Historical development of forestry education in the context of forest resources management in Turkey

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Abstract: The beginning of forestry education in Turkey dates back to the second half of the 19th century. Initially the French were predominantly seen to be the experts in forestry education. By 1910, when the Forestry High School opened, the Austrian and German nations became the leading experts. The first half of the 20th century was established as a forest faculty. In this study forest policies followed in Turkey, institutional developments experienced in the context of these policies, institutional and philosophical responses demonstrated by forestry education to these developments was examined.

Keywords: History of forestry education, Period of Tassy and Simon, Turkey

Türkiye’de orman kaynakları yönetimi bağlamında ormancılık eğitiminin tarihsel gelişimi


Anahtar kelimeler: Ormancılık eğitimi tarihi, Tassy ve Simon dönemi, Türkiye

1. Introduction

Forestry policy is a phenomenon that plans forests at the country level in order to establish a balance between forest resources and societies for the long term and meet the expectations of society regarding forests. In this context, it sets goals and evaluates options on how to reach goals.

Laws and legal regulations are the most important tools of forest policy. It is trying to balance between the priorities of governments and society’s demands regarding forests within legal regulations. Forestry organizations, forest ownership, forestry training and education are also some of the other forest policy tools.

There is an absolute need in forestry organization for the achievement of the objectives be regulated by law, conducting of envisaged activities. No doubt that, with the assumption that they are organized in a rational manner "forestry organizations", or referred to in this paper "forestry institutions" as important as forestry legal arrangements are any other tools of forestry policy.

There is a need for an expertise in human resources to achieve forestry institutions objectives which have been demonstrated successfully by law. In this context, forestry education has great importance.

Trained manpower in the context of forest policy is also an indispensable tool in rational management of forest resources, as in the solution of forestry problems. Therefore it takes non-negotiable place in forestry. Training takes place within an environment of social and political apathy towards the importance of forestry issues within our country.

Forestry education in our country has a long history. Technical training and education in forestry began with the establishment of the first Forestry School in Istanbul, on 17th November, 1857.

From this date, the country's priorities, forestry perspective, forest policy in the context of experienced social, economic and political developments and forestry agencies developed. Depending on these developments forestry education system also was forced to keep pace with changes.

In this article, forest policies followed in our country, institutional developments experienced in the context of these policies, institutional and philosophical responses demonstrated by forestry education to these developments will be assessed.

2. Interest of Ottoman Empire to forest resources

In the Ottoman period, a very large proportion of the population lived in villages. Urban areas were in the form of small towns. In this period, rural people were free to benefit...
from the forests how they wish. Only the palace, the
shipyard and the armory needing to benefit from forests
could over-ride these restrictions. Wood needs of the town’s
people were provided by woodcutters cut the trees from
years despite the measures begun to be taken from the
middle of the 19th century (Gümüş, 2012).

The Empire began to take steps in terms of
Westernization in 1839 after the Tanzimat Edict. Towards
the end of 1839 a Forestry Department was established in
Istanbul but closed within 11 months. The first attempt to
protect forests and benefitting economically from them
failed.

Experienced political and economic developments in
later years determined that forest resources must be
mobilized. Thus, establishing a Forest School with experts’
advise and support brought in from France, after that
General Directorate of Forestry was established and which
still exists.

The Crimean War is the most important political and
economic development. It had an impact on
institutionalization, institutional and educational
development of forestry activities (1853-1856). Therefore it
is primarily useful to assess the cause and effect of the battle
(Gümüş, 2004).

The Crimean War began with the Russian's attack to the
Ottoman Empire on the pretext of the rights of non-Muslim.
This movement had harmed the interests of other major
states in Europe, Britain and France included. Russia
entered the territory of the Ottomans from the Balkans.
Britain and France sided alongside the Ottoman Empire.
They had created a European Bloc. France, Britain, and
Sardinia supported the Ottoman Empire with nearly two
hundred thousand people. Eventually Russia lost and the
Paris Treaty was signed in 1856.

Although the Ottoman Empire appeared to not have lost
the war, it was the first time borrowing money was from
British and French for financing the war. Thus, disordered
finances were weakened. Financial liabilities of minorities
were eliminated by the Reform Edict (1856) announced
within the framework of treaty provisions. Because of that,
this financial structure thoroughly corrupted.

