

ACTION IMP: Implementation of forest management options in the test areas**Responsible for writing: CRA****Description**

The focus is here on the technical implementation of demonstrative/innovative forest management practices that will be compared to the traditional management, as well as to the progress of the evolutive pattern under condition of no-intervention (natural evolution). Under the assumption (see Action AnDeFM) that the maintenance of forest "health and vitality" is the main driver to the fulfilment of the whole set of criteria and indicators of SFM, the planned practices will take into account the whole life-span of the forest crop from final interventions preparatory to the regeneration stage up to the cultivation of the intermediate (young, adult, mature) phases. Practices will be consistent with growth environments and specific bio-ecological requirements. The interventions will account for their economical feasibility both in terms of minimum area and harvested stock. A special attention will be devoted to enhance or create a structural (tree size & spatial distribution, tree canopy) diversity inside the same management unit (patch level), able to be managed throughout the full cultivation cycle. Compositional diversity too, if present, will be preserved and enhanced creating the proper ecological conditions for the successful regeneration of the diverse, even sporadic, tree species. The techniques implemented have manifold goals: structural (and additionally compositional) diversity improve tree growth and carbon allocation, promote the number of associated living communities (habitats & ecological niches) at the patch as well as at higher scales by their spatial arrangement and repetition. Number of potential connections inside the forest ecosystem is in this way largely increased and its resistance/resilience to environmental stresses enhanced.

An ad-hoc defined monitoring rationale will provide the basis to detect the effects of each operation step-by-step. The fulfilment and practical implementation of the new options will be conceived in close cooperation with local managers (see Action AnDeFM); the demonstrative areas will be designed by the research staff; CFS personnel will support the implementation of management operations in the designated areas

A minimum surface of 10 hectares will be devoted to the practices into each forest district (on average at least 30 ha x 6 UTB=180 ha). The transect approach on a target (European beech) and other representative species in the examined geographical gradient (silver fir, spruce and Turkey oak), will allow to evaluate the outcome of forest management over a range of environmental conditions and site histories.

Practices will be explained by notice boards illustrating the type and purpose of management intervention, its long-term perspective and how the results will be monitored and measured (see Action Dem and CD). A special care will be paid to explain how a suited chronology of interventions fits along the whole stand life-span, from its establishment (regeneration) up to the ages of maturity.

Action IMP will start at month 10 and will be closed at month 45, included

Methods employed

- Technical definition of the management options on the basis of the analysis and design performed under Action AnDeFM;
- Analysis of the spatial scale allowing the evaluation of technical and economic viability of the proposed practice and enabling the comparison with the current practice of forestry (baseline situation);
- Selection of proper implementation in the field as for the demonstrative/ innovative side;
- Technical operations of forest management (selection of trees, felling, harvesting, etc.).
- Measurements of basic forest parameters (number of trees & species, tree diameter & height, tree ranking, canopy properties) before/after management operations
- Definition of the dissemination procedures (targets, level/type and communication means).

Constraints and assumptions

The forest areas selected for the project are all currently under forest management with different objectives and intensity. Local staff is experienced in implementing forest management operations and is equipped for that. There is a direct connection between the public forest owner and the eventual Authorizing authority for forest intervention. The choice made to work into forests managed by a public body (UTB), technically qualified and responsible of forest policy at national level (CFS), is aimed at reducing possible constraints and driven by the assumption of the wide impact attributable to the experiments, as for their guidance and further dissemination capability.

Beneficiary responsible for implementation

CRA

Other involved Beneficiaries: CNR, UNIMOL, Regione Veneto

Expected results

- Setting up a series of management options complementary and/or alternative to the traditional management easily enforceable within the examined and similar forest contexts, providing a more successful matching with the SFM indicators of concern;
- Implementation of forest management options
- Increased knowledge acquisition rates by suited actions of dissemination;
- Enhanced information flow between stakeholders (managers, policy makers, public);
- Established link between monitoring outcomes and ongoing regulatory activity.
- Increased dissemination rates of "good practices" of forest management;

Indicators of progress

Number of management options type put into practice;

Hectares of forest area managed in each forest district

Number of plots surveyed before and after management enforcement

Three steps: august 2012 (33% of exp. sites); august 2013 (66% of exp. sites); july 2014 (completion).

ACTION IMP-SI: Implementation of forest management options in the test areas

Description:

The detail description of action IMP-SI corresponds to the action IMP.

Action IMP will start at month 7 and will be closed at month 40, included

Methods employed

See under Action IMP

Constraints and assumptions

The forest areas selected for the project are all currently under forest management with different objectives and intensity.

Beneficiary responsible for implementation

SFI with external collaborator (SFS, BF...)

Expected results

see Action IMP

Indicators of progress

see Action IMP