

Forestry in Luxembourg

EFI – 9th annual meeting of the European Integrate Network

Octobre 2023



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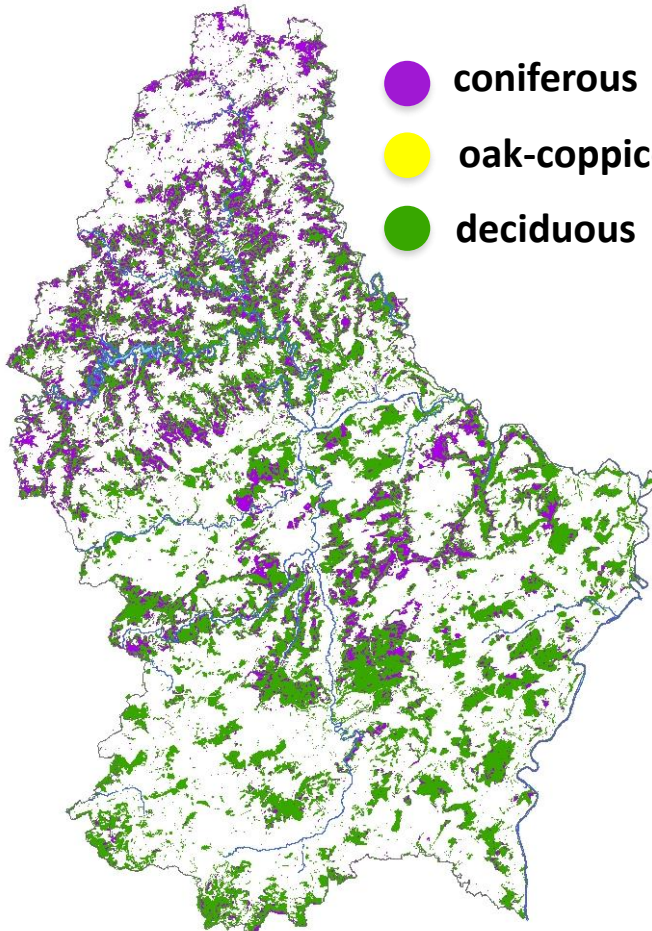
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- Results of the national forest inventory (IFN2)
- New forest Law
- Ecological, social and economic overview of Luxembourgish forestry
- Forest health and climate adaptation
- Conclusion
- Questions and discussion

Forest in Luxembourg (national forest inventory – IFN2)



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- coniferous (30%)
- oak-coppice (10%)
- deciduous (60%)

national territory	forested land	forested
258.600 ha	91.400 ha	34%

private	49.400 ha	54%
public	42.000 ha	46%

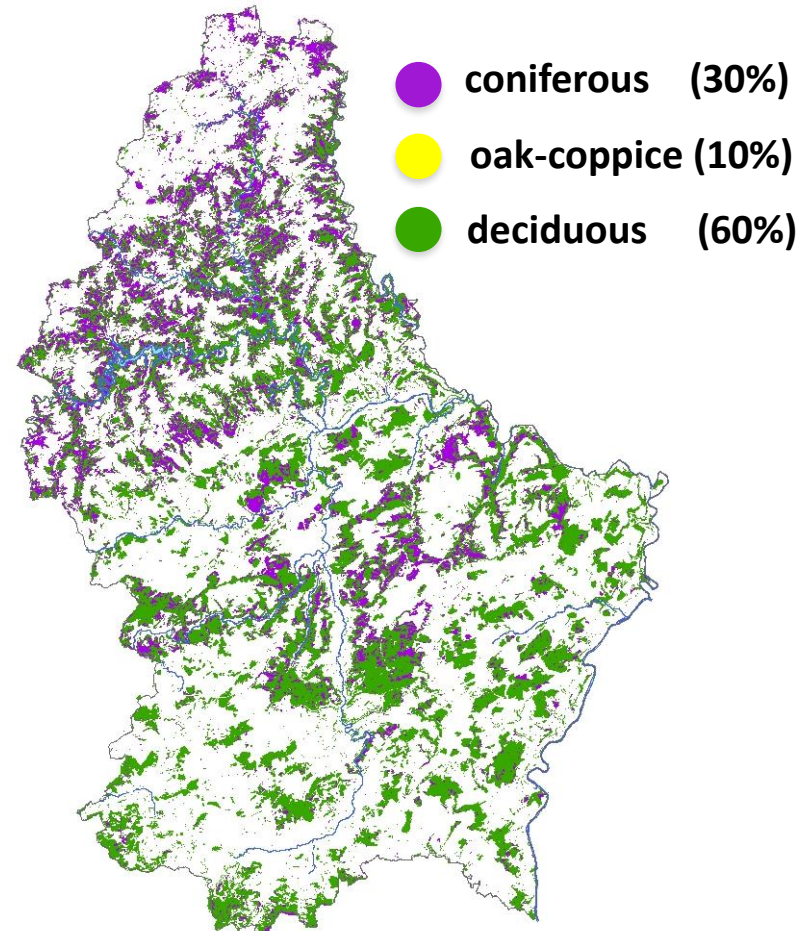
state	9.950 ha	24%
public institutions	1.150 ha	2%
Community/municipal	30.900 ha	74%

