

Description of SWOT factors

Strengths

- **Good availability of the resource:** in terms of wood volume/natural capital on the regional territory (potential harvest 1.6 Mm³/year). -> Source: Regional Forest Plan 2017-2027
- **Provision of ecosystem services (cultural and protection):** capacity of the forest ecosystem to provide various services to man, such as protection against natural hazards (avalanches and rockfalls), landscape and tourism-recreation.
- **Diversity of wood assortments:** the ability of the chestnut resource to offer different products, such as poles, carpentry, planks for indoor and outdoor furniture, tannin, pellets, and wood chips.
- **Strong knowledge of the chestnut resource and its products:** by civil society, industry and forestry operators, since in the past the chestnut strongly characterised the national hills and mountains, in fact establishing a period called "chestnut civilisation".
- **Vocational training initiatives:** for operators in the sector, specifically forest user companies, especially financed by the Piedmont region.
- **Generational change of forest entrepreneurs:** high incoming rate of young entrepreneurs who have followed forestry training courses.

Weaknesses

- **Negative stumpage value:** represents the value of transforming the mature stand (forest) into a certain amount of saleable assortment. In this case it is negative as a result of the difficult accessibility of the forest (e.g. lack of adequate road infrastructure, rough and steep plots) and the poor technological quality of the timber obtainable.
- **Land pathology and orographic context:** the first refers to areas belonging to a single property, typically small and fragmented. The second refers to the mountainous context characterised by reduced accessibility to the forest due to low road density and roughness.
- **Weakly harmonised forest management:** lack or obsolescence of forest management plans and poor public funding to support planning.
- **Technological obsolescence and poor support for innovation in processing companies:** in terms of effectiveness and operational efficiency of companies and lack of awareness-raising initiatives, communication campaigns regarding industrial innovation potential (e.g. Industry 4.0 and numerical control machines, product and process innovation).
- **Technological defects of wood:** arising both from the intrinsic characteristics of the species (e.g. onions and knots), but also from forest management (poor thinnings and cultivation care resulting in low value assortments).
- **Lack of public support for the provision of ecosystem services (PES):** in terms of funding, compensation for forest owners who directly or indirectly manage the forest and also produce a range of services, such as rainwater regulation, storage of atmospheric carbon and reduction of the erosion process.

Opportunities

- **Chestnut research projects:** in terms of projects carried out by universities and research institutions on the resource (e.g. CastagnoPiù and CastagnoPiemonte, which respectively deal with enhancing the chestnut resource from the perspective of timber, the former, and fruit, the latter).
- **Enterprise networks:** the legal-economic instrument whereby a network contract establishes cooperation between enterprises.
- **Forest certification and quality labels:** through the adoption of schemes that certify the sustainability of forest management or all the steps of the processing chain from raw material to finished product, as is the case with FSC and PEFC.

- **Increasing civil society awareness of ecosystem services:** through awareness-raising and information activities (e.g. workshops, seminars, dissemination events, social).

Threats

- **Climate change:** a phenomenon that has strong repercussions on chestnut stands due to water stress, fire risk, insect infestation, general malaise, and disease outbreaks on the resource, but at the same time affects the stability of these forests (i.e., risk of hydrogeological instability) and the technological quality of the timber that can be obtained (i.e., low yields, technological defects, economic impact).
- **Depopulation of mountain areas:** a phenomenon that began in the late 1800s and saw the gradual abandonment of the mountains by society due to the shift from a subsistence economy to a market economy and the exodus to the city, with environmental and socio-economic consequences.
- **Lack of knowledge of the market and strong foreign competition:** difficulties in matching supply and demand for chestnut-based wood products and in communicating the added value of the local product; market characterised by strongly fluctuating trends and competition with foreign products (e.g. resin laminated beams).
- **Uncertainty about subsidies and incentives for the forest-wood sector:** dependence on subsidies of European origin (ERDF -> RDP funds) and opaque political vision of development and revitalisation of the entire sector on a multi-year basis at national and regional level.