

DEVELOPMENT OF HIGHER FORESTRY EDUCATION IN BULGARIA

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Forestry practice, science and education in Bulgaria have been developing according to Bulgarian specific natural and social situation. Forestry is connected with the global policy of the state and its history and socio-economic development. It is influenced by the advanced European practices but it also reflects the regional specific characteristics. Forestry has its own stages of development and is related to the forest practice and science and with the organizational and personnel structure of the forestry sector.

Background information about the development of forestry education was published on occasion of different anniversaries (Iliev et al. 1975, Nickolov et al. 1985, Kolarov and Brezin 1995, Panov 2000, Puchalev and Iliev 2000, Vuchovsky and Dimitrov 2003, Dimitrov et al. 2005, Milev et al. 2006). A comprehensive study of the whole Bulgarian forestry sector was done by V. Stoyanov (1968). For years higher forestry education has served as a basis of the overall forestry education and research, which is making progress today at the Faculty of Forestry (FF) in the University of Forestry (UF).

According to the Czech historian and Minister of Education of Bulgaria Konstantin Jireček and earlier explorers, 80% of the territory of the Balkans was covered with vast and impenetrable forests. During the Middle Ages, mainly between the 14th and the 19th century, most of these forests were destroyed. This was caused by their uprooting in order to get arable land, their burning to release pastures, the use of timber for construction, firewood and coal production, in mining industry, and in shipbuilding for the Ottoman navy. For quite a long time the forests were managed without any plan, knowledge or practical experience, and were additionally damaged during the wars. They were regarded as a freely available renewable resource. Most of the broadleaved forests were cut and were managed as coppice forests. A large amount of wood was used in the reconstruction of towns, villages and economic life after the Liberation from Ottoman rule (1878). The eroded pastures were degrading in quality, stock breeding was in decline and the popula-

tion was impoverished. Natural disasters occurred rather frequently. The destroyed mountain slopes generated occasional floods. Streets, houses, fields and roads were flooded with mud and stones and cattle and people were killed. This happened in Kyustendil, Kazanluk, Koprivshitsa, Karlovo and many other towns at the end of the 19th century and the beginning of the 20th century.

With its specific climate and centuries-old historical development, Bulgaria has preserved woodlands covering more than one third of its entire territory. The climate influence is variable and is modified by the large mountains, especially by the Balkan Mountain Range. Three altitudinal zones are clearly defined: the lowermost zone of the oak forests, the medium zone of the beech and coniferous forests and the sub-alpine zone. The soils are also highly diverse. There are lots of distinct habitats and forest formations including numerous tree species. As a whole, the conditions are favourable for the development of forest vegetation. Most of the stands, however, have deteriorated due to over exploitation, and managed as coppice forests. The forestry data about the 1940^s is quite indicative: only 22% of the area was covered with high broadleaved forests, 10% with coniferous and 2% with mixed ones, whereas 65% was covered with coppice forests (Vuchovsky and Dimitrov 2003). These facts didn't correspond to the natural potential but there was an acute shortage of forestry staff for professional forest management.

The Beginning of Forestry Education

A century ago Bulgaria's forests turned out to be in very poor state but foresters were scarce. Few of them had graduated from secondary and higher forestry schools abroad. Only ten of the forestry employees in 1894 had the necessary training. The first schools for forest-guards were opened in Borovets (1896) and in Velingrad (1911) (Stoyanov 1968, Kolev and Dimitrov 1996). The secondary forestry education started at the Technical school in Sofia, 1919. Among its graduates were the future professors T. Dimitrov, D. Stefanov, A. Biolchev, S. Hristov, I. Dobrinov, D. Velkov and M. Petrov. From 1950 to 1990 the training of forestry technicians was provided by four technical schools located in Velingrad, Bansko, Batak and Berkovitsa. Most of their graduates later studied in the university and are an important part of the forestry community.

Forestry science and education in Europe emerged more than two centuries ago. The basic forestry theories and practices were introduced in Bulgaria at the end of the 19th century mainly from the German, French and Russian schools. In connection with the natural disasters described, there was a growing interest in the European practices in flood control. Afforestation works were started by foresters trained in Germany, France, Austria, the Czech Republic, Russia and Croatia. Stefan Donchev (1855–1930) was the first Bulgarian with an university forestry degree, which was acquired in Croatia and Prussia. Stoyan Brunchev (1864–1940), who graduated forestry in Munich, is the first Bulgarian forester

to take up a higher government position. He has been credited as the Father of Bulgarian forestry.