North:

- small parcelled private forest
- many coniferous stands and (historic) oak-coppices

South:

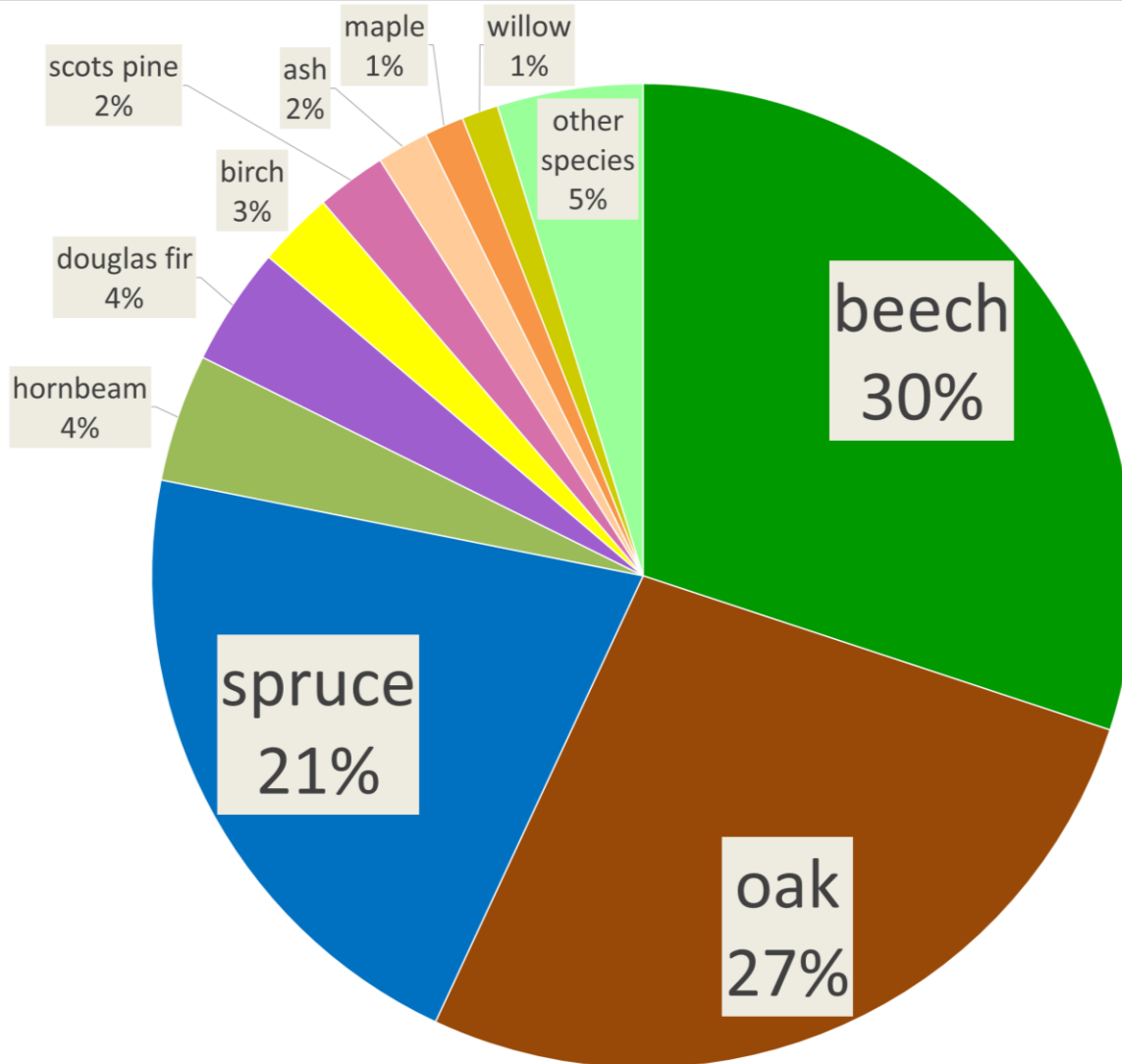
- mainly community forests
- old deciduous stands



