

## ARTICLES

**HERZEGOVINIAN TOBACCO HERITAGE:  
THE FLOURISHING OF PRODUCTION, DEVELOPMENT  
SMAGGLING AND FOREMOST SMUGGLING ROUTES**

## AUTHORS

**Snježana Musa**

Full Professor, Department of Geography, Natural Science Faculty, University of Mostar, Matice hrvatske bb, e-mail: snjezamusam@hotmail.com

**Željka Šiljković**

Department of Geography, University of Zadar, Franje Tuđmana 24, e-mail: zeljka.siljkovic@zg.hinet.hr

UDK: 911.3 :[663.97+ 338.43+382.8] (497.6 Hercegovina)

## ABSTRACT

**Herzegovinian tobacco heritage: the flourishing of production, development smuggling and foremost smuggling routes**

*This article analyzes the historical - geographical features and changes in tobacco cultivation in Herzegovina (region of Bosnia and Herzegovina), for a period of 17 century until the late 20th century. The aim of this paper is to investigate the importance of tobacco, both in terms of economic and social significance, and the valorization of rural areas in Herzegovina. Special attention was paid to the smuggling of products, focusing on the time and route of smuggling routes. During the Austro - Hungarian rule in Bosnia and Herzegovina is the most important period for the production of tobacco and the social and economic prosperity in rural areas, but also smuggling tobacco during this period, and the most intense, and the fight against it. In this period began in the industrial processing of tobacco and manufacturing cigarettes. Since the 1970s appears outflow of population from rural to industrial centers, both locally and in Western European countries. It happens layering the villages, leaving the agricultural lands and start a negative impact on agricultural production which causes the marginalization of tobacco production.*

## KEY WORDS

*tobacco growing, Herzegovina, beginnings of cultivation, organized production, smuggling routes*

## 1. Introduction

When the use of tobacco first began in the Old World, both civil and church authorities started a bitter fight against its consumption. In many countries, its use was strictly prohibited and its users unmercifully punished. In spite of restrictions, in less than 150 years tobacco conquered the whole world.

The facts that all countries around the world impose taxes or induce monopoly control of tobacco production are the evidence how tobacco's production and consumption are important. In 1643 King Charles I of England introduced the first tobacco monopoly. During the French Revolution, monopoly on tobacco was abolished, but Napoleon I introduced it once again. The Ottoman Empire established a monopoly on tobacco but not until 1875, rather late when compared to other countries, so it was in force for just a few years in Bosnia and Herzegovina. Austro-Hungarian Monarchy imposed a monopoly in 1670; and soon after the occupation of Bosnia and Herzegovina in 1878, new rulers imposed a monopoly in the newly acquired lands (25<sup>th</sup> of December 1879).

Because it had its own tobacco factory in Berlin, Herzegovinian tobacco earned recognition for its high quality and excellent flavor (Kapor 1956, Sjeran 1981). Even though tobacco is a culture that has caused important economic and social transformations of rural landscape, until today Herzegovinian geographers haven't analyzed this issue in a more systematical way. Most of the scientific papers are works of agronomists, economists, historians but not geographers. Carl Preissecker is one of the first scientists who analyzed basic characteristics of Herzegovinian tobacco. First professional and scientific papers were written in the period of Austro-Hungarian Monarchy (Krúkl, 1870, 1923, Peez, 1891, Renner, 1896).

The first ones who have brought the tobacco in Herzegovina were the Franciscans. They have left rich archive with essential data on the importance of tobacco for subsistence of the local rural population (Bakula, 1970, 1999, Didak Buntić, 1909, in Nikić 2000). One of the most important sources for data on tobacco are the works of agronomists Beljo et al. 2000, Jelčić, 1981, Odić 1973, 1980, Sjeran, 1981), and the works of economists (Kapor, 1932, 1953, 1956, Smoljan 1995, 1999). Mulić (2001) wrote on the historical development of tobacco production in the northern parts of Herzegovina during Austro-Hungarian rule. Alilović (1976) analyzed position of women in tobacco industry during the period of Ottoman rule, until 1878. He has also written about the illegal tobacco trade with the neighboring countries.

## 2. Natural preconditions for tobacco cultivation in Herzegovina

Tobacco growing depends on the optimal relation between climate, soil, and human labor. This plant requires optimal temperature conditions, a specific amount of insolation and moisture in the air, southern-exposed slopes and adequate soil aeration. Tobacco is sensitive to both high and low temperatures; if it is too wet, it begins to grow mouldy, if it is too dry it crumbles. The optimal temperature for its growth is about 27° C, while the development and growth is hindered at temperatures below 15° C. Tobacco also has special requirements in terms of pedological composition of the soil in which it grows. The Herzegovina region has precisely all of the mentioned preconditions: backdrop ridge relief forms that surround karst fields, small arable parcels in the sink-holes, small rocky fields, pediment like slopes passing from fields in the karst towards ridges.

With reference to altitude, Herzegovina ranges from 0 to 2000 meters above sea level. The most suitable areas for growing tobacco are pediments, plateaus, and mountain areas up to 300 meters. Areas suitable for agricultural production are plateaus of Brotnjo, Dubrava, Bekija, and Humine, as well as the sloping mountain fields and ridges of Trtla, Ozren, Malić, Kukovac, Velež, and others. The most famous fields where tobacco was previously planted are Nokoš, Bijelo Polje, Mostar, Gabela, Vid, Popovo Polje, Vitina, Trn, Mokro, and Ružići.

Climatically, Lower Herzegovina belongs to the Mediterranean climate. It spreads to the gorge of Prenj in the north. The production of quality tobacco in Herzegovina is attributed to region's Mediterranean terrain and climate. The number of hours of sunshine is important. Other important factors are: the annual precipitation (which is especially important during the vegetation period) and humidity (important because of the quality of drying process). Some of the southwest oriented slopes below mountain ridges in Herzegovina, for example Buturovica, north-east above the Ljubuški field, have over 2,500 sunny hours per year. Based on data of average monthly air temperature in Herzegovina, it can be concluded that the original varieties and unadulterated local conditions in Herzegovina are exceptional for the cultivation of tobacco. Geologically, the areas used for tobacco farming in Herzegovina are found in limestone formations from various periods. There are three main regions where tobacco can be grown: fertile land along the rivers, land at the bottom of karst fields, and also plains created by alluvial deposits and erosion. Based on data by Delač from 1952 (Sjeran, 1981) the most suitable land for tobacco growing in Herzegovina is red soil.

Depending on the underlying geological substrate, the soil varieties in this region are: red soil on Dolomite, red soil on Cretaceous limestones, red soil on Eocene limestones, transitional type of red soil, alluvial red soil, and marly and deluvialic-alluvial soils. The dominant soil types in Herzegovina are red soil on limestone and Dolomite substrates. These are the slopes found in the area of Široki Brijeg, Čitluk, Ljubuški, Grude, Mostar, Čapljina, and Stolac.

Territorially, the growing of tobacco is related to the red soils on Dolomite in the area of Klobuk, Tihaljina, and Buhovo. Other important cultivation areas are Grljevici, Raso and Svirovići – the closed valleys on flysch sediments where red soils are found. Also there are red soils on Eocene limestone which are found mostly around the areas of Humac and Bijača, as well as the red soil on alluvial land in Međugorje, Crnići, and Aladinići. Tobacco can also be grown on shale soils in the area of Ljubuško Polje (field) and Vitina Polje, and alluvialic-deluvial soils formed in alluvial plains created by the flooding of river Neretva in the vicinity of Tasovčići, Klepac, Struga, and Dračeva in the area of Čapljina.

## 2.1.Types of tobacco in Herzegovina

The first seedlings of tobacco were imported into Dalmatia by way of Republic of Dubrovnik, in the second half of the seventeenth century. Already in 1665, a type of tobacco called *Corda de Brasil* (Kapor, 1953) is mentioned in Dubrovnik and it was probably the first type of tobacco in the Herzegovinian region. It was not branded when the *Hercegovac* type of tobacco started to be cultivated, although the first data on this type appeared in 1867, when the Austrian, Gustav Tromele, wrote about the quality of tobacco from Trebinje region in Eastern Herzegovina (Beljo, 2002).