Forests and mines began to be seen among the sources
thought to be consulted with regard to improvement of
disordered economic structure (Şendil, 2015). They were
among the remedies suggested by foreigners.

3. Period of contractor management (1857-1934)

As stated before, the first serious step, about the
managing of the Ottoman forests, taken after the Crimean
War, was based on the scientific methods. The Turkish
forestry’s base has been initiated by the forest engineers
brought from France in three separate groups on separate
occasions from 1857 onwards. These French forest
engineers carried out soil analysis to determine the existence
of forest, besides being instrumental in setting up the forest
school (Keskın, 2010).

3.1. Tassy Period (1857-1862; 1866-1868)

In this period, Louis Tassy, a French forestry expert,
was the head of committee which conducted forestry
studies. Tassy stayed in our country between the years of
1857-1862 and 1866 to 1868 about a period of 8 years. The
basic duties brief given to Tassy included;

• Opening of the Forest School,
• The Preparation of Forest Regulations,
• An inventory of our forests and
• The establishment of forest organization (Yund, 1969).

In 1857 the Forestry School in Turkey was established
in Istanbul first through the efforts of Tassy (Kutluk, 1957;
Eryılmaz, 2008) and the director of this school had been
granted to him. In response to the efforts of the founder of
this school, he was granted directorship of the school and
consequently called after him as “Tassy Forest School” (İÜ,
2015).

The establishment of the Forestry School, in 1857 was
considered by many scientists and foresters as the beginning
of forestry in Turkey (Erslan, 1989; Kutluk, 1957).

For students taken to school, it was forced to know
French. Because of the teachers brought from France (Louis
Tassy and M. Alexandere Siheme) did not know Turkish
and school books were in French. The school was in the
nature of a course (Kutluk, 1948).

During this period, there was not a forestry organization
in our country. Thus, to study in a school did not have much
meaning relevance.

In school, it was understood that aims of educating
technical personnel for designed establishment of forestry
organizations and getting this staff to work particularly on
reconnaissance business that was urgent need at that time
stood in the fore front (Erslan, 1989).

The second Forestry School was founded by the
Ministry of Commerce in the Tassy Period. According to
records of 1865 Tassy served as vice chairman of the
Council of Communications (Meclis-i Ma’ābir) under the
Ministry of Commerce (Kutluk, 1948).

3.2. Simon Period (1868-1879)

Tassy left Turkey in 1868. Thus, Charles Simon then
became a director of the school. He prepared a regulation
for the school (Erslan, 1989; TBMM, 2015).

In the Simon Period the Forest School gained a meaning
with establishment of General Directorate of Forestry in
1870 and Forest Regulation entered into force. The Forest
School which was previously semi-official became formal
(Özdönmez et al., 1996).

When the first article of the Regulation was examined, it
was understood that The school was established with the
aim of educating forest employee for this organization needs
under the supervision of General Directorate of Forestry
established under Ministry of Finance.

In the period after Crimean War it was seen that the
State could provide income from forests. For this purpose, a
legal regulation was entered into, the Forest regulations,
1870, were enforced General Directorate of Forestry. From
this date, it was seen that forests began to manage through
commitment or privilege. Forests were a source of income
amore. Therefore, the benefit from the forests must be
terminated randomly. In this context, General Directorate of
Forestry established in 1869 one year before the Regulation
will be an organization provides protection of forests and
 gaining income by stumpage sales.
Forests seen as a source of income were protected by the law; the forests began to be sold to domestic and foreign traders by the established organization.

Forestry directorates established in the countryside with the aim of protecting forest and regulating sales jobs. Forest school/forest secondary school graduates worked under forestry directorates serving as forest inspector (inspector general), second inspector, third inspector or deputy inspector according to their work.

After experience of forestry directorates established under the Ministry of Commerce in 1839 and lasted 11 months, ministries that General Directorate of Forestry existed within showed developments regarding to the actions that expected form forestry the forms of organization began under the Ministry of Trade in Ottoman Period ended with Ministry of Economic.

3.3. Forest and Mining School (1880-1893)

It is understood that forests began to manage due to government’s financial embarrassment and western foresters’ suggestion. Forests and mines began to be used with the same purposes in this period seen that sustainable utilization of forests do not have an importance, it was taken into account that both sources provided income as natural resources and forest and mining organizations which had management of this resources were connected to Ministry of Finance. Until 1880 forestry and mining schools were independent from each other but were amalgamated by the Regulations.