Attracting foreign specialists to work in Bulgaria was a clever and necessary move. The Czech forester Julius Milde (1861–1942) started work as a deputy-inspector in Sofia in 1890. He contributed to the establishment of Boris's Garden and the afforestation near Sofia. He was the first principal of the Forestry school in Borovets and he founded the first state-owned forest nursery in Belovo (1900). The greatest authority then, however, was Felix Vogeli (1875–1941) who introduced the French practices in flood control. He opened the first Agency for Flood Control and Afforestation in Kazanluk in 1905 and he worked in Bulgaria until 1911. Another smart government move, made in 1904–05, was to send 5 young people to study in France. They graduated in the *École Nationale des Eaux et Forêts* in Nancy and played an important part in the development of Bulgarian forestry research and education. P. Mandzhukov, K. Hristov and T. Dimitrov succeeded each other in heading the Agency established by Vogeli. Later on, their experience was enriched in other flood areas of the country.

The Beginning of Higher Forestry Education

The first articles advocating the need of forestry university graduates were published at the end of the 19th century. This campaign was a reaction of Bulgarian foresters against the destruction of forests. The purposeful action for the protection of Bulgarian forests and the demand for national engineering education became more prominent with the return of our forestry experts trained abroad and their appointment as foresters. The process of introducing higher forestry education was further stimulated by the Laws on Forests adopted at that time. The famous forester K. Baikushev (1867–1932), who graduated in Tarand (1889) published an article in "Svoboda" newspaper in 1892. It was followed by publications by St. Brunchev (1893), Gr. Grozev (1904) and Ts. Donchev (1910). Strong public support was offered by lawyers, teachers, scientists and states people. In 1915 a state commission was set up with the task of exploring the possibility of opening an independent Forestry Faculty at the Sofia University. However, it did not achieve any positive result. In 1919–20 about 100 forestry university graduates were employed in the forestry sector. On the average, each of them was in charge for 30,000 ha of forests, which was 6 or 7 times more than the amount in countries with advanced forestry (Stoyanov 1968). Obviously, the foreign training was not able to meet the needs of experts. In 1921 the establishment of Academy of Forestry was proposed and it was decided to open a Faculty of Forestry at Sofia University. The accomplishment of this idea was postponed once again. However, the issue was considered by the Society of Foresters, as well as by the then Ministry of Agriculture and State Property (MASP) and other forestry experts and nature conservationists.

As a result in 1923 the foundations of the Forestry education were laid down, when the Department of Specific Silviculture was opened within the Faculty of



Prof. Todor Dimitrov – the first Head of Department of Specific Silviculture (1923), Dean of the Faculty of Agronomy and Forestry (1933–34).

Agronomy. Assoc. Prof. Todor Dimitrov was appointed as Head of the Department. Later on, he became a Professor and Dean and was credited as the Father of our higher forestry education. All this was preparing the ground for opening of a Department of Forestry. Professor Yanaky Mollov played an important part in this respect, in his capacity of a Minister of Agriculture and State Property. He contacted the group commissioned by the Sofia University and made up of the Rector and the Deans of the Faculty of Physics and Mathematics and the Faculty of Agronomy. They were offered assistance in providing budget funds for equipment and teaching staff. At his order, in February, 1925 a financial grant was given to the Department of Forestry and the Faculty of Agronomy.

January 28, 1925 is considered to be the birthday of higher forestry education in Bulgaria, since on this day the Academic Council of Sofia University took a decision to open a Department of Silviculture at the Faculty of Agronomy and Forestry (FAF). Prof. Mollov made the following comment on this memorable event: *"The year 1925 shall be remembered and it*

will be written in golden figures in the history of Bulgarian forestry because events of such capital importance seldom take place in the history of a nation".

