1st International Meeting of Heads of European National Forest Research Institutions (5th and 6th July 2004, Vienna)

Es gilt das gesprochene Wort!

Crisis and change: an innovative opportunity for State Forest Research Institutes facing difficult times

or

Crisis as a source of innovation.

Preliminary remarks

Today I would like to share some very personal thoughts with you about recent developments affecting **State Forest Research Institutes.** I will be discussing this topic further during an invited workshop between the board meeting of IUFRO in Seoul this autumn.

The environment in which we work is becoming increasingly difficult. Also in Switzerland we are being forced to reflect on our priorities and on how to adapt to what many call a crisis in funding. Today I try to tell you about how this crisis has become a matter of concern.

First of all I would like to start by describing some recent developments in german speaking countries. Then I would like to give you some reasons as to why we are facing this crisis in forestry research in some parts of Europe (f.e. exception France). Finally I will try to sketch out some ways of dealing with these problems and of finding solutions to them.

Recent developments

In Germany we can observe serious and fundamental changes in the state forest service. Due to a shortage of government funding various reorganisations and fusions have taken place, and the number of employees has been drastically reduced. The 3 German states, or Länder, Hesse, Lower Saxony and Saxony-Anhalt are planning to fuse their Forest Research Institutes in 2006 and set up a «Northwest German Forest Research Institute». And in North Rhine-Westphalia the «LöLF» the «Landesanstalt für Ökologie, Bodenordnung und Forsten» has been merged with the «Landesamt für Ernährung und Jagd». The situation is even worse in Rhineland Palatinate where the future of the Forest Research Institute is very uncertain and it seems likely that it will not survive.

In Switzerland we lost this year the Forest department at ETH Zurich as an independent institution. And there is been an ongoing discussion about merging research institutes (the bigger the better?). For example, some have proposed merging the Research Institute for water and sewage research with our institute for forest snow and landscape research.
All these examples have at least one feature in common: the institutions concerned are all government facilities that are under pressure mostly due to a shortage of money.

Why a crisis?

At an international meeting of representatives of universities involved in the forest sciences in 2001, Jeff Burley (from the University of Oxford) suggested that one of the reasons for the decline of State Forest Research Institutes is their bad public image. He listed four not very flattering images:

1 the chain-saw image: according to this forest engineers and foresters are nasty types who cut down vast numbers of trees with nasty chain-saws leaving huge clearings in the forests.

2 the dumb image: studying forestry is said to be an easy option, enabling not to active students to still get an academic degree. People who would otherwise be failures at university can still end up with a degree in forestry.

3 the dirty boots image (or the Helly Hansen Typus): at many universities studying forestry is not regarded as academic by scientists from other fields. Such applied science is viewed as inferior to other studies.

4 the grunt image: many women believe that forestry is only a domain of men. That is why the percentage of female students is quite low (under 20%, see the today participation list without women).

In addition to these four images I mention the self-fulfilling prophecy problem: It is an unfortunate fact that many students of forestry conform with these images which further distorts the public image of forestry studies.

Public perceptions of forest engineering and forestry do – I assume – differ the world over. Nevertheless we still have to work on improving the image of forest engineering and research both nationally and at the local level.

Below I would like to focus on the academic subject of forest science and talk about the «distinctly scientific nature of the forest sciences».

I would like to start with a quotation of Peter Glück from Uni Boku in Vienna. He said once: «It is generally believed that forest engineers perform their work on the basis of scientifically established knowledge. This is, indeed, the case when they are recording inventories and growth ... But for the bigger questions they rely on untestable assumptions that have proved helpful in the past.» (Glück, P. 1986. The Value Systems of Forestry People. 18th IUFRO World Congress, Ljublijana).

At least in the German-speaking part of Europe all forestry students have to have passed through an ideological and dogmatic eye of a needle and gained a place at one of the 7 forestry schools in German-speaking Europe. Traditionally training took place at just a few institutes which maintained

close contact with each other, and Leibundgut would quote his friends Köstler and Mayer and vice versa. Silviculture was the dominant subject in the course programmes and, of course, silviculture is a discipline where ideologies have always had a dominant role.

Unlike science, ideologies are based on beliefs and issues and not on facts and knowledge. Ideological beliefs can have quite an impact on group dynamics. For the believers, they seem to be a matter of common sense and to justify certain activities or attitudes. An ideology serves to unify a particular social group and can be used on appropriate occasions like a possession or resource. One rather typical example of an assumption forming the basis of an ideology is that forests will eventually collapse without any forest (silvicultural) treatment.

