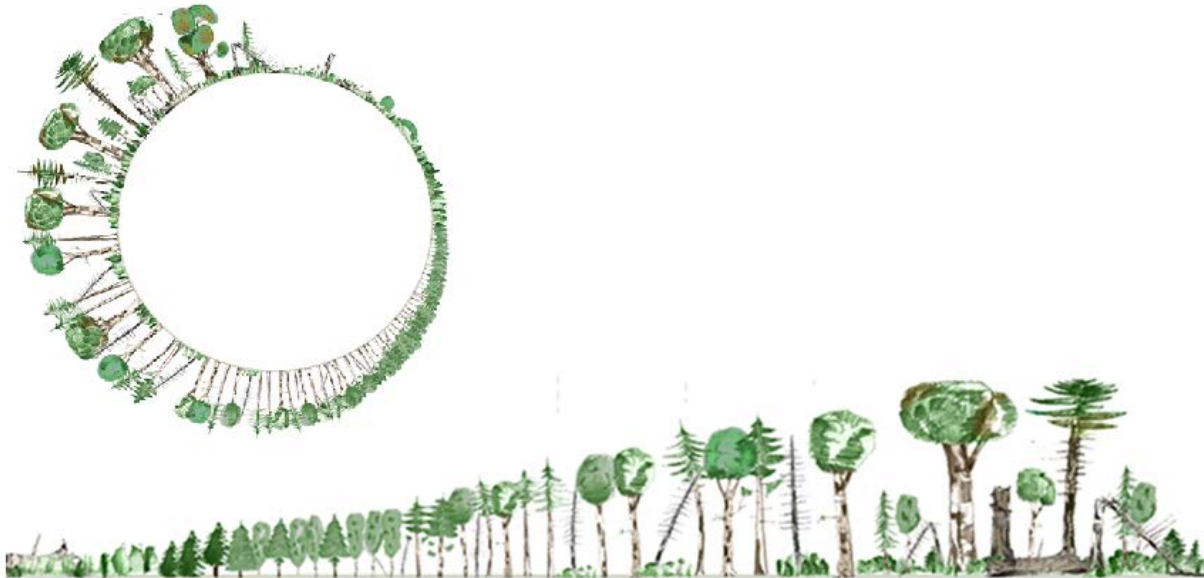


Key Best Practices from the National Forest Management Framework



Long rotation period for productive forests.

- ⚠ Harvesting age for main species: **100 – 180** years; along with: **20 – 40** years regeneration period
- ⚠ For selection system, the target diameter can reach up to **1 m** (200 – 300 years)



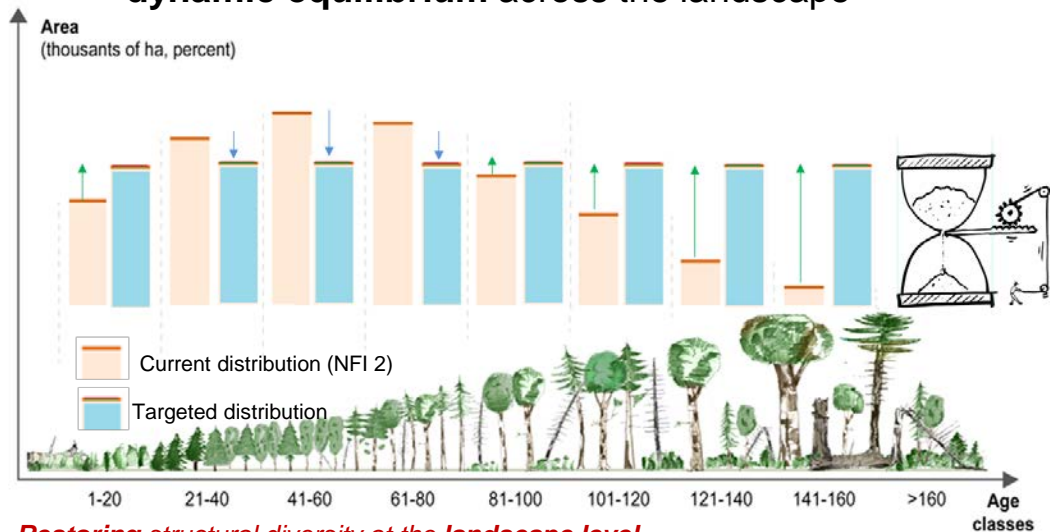
Key Best Practices from the National Forest Management Framework



