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JOINT FAO/ECE/ILO COMMITTEE ON FOREST TECHNOLOGY, MANAGEMENT AND TRAINING

Seminar on

CLOSE TO NATURE FORESTRY

Zvolen, Slovakia
14-19 October 2003

REPORT OF THE SEMINAR

Introduction

1. The seminar on *Close to Nature Forestry* was held from 14 to 19 October 2003 at the Castle of Zvolen in Slovakia, under the auspices of the Joint Committee and the Forest Research Institute in Zvolen in cooperation with IUFRO and EFI. Participants from the following countries attended: Bulgaria, Denmark, Finland, Germany, Hungary, Ireland, Latvia, Netherlands, Poland, Russia, Slovakia and Switzerland. The Vienna Liaison Unit of the Ministerial Conference on the Protection of Forests in Europe (MCPFE) was also represented. The following non-governmental organisations were represented: European Forest Institute (EFI), The World Conservation Union (IUCN) and International Union of Forestry Research Organisations (IUFRO).

Opening of the seminar

2. The seminar was opened by Mr. J. Novotny of the Forest Research Institute in Zvolen who welcomed the participants and introduced the opening speakers. Ms. E. Kolesarova welcomed the participants on the behalf of the Ministry of Agriculture, Slovakia. Mr. J. Mindas, Director of the Forest Research Institute in Zvolen, addressed the participants on behalf of the Institute. He emphasised the importance of forestry and wished the participants a successful seminar.

3. Mr. H. Hoefle, the Chairman of the Joint Committee, thanked the Slovak Authorities for hosting and organising the seminar. He made a short introduction about the work of the Joint FAO/ECE/ILO Committee on Forest Technology, Management and Training which was founded in 1954. He pointed out that the Joint Committee had integrated the three pillars of sustainable development, economic, environmental and social aspects, in its working programme since its inception. Further strengths of the Joint Committee were:

- wide range of disciplines and participants,
- cooperation and networking with other bodies,
- concentration on operational rather than political issues,
- relevant work programme.

He encouraged the participants to promote the Joint Committee's activities in their countries.

4. Mr. H. Schmutzenhofer, Executive Secretary of IUFRO, addressed the participants and described IUFRO activities.

Election of officers

5. Mr. J. Ilavsky was elected Chairman of the seminar. Mr. J. Ilavsky described the organisation of the seminar. The participants were asked to contribute with proposals for conclusions and recommendations. He nominated the following moderators to chair the sessions:

Session 1: Mr. J. Ilavsky
Session 2: Mr. D. McAree
Session 3: Mr. J. Tucek
Session 4: Mr. H. Hoefle

Session 1: Policy and economic aspects of close to nature forestry

6. The following papers were presented at the session: Mr. I. Tikkanen (EFI) on Close to Nature Forestry and Forestry Policy Challenges in Europe, Ms. S. Linser (MCPFE, liaison unit in Vienna) on Outcome of the Vienna Ministerial Conference, Mr. M. Jakobsen and Mr. M. Jensen (Denmark) on Introduction of the Close to Nature Forestry in the Danish State Forests, Mr. R. Sulek (Slovakia) on Close to Nature Forestry versus Nature Protection in the Slovak Republic from the Policy Point of View and Mr. R. Svitok (Slovakia) on Subsidies for Slovak Non-State Forestry from 2004 to 2006. The moderator of the session was Mr. J. Ilavsky.

7. Mr. I. Tikkanen was asked for a clarification of policy failure. He explained that there are two different failures: one when decision makers do not have enough information and therefore might address the wrong issues and another where institutions do not have sufficient resources or capacity to implement the policies.

8. Several questions were raised about the need for a common forest policy in Europe. Forest management is often discussed at international fora, but it is not included for example in the draft Constitution for Europe. However, it was stated that formulating EU legislation is a difficult process and it can sometimes be questioned if the legislation has an influence on the ground.

9. It was also stressed that the new EU members might be able to contribute to promote the importance of forests. The importance of the forest sector in the EU was also discussed. Mr. I. Tikkanen pointed out its significance for employment, forest owners, international trade and indirect influence on other industries.

10. The issue of coordination between EU and MCPFE was also raised. But it was noted that the MCPFE includes more countries than the EU and it works at another level, with different legislation.

11. The problem of how to achieve a balance between economic, environmental and social issues was discussed. Trade offs must be made since stakeholders have different interests. More socio-economic data was needed. Certification schemes were used as an example of different views on how to achieve a balance. The need for the forest sector to make partners and network with other sectors and civil society was stressed.

12. The future timber supply situation was discussed. It was mentioned that there were two types of forests: plantations and close to nature (including native) forests. The question of whether plantations can cover the future timber supply was raised. Uncertainty on how much timber will be available in the future was pointed out. The importance of undertaking accurate forest inventories was emphasised.

