

# Forever Forest

## Guidelines



V.2 06/2019

FOREVER  
FOREST 

## PRINCIPLES

1. Never clear cut – only logging of single trees / selective cutting
2. Nature knows best. Native site-adapted tree species perform better than exotic species. Follow the natural processes (preserve / restore the native species, natural regeneration, encourage natural selection).
3. Higher economic outputs by minimising inputs.
4. Old-growth forests and dead wood store more CO<sub>2</sub>.
5. Nobody loses

## MINIMUM REQUIREMENTS

### General requirements

1. Forever Forest must enrich the natural biodiversity, mitigate climate change, increase welfare of local communities, contribute the national economy and ensure the recreation function of the forest for everyone.
2. Intervention in case of natural calamities is not permitted with the exception of fire or ongoing dispersion with the potential of finishing the forest completely. To recover after a natural calamity the damaged area shall not be reforested artificially before 10 years to allow natural self-regeneration.
3. Virgin / quasi virgin forests, UNESCO World Heritage core and buffer zones and the core zones of natural and national parks cannot receive the Forever Forest certificate as they are non-intervention areas.

### During transition from conventional forestry to forever forest

1. Man planted forests made of non-local species must be transformed gradually to natural, site adapted functional forest ecosystems with natural tree composition, structure, dynamics and functions.
2. In forests close to natural tree composition a number of maximum 5 thinnings are allowed to be performed in order to reach the Forever Forest status. Thinning should

remove poor quality stems competing against good quality stems and any exotic tree. But it should not eliminate competition between native trees of good vitality and quality.

3. Any forest or non-forested areas can become Forever Forest. Freshly established forests in difficult areas (such as sandy terrains) should contain at least 2 pioneer species.
4. Duration of transition to Forever Forest should not last more than 80 years for freshly established forests, 60 years in the case of conversion from mainly non-native tree species and maximum 40 years for forests with mainly native tree species, but formerly managed in conventional forestry systems.
5. Harvest maximum 2/3 from the annual growth volume per hectare in the planning period (normally 10 years).
6. The transition to Forever Forest ends when the standing volume has gradually increased to at least 70% of the potential stand volume of the specific natural forest association.

## Harvesting and renewal in forever forest

1. In all forests, selective single tree harvesting is the only logging practice allowed.
2. The harvest of single trees as the final product after thinning is defined by minimum diameters as "target diameters" measured at 1.3 m height – valley side. The minimum target diameters are:

50-60 cm for maple trees (*Acer spp.*)

60-70 cm for beech trees (*Fagus sylvatica*)

70-80 cm for oak trees (*Quercus spp.*)

40-50 cm for fir and spruce (*Abies* and *Picea spp.*)

65-75 cm for pine and larch (*Pinus silvestris* and *Larix spp.*)

55-65 cm for ash tree (*Fraxinus excelsior*)

45-55 cm for birch (*Betula pendula*)

55-65 cm for elm tree (*Ulmus spp.*)

55-65 cm for lime tree (*Tilia spp.*).

3. The maximum artificial opening of the canopy may not exceed 0.30 hectare.
4. Natural regeneration is the main source for renewal. Planting should be the exception and, if done at all, only with native species and those of the appropriate function (pioneer, intermediate, climax)
5. The harvesting allowance cannot exceed the productivity of the natural forest association.
6. The standing volume can never decrease below 70% of the volume of the potential natural association as average of the planning period (normally 10 years).
7. Harvesting of flora and fauna is strictly prohibited, except for the forest fruits and mushrooms picked for personal and non-commercial use.

## Reference areas








1. In order to perform adaptive management and learn from nature, at least 10% of the forest area, representative for the main existing forest stands and its site conditions, should remain unmanaged as "reference area." There should be several reference areas in order to represent the different site and forest conditions
2. The forest manager must collect technical and scientific data from the reference area, once a year as written observations and every 10 years more detailed together with the inventory and planning of the whole property. Any forestry work in the reference area, is strictly prohibited.
3. The reference areas shall serve as source of planning future management of forestry management plans even if at the date starting transition to Forever Forest model, the reference forests is also made of exotic trees and even-aged. Once the forest joins the Forever Forest Model, men should never interfere again.
4. Tourists and researchers may visit the reference areas but they are now allowed to walk outside trails.
5. Harvesting of flora and fauna is strictly prohibited.

## WATER, SOIL AND BIODIVERSITY

1. At least 10% of the standing volume of trees in the managed forests must remain forever as snags, nest trees, biotope trees, or other functional habitats of specific species.
2. Genetically engineered trees (including trees created via gene editing), exotic tree species, monocultures, application of pesticides and fertilizers are not permitted.
3. Hunting in forests where the food chain is complete is prohibited (example: no hunting of deer when wolves, brown bears or lynx are present). Trophy hunting is not permitted in any case. Where the food chain is not complete and hunting is necessary, then it must follow all national, European and international legislation and conventions on animal welfare and nature conservation.
4. Soil disturbance (by compacting or ploughing etc.), clearing an area, burning of biomass, drainage of moist areas, activities that might cause disturbances during ecologically sensitive times of the year, and feeding of wild animals, are not permitted.
5. Forest roads must be planned long term and with maximum care for water and soil. Forest roads, skidding trails, wood platforms and any other landscape change should never cover more than 10% of a forest's area.
6. Forestry work is allowed only when the soil is least vulnerable (dry or frozen).
7. Forestry work with heavy machines (such as harvesters, skidders / TAF) is strictly prohibited unless other procedures or machines would cause more damage to the forest ecosystem. For trees up to 1 tone in weight, horses may be used maximum 6 hours per day when animal welfare legislation is respected, animals have appropriate shelter, feed and water at all times and they are checked monthly by a State veterinarian. Animals should be free of any distress. It is forbidden to use any mechanical or electrical tools to force the animals doing their work. For trees heavier than 1 to, teams of horses, tractors and rear-loading machines may be used. In non-drivable terrain, the cableways should be used or harvest should be omitted.

8. The use of biodegradable plant-based oil for machines and chain saws is mandatory.
9. No wastes are allowed to be abandoned in the forests during and after any forestry work.

## ADVANTAGES

-  Wood mass production, and the commercial value of the harvested timber should increase. Mature trees gain more wood mass and more valuable timber than younger trees.
-  Better economic yield and annual profit
-  Damages caused by natural disturbances (windthrow, heats, droughts, insects etc) should decrease
-  Combat climate change, increases biodiversity and functional ecosystems
-  More opportunities for local communities to organize ecotourism
-  Recreational function of the forest is permanently ensured
-  Non-intervention reference areas help to learn more from nature and to continuously adapt forestry management to climate change and other challenges