



Guidelines
on biodiversity-friendly
afforestation,
reforestation
and tree planting



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Marco Onida

DG ENV D.1 Land use & Land
Management



Outline



PART 1 – Forest ecosystems

- Recommended actions **BEFORE-DURING-AFTER** afforestation and reforestation
- Beyond Planting: **Natural Regeneration**



PART 2 – Tree planting in urban ecosystems

- Tree planting in urban ecology
- Promoting Ecosystem services
- Target different types of green spaces
- Monitoring and adaptive management

Outline



PART 3 – Tree planting in agricultural land

- Benefits and Examples of Agroforestry
- Key elements of Agroforestry



PART 4 – Financing Afforestation, Reforestation and Tree Planting

Forest ecosystems: four main cases/situations:



1. Reforestation after planned tree harvesting
2. Reforestation after natural disturbances (storms, droughts, pests, fires)
3. Restoration/enrichment planting in order to diversify forest stands
4. Afforestation (conversion of agricultural, industrial or urban land into forest or wooded land)



Before Afforestation and Reforestation

Choose the correct area

avoid wetlands (e.g. peatland) and areas with high climate mitigation potential, consider landscape ecology, land owners...

Evaluate the Biodiversity and soil

identify habitat and soil type/health

Choose the right species

local adaptation, CC resilience, native, mixing of species...

Adapt nurseries

promote production of native species and local ecotypes

During & after afforestation and reforestation



Sustainably use and nurture soil, protect the water cycle

- High diversity of fungi is prerequisite for healthy forests
- Avoid subsoil displacement and the use of nitrogen fertilizers
- Manual planting when possible
- Avoid heavy machinery (especially in wet conditions)

Protect habitats

- Maintain pioneer species in open forest and bare soil
- Keep deadwood (varying in size and stage)
- Maintain diversity of stands
- Promote existing regeneration and understory
- Avoid whole tree harvesting (Reforestation)
- ...

Control competing vegetation, protect from grazing

Beyond planting: natural regeneration



- **Natural regeneration** makes greater use of the strong potential of nature and preserves the genetic diversity of the forests, which is linked to their resistance and vitality, and should therefore be favoured.
- **Artificial regeneration** might in some cases be the only option (e.g. post-agricultural or post-industrial land or forest improvement)

Conservation and enhancement of biodiversity in urban areas



Biodiversity in spatial planning

Strengthen corridor function and connectivity, protect remnant patches, Increase quality of surrounding matrix

Increase the structural complexity of vegetation

Diversify tree species, enhance (vertical) structural diversity, increase ground- & mid-storey density

Increase habitat resources

Conserve and manage trees adequately -> veteran trees

Choose the right species for biodiversity

native and locally adapted species, habitat value of the species, species diversification

Complementary measures

Avoid pesticides and inorganic fertilizers, reduce pruning and mowing...

Promoting Ecosystem Services in Urban Area



Ecosystem services and urban agenda

Trees are key elements

Minimise disservices

Consider allergy-causing potential in relation to distribution of trees

Choose the right species to provide ecosystem services

Context specific

Involve citizens in urban areas
maintenance and monitoring

Target different types of urban green spaces



- Parks
- Residential and private gardens
- Informal green spaces
- Streets and squares – corridor function
- other areas – rooftops, parking lots, balconies...

Agroforestry systems and practices



Tree location	Agroforestry system	Agroforestry practice	
		Agricultural land	Forest land
Trees inside parcels	Silvopastoral agroforestry	1. Wood pasture	9. Forest grazing
	Silvoarable agroforestry	2. Tree alley cropping 3. Coppice alley cropping 4. Multi-layer tree-gardens	10. Multi-layer tree gardens
	Permanent crop agroforestry	5. Orchard intercropping 6. Orchard grazing	
	Agro-silvo-pasture	7. Alternating cropping and grazing	
Trees between parcels	Tree landscape features (addressed by CAP conditionality rules)	8. Tree landscape features: protected hedges, scattered individual trees, trees in line, small groups of trees	
Trees in settlements	Urban agroforestry	Home gardens, allotments, etc.	

Financing Guide

Information to stakeholders on funding sources for tree planting initiatives: EU funding, national funding, sub-national funding and innovative funding.