It was the first time that the title of "forest engineer" was given to those who graduated from this school. That was one of the prominent features of this school. Education at this school served for 13 years was continued jointly for the first two years, the next two years it was continued by separating the forest and mining.

Lessons at the school were more related to language science like as French and Ottoman. There were joint lessons related to geography or calculation. There were a total of 3 lessons related directly to the forest sector. The lessons of "plants and wood science" was in 3rd year, "forest science" and "forest generation" were in 4th year (Kutluk, 1948).

3.4. Halkali Agricultural High School (1893-1903) - Halkali Agriculture and Forestry High School (1903-1910)

The Forestry and Mining School was closed in 1893. It was decided to educate foresters under the Agriculture school. The Department of Mining was seen as a secondary importance and students were sent to Europe to study.

It was decided to expand the lessons taken in Agriculture school as include forestry science. Agricultural school curriculum was expanded to include forestry science as well as agricultural science plant physiology and anatomy, forest trees classification, wood recognition, map arranging, forest management and maintenance methods, wood production and cutting (Kutluk, 1948).

Halkali Agricultural School’s name was changed as "Halkali Agriculture and Forestry High School" in 1903. Forestry High School was established in 1910 because of forestry lessons in this school were seen insufficient after
4. State forestry management period (1934- )

4.1. Ankara High Institute of Agriculture - Forestry Faculty (1934-1948)

“Ankara High Agriculture Institute (AHAI)” consisting of Natural Sciences, Agriculture, Veterinary and Agricultural Arts faculties had been established with Law No.2291 enacted in 1933.

Education and training studies were achieved with the contributions of German scientists in the first period of AHAI. According to the new law accepted on November 1, 1934 the Forestry High School became a part of AHAI as the fifth faculty. Forestry training and education system gained an exact academic identity under AHAI.

High Forest School in Istanbul had been converted into a faculty in 1934 and was connected to AHAI. Education duration was increased to four years. Kutluk (1967) expresses that forestry gained a scientific identity with this development.

Forestry Law No.3116 enacted in 1937 bears a revolutionary qualification for forestry. Managing the forests by the private sector ended with this law to manage the forests by the state began with Law No.3116 and in this context, forestry directorates is subject to a new assessment. Forestry directorates were named as "forest directorate" (32 units) in 1937, "forest infirmary authority" in 1944. Since 1937 “Forest Sub- District Directorates” known as “forest district chieftaincy” has been created under the mentioned directorates (Gümüş, 2013).

Students of the Higher Agriculture Institute Forestry Faculty were educated for the first two years in Ankara the next two years in Istanbul. Since the academic year 1944-1945, only first and second Semester students were educated in Ankara (botany, zoology, chemistry, physics, mathematics courses at the Faculty of Natural Sciences, Forestry and Meteorology courses at the Faculty of Agriculture); third-eighth semester students educated in Istanbul (İkmen, 1974).

Higher Agriculture Institute adventure of Forestry Faculty lasted until 1948. The Forestry Faculty was connected to Istanbul University by a law enacted in that year. “State Forest District Directorate” period was initiated within the framework of Law No.4767 enacted in 1945 in the provincial organization. It was needed for the creation of a new organizational degree between the Forest District Directorate and the General Directorate as a result of increased number of the Forest District Directorate. A new organizational structure which was named “Forest Regional Directorate” in 1980 known as "forest head directorate" since 1951 has been created.

During this period, Forest School graduates were tasked directly with the management of forests. Forest inspectorship period ended in 1937. Graduates of Forestry Faculty undertook all forestry activities besides the audit duty. Thus, it was forced to change the nature of forestry education, after this date all issues related to the sustainable management of forests began to be taught.

4.2. Attaining Independence of Forestry Education by Separation from the Organization of Forestry (1948- )

The Faculty of Forestry was connected to Istanbul University, by closing of AHAI which had an agricultural nature (Eryılmaz, 1993). Substantially, the connection of Faculty of Forestry to Istanbul University is the closure of an era. Because from the foundation date of 1857 to 1948, Forestry Education Institutions was an agency within General Directorate of Forestry or/and was an institution within the ministry that the directorate is connected to. Since 1948, it left the institution (GDF) which is conducting forestry activities and it doesn’t have any organic relationship with this institution.

