



Figure. 1: Paavo Pelkonen, president of SILVA Network 1997 to 2007, addressing the general assembly of SILVA Network in Freiburg, 2007

Networks and networks of networks in forestry education

Siegfried Lewark¹

Over the last decades quite a few international networks in forestry education emerged, some of them on global level like ACFE² (Advisory Committee on Forestry Education under FAO) or IPFE³ (International Partnership on Forestry Education), others rather on regional level like SILVA Network⁴ in Europe or ANAFE⁵ (African Network for Agriculture, Agroforestry and Natural Resources Education) or SEANAFE⁶ (Southeast Asian Network for Agro-forestry Education). The focus of this text will primarily be on SILVA Network, founded and led by Pieter Schmidt (1989 till 1997) and then further developed by Paavo Pelkonen (figure 1).

¹ President of SILVA Network

Deputy Coordinator of IUFRO Education group (6.15.00)

Coordinator of IUFRO unit Education, Gender and Forestry (6.08.02)

University of Freiburg, Germany, siegfried.lewark@fobawi.uni-freiburg.de

² Eighteenth Session 1996: www.fao.org/docrep/meeting/w3770e.htm

³ www.ipfe.fi

⁴ www.silva-network.eu

⁵ www.anafeafrica.org

⁶ <http://www.worldagroforestry.org/sea/seanafe>

The character of the networks in forestry education has changed together with the occupations of graduates and the forestry curricula, and obviously the situation is different in different European countries and all the time changing.

Here I only look at forestry education at universities, meaning higher education institutions awarding certificates on Bachelor and Master level as well as PhD level, which does not deny the significant role of so-called universities of applied sciences (in Germany “Fachhochschulen”) or polytechnical institutes, but their story is a different story, at least partly.

1. Changes of occupations of graduates

Looking back we find that in many countries numbers of forestry graduates seem to have matched the needs of employment in the forestry sector for long time. There are reports on the situation in single countries, but few more comprehensive ones.

The situation in different parts of Europe in the 1990s has been reviewed by Lewark, Pettenella & Saastamoinen (1998). The authors had experienced difficulties in doing this, as only in a few cases data were just ready to take, and definitely there was no standardized way of assessment and reporting. Also it is notable, that the available data have been collected by universities in some cases, by vocational associations in others. And there were few cases where real specialists did surveys of the whereabouts of graduates in a standardized manner.