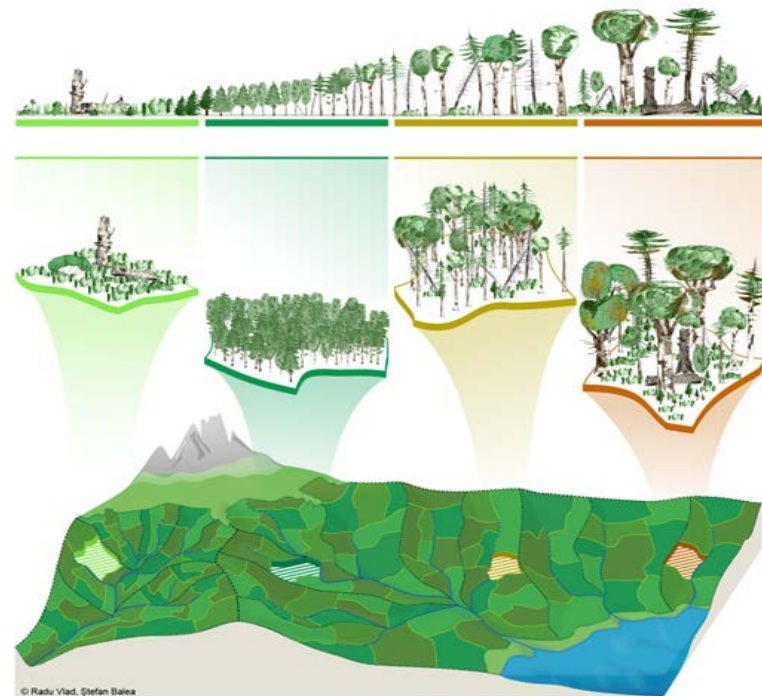
The „shifting steady-state landscape mosaic”

(Forestry Norms '70 / Kimmins 2004).

- ! Sustainable design of wood harvests – **continuity principles** considering a **balanced age classes distribution** (FMU)
- ! Developing **diversified mosaic structures** that maintain **dynamic equilibrium** across the landscape



Restoring structural diversity at the landscape level.

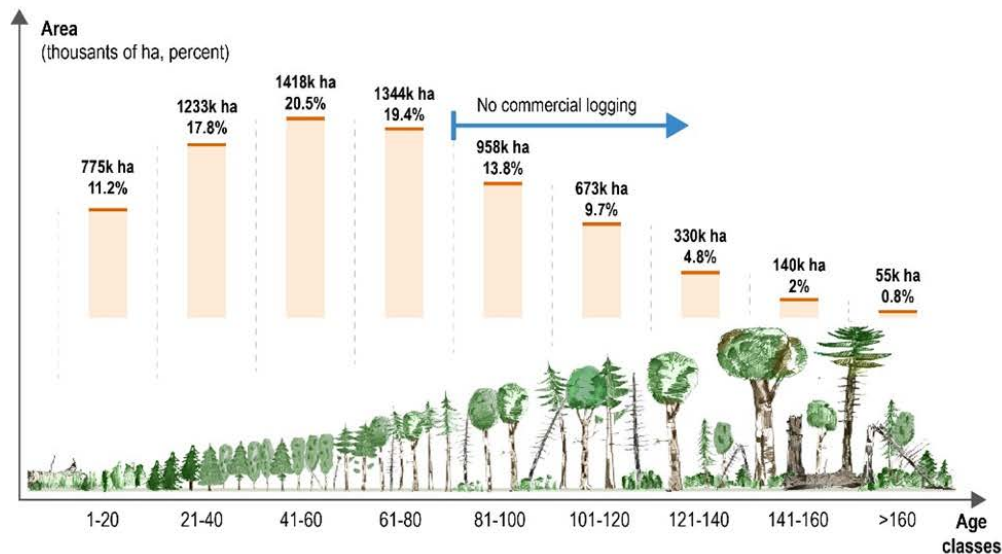
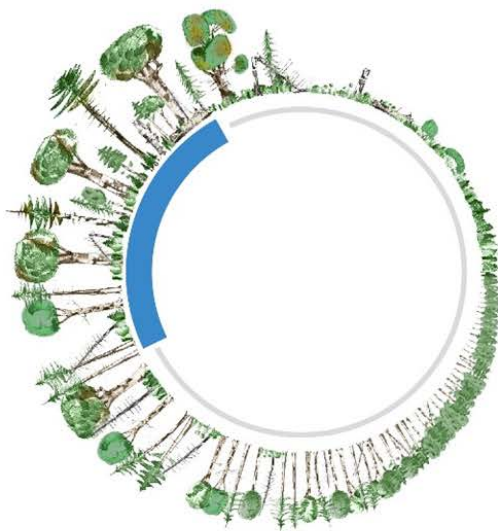


Key Best Practices from the National Forest Management Framework



Long **periods of tranquility**

- ❗ **Rewilding zone period** for all productive forests (commercial logging is banned)
- ❗ **25%** rotation period (min. **3 decades**) - covering **23%** total forest area
- ❗ only sanitary cuttings of **1 m³/ year** are planned