Percentage of main tree species (IFN 2)



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1998-2000



2009-2011

2^e cycle

IFL 3 (2023-2024)

...in progress...

(results 2025)

Law on nature protection (protect nature, biodiversity and habitats and biotopes)

Forest Law of August 23, 2023 (in force since October 1, 2023)

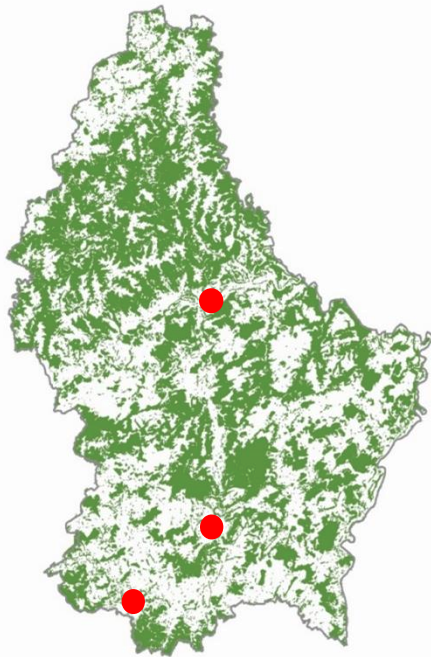
➤ **Grand-ducal regulations**

Objectives:

- (1) Sustainable management and multifunctionality (balance between multiple forest functions)
- (2) Protect forest natural environment and landscape
- (3) Protecting and enhancing biological diversity
- (4) Maintain the national extent of forests
- (5) Maintain the health and vitality of forests (carbon cycle and soil/water protection)
- (6) Maintain and promote silviculture and forest economy

“urban forestry”

- 80% of forests are situated in agglomeration <1500 m from cities and villages
- sensibilisation as pillar for acceptance and understanding
- 5 visitors centres (education centres), local activities, projects with school classes, video-clips “Eis wëllt Lëtzebuerg”, ...



● agglomerations



Habitat and biotope mapping (national and European)



BK12 Fließgewässer/water courses



BK15 Waldränder/forest edges



BK 16 Feldgehölz/tree copses&hedges



BK08 Stillgewässer/standing water


<https://map.geoportail.lu>

Habitat and biotope mapping (national and European)



9130 Waldmeister-Buchenwald/
woodruff beech forest

A photograph of a dense forest with tall, slender trees and a thick undergrowth of green plants, including woodruff.



9160 Stieleichen-Hainbuchenwald/
Pedunculate oak-hornbeam forest

A photograph of a forest with large, mature trees and a dense canopy of green leaves.

<https://map.geoportail.lu>



91E0 Auenwälder/alluvial forests

A photograph of a forest with a sandy, rocky ground surface and sparse vegetation, characteristic of an alluvial forest.