- General information on the **selected EU funding programmes** and advisory services/other support
- **Country-specific information for each EU country**

#3BillionTrees



THREE
BILLION
ADDITIONAL
TREES BY 2030

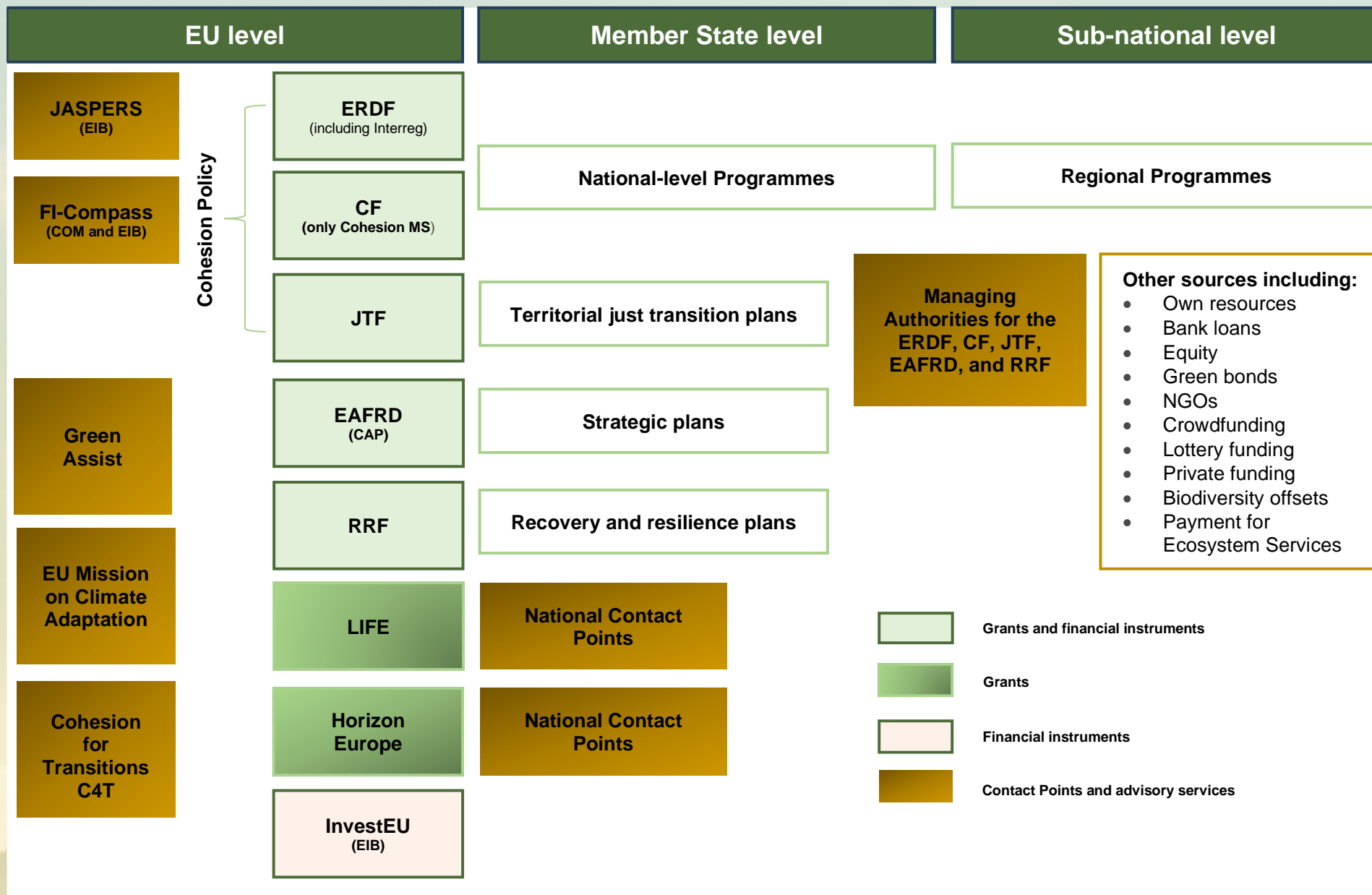
3 BILLION TREES PLEDGE

Financing Guide

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LINKS

[Guidelines on biodiversity-friendly afforestation, reforestation and tree planting - Publications Office of the EU](#)

[3 billion additional trees by 2030 - Publications Office of the EU](#)