

Afforestation

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Afforestation (agricultural or otherwise) involves planting trees on land that was not previously wooded, with the aim of creating a forest or wooded area. The change in land use leads to significant changes in water flow, promoting rainwater infiltration and water retention in the soil, and reducing runoff. In addition, evapotranspiration from vegetation in wooded areas returns water to the atmosphere, particularly in the form of mist.

Afforestation also has an impact on landscapes, biodiversity, carbon capture, etc.

Implementation and management

Prior to planting, the type of afforestation desired must be defined: choice of species, planting density, methods of protection against local wildlife.

For afforestation projects covering more than 0.5 hectares, a preliminary study must be submitted to the DREAL (Regional Directorate for Environment, Development and Housing) to assess whether or not the project requires an environmental impact assessment. Other existing regulations may apply depending on the case, such as those concerning Natura 2000 sites (sites designated to protect a number of habitats and species representative of European biodiversity, as a tool of European biodiversity conservation policy), distance from traffic routes, current agricultural obligations, etc.

Once planting has begun, maintenance must be carried out, with significant work required in the early years to ensure that the woodland is kept clean and plant mortality is monitored.

Scale of implementation

Afforestation can be carried out on a variety of scales: it can be implemented on a small plot of land, but also on a group of plots, a sub-watershed, or even a watershed.

Information on implementation costs

Several costs must be taken into account when carrying out afforestation:

1. Site preparation
2. Purchase of seedlings (costs vary depending on the species chosen and planting density) and planting (including labour for planting the seedlings and any rental of specialised equipment)
3. Protecting the seedlings (individual protection against wildlife, fencing if necessary)
4. Maintenance during the first few years
5. Administrative costs

6. Indirect costs: loss of agricultural income if the plot was previously cultivated, property taxes (which may change with the change of use)
7. Technical monitoring (advice from forestry experts or technicians)

It should be noted that subsidies for afforestation may sometimes be available.

Key players

Institutional stakeholders: Government departments responsible for agriculture and the environment (Regional Directorates for Food, Agriculture and Forestry - DRAAF) and ecology (Departmental Directorates for Territories (and the Sea) - DDT(M), Regional Directorates for the Environment, Planning and Housing - DREAL), local authorities, National Federation of Forest Communities (FNCOFOR)

Professional and technical stakeholders: The Regional Centre for Forest Ownership (CRPF), the National Forestry Office, Water Agencies, Forestry Experts of France (EFF), Nature Conservation Centres

Local stakeholders and civil society: forestry operators, landowners, forestry cooperatives and forest management groups, local associations

Some bibliographical references for further information

- [Afforestation of agricultural land.](#) Hauts-de-France-Normandie Regional Forest Property Centre. *[in French]*
- [Drinking water – afforesting areas close to water catchment protection zones.](#) Adour-Garonne Water Agency. 23 pages. (2003) *[in French]*
- [Afforestation and reforestation as an opportunity for adaptation.](#) Climate ADAPT. (2019) *[in French]*