Besides the *Hercegovac tobacco*, people experimented with other types of tobacco, but those were not suitable for cultivation in this area. In the first half of the nineteenth century, *Nicotiana Rustica* (a wild tobacco called *krdža*, and *smrdan*) was grown. Efforts to cultivate longleaf tobacco for cigars failed, as well as Virginia, Kentucky and Connecticut tobacco leaves. The cultivation of multi-leaf and longleaf American tobacco (*Hercegovina Gigantea*) started at the beginning of the twentieth century. The *Hercegovac* tobacco type, started from Maryland seeds, adjusted to the climatic and pedological characteristics of Herzegovina. The assumption that tobacco arrived in Herzegovina from Dalmatia is based on the local names of tobacco types: *Gradac* (a village on the Dalmatian coast and in the south of Herzegovina, Čapljina area, village of Hutovo); *Dalmatinac* (Sjeran, 1981) and Borian tobacco (deriving its name from its resemblance to a pine tree *bor*). Another local type is *Šeginovac*, which tobacco growers also call *Semi-tall*.

The most common type of tobacco in Herzegovina and neighboring areas, with similar terrain and climatic properties, is *Hercegovac*. Thus, the area of its cultivation includes the border zone of Dalmatia and Herzegovina, from Imotski to Trebinje in Eastern Herzegovina, and the territory by the Lake Skadar on the border of Montenegro and Albania. The *Hercegovac* belongs to a group of Turkish-Levantine-Oriental tobacco type (Kapor, 1953, 9). The *Veliki (tall) Hercegovac* was officially so named in 1970 at the Mostar Tobacco Institute (Sjeran, 1981).

Tobacco began to be cultivated in Herzegovina from the time of Ali Pasha Rizvanbegović (1833-1851), and later in Livno region (Kreševljaković, 1940). However, it was still being imported, because the harvest of domestic tobacco didn't satisfy the needs of local population for a long time. The main centers for tobacco trading were Sarajevo and Livno. On 20<sup>th</sup> of December 1696, Mehmed-aga, assistant to Mehmed-efendi, the financial head for Bosnia, confirmed that in Sarajevo they only used two types of tobacco which are Strumica and Kaba (Bakula, 1999).

It is known, for certain, that in these areas, people consumed both *burmut* (snuffing) and opium, but definitely in smaller amounts. It seems that the region of Tešanj (Bosnia) was leading in opium consumption. In Turkish, tobacco is called *tütün* and tobacco dealers are called *tutundžije*. As tobacco was brought here in leaves and it was cut here, craftsmen who have been doing that job were called tobacco cutters, or *havandžije*. They didn't have a separate guild, but they belonged to the larger *tutundžija* guild, which in 1848 counted 96 members. After Austro-Hungarian occupation the guild disappeared.

In Turkey, there was no monopoly on tobacco production just prior to the occupation, so everyone could plant and trade it, but the state did collect taxes. The first mention of such a tax is found in the edict issued in the month of Muharram 1108 (August, 1696) and promulgated in Sarajevo about the 20<sup>th</sup> of December 1699. This document mentions several varieties of tobacco and, as it has been already mentioned, only two types were used in Bosnia at the time, and both were taxed by 20 whole *akçe* (*akçe* was the Ottoman silver coin) per *oka* (*oka* was equal to 1,282 kg or 2,83 lbs). The tax has increased several times (1772, 1835) till it reached 12 *Groschen* per *oka*. Therefore, within thirty years the tax became 24 times higher. At that time, consumption of tobacco in Bosnia increased significantly (Kreševljaković, 1940). The cultivation of the *Tall Hercegovac* began in Southern Herzegovina in 1916 (Sjeran, 1970), and it spread inland at intervals until 1938, when it was banned. However, its intensive cultivation and spreading throughout the region of Herzegovina continued in the period from 1969 -1972, when it represented 63 per cent of total production. In some areas, such as Stolac and Ljubinja, *Hercegovac* was the only sort that was cultivated at the time (Odić, 1973).

Herzegovinian tobacco lost its significance in the production of cigarettes already in the Seventies of the last century. Its characteristics of strong scent and exceptionally powerful essential/ethereal oils prevented it from being used in the globalized production of cigarettes. Tobacco with milder characteristics began to replace it, as was the case of the Virginia type.

### **3. Beginnings of tobacco production in Herzegovina**

There are no documented sources about the beginnings of tobacco production in Herzegovina. We can only speculate on the basis of various indirect sources. Early information about the existence of tobacco in Herzegovina comes from the first half of the seventeenth century. It is obvious that tobacco production began very early in this region, shortly after it was brought to Europe. Visiting the region of Dubrovnik and Bosnia and Herzegovina in 1658, the Frenchman Pouillet noted that there was already a habit of smoking in these areas (Kapor, 1953, Alilović, 1976). However, he did not mention tobacco production but it can be presumed that it already had existed.

It is believed that the Venetian Republic, searching for closer trade connections with Turkish lands in the interior of the Balkan Peninsula, had established trade routes along Neretva River Valley. It is likely that tobacco seeds entered Herzegovina this way and after finding favorable conditions for its growing, production has begun (Preissecker, 1914). Although there are other theories, like the arrival of tobacco from Serbia, where tobacco farming was recorded already in 1611, it is hard to believe that cultivation around the Drina River did not already exist. It is believed that Dubrovnik was the most likely original source of Herzegovina tobacco. It is interesting how tobacco traveled to Herzegovina region and how long the journey lasted. In addition to Dubrovnik sources, here is one from the East (Mijatović, Rosić, 2006).

Tobacco was probably brought to Turkey in 1600/1 by the "English infidels who have offered it as a medicine against some diseases caused by humidity" as the Turkish historian Ibrahim Pečevi wrote (Mijatović, 2006). It spread very quickly to all provinces, and, as early as 1611, there were the first records of tobacco in Serbia. The French traveler Lefèvre (Mijatović, Rosić, 2006) wrote that in Prokuplje (Serbia) he saw a group of Turks sitting in the shade next to a shop, sipping coffee and smoking (1611). But, in 1633 the Sultan of the Ottoman Empire, Murat IV, banned the use of tobacco with strict punishments, including death. The first document about trade of tobacco from Herzegovina was found in Dubrovnik archives. It states that, in 1785, a bag of tobacco was brought from Herzegovina and, already in 1676 there is a mention of smuggling tobacco from Herzegovina (Kapor, 1953).

Dubrovnik records of passengers and goods in the period from 1716 until 1816 indicate a large number of traders from Herzegovina who traveled with tobacco. These were mostly traders from Mostar, Sarajevo, Trebinje, and Travnik (Kapor, 1953). The first area of tobacco growing in Herzegovina was probably the area of Trebinje. Peez (1891, Loose, 2002) writes that cultivation of tobacco began in Mostar in 1720.

At the time of Turkish rule in Bosnia and Herzegovina, tobacco was not sold on the market and its production was very small, mostly for personal use. However, its leaves were cut for free sale or in exchange for other products. Tobacco traders, known as *tutundžije*, had separate guilds and tobacco trades were their members. In 1849, such a guild in Sarajevo had 96 members. At first there was no tax on tobacco, but in the middle of the nineteenth century, (Mulić, 2001) a tax on planting and trading was introduced. As a result of these restrictive policies, tobacco production declined. Afterward, however, its production again increased, because the producers were able to achieve considerable profits. If it was not sold for cash, tobacco was exchanged for other products, mainly wheat and potatoes.

Ali-Pasha Rizvanbegović (Bakula, 1999) is responsible for introduction of tobacco to Bosnia and Herzegovina. Along with other crops such as olives, rice, mulberry, and corn, he encouraged tobacco growing. As highlighted by Kapor (1953), production increased in the region of Ljubuški to 160 tons, in the Mostar and Trebinje areas to about 140 t, and in Stolac to 100 t. Priest Petar Bakula, in his well-known book on the state of parishes in Herzegovina, writes about the region of Brotnjo: "*the plain from the top of the Hamzići all the way to the Neretva, produces excellent wine and tobacco*" (Bakula, 1867, 150-1). Bakula also wrote about tobacco growing in Ljubuški and Široki Brijeg.