13. In Denmark, as in other countries, it is an obligation for the State Forest to convert to close to nature forestry while it is voluntary for the private forest owners.

Session 2: Methods and procedures of forest management planning in close to nature forestry and its ecological aspects

14. The following presentations were made at the session: Mr. H. Spieker (Germany) on Methods and Procedures of Forest Management Planning in Close to Nature Forestry and its Ecological Impacts, Mr. R. Marusak (Slovakia) on Harvest Scheduling and Close to Nature Forestry, Mr. T. Tobisch (Hungary) on Hungarian Initiatives towards a Continuous Cover Forestry and Mr. M. Moravcik (Slovakia) on Close to Nature Management in Forests with Prevailing Ecological and Social Functions. The moderator of the session was Mr. D. McAree.

15. The growing stock in Europe's forests over the last century has increased dramatically and at the same time stands have become older. The increased timber volume provides more breeding material for insect infestations and results in greater storm damage. This explains why salvage logging might be higher at present despite the tendency to switch to close to nature forestry.

16. The question of how to make use of market conditions under close to nature forestry to optimise forest output to satisfy the market and generate profits was raised. If conifer species are replaced by broadleaves when converting to close to nature forestry, yields may be lower. Experience in German beech forests showed that high timber yields are possible with close to nature forestry. Research on other species is necessary.

17. It was discussed that the transition to close to nature forestry should be prioritised. Changes should be made where it is most urgent and other forests should be left as they are to avoid extreme changes. Criteria for prioritisation will depend on site and stand conditions.

18. For successful close to nature forestry to be implemented consideration should be given to the impact of weeds, spacing, natural regeneration, light and mast years.

19. The economic results of close to nature forestry cannot be answered in general terms. Each case must be addressed separately. Management practice must be adjusted to cater for local circumstances and objectives.

Session 3: Silviculture and harvesting methods in close to nature forestry

20. The following presentations were made at the session: Mr. H. Hoefle (Germany) on Close to Nature Forestry and Harvesting Operations, Mr. I. Stefancik (Slovakia) on Thinning as a Tool of Close to Nature Forestry, Ms. B. Mankovska (Slovakia) on Bioindication – Important Instruments for Understanding of Pollution Load in Forests Close to Nature, Mr. T. Staszewski (Poland) on Seasonal Changeability of Water Features from Watersheds with Artificial Spruce Stands in Silesian Beskid and Ms. R. Pashova presented the paper of Mr. S. Bialkov (Bulgaria) on Close to Nature Forestry in Bulgaria. The moderator of the session was Mr. J. Tucek.

21. Many participants made comments about the cost efficiency in relation to close to nature forestry. The question was raised if close to nature forestry can be compatible with other forest operation systems. It was discussed that it depended on the goals. If the goal is to maximise timber yield, it is very difficult to compete with fast growing plantations or illegal logging that provides timber at low costs. It was stressed that the goals need to be clear to make good decisions. Close to nature forestry has some comparative advantages such as natural regeneration which is less expensive. Higher dimension timber and higher quality timber can be expected in the long run.

22. Comments were made about the term close to nature forestry. There is a political interest to use the term because no one wants to be against it. Close to nature forestry was a reaction to the even aged forestry system but it is not the only answer. Furthermore, close to nature forestry might not fulfil all demands. Close to nature forestry should therefore be flexible to accommodate an optimal mix of demands and requirements in different locations.

23. The importance of balance between ecology and economics was stressed. Cost efficiencies also depend on stand composition. Studies in Bulgaria have shown there are more costs than economic benefits for young stands. However, non-timber benefits such as recreation, water protection and social functions should also be taken into account. The State has to contribute supplementary financial resources to achieve the balance in close to nature forestry.

24. There was a discussion about whether pesticides and fertilisers can be used in close to nature forestry. For example, in Lower Saxony, Germany where no fertilisers are used, with the exception of occasional compensation liming, soil preparation is not allowed and pesticides can only be applied if catastrophes cannot otherwise be avoided.

Session 4: Genetic and silviculture (biodiversity) aspects in close to nature forestry

25. The following presentations were made at the session; Mr. A. Zingg (Switzerland) on How Close-to-Nature is Forestry in Switzerland? Past and Present Development, Mr. D. Gomory (Slovakia) on Management Implication of Intrapopulation and Interpopulation Genetic Variation in Norway Spruce, Mr. P. Zach (Slovakia) on Significance of Dead Wood for Biodiversity Conservation and Close to Nature Forestry, Mr. M. Zubrik (Slovakia) on Integrated Pest Management in close to nature forestry and Mr. P. Tyszko (IUCN) on IUCN projects to Support Biodiversity in Forests of Central Europe. The moderator of the session was Mr. H. Hoefle.

26. It was welcomed that the issue of forest genetics had been included in the seminar's agenda. It was debated if planted material had lower genetic value. In order to conserve and enhance the forest genetic resource it was recommended, where and when appropriate, that a minimum number of seed trees should be selected in each stand for future seed provision.