Dimitar Hristov (1871–1944) was another Minister of Agriculture and State Property who had provided considerable support. Meeting the commitments, MASP notified the Rector of the Sofia University in a letter dated 30th December 1925 that two training and experimental forest ranges had been allocated for the training needs of the students at the Department of Forestry. The first one was situated in the coniferous area of "Yundola" between Rila and the Rhodope Mountains and the second one, called "Petrohan" was situated in the beech forest area in the Balkan Range. The two training and experimental forest ranges today are well-established centres for practical training of the students at UF, as well as for research and recreation. D. Hristov's daughter, Mrs Milka Danadjieva offered her support for forestry education donating the apartment inherited from her father, under the condition that the rent received from it would be used for providing scholarships to the best students in forestry.

First Students and Lecturers

The training of students at the new Department of Forestry started with the summer semester of 1925. Fifty candidates sat up for the entrance examination for the first year and twenty of them were admitted. The first year, students began to study on the basis of a temporary curriculum which was approved on 13th April, 1925. A complete curriculum was approved on 7th May, 1927. It included 16 general, 19 specialized and 8 optional subjects.

The ceremony of granting degrees to the first ten graduate foresters was an important event (13th March, 1929). It was attended by the Rector Prof. D. Shishkov, the Academic Council of Sofia University, representatives of MASP, the Ministry of Education, the Society of Bulgarian Foresters and outstanding citizens of Sofia. A powerful speech was made by the Dean of FAF, Prof. Mollov. The degrees were awarded by the first Professor of Forestry, T. Dimitrov. He expressed his hopes that the young foresters would show *"...competence, perseverance and honesty in their work and preserve the dignity of the forestry institution"*.

The Department of Specific Silviculture was a foundation unit around which the activities of the entire Department of Silviculture were developed. One after another, the following specialized departments emerged: "Forest Management and Forest Inventory", headed by Assoc. Prof. T. Ivanchev (1927); "Forest Use and Forest Technology", headed by Assoc. Prof. V. Stoyanov (1930); "General Silviculture", headed by Assoc. Prof. M. Rouskov (1931). In 1940 one of the lecturers at that time, Iliya Mihailov, continued working in the University of Skopje. There he reached the academic rank of professor and became Head of the Department of Forest Management in the Faculty of Forestry.

Independent Faculties of Silviculture

In 1945, an ordinance-law was adopted for the establishment of a new state university in Plovdiv, including a new Faculty of Agronomy and Forestry. The idea for the establishment of a single centre for training of foresters emerged soon after that. An Independent Faculty of Silviculture at Sofia University was established in compliance with the Law on Higher Education from 1947. The faculty existed only one year.

The Faculties of Agronomy, Forestry, Veterinary Medicine and Zootechnics were separated from the University of Sofia in 1948. These faculties formed the basis of a new higher educational establishment – the Academy of Agriculture with a seat in Sofia. On the following year the Faculty of Silviculture was reorganized into a Faculty of Forestry with two departments, and two years later the total number the departments became four: Department of Forestry; Department of Forest Industry; Department of Forest Use and Transport and Department of Urban Afforestation. Thus, the foundations were laid for the establishment of an independent higher school for training staff in the fields of forestry, forest industry and urban landscape design.

Independent Higher Educational Establishment

In 1953 the Agricultural Academy was replaced by three independent educational establishments and one of them the Higher Institute of Forestry (HIF). The major of "Silviculture" was renamed into "Forestry". The institute was provided with an independent main building. In the autumn of 1955, the foundations of the Institute Park and botanical garden were laid, as suggested by Acad. B. Stefanov. The university training was in the field of five specialties including Forestry and Forest Engineering. During the period between 1925 and 1953 the total number of students admitted was 1583. There were 1014 successful graduates holding a degree in Forestry.

In 1974 two faculties were set up in HIF. The specialty of Forestry belonged to the Faculty of Forestry and Landscape Design (FFLD). Prof. Ivan Dobrinov was as the first Dean of this faculty.

After 1979 another educational reform was took place. A three-stage structure of professional training was introduced. The first educational stage covered widely-based general training, the second stage covered special subjects, and during the third stage students studied highly specialized subjects. Then new curricula were designed which even now form the basis of students' training in forestry.

University Stage

On 27th July, 1995, HIF was given a status of a university by the Parliament of Bulgaria. The celebration of this event was combined with the opening ceremony of the new training and laboratory building.