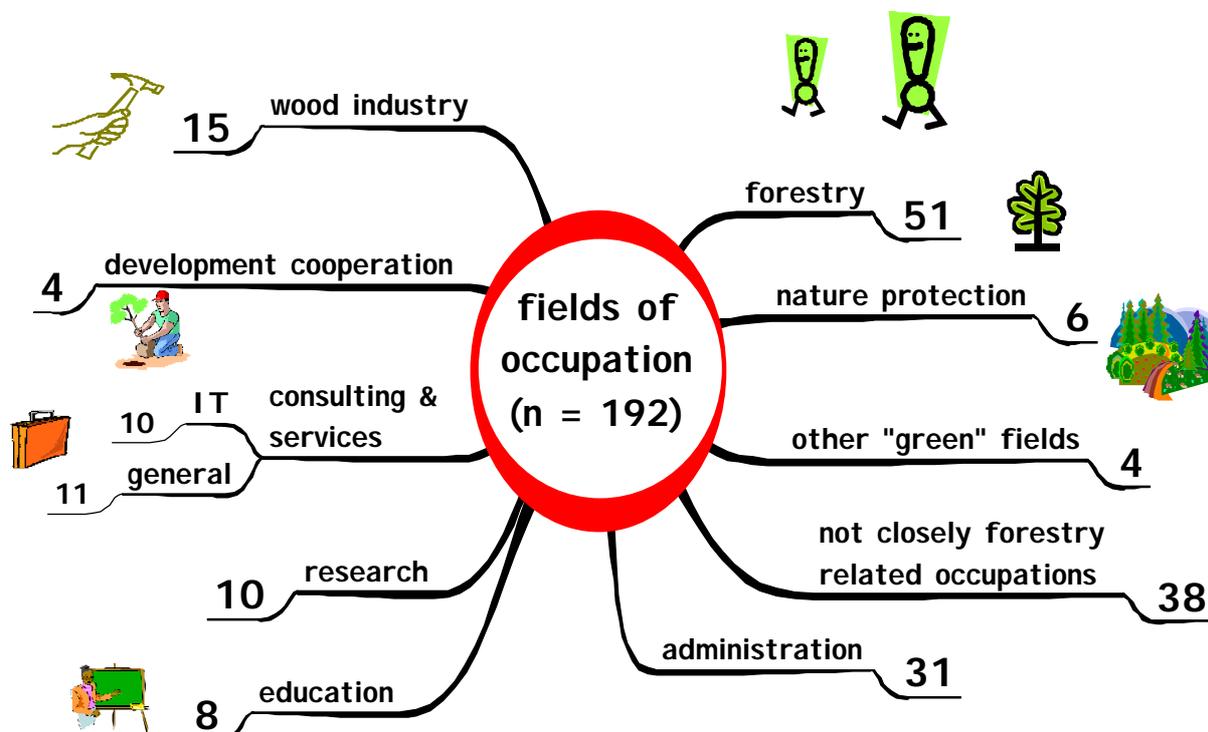


Figure 2: Present occupations of forestry graduates of the University of Freiburg in 2006 (after Lewark et al 2006)

In some countries higher forestry education is still oriented towards occupations in the narrow field of forestry, in others it has not been for many years. But in many countries this has changed over the last twenty or thirty years.

Let's look at the example of forestry graduates from the University of Freiburg (Lewark et al 2006), from a survey at begin of 2006 for graduates from the years 1995 to 2002 (28 % female graduates). Out of 192 graduates evaluated for employment we find around 27 % in forestry in a broad sense, 8 % in the wood industry, 5 % in nature and environmental protection and related fields (figure 2). But clearly half of the graduates had an occupation in a large number of very different fields, sometimes just one in a particular field, which makes analyses quite cumbersome. There is no clearly defined field of occupation for the graduates anymore, which was still existing forty years ago.

Meanwhile the methods of graduate analysis have been developed further and standardized procedures are possible, but application would need cooperation and agreements between universities. The graduate surveys in the field of higher forestry education in Europe have been mostly stand-alone events, even if the advantages of comparable approaches and data are obvious. Presently in SILVA Network a new attempt is undertaken to lay ground to coordinated approaches of graduate analyses in higher forestry education in Europe. An important step on this way is the knowledge of what has been done and what is going on – what do the universities know about our graduates? At the annual conference of SILVA Network in Copenhagen in May 2008 the experiences will be collected and presented and possible ways ahead will be discussed.