There are a number of written sources that confirm the growing of tobacco in the nineteenth century. As reported by R. Kraljević (2006), when the Austrian traveller R.R. Von Erco was travelling through Herzegovina in 1846, he noted that, an hour away from the Ljubuški fortress, in a nearby field, he saw tobacco field. John Gardner Wilkinson, in 1848, also mentions the cultivation of quality tobacco in Herzegovina and pointed out that it was cheap, only eight pences per *oka* (1,282 kg or 2,83 lbs). Gustav Thomel in his description of the Bosnian *vilayet* (province) dating from 1867, talks about the tobacco cultivation in Herzegovina. He stated that the best tobacco was produced around Trebinje and in the Neretva Valley. According to his statements, about 360 tons of tobacco was produced in Herzegovina at that time. Joseph Krükl (1870) gives the most detailed description of tobacco production in the Turkish period. According to Krükl, most of the tobacco was produced in Ljubuški, Mostar, the Neretva River Valley and in Trebinje (Kapor, 1953, 14).

In that period Ljubuški District included the area of contemporary Grude region and parts of Široki Brijeg, Čitluk, and Čapljina Districts (Table 1). Krükl estimated that the total production at that time was around 560 tons. According to Krükl's data, Herzegovina produced half million kg. of tobacco in 1870, with three main production areas being: Ljubuški (140,000 kg), Mostar (125,000 kg), and Trebinje (120,000 kg). However, tobacco production was accompanied by constant fluctuations caused by political instability in the country. Therefore, just four years later, production was reduced drastically.

*Table 1: Number of villages where tobacco was grown according to a region and the total amount of produced tobacco, 1874*

<i>Region</i>	<i>Number of villages</i>	<i>Amount in okas</i>
Mostar	72	30,550
Trebinje	36-41	16,884
Foča	8	5,740
Gacko	24	134
Stolac	56	26,597
Bileća	18	2,991
Ljubuški	30-38	42,200
Konjic	58	3,360
Nevesinje	26	1,400
Total		129,856 oka or 166,216 kg

*Source: Arhiv Hercegovine, Kapor 1953, Statistical Yearbook SR BIH (1976). Sarajevo: Državni zavod za statistiku, 455; Statistical Yearbook of FZS (1991). Sarajevo: Federalni zavod za statistiku, (1991), 465*

In the period under Turkish rule, maximum production was achieved in the first half of the nineteenth century, when the villagers were not burdened with various tobacco taxes. Production was reduced only when a special tobacco tax was introduced. The Turkish state did not introduce a tobacco monopoly until 1875, that is, just before the end of its rule in Bosnia and Herzegovina. However, the monopoly in Bosnia was poorly organized. Neither production nor acquisition was organized, and processing was at the manufacturing level. After the introduction of the monopoly, tobacco production rapidly decreased and it is estimated that in that year production was of only 50 tons (Beljo et al., 2002). Decline in production and trade was also reflected in the revenue that the state collected. Kapor (1956) states that the income from various taxes on tobacco sales in 1868 was 100,000 forints, in 1874 it was 160,000 forints, and in 1876 only 50,000 forints. Basically, we can conclude that at the time of Ottoman Empire tobacco did not have great economic importance neither to producers nor to the state. During the first half of the nineteenth century, almost every house in Herzegovina planted tobacco. Initially, production was for personal use only (Table 1).

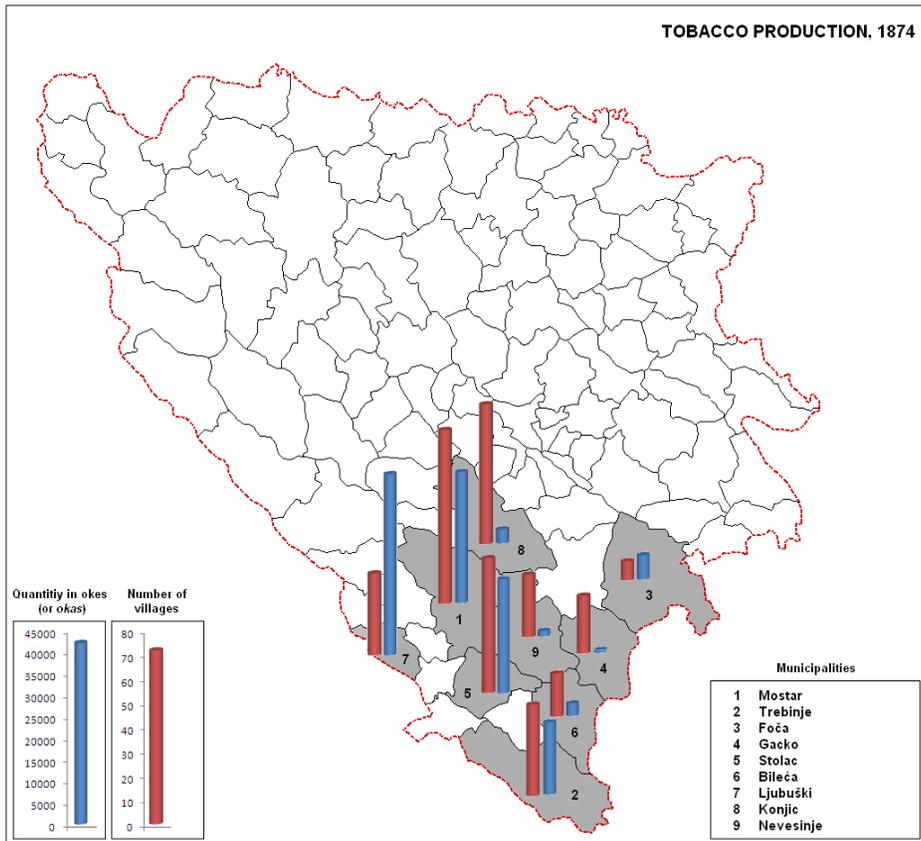


Figure 1. Production of tobacco in Bosnia and Herzegovina in 1874  
 Source: *Landwirtschaft in Bosnien und der Herzegovina*, Sarajevo, 1899 (Agriculture in Bosnia and Herzegovina)

Only in the areas of Trebinje, Brotnjo, and Bekija tobacco was also grown for export. Tobacco could only be exported with a permit and if taxes were paid. During the Turkish rule, tobacco did not have great importance, and it was recorded that tax was also paid for it in the *kazi* of Konjic (Mulić, 2001).

### 3.1.Organized tobacco production in Herzegovina

The situation has substantially changed after the change of political authorities in Bosnia and Herzegovina. After the Austro-Hungarian Monarchy's occupation, the Bosnian-Herzegovinian tobacco monopoly was established. Until then, the main Austro-Hungarian Monarchy's tobacco production regions were in Hungary, Galicia, and Tyrol, but the tobacco from these areas was of poor quality.

The progression of tobacco production can be seen if data on the thirty years of Austrian-Hungarian rule are examined. Just after the establishment of the monopoly in 1880, tobacco production had amounted to 877 tons. In the next ten years it increased to 2,379 tons, in 1900 it was increased to 3,646 tons and shortly before World War I, in 1913, production reached 5,960 tons. Therefore, production has increased sevenfold. In 1913, tobacco growers got nearly seven million *Kronen/Crowns* for their tobacco, which was more revenue than that of all the other agricultural products together.

The highest quality tobacco in the whole Monarchy was grown in Herzegovina. The cigarettes for the Viennese court were made from a mixture of selected Herzegovinian tobacco. Peez (1891) wrote: *the best kind of tobacco is grown in the vicinity of Trebinje, then around Ljubuški, then around Mostar, at the Broćno....* (Loose, 2002).

*In Herzegovina tobacco plays an important role in agriculture as plums do in Bosnia* (Renner 1896, 287) also writes that tobacco brought international fame to Trebinje *such as it has never experienced before in its history*. Tobacco brought a huge profit to the country. For example, the total Provincial Government revenue estimate on all products for 1894 was 14,010,990 forints (currency of Austro-Hungarian Empire), while the total tobacco revenue was 4,606,000 forints, or 30 per cent (Beljo, 2002).