The University of Forestry is the only higher educational establishment training forestry engineers and specialists in woodworking and furniture production, and in engineering design. It also trains students of Ecology and environmental protection, Business management, Landscape architecture, Veterinary medicine and Agronomy. The training is conducted in three stages – the first and second qualification degrees of Bachelor of Science and Master of Science and the academic degree of Doctor of Philosophy.

In 1999 the National Evaluation and Accreditation Agency (NEAA) granted UF institutional accreditation and the right to train students in the three educational stages. The UF was granted a second positive institutional accreditation in 2006. In May 2007 NEAA finalized the program accreditation for the professional training in Forestry, giving it the highest mark and the right to train PhD students.

Training Description

Higher forestry training all over the world is commonly divided into three stages: Bachelor, Master and PhD. A reform to this effect was carried out in 1997. Since

2002 the term of study for the Bachelor Degree has been reduced from 9 to 8 semesters, and for the Master Degree course 3 semesters have been planned. The academic year is divided into two semesters with 15 study weeks each. All curricula, irrespectively of the period they refer to, have been coordinated with the forestry administration, which is the main employer of forestry staff. Since the academic year 2004/05, training has been provided in compulsory, elective and optional subjects. Credits have been introduced according to the European Credit Transfer System (ECTS). In addition to their degrees, the graduates will be given supplements in English, giving full account of the training received. The training and professional fulfillment of the two degrees of Bachelor and Master are quite independent.

The Bachelor of Science Degree

By tradition and in accordance with the engineering profile of the Forestry, the entrance exam is in mathematics. The Bachelor Degree aims at giving a general idea of the specialty by means of a comprehensive training in general, applied basic and applied specialized subjects. The engineers holding Bachelor's degree in forestry can occupy positions below the rank of managers of forestry enterprises. The well-balanced, widely-based training is carried out in 7 clearly defined series of compulsory subjects:

1) about general comprehension of the natural environment and forest ecosystems: Meteorology and climatology, Forest soil science, Phytocoenology, Ecology and environmental protection;

2) about flora recognition and establishment and management of forests and non-wood resources: Botany, Physiology of woody plants, Dendrology, Forest genetics and tree breeding, Silviculture, Forest plantations, Non-timber forest resources;

3) about forest protection and safety: Forest phytopathology, Forest entomology, Forest and nature conservation legislation, Erosion and flood control, Safety activities and protection of forests;

4) about fauna recognition and management of freshwater aquacultures and game: Zoology, Fisheries, Wildlife management;

5) about the technologies and mechanisation of woodharvesting and other forestry activities: Mechanics and construction, Hauling machines, Mechanization of forestry activities, Forest roads, Forest transport, Technology and mechanization of logging;

6) about the mensuration, inventory taking and management of forests: Geodesy, Forest mensuration, Photogrammetry and remote sensing, Forest management;

7) about the economics, management and planning of forestry activities: Forestry economics, Forestry organisation and planning.

Some of the stated series have been extended with elective subjects providing more specialized knowledge. These subjects include Mushroom and medicinal plants cultivation, Principles of agroforestry; Reclamation of land damaged by

coal-mining, Cynology, Wood and timber, Introduction to woodworking, Structure of protected forests and territories. Foreign language training is carried out in 4th semesters and may be continued in 5th semester.

The optional units belong to different fields of study. They enable students, according to their preferences, to extend their grounding in humanities and economics (Philosophy, General economic theory, Introduction into accounting, Latin). Other optional subjects give students a good grounding in modern telecommunications (Global telecommunication networks) and in modern methodology (Statistical methods and modeling).

The practical training is among its main assets and it has a long-standing tradition. In the 1930^s, the senior students passed through a year-long training ending with an exam. The format of practical trainings has changed in the years. Today a skiing-course has been included and the applied subjects are combined with 8 practical courses lasting 9 weeks each. At the end of their course of study, students pass through a 6-week candidate engineer training, carried out in the respective forestry boards. Since the emergence of the specialty, the bulk of the students' practical trainings have been conducted in the training and experimental forest ranges.