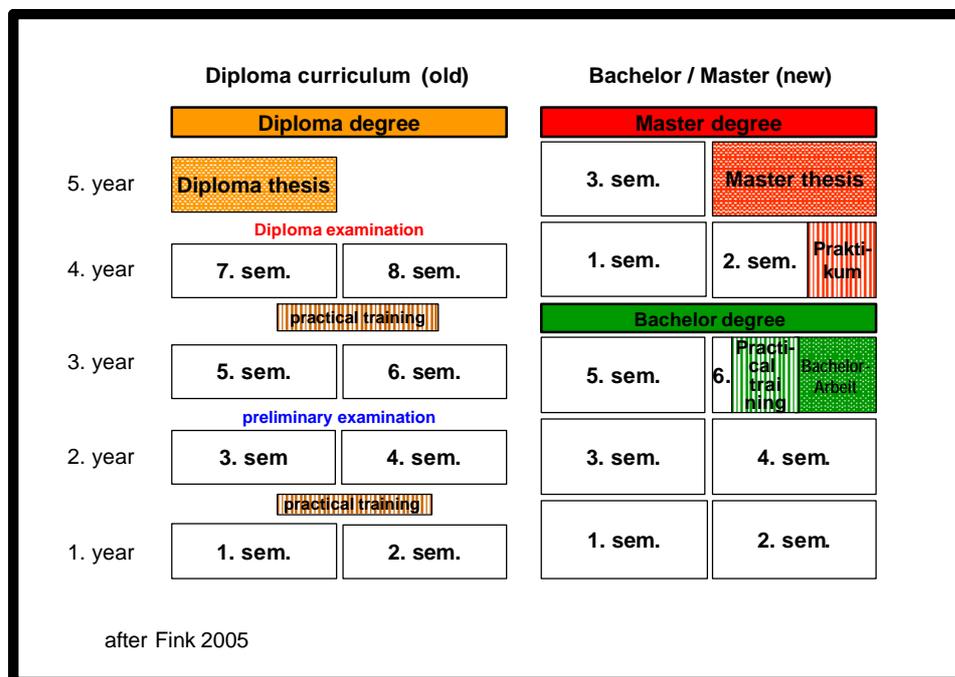


Figure 3: As shown here for Freiburg in many European countries the curriculum system recently changed from a one stage curriculum to a Bachelor-Master system

Corresponding to the numbers of graduates also the numbers of enrolled students have changed. In Germany the numbers of first semester students exploded at the beginning of the 1970s. Since then they have been fluctuating on a much higher level than earlier. In the late

1990s there was a temporary decline. There was at that time a decline in many other countries worldwide. This gave rise to much discussion and a survey carried out by the IUFRO education group (Lewark 2005), which revealed quite different trends of development in different countries.

2. Changes of forestry curricula

Preparing students for occupations outside of forestry must have consequences for curricula of higher forestry education. Competences connected to tasks in forestry become more and more exemplary, whereas generic competences are gaining weight.

This means that it is not sufficient any more to characterize forestry curricula in terms of contents assuming that the competences going with these subjects are commonly agreed and self understood. Schuck (2007) as well as earlier Huss & Schmidt (1998) have analyzed and discussed missions and objectives of higher forestry in this respect.

One of the big driving forces of curriculum development leading to fundamental changes in many European countries lies in the Bologna process. In particular there were changes from a one stage curriculum to a Bachelor-Master system as shown for Freiburg (figure 3).

Forestry curricula traditionally have been practically oriented – field trips with exercises and demonstrations belong to the traditional learning and teaching methods (figure 4).



Figure 4: Field trips are an important traditional component of forestry education as well as conferences – like here during the SILVA Network annual meeting 2007 in Freiburg

Over the last ten years the role of e-learning has been growing remarkably (Längin et al 2004), which opens new chances for interuniversity cooperation also in forestry courses.

3. Networking and the role of SILVA Network

“International organisations dealing with forestry education have many important tasks to perform in order to support Forestry Education Institutions in the adaptation to a new phase.” (Romeo & Souvannavong 2004). Some structures and aspects are depicted in figure 5.

“At meetings, international organisations can provide neutral fora to national and international experts to share and discuss experiences. These international fora are often a unique occasion of dialogue for professors or experts to meet with people from different geographic areas - which is not very common - and to learn about complete different situations.” (Romeo & Souvannavong 2004).