8210 Kalkfelsen/limestone rocks

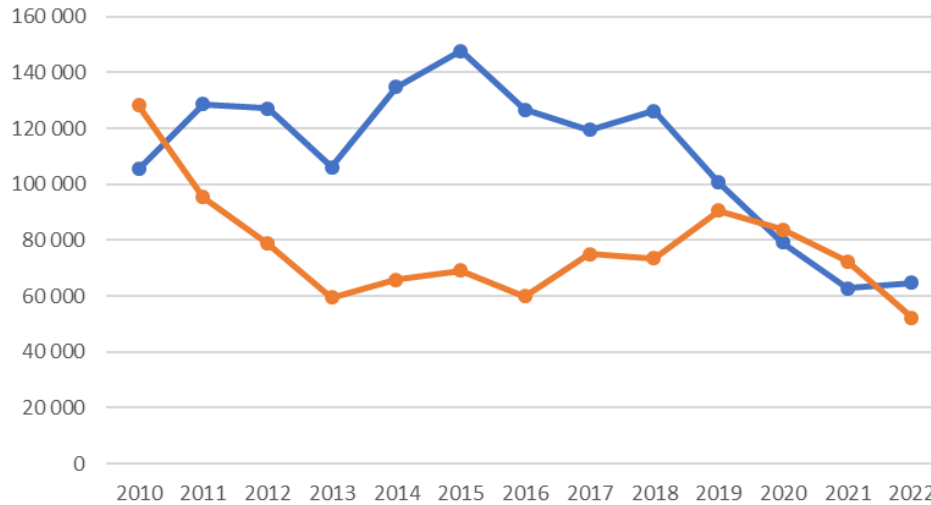
A photograph of a large, layered limestone rock formation in a forest setting.

- Maintain and protect habitats and biotopes (action plans for priority habitats)
https://environnement.public.lu/fr/natur/biodiversite/mesure_4_cadastre_biotopes/cadastre_biotopes_milieu_forestier.html
- Natura 2000 sites and zoning (objectives integral part of forest planning)
https://environnement.public.lu/fr/natur/biodiversite/mesure_3_zones_especes_proteges/natura_2000.html/
- Protected areas of national interest <https://environnement.public.lu/fr/actualites/2023/02/pnpn3.html>
 - 30% protected (actually 27,8%)
 - 10% strictly protected (actually 4,2%)
- “Free evolution” of 5% of forest surface: properties over 100 ha ([forest law, August 23, 2023](#))
- Deadwood islands: over 780 ha (public forests)
- 4 habitat-trees/ha: over 31.400 marked trees (public forests)
- Increase standing and lying dead-wood
- ...

Wood production in public forests

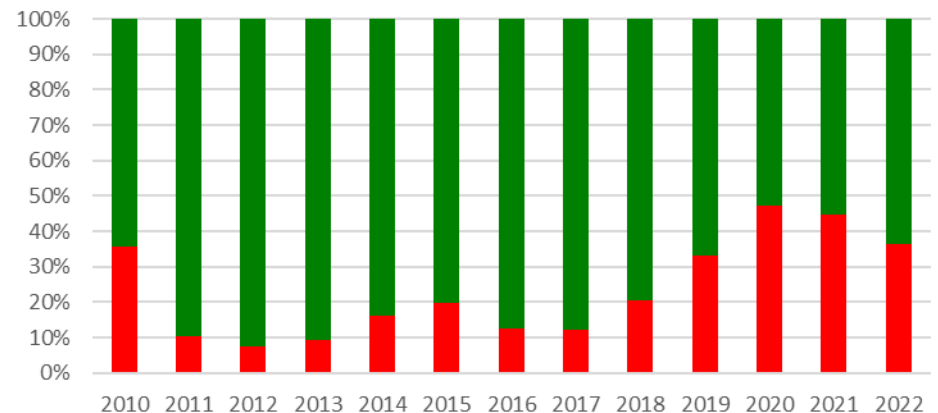


Priority: Production of high quality wood



coniferous (harvest in m³)