The Master of Science Degree

Since the introduction of the three-stage structure of training in 1997, the Master's Degree programs have undergone some changes. Now the training is in three specializations. The final objective is to train highly qualified specialists by means of theoretical knowledge extension and specialized skills acquisition. Students are prepared to organize, manage, design, control and evaluate activities in the field of forestry, game and fish-farming management, forest use and environmental protection. The term of Master's education is 3 semesters. The final semester is planned for thesis completion and defense. Intensive general training is provided in 5 compulsory units: Forest policy, Multifunctional forest management, Forestry and human resource management, Geographical information systems in forestry, Mathematical methods and models. Specialization is achieved in three main areas. On the basis of their specialization, students choose six elective (Table 1) and one optional subject. They have four practical courses and acquire skills in planning, designing, forest management and doing research. The total number of 12 studied subjects and 4 practical courses brings a minimum of 75 credits, 15 of which come from the thesis.

The students choose one optional subject from other specializations or from following subject, proposed only as optional: Soil microbiology; Structure and managing of water tank for fishing; Agroforestry systems; Basics of scientific research.

The successful graduates are entitled to management positions within the structures of the Ministry of Agriculture and the Ministry of Environmental Protection and Waters. They can also teach at universities, can do scientific research and work at research institutes and in experimental seed-control and forestry ranges.

Table 1. Elective subjects for the three Master's specializations.

Forest Management	Game and Fish-farming Management	Forest Use and Forestry Economics
Forests and forestland evaluation; Biodiversity conservation; Forest tree improvement; Forest growth and yield; Forest protection; Forest plantations; Management of torrent watersheds; Multifunctional forest management; Dendrology of exotic species; World silviculture.	Organization and management of game enterprises; Hunting and fishing tourism; Artificial game breeding and nutrition; Technology and management of fish breeding and aquaculture; Structure and managing of water tank for fishing; Game and fish protection from diseases.	Machine repair and maintenance in forestry; Technology project in silviculture; Technology project in logging; Forests and forest land evaluation; Business planning in forestry.

The exchange of lecturers between UF and universities in Germany, France, Switzerland, Austria, Slovakia, Greece, etc. has greatly contributed to the modernization of the teaching process. We have had a close relationship with the Technical University in Zvolen, Slovakia since the 1970^s when a contract for mutual co-operation was signed. Dr. P. Zhelev had several research visits at the TU in Zvolen, as well as Prof. Iv. Mihov who introduced in Bulgaria Prof. Priesol's distant methods. There have been an impressive number of short-term visits of lecturers and a student exchange has been made. Among the professors who have visited UF on an exchange basis are A. Priesol, Št. Šmelko, L. Šmelkova, M. Šuška, Kl. Hubáč, M. Hladik, L. Paule, K. Gubka, I. Lukačik, etc. In token of our fruitful co-operation with the TU in Zvolen, our Prof. Geno Donchev was awarded the honorary degree Doctor Honoris Causa of this university. In 1996, Prof. Milan Marčok, the then Rector of Zvolen TU was awarded the Honorary Medal of the UF for his contribution to the consolidation of our bilateral cooperation. This cooperation holds a great potential and we should make the most of it.

Comparisons with similar universities have shown from 70 to 90 percent overlapping of the subjects studied there. These similarities are due to the common sources of the different Schools of silviculture. The resemblance between UF in Sofia and the TU in Zvolen is really worth mentioning. There is a 90% correspondence between the subjects studied for the Bachelor degree and 80% correspondence between the subjects offered in the Masters' syllabi. This is a result of our long-term cooperation and it is good evidence of the European subject matter of our education.

University Staff and Equipment

One of the greatest merits of the Bulgarian higher forestry education is the continuity between generations of faculty and the maintenance of its own qualified academic staff. Among the prominent lecturers at the Faculty of Forestry there are

three members of the Bulgarian Academy of Sciences (BAS) – B. Stefanov (1894–1979), P. Petkov (1898–1975) and M. Dakov (1920–2006), two corresponding members – V. Stoyanov (1887–1971) and N. Penev, and many professors and associate professors.

Since the beginning of higher forestry education, the deans of the faculties providing forestry training have been as follows: Prof. T. Dimitrov (1933–34), Acad. B. Stefanov (1947–48), Acad. P. Petkov (1948–51), Prof. Tsv. Hristov (1951–52), Prof. M. Venedikov (1952–53), Prof. Iv. Dobrinov (1974–79), Prof. Hr. Sirakov (1979–84), Prof. G. Ganchev (1984–86), Prof. N. Ninov (1986–88), Assoc. Prof. V. Gagov (1988–93), Prof. D. Kolarov (1993–94), Prof. J. Kuleliev (1994), Assoc. Prof. Iv. Yovkov (1995), Assoc. Prof. K. Lyubenov (1995–2003), Assoc. Prof. St. Yurukov (2003–05), Assoc. Prof. M. Milev (since 2005). Ten professors



The building of the training and experimental forest range, Yundola village.



