

Proceedings: IMACFORD Task B1 meeting on Forest Management
“Future Changes and Innovations in Forest Management: Implications for Research”
18-19 October 2002, Lousã, Portugal

- *Main points of discussion and synthesis of the IMACFORD meeting*

Appendix

1 - *Participants to the meeting*

2 - *Programme of the meeting*

3 - *Presentations*

4 - *List of technological innovations, impacts and associated research topics*

5 - *Draft programme of regional workshops*

6 - *Draft agenda of IMACFORD task B1 project*

1. Prospective on forest management trends for cultivated forests

Within the IMACFORD task B1, technological innovations are the starting point of the discussion on future research topics for cultivated forests: (i) through their impacts on ecological and socio-economic parameters of sustainable forest management (existing innovations); or (ii) through their conception in order to adapt forests systems to future changes (potential innovations).

In this context, the prospective approach provides a framework to define associated technological innovations according to forest management trends and changes.

1.1. Prospective approaches

The INRA prospective approach (*Prospective: la forêt, sa filière et leurs liens au territoire, 1998*) provides a general framework summarized below :

1. “Business as usual” regime: **non coupling / wood**

Regarding this scenario, wood production is considered as the main goal of forests. Forest policies and practices aim at a better valuation of this forest function. But Society expectations for other forests functions are strong; wood production is organised under a context of multifunctional constraints. In this case, the woods exploited are mainly from noble tree species.

To conclude, in this scenario, wood production is the main trend of forest management, the forest-industry sector is at risk (unstable scenario).

2+3. Multifunctionality: **coupling + non coupling / non wood**

In this scenario, territorial and environmental productions and amenities are the main functions of forest lands. It doesn't mean that wood can not also be harvested. This scenario is strongly dependent on the territorial organisation of forest functions.

Potentially, as a result of the decrease of the wood supply, there might be a risk on the wood sector organisation and its economy.

This scenario leads to the question of financing forest management and maintaining forest multifunctionality.

4. Forests for wood production: **coupling – wood**

Referring to this scenario, wood production is the main forest function. The development of a strong wood industry is a political priority and the forest/industry sector is well organised.

In this context, wood is considered as a raw material for the industry.

In this scenario, the management of forest multifunctionality is not evident. Actually, this scenario is also strongly dependent on the territorial organisation of forest functions.

Those four extreme scenarii generate various forest regimes and land use and they can be associated with different spatial distribution of forest functions:

A – Closed mix of forest functions: **Multifunctional forests**

In this approach, forest management regime aim at supplying multiple forest functions at stand level. Each forest is multifunctional in itself.

Referring to this concept, the whole territory functions are shared between the whole professional sectors. This approach may constitute a compromise with society expectations but there might be some negative impacts on forest industry sector organisation and economy.

B – Territorial mosaic of forest functions: **Specialised forests**

With respect to this approach, forest functions are provided by specialised forests which are spatially distributed.

In forests exclusively dedicated to wood production, intensive practices are implemented. Other forests are dedicated to other forest functions: recreation, biodiversity conservation, water and soil preservation, etc.

In this approach, forest management regimes are specialised according to the functions of the forests. Forest is no longer considered as a global territory but is divided into several functional stands.

The INRA framework has been developed within a national approach, but it need to be improved at regional level.

To feed the discussion, we can mention the prospective framework that AFOCEL is developing at the moment. The analysis of forest regimes is proposed on the basis of the triptych Forest/Territory/Industry.

1.2. Regional forest scenarii

The following table summarizes the presentations for each one of the 4 regions (Aquitaine, Euskadi, Galicia and Portugal).

	Land use before forest	Increase in forest area	Active silvicult. practices	Main Forest species under production	Forest owner org.	Connexion Forest/ Ind.	Spatial distrib. functions	INRA scenarii
Aquitaine	Uncultivated lands	1870	Yes	1 (maritime pine)	Yes	Yes	Yes	coupling - wood
Euskadi	Deforested lands	1900	No/Yes	1 (radiata pine)	Weak	Yes - Weak	Yes	non coupling - wood
Galicia	Farm lands	1950	No	2 (maritime pine + eucalypts)	Weak	Weak	No	non coupling - wood
Portugal	Farm lands	1875	No/Yes	3 (maritime pine + eucalypts + Cork Oak)	Weak	Yes - Weak	No	coupling - non wood

Spatial distribution of forest functions and organisation of the forestry-wood chain are the main factors influencing forest management trends at regional level.