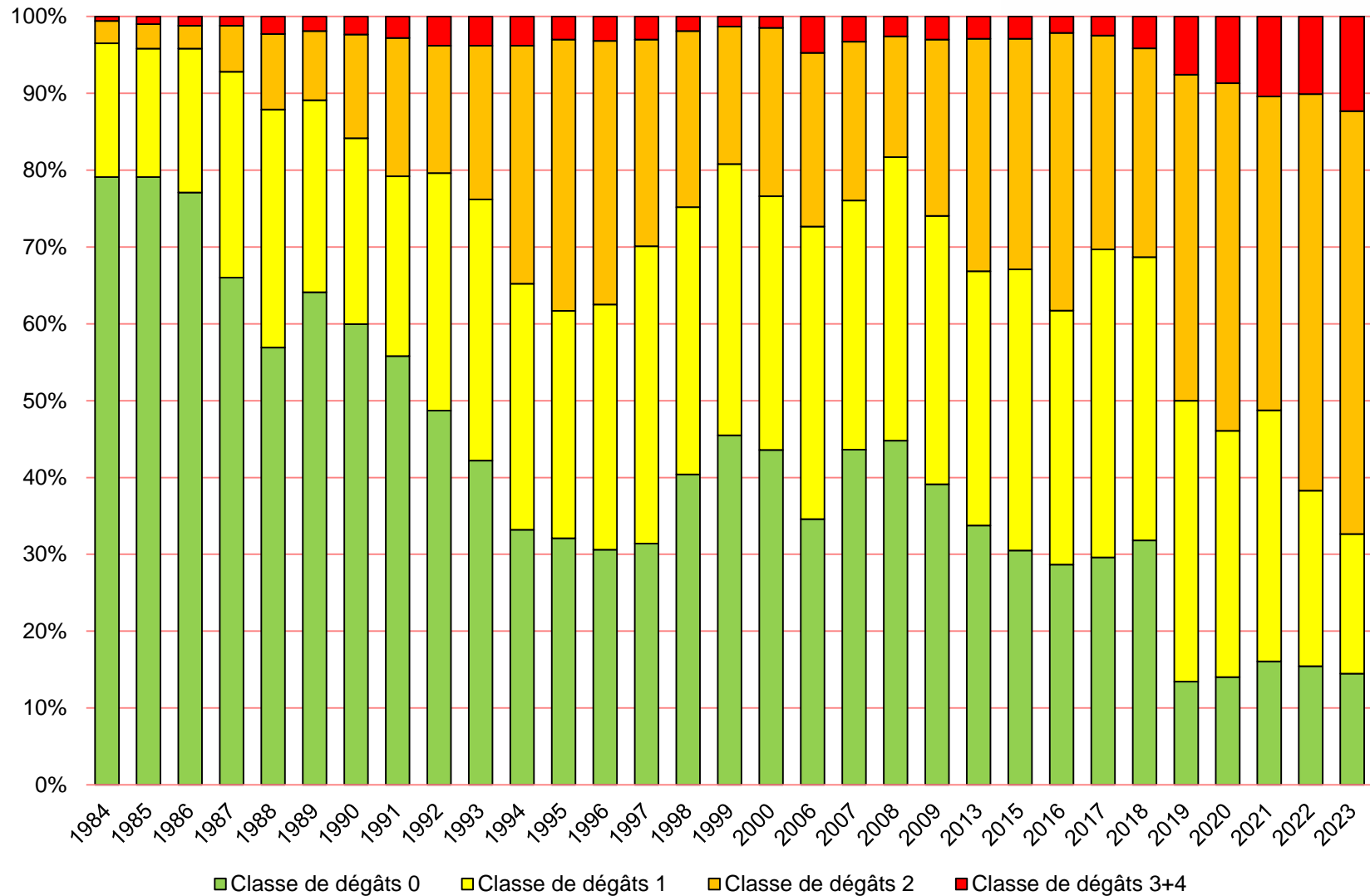
deciduous (harvest in m³)



planned

unplanned

Forest health (defoliation and leaf discolouration)

