







MINISTRY OF ENVIRONMENT,
WATERS AND FORESTS

VIRGIN AND QUASI-VIRGIN FORESTS- PRESENTATION OF ROMANIA'S BEST PRACTICES





1. Brief presentation

-  Romania began to develop a network of National forest roads that impacted many old forests (approx. 6 and 7 decades of the last century).
-  Progress towards a visionary approach for developing protection functions of forests as a result of natural forest loss (approx. 8 decade of the last century).
-  The stage of forest restitution to former owners (after 1990).
-  Up-to-date progress of legislation, law empowerment, state control in all forests.



2. Forest conservation- state of progress

I. First legal provisions to protect natural forests are:

- 🌳 Retezat National Park – 1935 (law);
- 🌳 Piatra Craiului – 1938 (Decision of the Ministry Council);
- 🌳 Old growth forest Slatioara – 1941 (Decision of Academy);

II. Development of new functional categories

- 🌳 to ensure the full protection of forests aimed to be used in forest management plans under the technical instructions in 1986.

III. Development of national parks network

- 🌳 In 2000 were set-up 12 National parks and 6 natural parks by Law no. 5, a solid base for the next steps of forest protection.

IV. Designation of Natura 2000 ecological sites

- 🌳 In 2007 an additional layer of protection was included being overlapped in most cases on already protected areas.



3.1 Naturalness Indicator Criteria (Annex to the Ministerial Order no. 3397)

Ministerial Order no. 3397/2012 created **criteria** and 2 functional categories of forests: **virgin forests** (1.5.j) and **quasi-virgin forests** (1.5.o), full protected, with no activity allowed.

The definitions in M.O. no. 3397/2012 are as follows:

“**The virgin forest** is the forest that was formed and developed exclusively under the action of natural factors and in which the ecosystem processes in their dynamics occur without any direct or indirect human influence”.

“**The quasi-virgin forest** is the virgin forest of the past, which, in the meantime, has undergone observable, insignificant anthropogenic changes on the structure, season and ecosystem processes”.

For each of them, were set-up 2 indicators, regarding to naturalness (**9 / 8 criteria**) and **size and limits (5 criteria)**.



3.1 Naturalness Indicator Criteria (Annex to the Ministerial Order no. 3397)

Crit.	Virgin forest	Quasi-virgin forest
1	Composition and natural distribution of the component species.	Composition and natural distribution of the component species.
2	The presence of complex structures layered in the vertical plane and mosaic in the horizontal plane obvious the specific texture made up of all development phases*	Idem. Some development phases may be missing, especially the disaggregation phase or the regeneration phase.
3	Increased biodiversity, including the size and age of the trees, some of which are close to the limit of physiological longevity. Frequent, uneven age and relatively uneven age structure.	Rich biodiversity, including the size and age of the trees, some of which have tree elements over 150 years old. Frequent, uneven age and relatively uneven age structure.



3.1 Naturalness Indicator Criteria – cont.

Crit.	Virgin forest	Quasi-virgin forest
4	Lack of silvicultural interventions and other human intervention activities, including domestic grazing. No stumps are allowed.	Lack of silvicultural interventions in the last 30 years. A maximum of 5 old stumps are allowed per hectare, with diameters over 15 cm, in various stages of decomposition.
5	The frequent presence of standing and lying dead wood, in various stages of decomposition.	The presence of standing and lying dead wood, in various stages of decomposition.
6	Canopy closure index (consistency) natural, suitable for site conditions, variable in relation to the development phase. In poor site conditions, the consistency is very sub-unitary*	Canopy closure index (consistency) natural or close to it (decreased by no more than 0.2) suitable for site conditions, variable in relation to the development phase. In poor site conditions, the consistency is very sub-unitary*



3.1 Naturalness Indicator Criteria – cont.

Crit.	Virgin forest	Quasi-virgin forest
7	Unaltered soil (except for naturally produced erosion).	Soil unaltered by erosion due to human interventions. Old access roads are allowed, if they are unused and naturally covered with litter, plants, shrubs, trees and/or grasses.
8	The absence of roads and forestry buildings, except an infrastructure necessary for the management of scientific research and some thematic and/or tourist tracks, as well as the picketing of the forest plot boundaries.	The absence of roads and forestry buildings or the existence of roads that have not been used in the last 30 years. The exception is the infrastructure for the management of scientific research and some thematic and/or tourist tracks, as well as the picketing of the forest plot boundaries.
9	Difficult or restricted accessibility.	-



3.2 Size and limit Indicator Criteria

Crit.	Virgin forest	Quasi-virgin forest
1	The size of the area of virgin forests (the ensemble of management units) will be at least 20 hectares (without the fragments that do not meet the selection criteria), except for rare or high-value ecosystems for which the minimum area will be 10 hectares. Rare or high-value ecosystems will be surrounded by protective buffer zones.	The size of the area of quasi-virgin forests (the ensemble of management units) will be at least 30 hectares (without the fragments that do not meet the selection criteria), except for rare or high-value ecosystems for which the minimum area will be 10 hectares. Rare or high-value ecosystems will be surrounded by protective buffer zones.
2	Continuous (compact) arrangement of the forest, so as to ensure the self-regulation and perpetuation of the ecosystem.	Continuous (compact) arrangement of the forest, so as to ensure the self-regulation and perpetuation of the ecosystem.