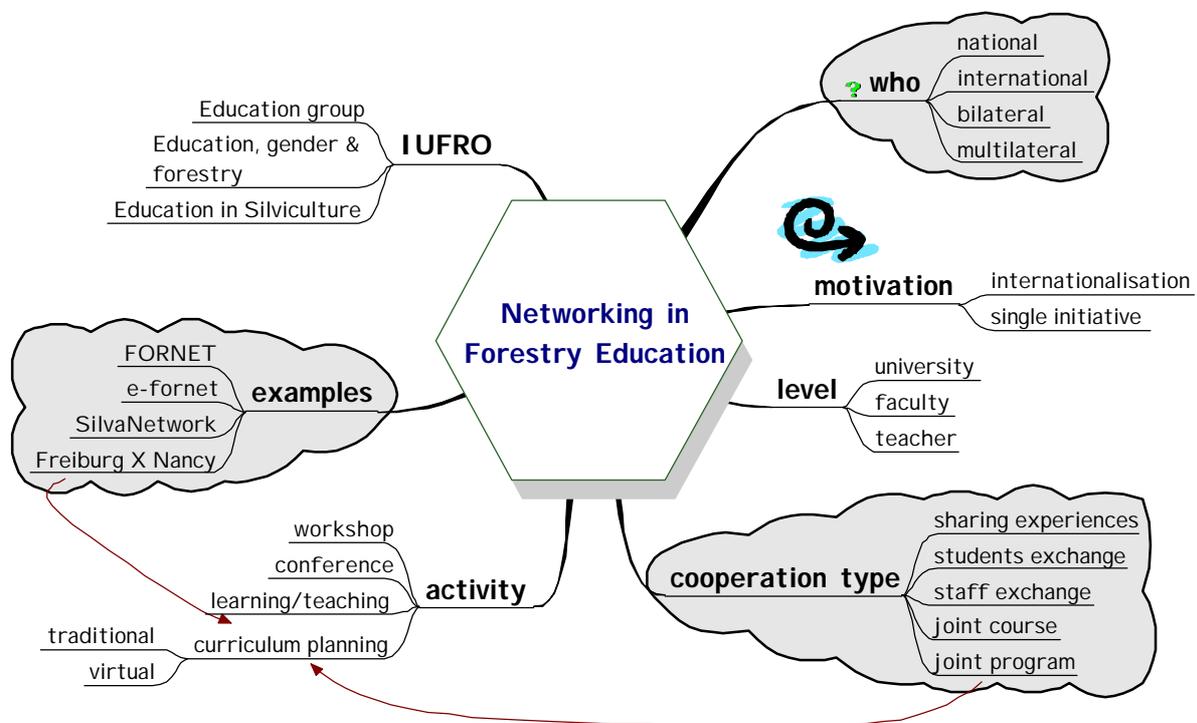


Figure 5: Networking aspects in forestry education (Lewark 2003)

Participants of these networks in most cases are universities or single faculties, in other cases networks. Thus SILVA Network, ANAFE and SEANAFE can be regarded as IPFE members. But the work done in the networks is very much depending on personal initiative of individuals, which is a strength and a limitation. It seems to be typical that the networks have more active and less active phases, they emerged and sometimes even are abandoned

One students' network deserves special mentioning: IFSA⁷, the International Forestry Students' Association, which is a very dynamic network cooperating with all the other networks mentioned.

IUFRO⁸ may be seen as one big network of networks, in the first place of researchers in forestry worldwide. As so many of the researchers in forest sciences are also teaching in forestry curricula it also is a network of educators. There are three IUFRO units explicitly devoted to forestry education, which together cosponsored some of the SILVA Network annual conferences (Wageningen 2005: cf. Schmidt and Bartelink 2006).

The first ten years of SILVA Network have been described by Schmidt (1998a). During the second decade, from 1997 to 2007, SILVA Network has been based at the University of Joensuu, with Paavo Pelkonen as president, and further grown and developed.



Figure 5: SILVA Network brings together representatives from its 45 member faculties in Europe (Freiburg 2007)

One of the big achievements of SILVA Network was the fostering of a curriculum of Master of European Forestry⁹, which took some years from idea to establishment (Schmidt 1998b). This curriculum is today supported by six universities (Freiburg, Joensuu, Lleida, Vienna, Wageningen and SLU), which makes it a unique study programme. It has been very successful in terms of financial funding, scholarships and numbers of graduates from many different countries.

Furthermore SILVA Network has fostered other international exchange programmes like TRANSFOR, the EU CANADA exchange programme¹⁰.

The roles networks in forestry education can play, have been doing and will continue to do, is so well summarized by Romeo & Souvannavong (2004) from the perspective of FAO:

“One of the main functions of an international organisation involved in Forestry Education is to identify and, to the extent possible, anticipate trends relevant to the sector at a very early stage. It should provide information and guidance to national institutions on how to face these changes in a proactive way and in an open-ended process. Continuous contacts with countries and feedback from field activities are fundamental as well as a multi-sectorial perspective.”