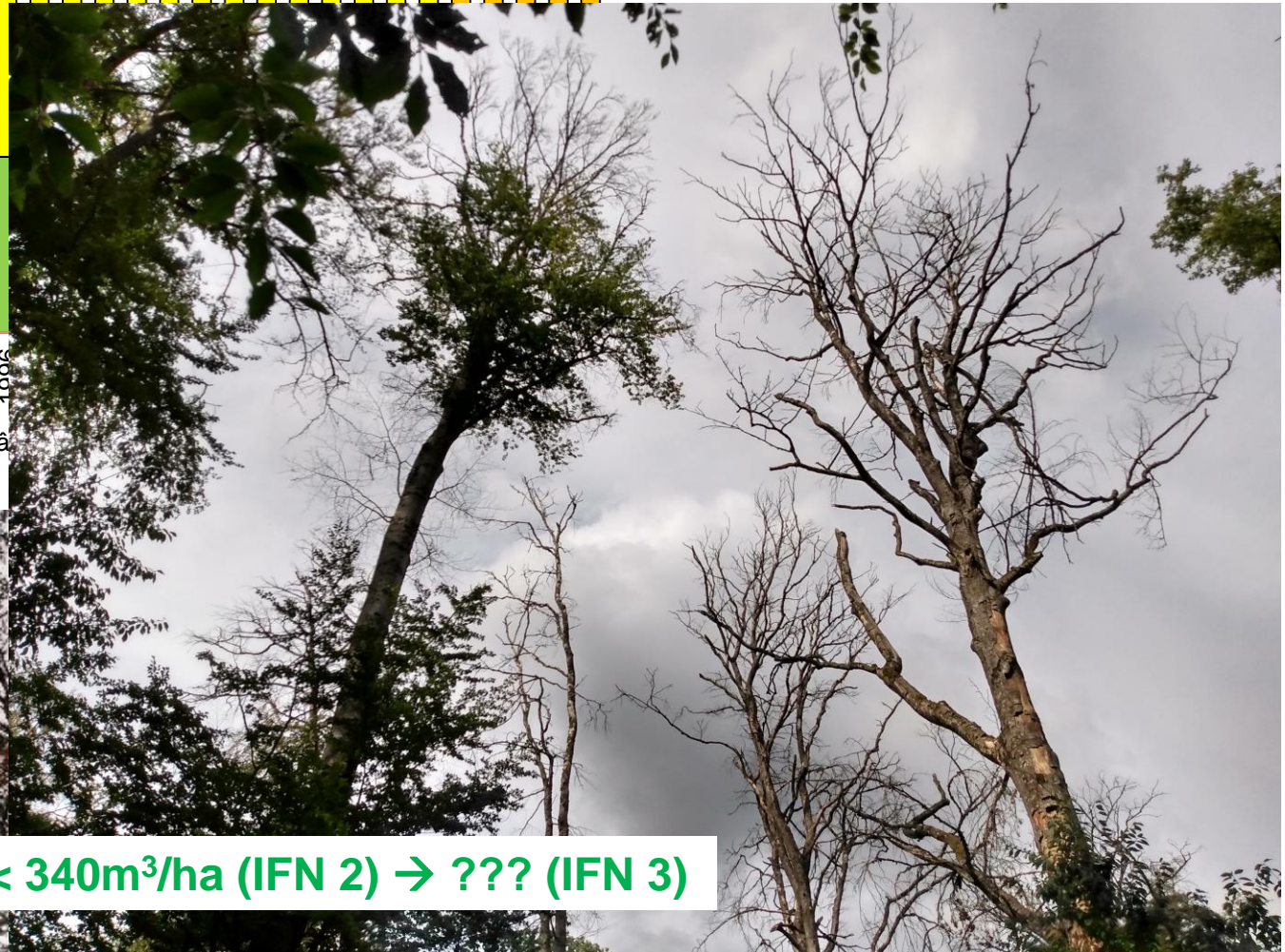
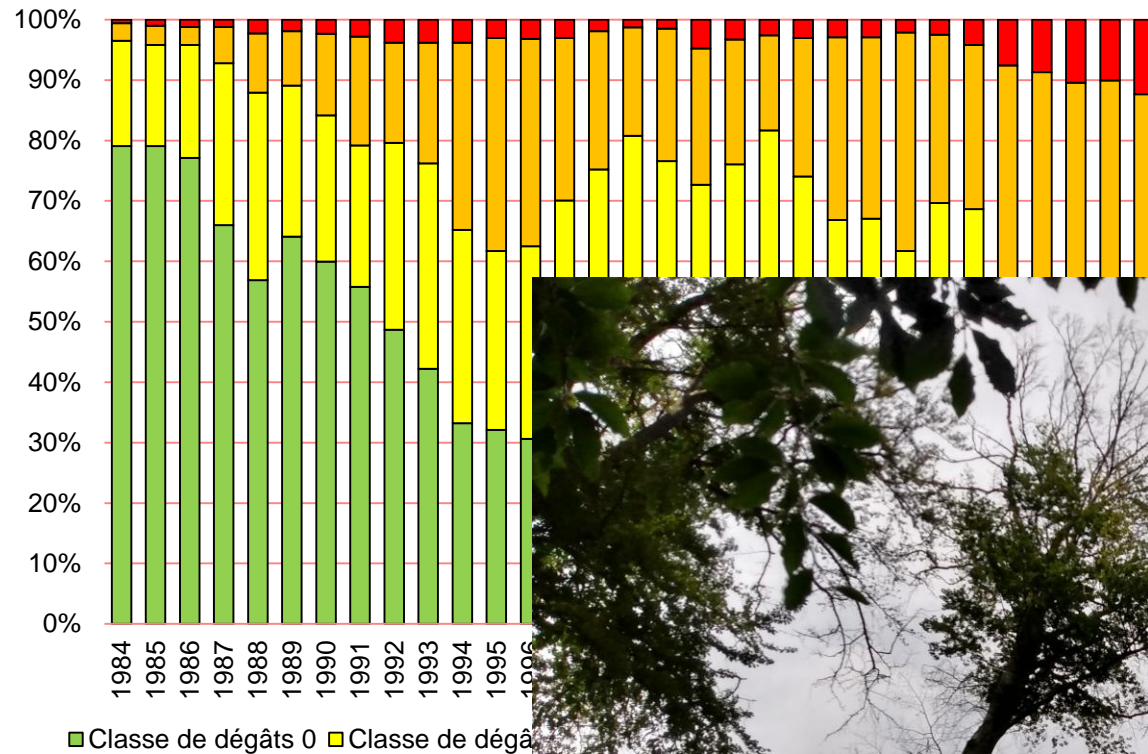