The building of the Petrohan training and experimental forest range, Barziya village.



Students training in the animal collection of the Department of Wildlife management.

from the Faculty of Forestry were rectors: B. Stefanov (1953–57), D. Stefanov (1957–59), As. Biolchev (1960–66), St. Hristov (1966–68), Hr. Sirakov (1969–72), Al. Iliev (1972–79), N. Botev (1984–89), V. Donov (1989–90), D. Kolarov (1994–2003) and N. Ninov (since 2003).

The Faculty of Forestry nowadays includes six departments – Dendrology, Silviculture, Forest Management, Wildlife

Management, Technology and mechanization of forestry and Soil science. The teaching staff consists of 6 professors, 26 associate professors and 18 assistant-professors. Total 95 teachers provide the education of this speciality.

Both students and faculty have the equipment of UF at their disposal. Specialized laboratories have been set up for each Department. The animal collection is one of our most prized possessions. In the richness of its exhibits it has no parallel among other educational institutions in Europe. Probably, the greatest acquisitions of the University are the two training and experimental forest ranges (TEFR). Education and research quality is further enhanced by the Botanical garden housing more than 750 plant species and the greenhouses. The library containing more than 100,000 volumes and 27,000 periodicals, and the Publishing House aiding the publication of study books and the specialized scientific journal "Forestry Ideas" also contribute to education quality.

The Graduates' Contribution

The Faculty of Forestry at UF is the only Bulgarian institution preparing forestry specialists with higher education. During the years, the total number of the university graduates has amounted to more than 5,500. They form the bulk of the forestry staff and they have been playing an important part in the improvement of forests during the last 65 years. The scale of afforestation in Bulgaria per capita and per unit of area is without parallel. We have 1.2 million ha of plantations, which makes up one third of the existing forests. The plantations have an enormous anti-erosion effect and improve the environment. Millions of decare of wastelands have been reclaimed and erosion near water reservoirs has been put under control. Systems of forest shelter belts (about 13,000 ha) have been established. The afforestations have a favourable effect on many branches of economy such as agriculture and aquaculture, tourism, transport, power engineering and population lifestyle as a whole. The afforested area has increased 1.3 times and has become 3.398 million ha, whereas the whole forest area is 4,063 million ha. Forests make up 33% of the country's territory which makes it the 9th most forested country in Europe. The conditions of forests and forest yield have considerably improved. The growing stock has increased 3 times and amounts total 600 mill.m³ and 163 m³ ha⁻¹ on the average. The total annual forest growth is 14.5 mill.m³ and the average annual growth is 4.04 m³ ha⁻¹. Between 4.8 and 5 mill.m³ of wood are harvested per year with a theoretical potential of 7.1 mill.m³ per year. Bulgarian forests are managed according to modern, environmentally-friendly silvicultural regulations and in correspondence with the leading world practices and European standards, which ensures their sustainable development. Foreign scientists and administrators have declared Bulgaria a leading European country in the fields of forest establishment and cultivation, erosion control activities, environmental reclamation, hunting and game management, etc. From the view point of modern forestry concepts, the conservation of the unique biological diversity here is very important. Forests are hous-

ing the populations of 43 universally endangered species of animals and plants and about 80% of the sites included in the ecological network "Natura 2000". Bulgaria is among the countries having the greatest biodiversity in Europe – 4th place according to some expert evaluations. The conservation of ecological and habitat diversity is an essential point in FF teaching. The technologies studied are based on the principles of nature- friendly forestry and practical activities. The theories for multifunctional management and sustainable development are the key issues for conserving biodiversity, productivity, renewable capacity, viability and potential, so that forests will be able to continue performing their ecological, economic and social functions in the future.

All these achievements of our graduates show the important and all-embracing mission of the forestry specialty, whose 85-year history underlines its uniqueness and the traditions of our higher education.