⁷ www.ifsa.net

⁸ www.iufro.org

⁹ <http://gis.joensuu.fi/mscef/>

¹⁰ <http://gis.joensuu.fi/silva/Projects/EU-Canada/Introduction.htm>

“They should also be sources of information pertinent to the sector and available to a larger audience through all the possible media. In fact, knowledge of the tendencies and good information are essential to take decisions such as establishing alliances, embarking on new activities, re-structuring the internal organisation, adopt strategic and long-term planning, etc. As with national institutions, the more the markets become competitive the more it is necessary to find allies. International organisations should – as part of their tasks – facilitate partnerships and alliances as well as the exchange of students and professors.”

Let me conclude this short text on networking with a quotation from an introductory statement by Paavo Pelkonen (2007) on the occasion of one of the many annual meetings of SILVA Network, which he presided:

“The role of the SILVA Network is to improve the opportunities of Higher Education Institutes to modify their teaching and learning processes to meet the demands of the developing European Higher Education Area.”

References: (uncomplete, some will not be referred to)

Huss, J.; Schmidt, P. (1998): Objectives of forestry university education according to current curricula. Wageningen: Proc. Workshop "New Requirements for University Forestry Education" 30.7.-3.8.1997. DEMETER Series 1, 95-107.

Längin, Dirk; Ackerman, Pierre; Lewark, Siegfried (2004): Internet based learning in higher forestry education. *Unasylva*, 56, 216, 2004/1, 39-44.
<http://www.fao.org/docrep/007/y5382e/y5382e00.htm>.

Lewark, Siegfried; Schmidt, Pieter (2004): Modern curricula - response to changes in the field of profession. Freiburg: Proceedings. First meeting of IUFRO subject group 6.15.00. IUFRO education group publication no. 1. Schriftenreihe Freiburger Forstliche Forschung, Bd. 29.

Lewark, Siegfried; Schmidt, Pieter; Bartelink, Hank (2006): Concluding remarks: Forestry education in a challenging environment. In: Schmidt, Pieter; Bartelink, Hank H. (eds.): Forestry education between Science and Practice. Joensuu: SILVA Publications 3, University Press, University of Joensuu, 122-125.
<http://gis.joensuu.fi/silva/Main/NEWS/files/wageningen2005.pdf>.

Pelkonen, P.; Pitkänen, A.; Schmidt, P.; Oesten, G.; Piussi, P.; Rojas, E. (1999): Forestry in Changing Societies in Europe - Country Reports. SILVA Network 1999, University Press, University of Joensuu.

Pitkänen, Anne; Pelkonen, Paavo; Schmidt, Pieter (2004): SILVA Network. In: Schmidt, P.; Huss, J.; Lewark, S.; Pettenella, D.; Saastamoinen, O. (ed.) (1998): New Requirements for University Education in Forestry. Proc. Workshop Wageningen, The Netherlands, 30 July - 2 August 1997. DEMETER Series 1, pp 103-106

Romeo, Rosalaura; Oudara Souvannavong, Oudara (2004): Forestry education: challenges for the next millenium. In: Schmidt, P.; Huss, J.; Lewark, S.; Pettenella, D.; Saastamoinen, O. (ed.) (1998): New Requirements for University Education in Forestry. Proc. Workshop Wageningen, The Netherlands, 30 July - 2 August 1997. DEMETER Series 1, pp 21-36

Schmidt, Pieter (2004): Proposal for a MSc in European forestry. In: Schmidt, P.; Huss, J.; Lewark, S.; Pettenella, D.; Saastamoinen, O. (ed.) (1998): New Requirements for University Education in Forestry. Proc. Workshop Wageningen, The Netherlands, 30 July - 2 August 1997. DEMETER Series 1, p 137

Schmidt, Pieter; Bartelink, Hank H. (eds.) (2006): Forestry education between Science and Practice. Joensuu: SILVA Publications 3, University Press, University of Joensuu, 130 pp. = IUFRO education group publication no. 2.
<http://gis.joensuu.fi/silva/Main/NEWS/files/wageningen2005.pdf>.