See appendix 3 for presentations regarding forest management trends in Aquitaine and Portugal.

2. Technological innovations, main issues and associated research topics

2.1. Method

Technological innovations are those that are **already implemented** (the purpose is to evaluate their ecological and socio-economic impacts on cultivated forests), and those that could be **potentially developed** (in order to adapt forest systems to future changes).

In appendix 4, a classification of both existing and potential technological innovations into groups is proposed:

- Vegetal material,
- Forest management practices,
- Forest management regimes,
- Forest products.

2.2. Technological Innovations

Mainly technological innovations were reviewed for 3 items:

- Models: Presentation of objectives and availability of empirical models (growth models and decision support systems) and process-based models. Needs for modelling forest management have been explained (presentation appendix 3).

Modelling wood quality aspects have also been discussed.

- Forest operations: The importance of taking into account innovations in logistics and transport was emphasized.

- Genetic improvement: This topic will be discussed at the next IMACFORD Thematic Group meeting in Vitoria (15 November).

2.3. Ecological and socio-economic issues for cultivated forests

In cultivated forests, technological innovations have impacts on the 2 aspects of forest sustainability and risks (biotic and abiotic): the ecological factors, and the socio-economic context.

See presentations in appendix 3 for ecological and socio-economic issues.

3. Following steps of the IMACFORD project

3.1. Organisation of the next Thematic Group meeting

Within the third and last phase of the IMACFORD task B1 project (task B13), people of the Thematic Group on forest management will be brought together for the second time.

Objectives of the next thematic group on forest management meeting (B13):

A - Valid the issues and the research topics that have been identified during the Lousã meeting (B11) and that would have been completed through the framework proposed in this synthesis.

B - Discuss and integrate in the research priorities the research needs and the research topics that would have been enhanced by an interregional panel of stakeholders and end-users during the IMACFORD regional workshops (task B12).

C - Elaborate research questions in order to prepare the Integrated Project on cultivated forests for the 6th Framework Programme.

Date and Location:

The meeting will be held in the first half of June 2003. Dates and locations were discussed (Euskadi or Ireland).

3.2. IMACFORD regional workshops

Discussion on the draft programme of the workshops (see appendix 5)

The regional workshops will be organised according to 3 main parts:

A – End-users explanations: Research needs from representatives of various stakeholder groups.

It has been approved that the following stakeholders groups will have a presentation:

- *Regional and Regulatory Authorities,*
- *Public forest owners,*
- *Private forest owners,*
- *Wood and Paper industry,*
- *Forest entrepreneurs,*
- *Environmental groups*

B – Scientists explanations:

B1. Regional forest management trends.

B1. Scientific reports on research issues and impacts identified during task B11 meetings.

B2. Scientific expertises and research capacities within IEFC research network.

C – Discussion groups composed by both scientists and end-users:

End-users and scientists will complete the innovation list prepared during task B11 meeting and rank the innovations according to their priorities.

Organisation of the workshops

Local organizers of the workshops are invited to provide IEFC a contact list (e-mail and phone number) of the regional stakeholders groups.

IEFC will contact those regional groups and send them the invitations of the workshop.

It has been decided that the language of the regional workshops will be the national languages.

Dates and Locations of the regional workshops (See appendix 6)

As it was initially proposed, the French workshop will be organised in Bordeaux ENITAB, on February the 27th and 28th.

The Spanish workshop will be held in Santiago de Compostela (Galicia) at the end of March 2003 (date be defined).

With respect to the Portuguese workshop, it will be hosted on April the 7th and the 8th in the research centre of CELBI S.A in the city of Obidos.

Antoine Colin