In order to encourage tobacco production in mountain areas, rather than on lowland fields, the Austrian government encouraged deforestation of previously non-arable mountain regions like those used for pasture, rocky grounds, or forests. For each plot cleared for cultivation the farmers received financial support. In this way, they created new arable land. In addition, the Monopoly Administration introduced a precise regionalization of production. It was stipulated where tobacco could and could not be planted. In the places where the appropriate quality could not be achieved, it was forbidden to plant tobacco.

The great importance that the Austro-Hungarian authorities placed on tobacco production in this area is illustrated by the sending of experts from other parts of empire (Galicia), where tobacco was previously grown, to Herzegovina, in order to teach the population about quality planting and cultivation. The results were soon seen in continuous increase in production (Table 2), from one million kilograms in the period subsequently after the establishment of new government, to 2,9 million in 1897.

Table 2: Tobacco production in Bosnia and Herzegovina in the period 1882 – 1898

Region	1882-1886	1887-1891	1892-1896	1897	1898
Mostar	210,300	531.500	803,100	920,800	1,053,500
Bileća	2,400	8.300	-	-	-
Konjic	-	4.300	-	-	-
Ljubinje	22,300	52.900	103,300	125,600	76,700
Ljubuški	592,200	1.030.900	1,219,300	1,061,100	988,600
Stolac	153,300	452.200	646,200	677,900	456,400
Trebinje	74,800	125.200	210,900	192,000	149,700
Herzegovina	1,055,300	2.205.300	2,982,800	2,977,400	2,704,900

Source: *autors*

The goal of the government was not only to increase production, but also to improve the quality of tobacco, which meant restoring production from the lowlands to the higher mountain areas. For that reason, in 1908 there was a proclamation that divided the land into four categories: garden soil, field soil, plains soil and mountain soil. Garden soils consisted of plots near the villages; the areas were small and the cultivation of up to 1,000 tobacco seedlings was allowed, although the soil was quality red soil on a porous limestone base. Field soils on alluvial deposits and by rocky fields were of the worst quality and the government forbade tobacco planting on them. Plains soil was of somewhat better quality, and represented a transitional area from the lowlands to the high-plains and mountain area. The land was formed of red soil, that is, red-brown soils on limestone and marl. Mountain lands were the karst valleys and little valleys filled with a thick layer of red soil on a karst plateau. These lands represented the basis for the production of the highest quality tobacco. The production was divided into three levels: for monopoly needs, for personal use and for export. Therefore, there was no limit for the maximum number of planted seedlings. However, the minimum was set at 2,000 seedlings (Kapor, 1953).

Tobacco grown for export was for the purpose of cigarette production. Quality Herzegovinian tobacco was exported to the markets of European countries: Germany, Switzerland, Denmark; the Asian market: India, China, and Japan; and the USA market. Besides the factories located in Bosnia and Herzegovina, a factory in Berlin was opened under the Bosnian and Herzegovinian Administration: "Bosnian G.M.H. Zigaretten Fabrik und Verschleiss der BH Landes Tabakregie."

Herzegovina had already been regionalized in 1880 by the Austro-Hungarian government into three production areas, according to natural criteria. In the first category for cultivation were Grude, Čitluk, Ljubuški, and Široki Brijeg.

The second category included regions of Čapljina, Stolac, and Mostar and the third and the lowest category included the areas of periodically flooded karst fields of Trebinje and Ljubinje. In 1878, shortly after the occupation of Bosnia and Herzegovina, the new government launched an organized tobacco production program in the entire region of Herzegovina (Picture 2). Along with the introduction of a Monopoly in 1880, they opened factories in Sarajevo and Mostar, (Jelčić, 1980) and soon, in 1883, in Banja Luka (NW part of Bosnia), and Travnik in 1893 (for Central Bosnia). Buying stations were opened in the main production areas, first in Mostar (1880), then in Ljubuški (1881), Stolac (1885), Čapljina (1891), Ljubinje (1892), and just before World War I in Široki Brijeg (1912).

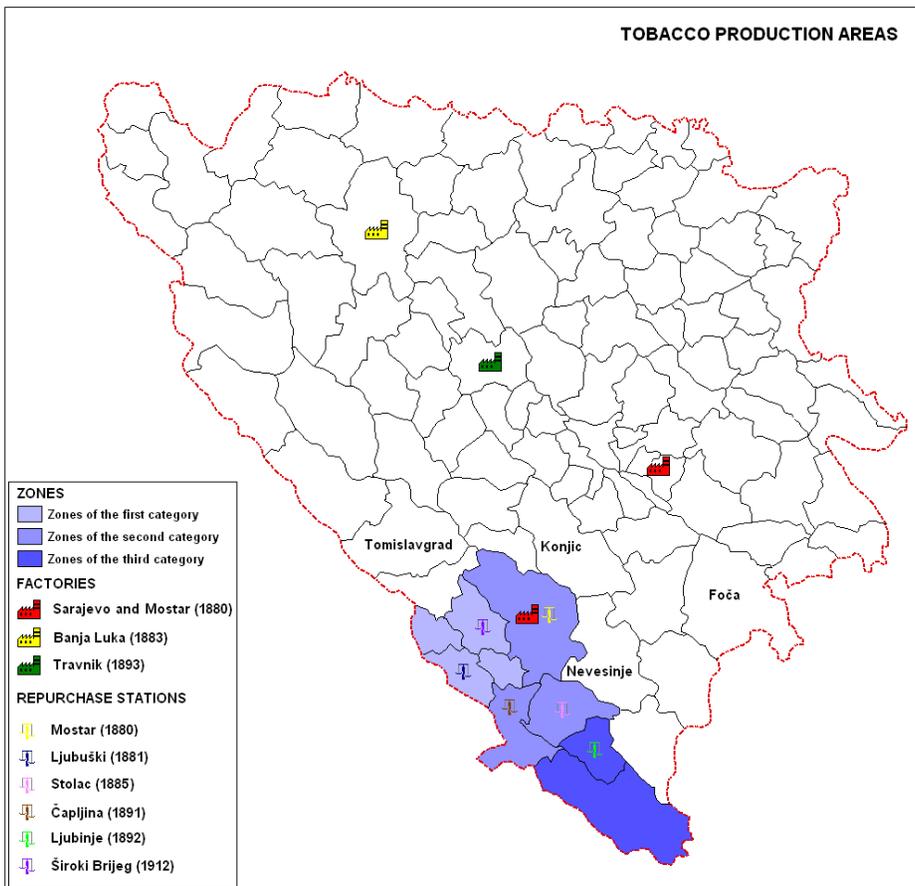


Figure 2: Map of buying stations and production areas during Austro-Hungarian government  
Source: authors

When the new government introduced a monopoly, this resulted in organization and order in production, something that did not exist during the Ottoman Rule. Tobacco management was under the jurisdiction of the Provincial Administration. Without its approval nobody was allowed to cultivate, purchase, process, or sell tobacco. The state controlled production and made decisions regarding in which municipalities and on which farmlands tobacco growing would be allowed. A regulation was also introduced specifying the size of land on which tobacco would be planted. It could not be smaller than 3 acres at the district or private farm level. At the time of Austro-Hungarian rule, the production of tobacco in Herzegovina significantly increased (Kapor, 1953). In 1880 it was about 900,000 kg and until 1918 it increased up to 5,177,000.

In Herzegovina, land of poor natural resources, tobacco easily became a crop on which the population's survival has depended. Due to state monopoly on tobacco, tobacco production in Herzegovina always depended on the whims of bureaucracy and the ruling regime. They would strictly control tobacco planting and purchased it at the lowest prices. They were aware that the Herzegovinian population was forced to plant tobacco no matter the price, so they were taking full advantage of that fact.

Thus, economic survival in Herzegovina was directly connected to the tobacco crop. About 130 years ago, the first purchasing office was opened in Mostar, in which the first Herzegovinian *vaga*/scale (days when tobacco was bought from producers) was held. A tobacco factory in Mostar (using domestic labor) was also opened as well as tobacco acquisition offices in all the major towns of Herzegovina. The end of World War I, the disappearance of the Austro-Hungarian Monarchy, and the entry of Bosnia and Herzegovina in the new state union marked a new, less favorable period for Herzegovina and its tobacco growers.