Starting from this year, the faculty of forestry gained the facility independently determining of all priorities related with education. This situation has caused many positive and negative results.

Almost all forests in Turkey are state owned. State owned forests are not expected to be transferred to others. Law no 3116 dated 1937; Turkish Constitutions of 1961 and 1982 did not allow this. Management and exploitation must be served by the state according to constitution. In this context, separation of forestry education from the organization of forest resources management was an exciting development in 1948. Forestry education has gained a universal character. At the same time, coordination between institutions began to experience problems from this date.

The first problem is the issue of the number of students in the faculty. Until 1948 Forest Higher School and AHAI Faculty of Forestry which located at the Ministry of Agriculture was educating number and quality of students extent of institution’s or country’s needs. After this date, it’s seen that, the number of students is determined by Faculty of Forestry that is independent from ministry, regardless of Turkey’s needs. Thus, according to a report which was arranged by FAO in 1968 (Osara et al., 1968) in Istanbul, opinions have been expressed to greatly reduced the number of students at Faculty of Forestry.

While this opinion submitted to the competent authority, opening the second faculty of forestry in Trabzon, in 1971 is remarkable for creating the beginning of negativities on this issue.

The new knowledge about forest resources obtained by inventory works during 1960s has changed the understanding of forestry in our country. It is understood that more rich forestry resources owned. Turkey stepped into the limelight for actuating its own resources. Turkey was an importer country in terms of timber and wood-derived products until the end of 1960s. So, 17 years between 1950 and 1967, the foreign trade deficit was USD 235 million (Osara et al., 1968).

Under the new information on Turkey’s forestry resources, it’s seem possible not only closing deficit but also achieving an export surplus (Gümüş, 2004).

Wood production has increased during this period focused on substructure investments mainly including road and transportation. In addition to production of forestry products (wood) demand for forestry products industry is developed. According to the demand at the forest industry, a need of trained personnel was raised.
All these developments facilitated the opening of the second faculty in Trabzon, by the new faculty forest industry engineering department began education for the first time. In 1982 this department was also founded in Istanbul University.

As a result of global and national rapid urbanization of the 1970s, reactional social demands occurred in our country. In accordance with this request, a Landscape Architecture department was founded at Istanbul University in 1985, at Karadeniz Technical University in 1990 and progressing at the other faculties.

By 1980s employment problems of graduate students occurred. Graduates began to be unemployed. As a result of successful high school graduates do not prefer the forest faculty, students with low scores began to enter the university. Thus, the negative effects on student motivation decreased the quality of education studies (Gümüş, 2012). While it was expected to increase quality by accepting less students to the Forestry Faculties under Istanbul University and Black Sea Technical University, six Forestry Faculties were opened in 1992 (Artvin, Bartın, Düzce, Isparta, Kahramanmaraş and Kastamonu), with another faculty (Çankırı) was opening in 1994, new faculties were opened in 2010 in Bursa and Izmir, the other faculty was opened in 2012 Karabük.

Thus the number of forestry faculty has increased to 12. These faculties led to negative developments in terms of educating qualified human resources required to achieve forestry policy objectives in Turkey. Forestry faculties and especially departments educate forest engineer, are influenced badly with the above-mentioned reasons.

One of the developments that have an impact on forestry education in Turkey is the profession law No.5531 enacted in 2006. The tasks of forestry professionals have been described primarily with this law. Some forestry activities associated with the duty definition began to be achieved by self-employed members. A new period has begun.

In recent years, “Wildlife Management and Ecology” departments also have been opened in some forestry faculties including KTU Forestry Faculty being the first. Existence of this department being linked to the fields of biology and veterinary schools in forestry faculties is interesting. The opening of this department consistent with the above-mentioned profession law is controversial. The Chamber of Forest Engineers also is in suspicion. Recently, there is no middle level forestry technical school in Turkey. Still, Forestry Faculties have been increased in accordance with the expectations of political authority and trivialized, being a politic material;

- International norms,
- Profession Act,
- Demands of the forestry organization,
- The expectations’ academic staff of Forestry Faculty entered into a process that trying to balance.

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