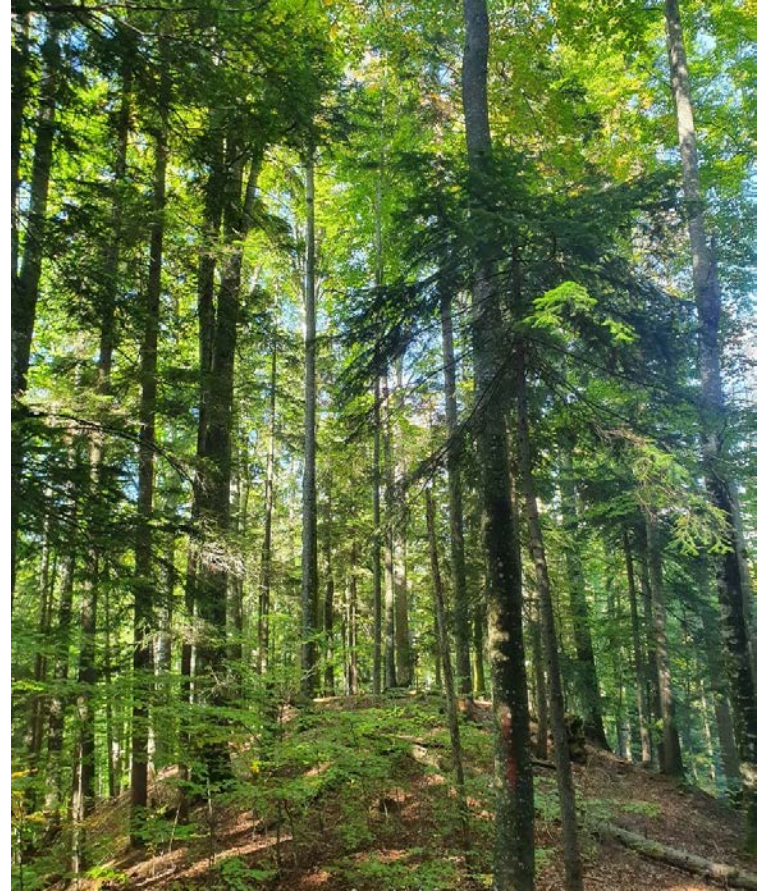
Key Best Practices from the National Forest Management Framework



Long **periods of tranquility**

- ❗ Recovers tranquility and develops the **mature forest attributes**;
- ❗ Achieves structures reflecting a **high degree of naturalness**.

During the min. 30 years "wilderness zone period," commercial forests are shaping a more natural structure.

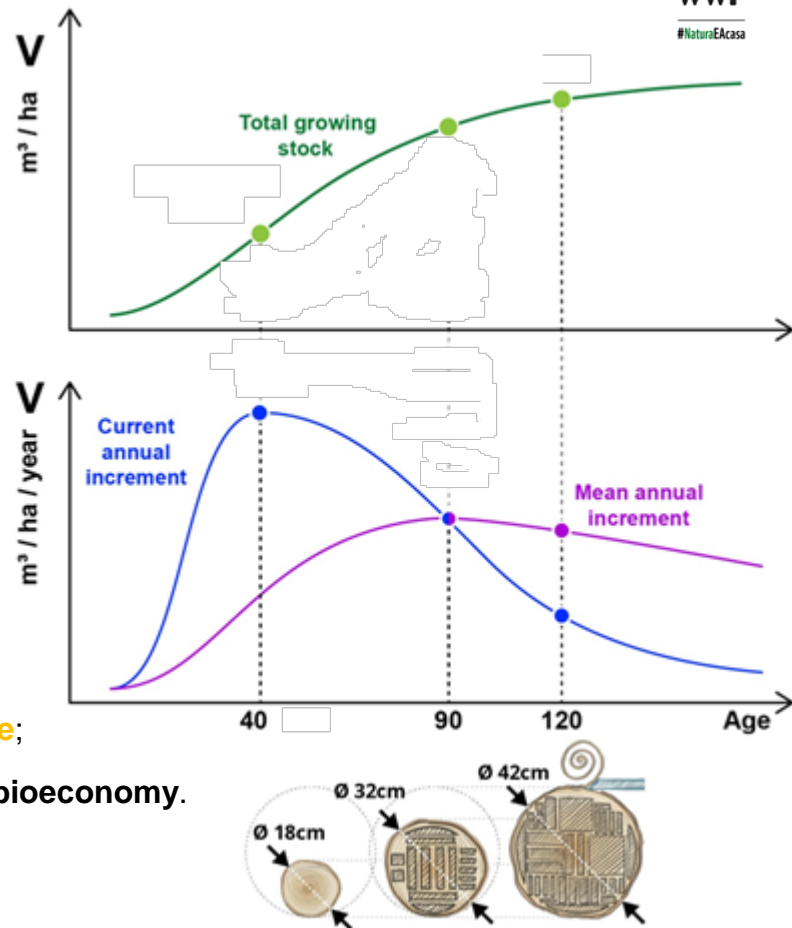


Key Best Practices from the National Forest Management Framework



Long rotation period for productive forests

- ❗ The technical rotation age is defined as the age at which stands reach maximum yield in the production of the **target timber assortments** set as the management objective (**imposed by norms!**).
 - ❗ Target the **efficiency** in obtaining high-quality timber, rather than maximizing biomass production (quantity).
- ✓ High-quality **large-diameter** timber assortments;
 - ✓ Suitable for **high-end utilization** with elevated **added economic value**;
 - ✓ **Long-lived** wood products that enable a **sustainable circular forest bioeconomy**.