Perspectives

We have sound Bachelor's degree education because of the long-term development of the subjects included in it. The complex university training, ordering subjects chronologically and proceeding from basic to applied disciplines combined with practical courses, requires a sufficient amount of time for the whole educational process. So, it would be rather reckless to reduce the Bachelor's Degree term of training to 3 years. The concept of the 4-year Bachelor's Degree education doesn't interfere with the Bologna concept. Europe respects national identity, especially in the sphere of education. The regional character of forestry makes the blind standardization of curricula even counterproductive. It is quite normal, though, to keep in touch with the subject development, subject matter choice and the methodology of related universities in order to borrow what is useful and applicable. At the same time, however, it is important to do research in connection to the local and practical business problems. The newly introduced system of credit transfer is bound to ensure student and teacher mobility based on common modules. It will be fully developed when the stipulated commitments are met and supplied with adequate mechanisms of control. Mobility enables communication and the creation of a common European educational ground.

Another important task for the future is the improvement of Master's Degree education. Being still new to our conditions, it is in its nascent stage and obviously has a number of weaknesses. The curricula need updating and expansion. More new subjects should be introduced reflecting the nature of this qualification stage. Such is the subject Forest pedagogy, taught at many European universities. It is in essence PR in Forestry and it is gaining increasing importance in the context of the multifunctional forest management. The improvement of communication with the public and NGOs, actually, will be of great benefit to many foresters.

Together with the tendency towards environmentally friendly forest management, there is a growing interest in the renewable sources of energy. The concern

about the global climatic changes is also obvious. Because of these trends, afforestation, our traditional priority, has now been given additional emphasis. Forest plantations have good perspectives. They have the task to provide resources for the ever-increasing market of wood and non-wood products at a time when protected forest areas are being expanded. The interest in this kind of forestry is due to the existence of at least 250 thousand ha of wastelands unfit for farming. Forest Plantations is a subject taught in our Master's course but it should be enriched with a study of the integration of its economic, ecological and social objectives.

Academic science is of particular importance to Master's degree education. What it still has to achieve is to develop more research directly involved with practical problems; to be more active in applying for international projects and to attract more students to the research. What can help in this respect are foreign contacts, information on forthcoming competitions, training in application procedures and availability of experimental materials. We have signed new agreements with many universities and research institutions. FF lecturers are taking part in the cooperation between the National Forestry Board (NFB) and EU forestry structures.

The development of distance learning is yet another perspective for our education. The online presentation of the necessary teaching materials is expected soon in order to improve the overall learning process.

FF management focuses towards a more sustainable quality of learning. The results up to now show a transition from a system according to which all of the admitted students graduate to a more natural pyramid-like structure. Our objective is better preparation of graduates, intensifying work with motivated students. In order to achieve this, the completion of the following tasks is necessary: increasing the variety of person-to-person instruction, starting thesis development well on time, presenting the best theses at students' conferences and international forums. Another challenge facing the graduates is the implementation of the innovative forestry strategy and the National strategy for rural regional development in the context of our European membership. It will be a demanding task to become a competent expert and to manage to come up to the great public expectations.

Our time has made the forester's concern for nature a vital priority for the future of the humanity. Therefore, our profession is increasing in popularity and responsibility. Its basic formula now is the sustainable development of natural resources, especially forests, which means meeting our needs today without impairing the chances of future generations. As Professor T. Dimitrov said in the past *"The forest is a bridge connecting the past, present and future. It enables us to lend a hand to our posterity"*. There can hardly be a greater insight into the meaning of sustainable development.

Finally, it is worth quoting the Bard of the Bulgarian forest, Acad. Nickolay Haitov, a famous Bulgarian writer who graduated and worked as a forester: *"Seeing around the creative work of Bulgarian foresters, I feel proud to have been a part of this noble and manly profession and to be still spiritually bound to it"*. Today we can rightfully be proud of the efforts of all teachers who have contributed to the development of Bulgarian higher forestry education and we have to work with con-

cern for its successful future. That future will be shared with related departments in Europe. It is our honor and recognition that the Faculty of Forestry in Sofia UF, namely in this anniversary in 2010, joined the newly established Conference of the Deans and Directors of European Forestry Faculties and Schools (ConDDEFFS).

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