3.2 Size and limit Indicator Criteria – cont.

Crit.	Virgin forest	Quasi-virgin forest
3	Natural limits (hills, valleys, streams, forest edge, etc.), so that the selected forest is guaranteed stability against the action of external factors. Is not necessary to overlap with forest plot limits.	Natural limits (hills, valleys, streams, forest edge, etc.), so that the selected forest is guaranteed stability against the action of external factors. Is not necessary to overlap with forest plot limits. Can also be bordered by artificial boundaries: permanent roads, electric lines or other utilities, open plots lines, railways, etc.
4	Possible areas that do not meet the selection criteria can also be included if these areas cannot exceed 10-15% of the total area of the stands that meet the selection conditions.	The areas that do not meet the criteria of naturalness cannot exceed 15% of the total area of the stands that meet the selection criteria.
5	Frequent, disturbed configuration of the land surface (caused by entrainment of the soil around the main roots of large, naturally felled trees).	Frequent, disturbed configuration of the land surface (caused by entrainment of the soil around the main roots of large, naturally felled trees).



4. Studies for supporting the Virgin and quasi-virgin Forests Catalogue

- 🌳 The Ministry of Environment, Waters and Forests established the methodology* to inscribe the virgin and quasi-virgin forests in a dedicated catalogue (2016).
- 🌳 The methodology is approved by Order no. 2525. Main outcomes:
 - 🕒 the first forests were introduced in the Catalogue from different forest management plans enclosed in functional categories 1.5.j and 1.5.o which met the criteria.
 - 🕒 Small-scale area studies and new forest management plans.
 - 🕒 For transparency aspects and to eliminate any suspicion from stakeholders' side concerning the study approval methodology, the Ministry of Environment, Waters and Forests elaborated a Guidance** applicable to all study developers and authority verifiers and is available online:
<https://www.mmediu.ro/articol/ghidul-de-bune-practici-privind-intocmirea-si-verificare-a-studiilor-de-identificare-a-padurilor-virgine-cvasivirgine/3237>