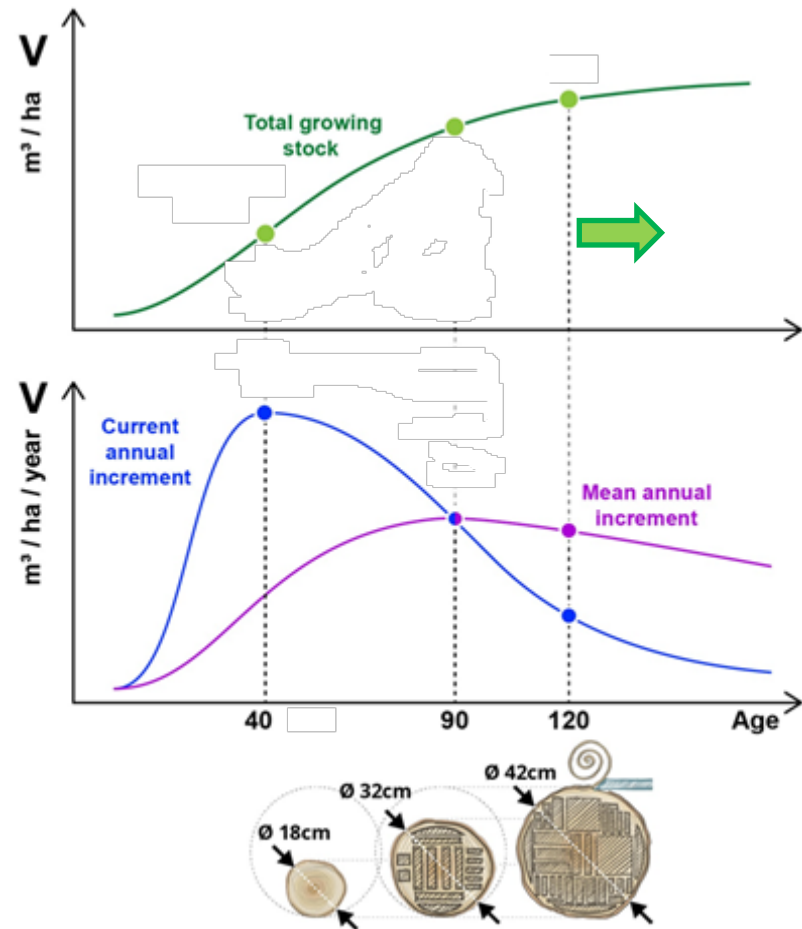


Key Best Practices from the National Forest Management Framework

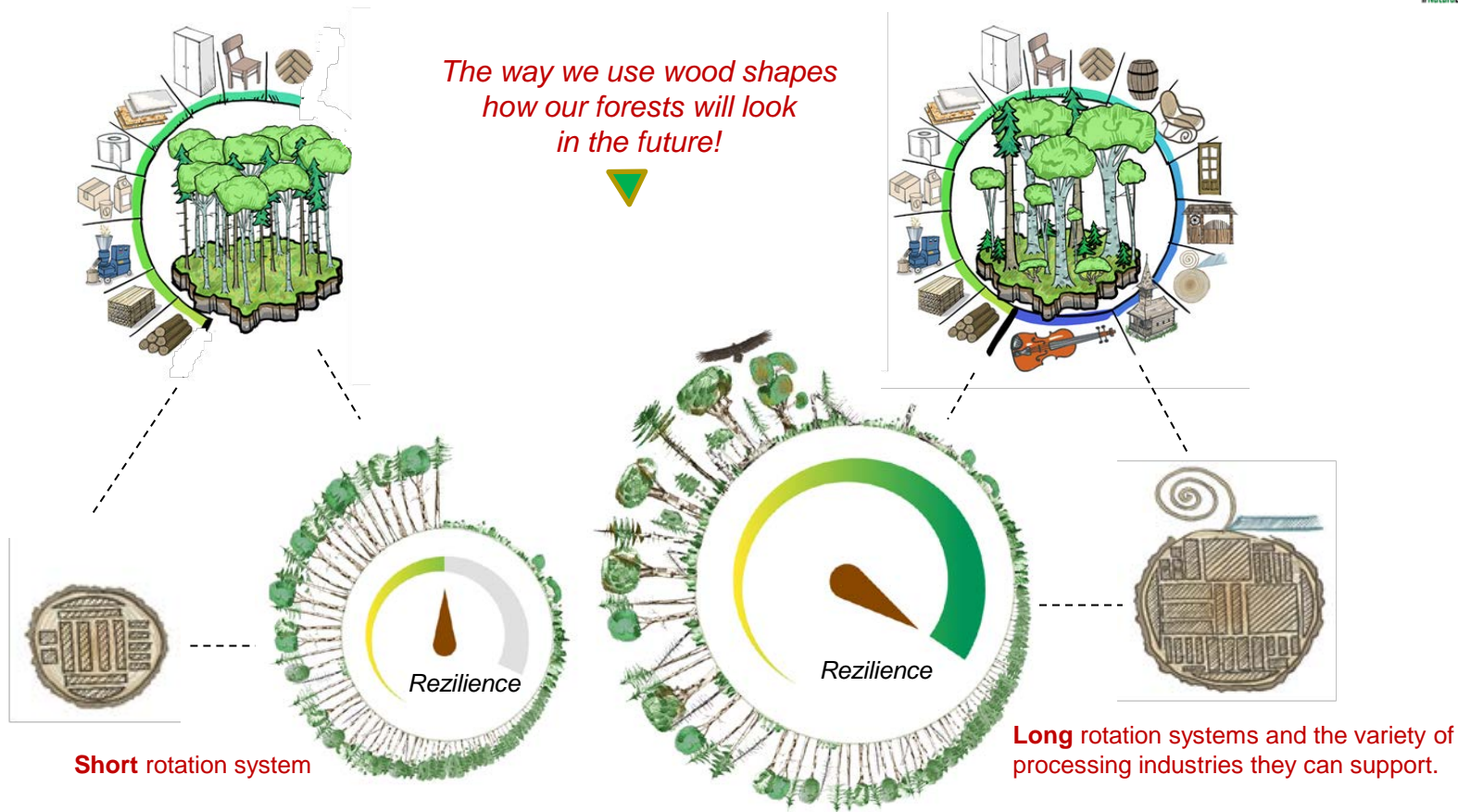


Long rotation period for productive forests

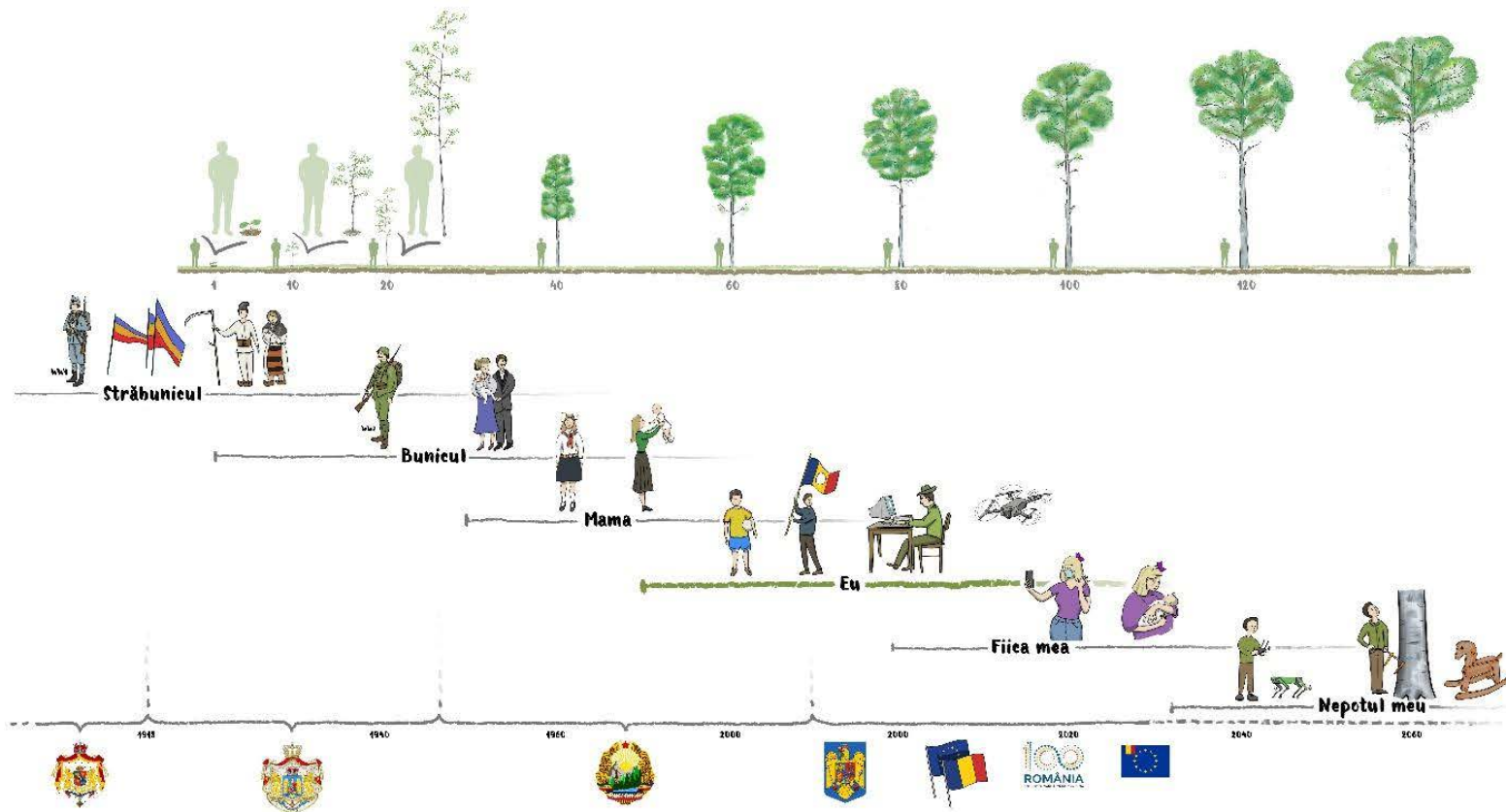
- ❗ **Salvage fellingings** offset the volume of main (planned) products within AAC.
- ❗ Over **27%** of the **standing wood** volume comes from trees with diameter (DBH) of 50 cm or more.
- ❗ Ranked 3rd in Europe, after Liechtenstein and Switzerland, with **340 m³/ha** (NFI 2018) compared to the EU-28 average of 182 m³/ha (SoEF 2020).
- ❗ Optimizing the capacity for **carbon storage and sequestration** within forest ecosystems.