Forest health (defoliation and leaf discolouration)



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<https://environnement.public.lu/fr/actualites/2023/09/inventaire-phytosanitaire-2023.html>



280m³/ha (IFN 1) < 340m³/ha (IFN 2) → ??? (IFN 3)

“Climate change” and close to nature forestry



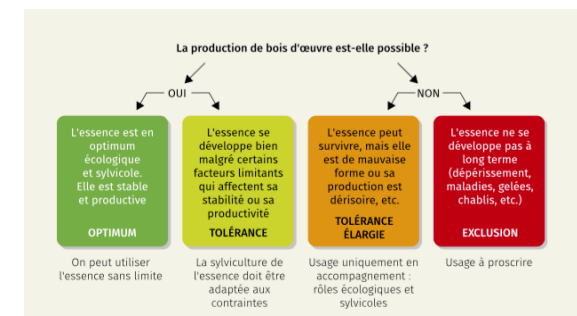
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- Foster species diversity, especially rare indigenous and endangered species and structural diversity, with
 - natural regeneration
 - planting (enrichment, conversion, no regeneration, game,...)
 - **site adapted species** → Fichier écologique



<https://fichierecologique.geoportail.lu/#!/>

- Conversion of monocultures (especially conifers) to more resilient mixed forests/uneven stands
- Long rotation periods (genetic adaptability)
- Keep forest canopy closed as much as possible
- limit harvesting to 60% of the increment in deciduous forests (oaks and beech stands) → Implementation of the national Energy and climate plan
- Monitoring and adaptation of management



➤ **European and national strategic plans**

EU → increase woody biomass in forests (carbon sequestration)

PNEC, PNAC → climate adaptation (cutting limited to max 60% of current growth)

PNPN, PFN → 30% protected forests of which 10% are strictly protected

Nature Law → fostering biodiversity

Forest Law → clear-cut > 0,5 ha prohibited, at latest 3 years after clear-cut the surface has to be reforested, forest conversion and planting is expensive

➤ **Climate adaptation is costly but financial incentives for forest owners exist**

KlimabonusBösch (carbon sequestration), subsidies for fostering biodiversity and a close to nature forestry, reforestation (min. 50% site adapted species), Naturpakt,...

- Despite the small size, with 34%, Luxembourg can keep up with other countries, not only in terms of forest cover, but also in terms of species and landscape diversity
- Increasing pressure on forests proves the importance of the forest sector
- Climate change and increasing pressure on the forest ecosystems lead to “sacrifices” and need compromises, they are costly, but financial incentives are possible
- Close-to nature approach needs patience; we have see the positive sides of biotic and abiotic disturbances and integrate them into our “adaptive management”

In the end, we deal with the same challenges as our neighbours...

So

“let’s keep exchanging, communicating and working together”

Thanks for listening



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useful links:

<https://geoportail.lu/en/>

<https://data.public.lu/en/datasets/?q=forests>

<https://environnement.public.lu/fr.html>

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Questions?