### **3.2. Extension of tobacco monopoly during the kingdom of Yugoslavia**

With the coming of Kingdom of Yugoslavia, a monopoly was introduced based on laws from the former Serbian Kingdom, and thus opened the Government Monopoly Office of the Kingdom of Yugoslavia. Tobacco production in Herzegovina became significantly more difficult because organized production started in some areas of Serbia. Herzegovinian tobacco was underestimated in comparison to tobacco produced in Serbia and Macedonia. In that way, tobacco production, that is, permits for its planting, became a political way of exerting pressure on Herzegovinian farmers. Monopoly policies were very strict.

They literally specified that the producer was the owner of the land on which tobacco was grown, while the owner of the tobacco was the government (Gornik, 1973). Herzegovinians were forced to plant tobacco, in spite of high costs of production and strict regulations, because they depended on crop for sustenance. In the newspaper *Narodna Sloboda*, Number 74, of September 13<sup>th</sup>, 1919, a price list was included for all labor connected to tobacco. It translates to around 250 male and female daily wages (females were half of male's) for around 250 to 300 kilograms of tobacco, translating to almost one wage for one kilogram of tobacco. As a result of political economy and political pressure, tobacco production changed substantially from year to year. When there was need for more tobacco production, the government temporarily increased the price. After that, production increased dramatically (Table 3). At times, it was manipulated for political reasons, as was the case during the Second World War. That happened, for example, in 1930, when production reached more than 6,000 tons and four years later it reached only 1,440 tons, then in 1940 it was of 8,577 tons. Corruption was a common occurrence among the people who estimated the tobacco production in the fields and those who estimated the price during purchase.

*Table 3: Overview of tobacco purchase price in the period 1920-1940*

<i>Year</i>	<i>Amount produced in kilograms</i>	<i>Purchasing price in dinars</i>
1920	1,811,719	7,80
1921	2,377,334	10,69
1922	1,886,448	19,15
1923	2,746,592	34,47
1924	5,957,840	22,41
1925	2,793,125	19,56
1926	3,716,110	14,84
1927	1,450,355	22,48
1928	2,241,738	19,06
1929	4,750,257	20,75
1930	6,351,487	16,58
1931	4,026,320	12,70
1932	3,244,512	9,75
1933	1,568,811	6,21
1934	1,529,323	5,50
1935	1,883,901	13,04
1936	4,360,981	15,22
1937	5,928,190	11,52
1938	4,243,218	13,13
1939	3,950,998	26,19
1940	8,576,816	29,26

*Source: Arhiv Hercegovine, Kapor 1953, Statistical Yearbook SR BIH(1976). Sarajevo: Državni zavod za statistiku, 455; Statistical Yearbook of FZS (1991). Sarajevo: Federalni zavod za statistiku, (1991)*

### 3.3.Cultivation and monopoly in socialist Yugoslavia

After the Second World War, regulations on tobacco production were loosened, therefore, production increased. New purchasing facilities were built: 1947 in Grude, 1957 in Posušje, and 1960 in Čitluk. Tobacco production at the time of Socialist Yugoslavia, besides the opening of new purchasing companies, was marked by a number of events that had an impact on the volume and conditions of production.

After the Second World War an industrial fermentation system was introduced, resulting in more safety in tobacco manufacturing. At the beginning of the 1950s hard droughts lowered tobacco production; the situation improved after some time, until the year 1960, when the disease called “*plamenjača*” (*Peronospora hyoscyami* f.sp. *tabacina*) made its appearance. The disease devastated tobacco production. In the year 1961 only 1,735 tons were produced; the yield was of only 423 kg per acre, which means that, other than in wartime, it was the lowest since known data was kept regarding tobacco production. However, thanks to the help of experts, the problem of *Peronospora hyoscyami* f.sp. *tabacina* was soon solved, and production was on the rise again.

After the Second World War the areas under tobacco were enlarged until the beginning of the 1970s, when stagnation and slow decline began. Analysis shows that in the first twenty years after the Second World War, production doubled and it yielded between 6 and 8,000 tons. However, quantities purchased in the local purchasing stations, were usually less, because firms from the neighboring republic would purchase 1,000 to 1,500 tons (Kurtović, 1977). The fact that production growth in the Herzegovina was not an increase (Table 4) of high quality tobacco can be seen in the information that, at the same time (1945-1970), the production in Macedonia increased above 5, and in Croatia and Serbia up to 5 times (Smoljan, 1999).

Table 4: Tobacco production in Herzegovina in the period from 1930 until 1980

Period	Yearly Average in Tons	Per cent of export
1930-1934	1478	47,8
1935-1939	2039	39,0
1957-1961	3415	19,0
1962-1966	2515	-
1967-1969	1305	-
1978-1980	2747	10,1

Source: Arhiv Hercegovine, Jelčić, 1981, 1953, Statistical Yearbook SR BIH(1976). Sarajevo: Državni zavod za statistiku, 455; Statistical Yearbook of FZS (1991). Sarajevo: Federalni zavod za statistiku, (1991), 465

The areas for tobacco cultivation were getting smaller but the average yield was increasing, which can be seen in the data of the 1960-1969 period, showing that 0,92 tons per acre was purchased, while in the 1970-1979 period 1,27 tons per acre was purchased. In the last decade the growth dynamics of production in Yugoslavia and Macedonia was faster, while in Herzegovina it was slower. At the same time, the role and meaning of Herzegovinian tobacco for export in the former Yugoslavia decreased in significance, since there was more interest in Virginia and Burley tobacco, which were not a dominant type in Herzegovina.

An important date in the Herzegovinian tobacco history is the annexation to the Sarajevo Tobacco Factory in 1967, which resulted in the opening of a plant for purchasing, manufacturing, and selling tobacco in Herzegovina itself. After the merger, sales were taken from the tobacco factories and the only remaining facilities were those for tobacco purchasing and manufacturing in Čapljina, Stolac, Široki Brijeg, Ljubinja, Ljubuški, Posušje, and Čitluk. The Grude facility joined the Zagreb Tobacco Factory. The importance of tobacco production in Herzegovina is seen in the number of cultivators, as follows (Figure 3).

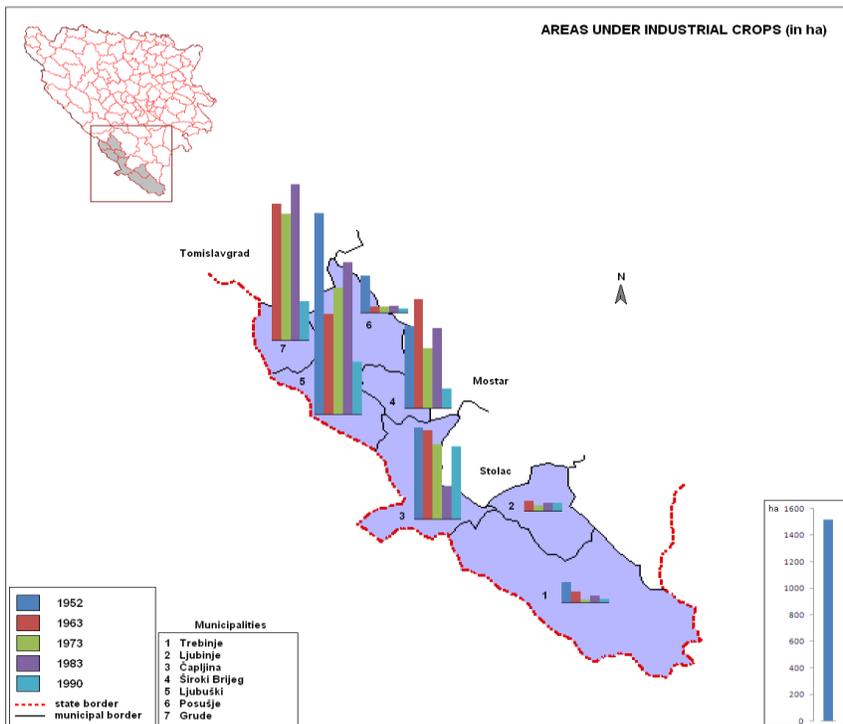


Figure 3: Areas under tobacco in socialist period

Source : authors

#### 4. Illegal trade – smuggling tobacco from Herzegovina

To write about the history of tobacco in Herzegovina, and not mention smuggling, would mean to render an incomplete picture. Smuggling was an integral part of tobacco history from its very beginnings. As early as 1676, Dubrovnik authorities issued an order that nobody could buy or sell tobacco in Ston except authorized persons (Kapor, 1953). From this we can conclude that there was smuggling of tobacco to Dubrovnik region from hinterland, especially Herzegovina.