Resilient Forests, Resilient Bioeconomy

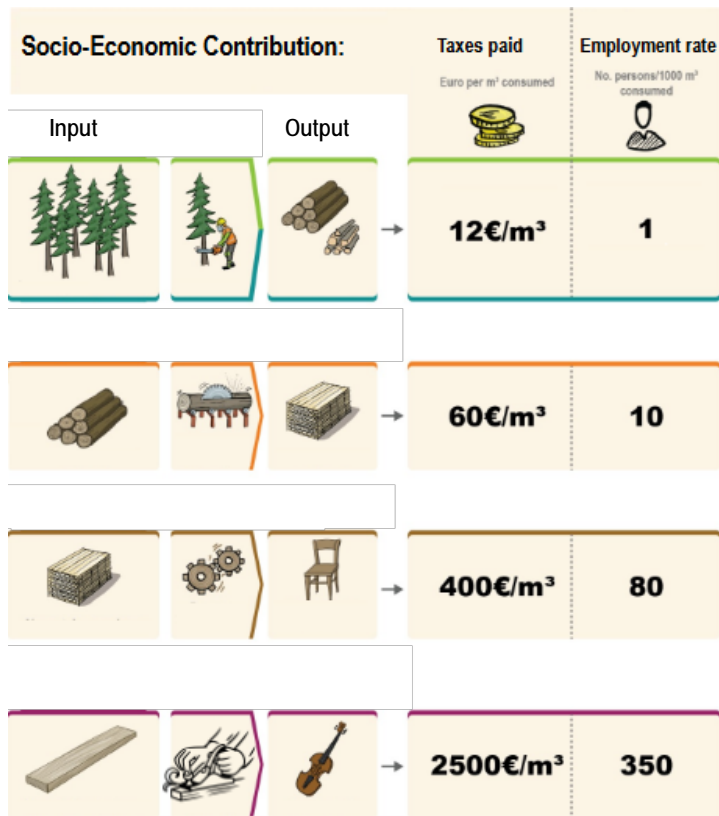


Resilient Forests, Resilient Bioeconomy, Resilient Society



The long-rotation system is a symbol of **intergenerational solidarity**: those who plant do not harvest, and those who harvest did not plant. Five generations follow the **same guiding plan**, united by a **shared vision** for the forest's future and its enduring production goals.

Resilient Forests, Resilient Societies: Moving Forward Together



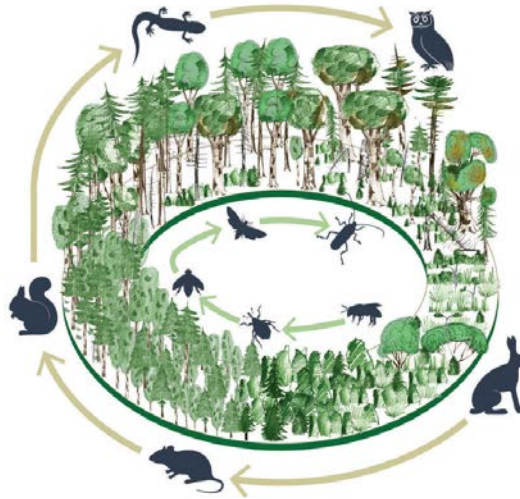
Key Best Practices from the National Forest Management Framework



Multifunctional Role



When **close-to-nature** forestry is aligned with a sustainable forest **bioeconomy**, both mutually **reinforce each other** — ensuring **forests' multifunctionality** for **climate resilience, biodiversity, and the bioeconomy**.



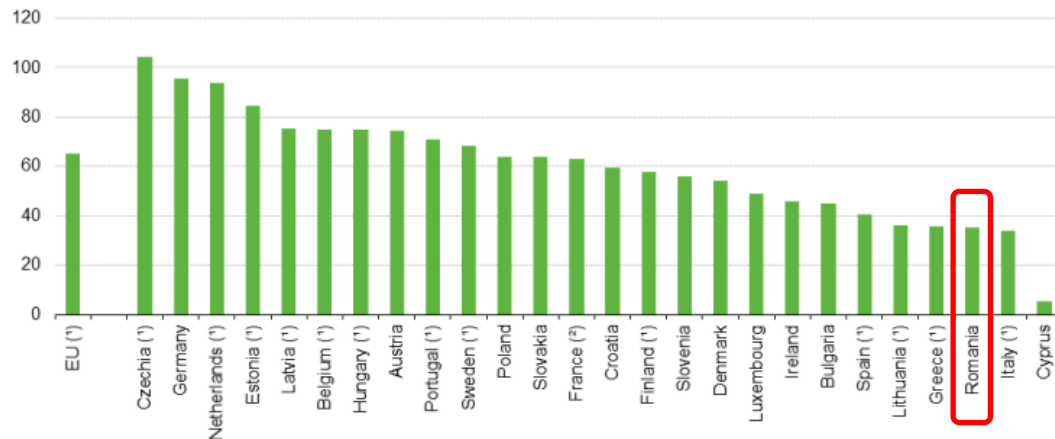
Challenges on Implementation



High Forest Management Costs

*“The question arises not whether these closer-to-nature forest management practices are beneficial but **whether who can afford it?!”***

Share of timber removals to net increment in EU forests, 2020
(%)

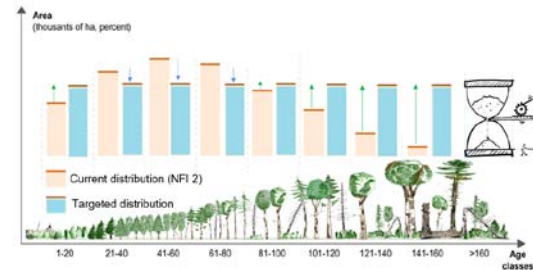


(*) Data are estimates.

(*) Data refer to metropolitan France and only forest available for wood supply.

