CONCEPTUAL DSS FOR OPTIMAL WOOD MOBILIZATION IN NORTHEAST OF PORTUGAL

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All forest DSS must take into account sustainable and responsible management of resources in terms of Economic viability, Social demand and Environmental limitations. Such a framework is not easy to develop and implement due to high levels of change affecting each of these pillars: the changing economic context, the changing social requirements and climate change. The goal of the conceptual DSS built in this research is to optimize wood mobilization in changing context and in the best possible circumstances, assuring a sustainable balance among ecosystem services, forest functions, and wood and non-wood forest products in northeastern Portugal. To achieve this goal it was necessary to consider the following points:

- The DSS has been adapted to the study region and took into account all the relationships among management policy, market, industry, financial support, forest resources, limitations, and other.
- All forest decisions are taken by persons and that affect the society, directly or indirectly, at different levels. Stakeholders' involvement is necessary and their opinions must to be considered in two ways: the actual situation (how stakeholders perceive the current condition of the forest) and future scenarios (how the stakeholders think the future condition will be or should to be).
- The DSS must ensure the capability to simulate future conditions (as far as possible) in order to evaluate alternatives before their application in practice and to minimize economic, social and environment risks.

The three points above have been integrated using different methodologies (e.g. AHP, MAUT, Linear programing, growth modeling, trade-off analysis) but their direct application is complex. To solve this problem we developed informatics tools and protocols. All the model parts can be evaluated and partially solved to improve the DSS (feed-back).