As soon as tobacco cultivation started in Europe it became trade commodity. The authorities also immediately realized that they could receive great revenue so tobacco became a part of the monopoly system. Governments had the exclusive rights to produce and manufacture tobacco, as well as use tobacco and tobacco products for trade. Tobacco trade brought huge amounts of money for the state budget. The main reason for tobacco smuggling was monopoly's limitation on free sale of product and the subsequent considerable profits realized for smugglers. In addition, there was a great demand for tobacco since cigarettes from factories were very expensive, especially for the poorer population of smokers.

Massive smuggling started right after the occupation and remained all throughout the time of the Austro-Hungarian rule. However, smuggling was particularly intensive during the time of the Kingdom of Yugoslavia. In order to sell tobacco smugglers regularly traveled in groups of five to ten people, for several days, primarily at night, from north to Bosnia and even Slavonia (Alilović, 1976). Tobacco was also smuggled towards the south to Croatia, especially from the areas of Široki Brijeg, Grude, and Ljubuški. They would carry the cut tobacco in backpacks, and upon reaching their destination, they would get ten times more for the tobacco than the official purchasing price offered by the state. The sale was an important source of money for farmers in the mountain areas of Herzegovina. Massive smuggling started in the 1930s when the purchasing price of tobacco was at its lowest. According to the government, the smugglers were rebels, and they were considered to be state enemies. The government tried by all means to stop smuggling, so armed encounters between the state police and the smugglers were not an exception. Many smugglers and in some occasion policemen lost their lives.

Smuggling continued in socialist Yugoslavia as well, but the methods and ways were more sophisticated. Tobacco was transported in cars and by train. During that period many Herzegovinian men and women finished university studies thanks to smuggling "*škija*." There were many reasons for smuggling tobacco: First, there are reasons related to land use.

Tobacco requires a small planting area, divided into small plots and in some places it requires only the bottom of a sink-hole. The areas with soils suitable for planting in Herzegovina are very small. The average agricultural density was highest in Herzegovina with 139 field workers per acre of arable land.

Nowadays, the situation is almost the same in that sense, although both the number of inhabitants and the number of farmers have changed. The amount of arable land has also changed, because a large percentage of it became zoned for building. The fragmentation of properties is so extreme that an average property of 5,1 acres is made up of ten lots. Another reason is that in plots so divided, tobacco is attractive, since it can be cultivated independently from mechanical means. The third reason, again, is related to parceled out arable lands in Herzegovina. This means that a small amount of arable land does not offer enough area for the production of wheat, and the earnings from wheat were small.

Among other reasons, there was the economic profit, the certainty of purchase, and of getting cash for the product. This was almost unheard of at that time in Herzegovina. The paper "Narodna sloboda" Number 80 of October 4<sup>th</sup>, 1919, writes about that: "For 100 kg tobacco you could get 160-200 krunas, while 100 kg of wheat cost 12-16 or 20 krunas. On the field where there could be 100 kg tobacco, there was no way you could get 5 kvintals of wheat (500 kg) even with the best of crops. So, profit is the reason for planting tobacco." That's the way you manage arable lands: from the same size of land you get ten times more.

Although there had been smuggling of the tobacco from the area of Herzegovina even during the Ottoman rule, the real expansion began during the World War I, and it reached its peak in the time of Kingdom of Yugoslavia. As the purchase price of tobacco was low, in the 1930's the smuggling was often the only way to exist in the widest area of Herzegovina. How significant smuggling was for the ordinary people can be seen in the fact that it was practiced both by men and women alike, but very often even by minor children.

Tobacco smuggling was not an individual activity. Armed groups took the road, and the clashes and fights with the gendarmes and later the „*filanci*“ – the financial police, were a common occurrence. Two smuggling sources can be distinguished in the area of Herzegovina, both related to the area of Brotnjo and Bekija:

1. Zone of Široki Brijeg, with the villages Crna Lokva, Rujno, Ljubotići, Britvica, Crnač, Kočerin, Rakitno and Gornji Mamići, whose inhabitants practiced tobacco smuggling as their main occupation;

2. Zone of Bekija, whose villages Tihaljina, Cerov Dolac, Pogana Vlaka, Borajna and Ružići also recruited smugglers, who specialized in southern routes.

The smuggling routes had two basic directions: towards Bosnia and Slavonia in the north, and towards Dalmatia and Dubrovnik in the south.

1. The northern line had the main direction: Male and Velike Bile – Čabulja, Čvrstica, where the way branched into several directions:
  - a) The valley of Neretva – where partially the old, slow train “ćiro” was used to travel some railway sections. The train moved slow so it was easy to jump on and off if there was ever some sort of control.
  - b) Out of this branch the routes separate over Bokševica to the Zec Mountain and to Bitovnja. On this mountain, the routes branch off again: one branch leads to Travnik, and the other to Kiseljak. From Travnik the smugglers would head further to the north over Vlašić to Derventa.
  - c) The other branch went to the Vran Mountain and over Vučipolje, Oštrc, Ljubuša, Duboka Paklina and Vitorog led to Kalin and Rostovo, where it descended to the valley of Lašva and came to Vlašić. From there, one branch led to Motajica and Derventa, and other to Kozara and Banjaluka.

From Derventa the routes led to Slavonia, which is over SlavonSKI Brod and Đakovo to Osijek and Vukovar. The Banja Luka route had its extension over Gradiška to Zagreb (this part of the smuggling route got active again in the last war period for smuggling of goods and people).

2. The southern route of tobacco smuggling developed to several directions with the final destinations Split, Zagreb and Dubrovnik. Bekija traded primarily with Dubrovnik. A track of this route went (as said by a participant, Bora Šimović from Ograđenik, on January 13<sup>th</sup> 2015) from Bekija down to the village Tihaljina, mainly following the riverbed of Trebižat, then along the narrow gauge railway line to the old railway bridge in Čaplina, where it was again possible to jump on and off the slow train. The smuggling route went further through Hutovo and Ravno, and from there to Čepikuće or directly by railway to Dubrovnik and to Konavle. One group took the direction to Neum, where they were joined by smugglers from Gradac and wherefrom they went by forest paths to Bistrina (today's border of B&H and Croatia), and by night they would take boats to the peninsula of Pelješac, staying always with the same hosts, as said by Ivan Katić from the village of Gradac, municipality Neum (January 19<sup>th</sup> 2015).

2.a The group that went to Imotski and Split would move through the maquis and avoid villages, but stayed nearby Cerov Dolac, Pogana Vlaka, Borajna, Ružiči, and then moved through Croatia to Split over Zadvarje, Tigarice to Blato or branched off to Knin, using the narrow gauged railway.

2. b The system of cooperation was worked out into details. It was known exactly who goes to whom for sleeping and changing of clothes. Namely, the Herzegovinian smugglers came in their traditional costumes, and in order to move freely in the new environment, they would change into the local Croatian costumes. This saying is related to the host Stjepan Musa, village of Kuliješ, municipality of Kiseljak, who was visited regularly by Marko Vukoja from the village Ljubotići, municipality Široki Brijeg, all the way until 1961.

Vukoja would announce his arrival in a letter and Stjepan Musa would announce it in the local coffee shop, where he would practically receive orders for tobacco. Vukoja would never bring the bag full of tobacco into his host's home. He would store it in the gully of the local stream, in the bed, under big vessels, protecting that way his products and his host alike. The smugglers picked for their collaborators always those people whose houses were on the border of a forest and the arable, deforested land, for practical reasons: if there comes to a chase, it will be easy to hide in the forest. Anyway, one of the smugglers, Ilija Bošnjak from village Plug, municipality Široki Brijeg, was killed in the hamlet Batalovo Brdo, village of Rakovica, municipality Ilidža, and his grave is here to this date (saying by Marinko (Marko) Janjić, his house was attended by the deceased (January 9<sup>th</sup> 2015).