Note: Increment refers to the volume of wood grown less average annual mortality. Removals are measured overbark.

Malta: not available.



**Restoring structural diversity
at the landscape level.**

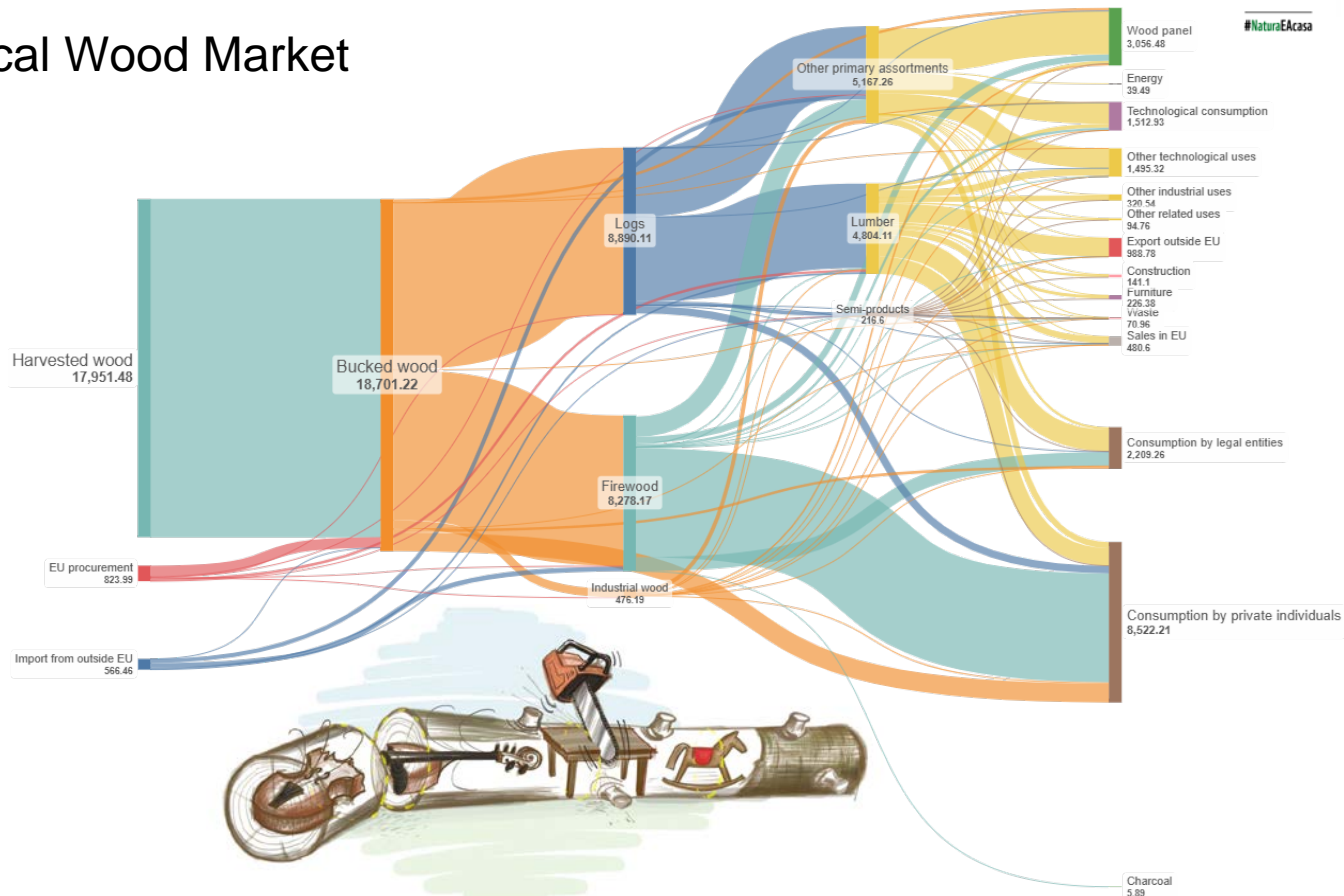
Challenges on Implementation



A Distorted Local Wood Market



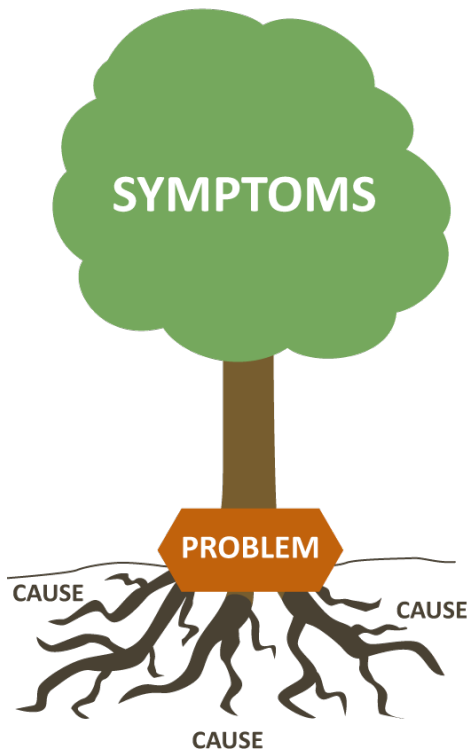
"Why should we continue this practice?"