27. It was noted that Ireland's Code of Best Forest Practices stipulated the species composition and biodiversity requirements in all afforestation programmes.

28. There were different views on the amount of dead wood which should be left in the forest. During the discussion it was clear this is a complex issue. Leaving dead wood in the forests has proved to increase biodiversity but on the other hand it might lead to a higher exposure for insect infestation.

Conclusions and recommendations

29. The seminar adopted the following conclusions and recommendations

Conclusions

1. Close to nature forestry achieves the principles and objectives of sustainable forest management. It integrates the demands for wood products, biodiversity and other functions of the forest.
2. Even if there is no generally accepted definition of close to nature or continuous cover forestry, there seems to be agreement about its basic principles.
3. There is no single optimal strategy for close to nature forestry since it has to take into account a wide range of ecological, economic, social and cultural aspects as well as different site and stand conditions, and the diverse interests of stakeholders.
4. Close to nature forestry has to be understood as a flexible system that provides options rather than rules that must be applied strictly.
5. The shift to close to nature forestry is a long-term process. Priorities for the conversion of stands are needed.

Recommendations addressed to member countries

1. Each member country that embarks on close to nature forestry should also clarify which long-term objectives are to be pursued.
2. Close to nature forestry requires a management decision. Therefore, not all commercial forests should be converted to close to nature forests; e.g. short rotation forests, coppice and biomass forests.
3. If the concept of close to nature forestry is to succeed in the long run, close cooperation and participation of all stakeholders should be established.

Recommendations addressed to the Joint Committee

1. The topic of close to nature forestry is of high relevance for forestry in Europe. The Joint Committee should organise further events to exchange knowledge and expertise relating to close to nature management, possibly also with the participation of countries outside the region.
2. These events should further clarify the concept of close to nature forestry and support member countries in its implementation.

Recommendations addressed to research organisations and to IUFRO

1. Since there is no commonly agreed definition of close to nature forestry, the IUFRO group on terminology should deal with this issue.
2. Demonstration areas of close to nature forestry should be established in different forest ecosystems.

3. Research into close to nature forestry should be integrated through some form of networking in order to gain higher efficiency and results of better quality.
4. The economics of close to nature forestry should be better explored (in comparison to traditional concepts of forestry).
5. Operational guidelines and criteria to achieve the objectives of multifunctionality within close to nature forestry should be developed.

Other business

30. On 18 October, a poster session was held. The following posters were presented:

- Ms. A. Spangenberg on The New Centre of Forestry Weihenstephan;
- Ms. D. Dobrowolska on Silver fir (*Abies alba Mill.*) restoration in the Karkonosze National Park;
- Ms. D. Farfal on The influence of site condition on root system vitality of silver fir (*Abies alba Mill.*) regeneration in the Karkonosze Mts;
- Mr. H. Schmutzenhofer on Presentation of IUFRO activities;
- Mr. T. Stazewski et al. on Different in PAHs capture capability of Pine (*Pinus sylvestris*), birch (*Betula verrucosa*) and oak (*Quercus robur*) due to their leaf surface characteristics;
- Ms. A. Tucekova et al. on Vegetation Cover Development at Fire Area Predna Krompla;
- Mr. J. Vladovic et al on Ecological Approaches to the Evaluation of Mountain Forest with Applying Remote Sensing and GIS.

31. Mr. H. Hoefle, on behalf of the Joint Committee, thanked the Slovak Authorities for their warm hospitality and excellent organisation of the seminar. He also thanked all the participants and support staff for their active contribution to the successful outcome of the seminar.

Adoption of the report

32. The seminar report was adopted.

ANNEX

Study visits

Tuesday 14 October

A short excursion was organised on the way from Bratislava to Zvolen with a visit to a European bison reserve together with a close to nature forestry site of broadleaves (mostly beech).

Friday 17 October (full day excursion)

The study visit revolved around the theme of “Management of mountainous areas with occurrence of close to nature forestry, mostly coniferous stands. Management of gene reserves”.

Close to nature management of these stands requires a high level of professionalism. The excursion also included a short trip on the well-preserved Ciernohronska forest railway which dated from 1908. This was followed by an informative nature trail walk in the Vydrovska valley which demonstrated all aspects of forestry activity in the region.

In mountainous areas of northern Slovakia Norway spruce forest ecosystems are dominant. A major part of these forests is now endangered due to the effects of air pollution. It is therefore of great importance that this valuable gene pool base should be secured. The group visited natural, semi-natural and man made mountain forests dominated by conifers in the Low Tatra Mountains and High Tatra Mountains.

Saturday 18 October (half-day excursion)

An excursion took place on the theme “Areas with occurrence of close to nature mostly of mixed forests and natural processes in virgin forests”. A visit was organised to the “Badin Virgin Forest” comprised of beech and fir tree species.