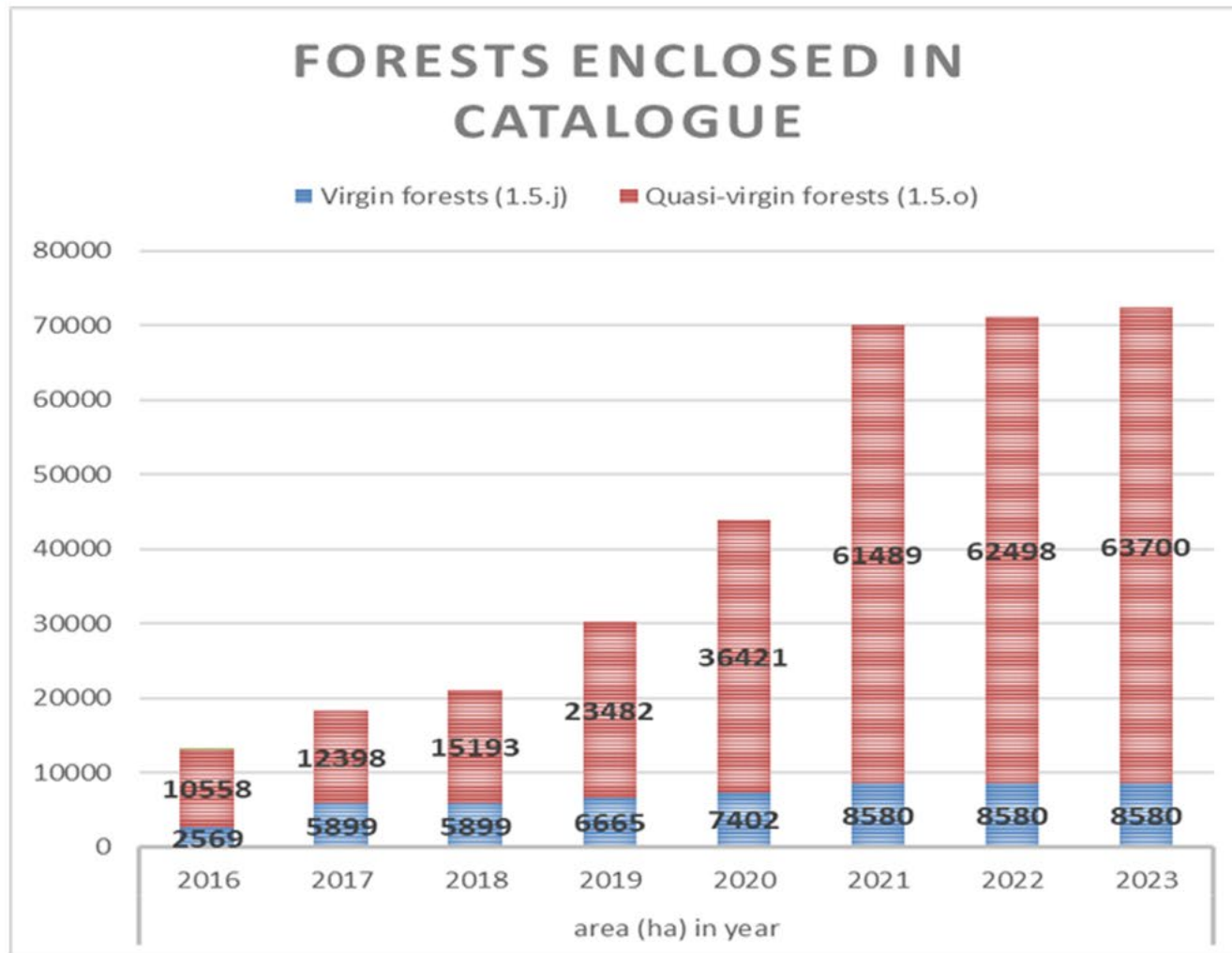


4. Virgin and quasi-virgin forests Catalogue – cont.

-  The Ministry of Environment, Waters and Forest launched a public procurement to elaborate a complete study to finish the identification of virgin and quasi-virgin forests in Romania (2020).
-  The national study was divided into 8 parts, overlapping on territorial forest guards (more than 22 thousand ha were introduced in the Catalogue).
-  Currently, the identification is almost finished, resulting in a big database (4692 records), doubled by a complete shape collection. All the data are available online:
<https://www.mmediu.ro/articol/catalogul-national-al-padurilor-virgine-si-cvasivirgine/6233>
-  Our model of the Catalogue was adopted by the Carpathian Convention as a best practice.
-  All the Romanian components of the **UNESCO “Ancient and Primeval Beech Forests of the Carpathians and Other Regions of Europe”** contain Virgin and quasi-virgin forests from the Catalogue.



4. Virgin and quasi-virgin forests Catalogue – cont.



Total area now:

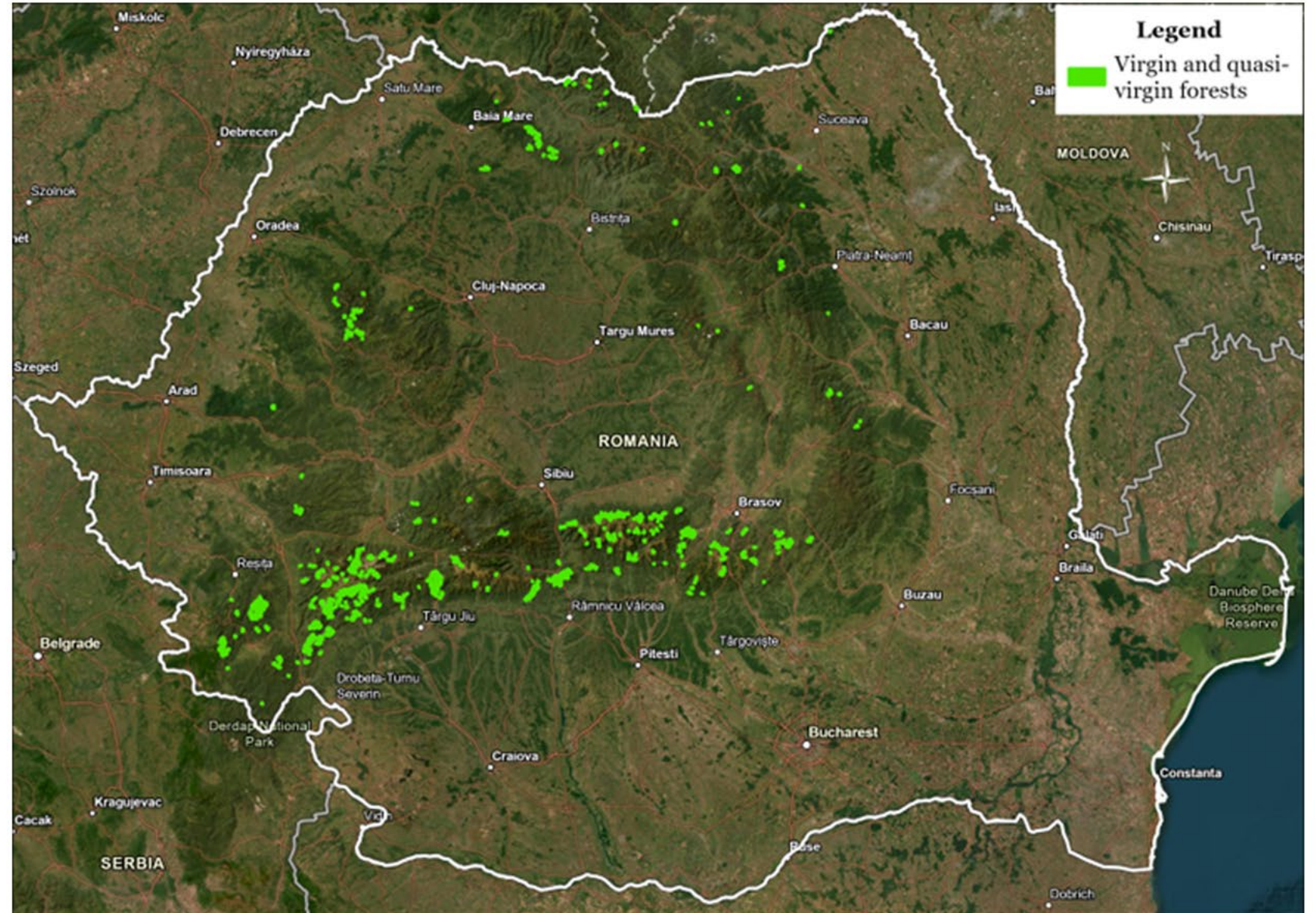
72,279 ha

on which:

- 53,646 ha owned by state
- 5,311 ha owned by communes
- 13,322 ha owned by privates



4.1. Spatial distribution of forests included in Catalogue





5. Conclusions

5.1. National experience

- 🌳 Without good definitions and adequate criteria, adopted through specific legislation, the identification and then, protection of virgin and quasi-virgin forests cannot be done properly.
- 🌳 The imagery identification can be only the starting point to focus on particularly areas and cannot be substituted as studies.
- 🌳 **The field research is MANDATORY.**
- 🌳 Studies must be undertaken only by qualified specialists.
- 🌳 Without adequate compensation, even for state-owned forests, there is no interest from forest owners in finding and protecting all existing forests. It would be relevant if the EU could find a solution to this issue. Until now, the loss income compensation was paid only for private owners through national funds.



5. Conclusions – cont.

5.2. Similarities and Differences between RO – EU

- 🌳 Virgin/ quasi-virgin forest vs. primary/ old-growth forest: seems to be the same, but RO definitions are more precise; only natural regeneration is allowed; the criteria are more clear in RO for both of them
- 🌳 EU approach is mostly oriented to old-growth forests
- 🌳 EU has not in place a consistent base for compensatory payments that must be mandatory in Common Agricultural Policy. Also, this type of forest could be entirely financed by EU funds as a measure to encourage MS to protect more forests
- 🌳 If the surrounding forests have a natural composition, based only on native species (natural forest type), it is no need for a buffer zone



**6. Images
from approved
studies**





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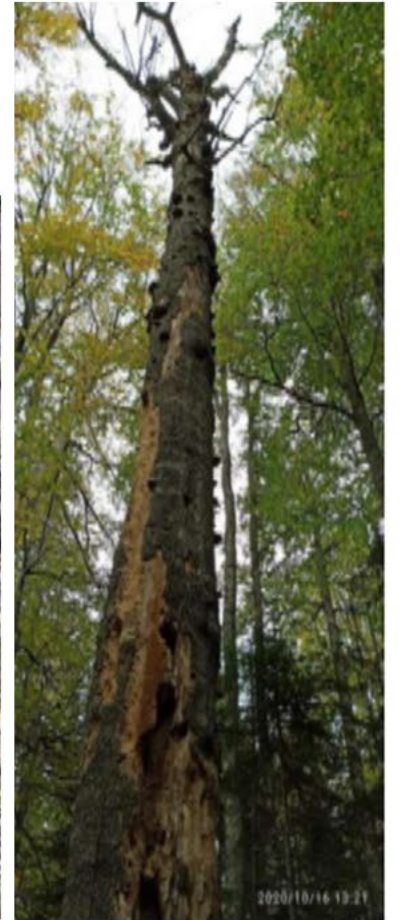


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Thank you

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