2.c Sometimes parents would use for smuggling their minor children, predominantly female. So Ivan Bulić from village Služanj in the municipality Čitluk put his daughter Jela (today living in Hadžići and wearing the name Zec) all wrapped in tobacco on the train to Sarajevo, where he had a sister.

After the University in Sarajevo was founded, there appeared new types of smugglers. Those were students who were sent off from their homes to their studies in Sarajevo with twenty kilograms of tobacco in their backpacks (saying of Jago Musa, professor, born in Široki Brijeg, January, 12<sup>th</sup> 2015). In Sarajevo they would pack the tobacco over to „shirt boxes“ and sell it over.



Figure 4: Position of the Musa family house with part of the smugglers' route from the mountain Bitovnja to Plješevac and Oštrik. The hamlet is located on the edge of the forest in the district of the village Kuliješ, municipality of Kiseljak  
Source: authors

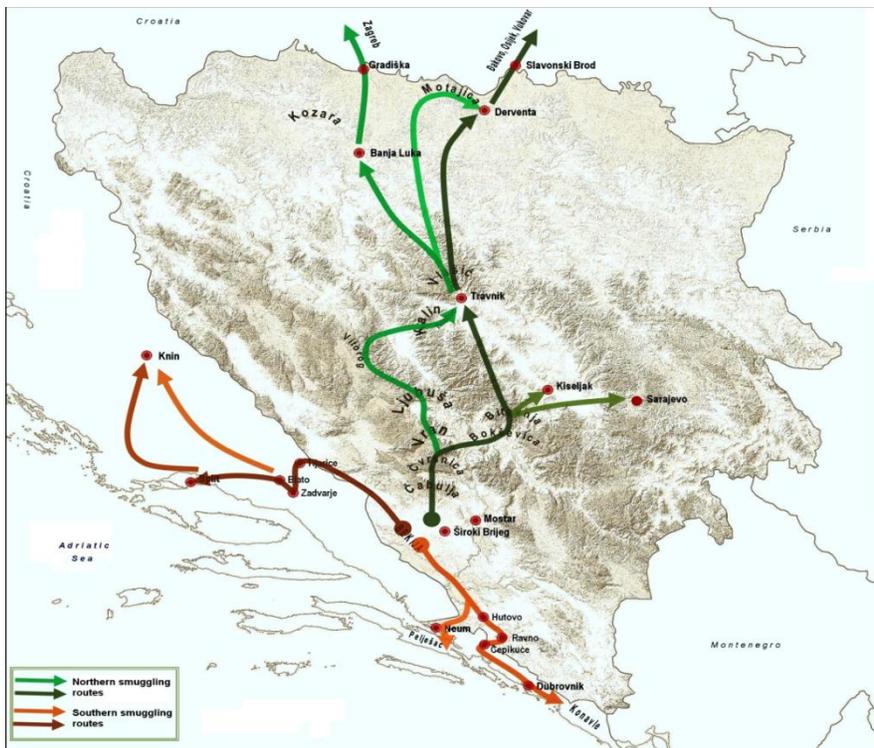


Figure 5: The main smuggling routes in southern Croatia and Bosnia and Herzegovina  
Source: authors

Modern smuggle of tobacco has its significance as well. We don't talk here about the global chains of tobacco mafia, but the local smugglers, who plant tobacco on large areas (40,000 plants), but only for a year. During that year a local tobacco factory starts working, sometimes only for a month. The cigarettes get counterfeited merchandise tags and design of a well-known cigarette brand and end up on the store shelves, where for an ordinary buyer it is usually impossible to distinguish them from the real product of a tobacco factory in Bosnia and Herzegovina or Croatia. Facilities for processing and manufacturing tobacco were the first industrial buildings in Herzegovina. In 1910 the tobacco industry employed the highest number of workers. The tobacco factory, in 1904, employed 1,133 workers, which is basically half of all those employed at that time in Herzegovina (Smoljan, 1995). However, that changed since hiring in the tobacco facilities went down, because there was more employment in other activities.

The Mostar Tobacco Factory was the first plant for tobacco production in Bosnia and Herzegovina. At the time it was opened in 1880, it employed 125 workers. Number of employees increased to 330 by 1910, and by 1918 it had declined to 286. Fermentation stations were built in Mostar, Trebinje, Stolac, Čapljina, Ljubuški, and Ljubinje, for the purpose of buying up and storing tobacco. All of Herzegovinian tobacco crop could be stored at those stations. The regional meaning of employment related to tobacco shows that the number of people employed in the so-called Herzegovinian Tobacco Production, represented even 43.1 per cent of all those employed in the Bosnia and Herzegovina tobacco operation. Mostar and Ljubuški have the factory with the majority of employed workers. By 1133 employed 320 was working in Mostar and 296 in Ljubuški (World Financial Direction in Sarajevo, 1888).

Until 1912, that number fell substantially to 572 workers, of which the Mostar Tobacco Factory employed 226, that is, 43.9 per cent of all employed in the Bosnian and Herzegovinian tobacco industry. This was an important fact to consider, since the location of production in a specific area was connected to big investments for the building of tobacco curing facilities. Women played an important role in the tobacco manufacturing factories. Mostly, they would work in purchasing, sorting, and organizing tobacco (the term used for these women was *vagarice*, coming from "weighing machines/scales"). Many times people would also use the terms *fabrikuše* (factory workers) or *seljankuše* (peasants) in an insulting way, considering them of less value than other women. These women worked as much as 14 hours per day. They would be fired without a reason; and they wouldn't have the right to retirement. Most frequently, they worked at the factory until they got married and, then, cultivated tobacco on their properties (Alilović, 1976).

## **5. Conclusion**

The article analyzes the historical and geographical characteristics and changes in the cultivation of tobacco in Herzegovina (part of the territory of Bosnia and Herzegovina) of the 17th century until the end of the 20th century. The aim of this article is to present the importance of tobacco in the economic and social valuing rural areas Herzegovina. Due to natural factors analyzed area can be divided into three qualitative areal: a western part of Herzegovina Neretva valley b c. Eastern Herzegovina. The research includes historical documents, from the second half. 19th century and statistical data on which they established four periods in the historical geographical valuing the culture of tobacco. The authors believe that the period of the Austro - Hungarian authorities, the most important in tobacco production, but also in social and economic development of rural areas. For that period are also linked the beginnings of industrial processing of tobacco and cigarette production.

Migration of rural population to the cities or in the countries of Western Europe, of the 1970s, fragmentation of land possessions, diseases tobacco adverse effect on agricultural production, which resulted in the marginalization of growing tobacco. In particular, it is necessary to research which will be based on the fact that tobacco smuggling occurred throughout the history of its cultivation in Herzegovina. The reasons for this are certainly to look for in an institution monopoly on the cultivation and sale of tobacco. This form of acquiring financial income in Bosnia and Herzegovina there are more than two centuries. This practice continues today. Smuggling has had its directions and specific routes. There are two main directions: towards Bosnia and Slavonia to the north and to Dalmatia and Dubrovnik in the south. The smugglers for their co-workers chose trusted people. As a rule, these were people native to the region where they come from smugglers. Also important was the location of the house that was used when the station: always have this house on the border of forest and agricultural land, and the selection was carried out for purely practical reasons: if it were to happen to chase smugglers can easily be hidden in the woods. Over time, it changed the way "smuggling" of tobacco. Having founded the University of Sarajevo, there are new smugglers. These were students who were with tobacco backpack on his back had to live for a month. In Sarajevo would tobacco repackaged and sold them "in boxes of shirts." Modern ways of smuggling tobacco have their flows. Here we are not talking about global chains tobacco mafia, but local smugglers who appear from time to time. Their financial stakes in the business is very large: first tobacco plantings over large areas (40,000 stalks), but only for one year. During that year, the local tobacco factory starts and remains open until a month or two. Cigarettes are packed; receive some well-known trademarks factories and ending on the store shelves, who knows where. There is for the average customer usually impossible to distinguish them from the original product.