The dogma of collapsing forests was very useful in the fight to do something about the devastated forests of the 19th century. Forest legislation and forest policy was introduced which greatly improved the general conditions for forest conservation. After about 100 years, however, the aim to improve the state of forests was largely achieved.

Foresters and forest engineers in German-speaking Europe, unlike their counterparts in the Anglo-American world, were never very active in the wider scientific research community. Many even claimed to be the only researchers responsible for forests and denied other professional groups the right to have access to carry out research work in the forests. They tended to develop their own tools, too, such as the forest development plan. For them the primacy of timber production was not subject to question at all and the whole philosophy and training was meant to support this aim. As a consequence all other forest functions, such as providing recreation or protection, could only be fulfilled if they did not hinder timber production and were just a fortunate by-product of such management practices (Kielwassertheorie).

*Cultivating a forested landscape that has been idealised by many requires a special disposition, namely the forest ethos. By this we mean a highly ethical approach that values forestry as an activity that does not entail one-sided actions***.**

------ *dt. Text streichen???*
Die Bewirtschaftung einer idealisierten Waldnatur bedarf einer besonderen Gesinnung, eben der Waldgesinnung. Darunter verstehen wir eine hohe ethische Einstellung, die forstwirtschaftliches Handeln als Tätigkeit frei von der Vorstellung einseitigen Handeln würdigt.

A rather different ideology is the one that sees it as essential to always look ahead and to take a long-term approach to management and to identify everything of value. This ideology finds its source in conservationism and often includes a certain contempt for other contemporary values. Quite often forestry employees are geared to static values and institutions favouring traditional practices and policies previously firmly supported by powerful state organisations.

Foresters know what is best for their forests. This view can lead to an «esprit de corps» and towards a proper «silva-centrism». Who else could care for forests better than a forester?
But more and more «foreign» scientists are starting to become active in the forests: botanists, zoologists, geographers, economists and even lawyers …. The «debacle» started in the early eighties with forest dieback or so-called «Waldsterben». Forest researchers lost control over «their» forests and with their forecasts of extensive dieback they lost their scientific reputation too.

Let’s summarize:

- the academic forestry community is pretty small. All academic foresters share the same sources of knowledge, which, traditionally, have often been more characterized by dogmatism and ideology than by scientific rigour. In the past, forest research has played less of a role than forest ethos.

- Forest science has the image of being traditional, conservative and silva-centric.

- From a scientific point of view forest science has not resulted in any especially brilliant research. Hence the image of foresters in university environments is not especially brilliant either.

Today, such images and standards are not really up to date and they have done and continue to do quite a lot of harm. It is to say that we had tremendous changes in the last years in Forest Research. But to change an image its an other thing.

Together these are – I reckon – the main reasons for the decline of forest research. They can be summarised in a nutshell as lack of excellence.

Other more minor influences

Of course there are some additional less significant factors, too, which have contributed to the decline:

- Globalization and huge structural changes in the entire primary products sector.
- The resulting weak economic position of forestry and thus the unfavourable situation of employees.

What are the chances?

I want to mention some good reasons:

- we have to consider forests as part of the wider landscape. They are in an open interaction with the environment and this is what the forester should be as well.

- non-timber forest products (protection, recreation, etc.) have to be declared public goods to be paid for by the public, too.

- we have to abandon the traditional image of a forester and cultivate one where he or she is considered a manager of natural resources and land use.

- we have to move away from traditional silva-centrism towards an inter- and trans-disciplinary way of scientific thinking. We have to challenge the pattern of competition with other scientists and do away with some of the old, conservative structures. We should encourage sabbaticals in other institutions and visits from guest scientists, and participate in international and interdisciplinary conferences, etc.)

- we should avoid single-handed national approaches and instead search for new forms of international co-operation (like the UNCED in 1992 in Rio). We should develop global visions to find national and local solutions (according to the motto: think global, act local).

- The internationalisation of forest policy strengthens those who follow these agendas (global governance).

- we have to take advantage of the opportunites provided by international networks.

- we should ensure that forest research takes account of other disciplines to enable interdisciplinary approaches that produce excellent scientific results.

- we should offer public services and advise on policy.

- we must adapt modern marketing tools to «sell» the products of our research and to actively seek out customers.

- We should adopt a more positive way of thinking and see changes really as chances. And while a crisis means the end of something, it is also a new beginnings at the same time. Innovations have always come out of penury and not out of saturation, or, as the Romans put it: plenum venter non studet libenter: a full stomach does not like to study.

Let’s face the challenge and take the chance offered by the current crisis to find an innovative way forward in forestry research.

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