Less than 10% of the harvested wood ends up in **top-end value-added wooden product**



Challenges on Implementation



- **Lack of predictability** & **Incoherence** of the legislative framework
- **Overregulation** & Prevalence of **procedural indicators**
- Lack of **integrated database** & **integrated planning tools**
- Poor **institutional capacity** (never ending transition)
- **HCV** sheltered by forest ecosystems are **not fully identified**;
- **NO** functional **financial compensation mechanism**
- **Social** vulnerability of **local communities** (firewood costs & demand)
- **Forest Dependent Communities**
- Cultural barrier of **stakeholders engagement**
- Lack of national **cadaster**



Challenges on Implementation: **Illegal Logging**

- **Disrupted restitution process** (still ongoing after 30 years)
- **Excessive** political involvement & Political instability & Corruption.
- Economic pressures and **unsustainable demand** & use of timber.
- **Violations** of regulations on **free and competitive wood market**.
- **Stumpage sales** & hindering the cascading use
- Lack of **forestry infrastructure** & **logistics**



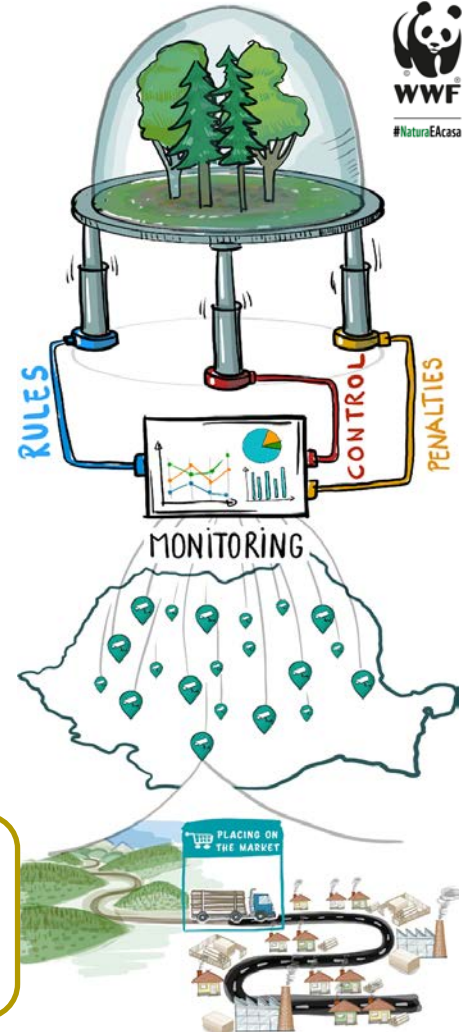


Opportunities & Solutions



- ✓ Clear plan of Reforms – **National Forest Strategy 2030**
- ✓ Strengthened **Responsibilities** & Institutional **Capacity**
- ✓ **AI technologies** in controls plan following a **risk based approach**
- ✓ **SUMAL** (digital fingerprint of wood transports, monitoring systems)
- ✓ Increased **transparency** in FM & CoC ([Forest Inspector](#))
- ✓ Significantly increased **penalties**;

*The volume of Illegal logging has been **significantly reduced**; its nature has markedly evolved, shifting from the large-scale disappearance of entire mountain slopes to **increasingly covert activities** embedded more within **shadow economy practices**.*





Opportunities & Solutions

- ✓ National Resilience and Recovery Plan (NRRP) - investments in forest restoration
- ✓ 10% Strict Protected Areas (ongoing identification of potential area 2025)
- ✓ Closer-to-Nature Forest Management (Forestry Norms & **Guidelines**)
- ✓ Nature Restoration Plan (2026) - (NRL)
- ✓ EUDR – “Deforestation-Free”
- ✓ EU forest monitoring, by harmonized indicators (FML)





Opportunities & Solutions

EU Multiannual Financial Framework





Forests at the Heart of Europe's Green Investment Future



EU Policies

- EU Biodiversity Strategy for 2030
- EU Forest Strategy for 2030
- EU Climate Change Adaptation
- EU Soil Strategy for 2030
- Habitats Directive
- LULUCF
- EU Nature Restoration Law
- EUDR – deforestation free



Essential Contributions

- ✓ Green transition
- ✓ Climate resilience
- ✓ Climate neutrality
- ✓ Increase Biodiversity
- ✓ Natural hazards mitigation
- ✓ Sustainable economic growth
- ✓ (Bio)Circular economy
- ✓ Competitiveness
- ✓ Rural development
- ✓ Social equity
- ✓ Cultural identity

Common challenges require **collective action** within a **united Europe**.
Coordinated efforts are essential to ensure a stronger and more coherent response.



Dedicated EU financing mechanism for forests



Reflecting the key value for climate stability, biodiversity, and economic resilience in line with the EU policy objectives

Manifesto!



- Formally recognize forests as a **strategic sector for Europe's future**, integral to achieving the EU's renewed **competitiveness agenda**
- Implement fair, transparent, and performance-based **compensation schemes** for private forest owners & Support a **just transition** for forest-dependent communities.
- Invest in a **competitive** and sustainable forest-based **circular bioeconomy** that drives rural employment, fosters innovation in green technologies, enhances the EU's strategic autonomy, and strengthens EU leadership within top-end value-added wooden product supply industries in middle-high and high-end market segments.

Thank You!



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