## 6. References

- Alilović, I. (1976.): Duhan i život naroda u Hercegovini. [Tobacco and life of the people in Herzegovina] Zagreb: Hrvatsko književno društvo Sv. Ćirila i Metoda
- Bakula P. (1999): Hercegovina za 19 godina Ali-paše Rizvanbegovića. [Herzegovina for 19 years of Ali – pasa Rizvanbegovic] Zagreb: Zavičajna knjižnica Život i svjedočanstva, 51, 327.
- Bakula, P. (1970): Hercegovina prije sto godina; ili Topografsko-historijski šematizam franjevačke kustodije i apostolskog vikarijata u Hercegovini za godinu Gospodnju 1867 (Šematizam fra Petra Bakule). [Herzegovina hundred years ago; or Topographical and Historical schematism of Franciscan Custody and Apostolic Vicariate in Herzegovina for 1867 (Fr. Petar Bakula's Schematism)] Mostar: Provincijalat hercegovačkih franjevaca.
- Beljo, J., Benković, F. & Popović, K. (2002): "Gospodarski i socijalni aspekti proizvodnje duhana u Bosni i Hercegovini." [Economic and social aspects of tobacco production in Bosnia and Herzegovina] Znanstveni glasnik, 12, 45 – 57.
- Die Landwirtschaft in Bosnien und der Hercegovina. Sarajevo (1899): Landes Printing Press.
- Duhan u Bosni i Hercegovini [Tobacco in Bosnia and Herzegovina]. Mostar (1980): Duhanski institut Mostar,
- Filipović, S. M. (1963): "Sastav i porijeklo stanovništva." [Composition and origin of population] In Lepenica, priroda, stanovništvo, privreda i zdravlje. Eds. Ernest Grin. Sarajevo: Naučno društvo SR BiH, 209 – 235.
- Gornik, R. (1973): Oblagorodovanje na tutunot. [Processing of tobacco ] Prilep: Tutunski kombinat,
- Hercegovinian Archive; Mostar (1885): Glas Hercegovine, No. 32.
- Ikonovsk, A. (1970): Duvan u svjetskoj i jugoslavenskoj privredi. [Tobacco in World and
- Jelčić, S. (1981): Ekonomika proizvodnje duhana u Hercegovini. [Economy of tobacco production in Herzegovina], Sarajevo, PhD thesis.
- Kapor, A. (1932): Hercegovački duhanski tipovi. [Tobacco types in Herzegovina], Beograd: Državna Markarnica
- Kapor, A. (1953): Proizvodnja duhana u Bosni i Hercegovini, od prvih početaka do 1943. [Tobacco production in Bosnia and Herzegovina from the first beginnings until 1943.], Mostar: Udruženje poduzeća za otkup i preradu duhana Hercegovine
- Kapor A. (1956): Duhanska pokusna služba u BiH, Mostar. [Tobacco trial service in Bosnia and Herzegovina] Mostar: Udruženje preduzeća za otkup i obradu duvana "Hercegovina"
- Kraljević, R. (2006): Bosanska i hercegovačka vinogradarska baština (1800.-1878.) s uvodnim pogledom na bitna razvojna obilježja od završnih

- desetljeća XV. do konca XVIII. stoljeća [Viticulture heritage (1800-1878) in Bosnia and Herzegovina with an introductory view of the features of the development of the final decades of the 15<sup>th</sup> century until the end of the 18<sup>th</sup> century] Mostar: Agronomski fakultet Sveučilište u Mostaru
- Kreševljaković, H. (1940): "Iz prošlosti kahve i duhana u BiH" [From history of coffee and tobacco in Bosnia and Herzegovina] Sarajevo: Narodna uzdanica, VIII, 141 – 153.
- Krukl, J. (1867): *Das Osterreichische Tabakmonopol Und Der Ausgleich Mit Ungarn*. Wien: Carl Gerold's Sohn
- Krükl, J. (1870): *Die fremdländische Tabaksorten*. Wien: Carl Gerold's Sohn
- Kurtović, J. (1977): "Problemi unapređenja i plasmana hercegovačkih duhana" [Problems of improvement and placement of Herzegovinian tobacco] Mostar: Most, 12 – 13.
- Mijatović, B. & Rosić, M. (2006): *Tobacco and the Serbian State in the 19th Century*. Beograd: Centar za liberalno – demokratske studije
- Mulić, J. (2001): *Konjic i njegova okolina u vrijeme osmanske vladavine*. [Konjic and its surroundings during the Ottoman rule] Konjic: Općina Konjic
- Mulić, J. (2004): *Hercegovina 2*. Mostar: Muzej Hercegovine
- Narodna Sloboda, list za politiku, prosvjetu i gospodarstvo. Mostar: Hrvatska pučka stranka za Hercegovinu, 74 (1919).
- Narodna Sloboda (1919) list za politiku, prosvjetu i gospodarstvo. Mostar: Hrvatska pučka stranka za Hercegovinu, 80.
- Nikić, A. (2000): *Fra Didakova skrb za Hercegovinu – dokumenti*. [Fra Didak's care for Herzegovina – documents] Mostar: Franjevačka knjižnica i arhiv u Mostaru
- Odić, M. (1973): "Porijeklo i osobine sorte Stolac 17". [The origin and characteristics of a sort Stolac 17] In Simpozij o introdukciji i proizvodnji krupnolisnih duhana u SFRJ. Mostar: Duhanski institut Mostar
- Odić, M. & Jelčić, S. (1980): *Duhan u Bosni i Hercegovini od 1880. do 1979*. [Tobacco in Bosnia and Herzegovina from 1880 until 1979] Mostar: Duvanski institut Mostar
- Peez, C. (2002): "Mostar und seine Kulturekreise." *Crkva na kamenu*, 72, 88.
- Preissecker, K. (1914): *Der Tabakbau und ausbildung des tabaks zurn industriellen rohstoffe*, II band. Wien: Tabakregie
- Renner, H. (2007): *Durch Bosnien und Herzegovina kreuz und quer* (translation by Ibrahim Dizdar). Sarajevo: Dobra knjiga
- Report No. 19768 of October 16, 1881 (dealing with the beginnings of workers movement in Bosnia and Herzegovina). Sarajevo: World Financial Direction in Sarajevo (1878-1905), 335.
- Sjeran, N. (1970): *Priručnik za proizvodnju duhana sorte Veliki hercegovac*. [Handbook for production of Veliki Hercegovac tobacco type] Čapljina: Fabrika duhana Sarajevo, pogon Čapljina

- Sjeran, N. (1981): Utjecaj načina uzgoja i vremenskih uslova na produkciju i upotrebnu vrijednost duhana Veliki Hercegovac, na području Hercegovine. [Influence of growing and weather conditions on the production and use value of Veliki Hercegovac tobacco type in Herzegovina area] Mostar: Institut za duhan Mostar
- Smoljan, V. (1999): Poglavlja iz ekonomske historije Hercegovine IV. [Chapters in economic history of Herzegovina] Mostar:Gospodarska komora Herceg Bosne
- Smoljan, V. (1995): "Industrija Hercegovine do Prvog svjetskog rata" [Industry in Herzegovina until the First World War] In Hercegovina-godišnjak za kulturno i povijesno naslijeđe. Eds. Damjan Rotim. Mostar: Gospodarska komora Herceg Bosne, 10;2, 109-122.
- Statistical Yearbook SR BIH(1976). Sarajevo: Državni zavod za statistiku, (1976), 455.
- Statistical Yearbook of FZS (1991). Sarajevo: Federalni zavod za statistiku, (1991), 465.
- Thommel, G. (1867): Geschichtliche, politische und topographisch-statistische Beschreibung des Vilajet Bosnien. Wien: Verlag von Albert A. Wenwdikt, druk von Aleksander Eurich, 1867.
- Wilkinson, J.G. (1848): Dalmatia and Montenegro: with a journey to Mostar in Herzegovina and remarks on the Slavonic nations, the history of Dalmatia and Ragusa. London: J. Murray