

FOREST DEVASTATION AND ILLEGAL LOGGING – IMPEDIMENT TO DEVELOPMENT OF TOURISM

Nedo Danilović¹; Dragana Lazić²

Abstract

The paper focuses on forest devastation and illegal logging, as well as their detriments to tourism development, especially in terms of their incidence on the territory of the Republic of Serbia between 2009 and 2018. Two research issues that the paper deals with are: terminology distinction between deforestation and timber theft, and the analysis of ten-year occurrence of the criminal offences of forest devastation and illegal logging in the territory of the Republic of Serbia, as well as their impact on the development of the mountain and other types of tourism in Serbia. The purpose of the research conducted in this paper is to confirm the hypothesis that forest devastation and timber theft not only impair the ecosystem, but also significantly deter the development of tourism. There are two main findings in the paper: forest devastation and illegal logging affect the ecosystem, especially the flora, fauna, public health and the environment; the incidence of criminal offences of forest devastation and illegal logging affect the tourism and require wider engagement of all institutions and associations, as well as more stringent punitive measures for such offences.

Key Words: *devastation, theft, forest, criminal offences, tourism*

JEL classification: *K14*

Introduction

Forests are common goods that in addition to their economic functions also have an important role in maintaining quality environment. Their regular cultivation and restoration contribute to the maintenance of steady natural

¹ Nedo Danilović, Ph.D., Professor at Union University – the Faculty of Law and Business Studies, Knez Mihajlova 33, Belgrade +381 63 261 761, e-mail: danilovic.nedjo@gmail.com

² Dragana Lazić, Ph.D., Assistant Professor, Faculty of Social Sciences, Business Academy, 2a Bulevar umetnosti, Belgrade, +381 64 00 57 422, e-mail: dragana1908@yahoo.com

balance in the environment that enables all living beings to have a normal functioning.

Forests cover one third of the Earth's land surface. They provide habitat for at least 80% of plants, animals and insects. They are one of the main means to combat climate changes since they balance the air content by capturing carbon dioxide resulting from human activities and then converting it into oxygen.

The study conducted by the World Health Organization in July 2014 demonstrated that trees save 6.8 bn US dollars in the health care expenses per year solely in the USA. It has been scientifically confirmed that eliminating the air pollutant through leaves led to the prevention of 850 deaths and 670,000 cases of acute respiratory symptoms in 2010 (World Health Organization, 2019). For the sake of humankind preservation, such and alike scientific research should be institutionalized on global, regional and national level, and continuously conducted with clear recommendations as to the numbers and sorts of trees to be planted in certain parts of the world.

The Centre for Global Development (CGD) in Washington, by means of satellite data of more than 100 countries, estimated that 289 million hectares of forests worldwide will have been felled by 2050. If such devastated and barren areas are not systematically forested with new trees, the Earth's ecosystem will be put at risk, and the impact on people's health and wildlife will be immeasurable.

The fact that the forests and trees, as well as the rest of the wildlife living inside are invaluable is clear based on several facts presented in this paper's introduction. However, the purpose of this article is not only to provide with data, but, by means of a sample of representative evidence, to scientifically indicate the value of forests for the ecosystem and sustainability of humankind and its wildlife on one hand, and to warn the scientific, professional and wider community of the threat of uncontrollable legal and illegal logging, cutting and devastation that has a detrimental effect on the entire ecosystem, on the other.

Global forest devastation affects regional and local levels as well. Similar circumstances can be seen in the Republic of Serbia. According to the data from the Programme of the European Union regarding the prototype project of compiling, coordinating and ensuring the consistency of information on the state of the environment and the natural resources in the EU (CLC -

Corine Land Cover)³, the area of the Republic of Serbia under forests is 2,880,000 ha which accounts for around 32%.

The area of Central Serbia under forests is 2,200,000 ha or around 39% of its territory. Vojvodina has around 151,000 ha of forested land, which accounts for around 7% of its territory. Area under forests in Kosovo and Metohija is about 531,000 ha, which accounts for around 48% of its territory. The most common type of forests in the Republic of Serbia is a hardwood forest covering 2,068,418 ha, then a mixed forest covering 116,118 ha, and finally a softwood forest covering 81,797 ha.

According to the data of the national database (CLC), "the overall forested area in Serbia is 2,360,400 ha, which makes for the woodenness of 26.7%, which is slightly below the average woodenness in Europe. The state-owned land under forests, managed by public enterprises is 1,375,553 ha, which makes for 51.4% of the area under forests and forestland in Serbia. The remaining forest areas are managed by private owners, other public enterprises and national parks. When it comes to the overall forest fund, the broadleaved trees account for 90.7 %, conifer trees account for 6 %, and mixed forests of broadleaved trees and conifers for 3.3%." (Nonić et al., 2017, p.11-12). Epistemologically, these facts are deemed as alarming, and as catastrophic and unacceptable from the social point of view.

Based on the above statistical data, it is more than obvious that the status of forests in Serbia is unsatisfactory. It is featured by the following: "insufficient production inventory, unfavourable age structure, unsatisfactory coverage and woodenness, unfavourable stand of trees – high percentage of discontinued stands and weed growth, unsatisfactory health of forests" (Nonić et al., 2017, p.11-12), etc. If this is supplemented by uncontrolled cutting, timber theft and forest devastation resulting from harsh economic circumstances and the increased need for the products and services from forests, as well as institutional inefficiency in adapting to global and regional changes in this sector, then we can take a broader look at the alarming state in this sector and understand the need for urgent long-term, mid-term and short-term measures to improve the existing conditions.

³ The EU Programme on 'prototype project of compiling, coordinating and ensuring the consistency of information on the state of the environment and the natural resources in the community'

Definition of forests

In compliance with the positive regulations of the Republic of Serbia (The Law on Forests, 2018), *a forest* means an area covered with forest trees of at least 5 acres, with the minimum ground coverage with crowns of trees accounting for 30%. A forest also means all young natural and planted stands, as well as temporarily uncovered areas due to human actions or natural reasons that are intended for natural reforestation or forest plantation. In addition, *a forest* implies forest nurseries, complex forests and seed plantations that serve as protection areas under trees, covering more than 5 acres.

Parks in inhabited places, trees under or along the power transmission lines, notwithstanding the area they cover, are considered as forests.

Special-purpose forests are protection forests, forest for conservation and utilization of gene pool of forest trees species, forests for conservation of gene biodiversity, species, ecosystems and regions, forests of significant aesthetic value, forests relevant for people's health and recreation, forests relevant for education, forests of scientific and research activities, forests of cultural and historic relevance, forests for the country's defence, forests of specific needs for state authorities, forests of other specific purposes.

The term *clear cutting* is a harvesting and regeneration method that removes all trees from a given area while the term *devastation* of forests is an illegal activity that reduces the fertility of forest land (yield strength), thereby endangering or hindering the sustainability of forest production or growth on that land, or endangering the survival of forests and their common-use function (i.e. harvesting on a larger scale that is very close to clear cutting or deforestation; or excessive or high-intensity logging, bark stripping, and any other action that may cause weed growth and soil erosion by wind or water).

Forests have a public benefit function. Such public benefit functions are general protection and improvement of the environment thanks to forest ecosystem, conservation of biodiversity, conservation of forest tree and other types of tree gene fund in the forest community, reduction of the harmful effect of greenhouse gas emissions by capturing carbon dioxide and releasing oxygen and biomass, purification of polluted air, maintenance of water balance and prevention of torrents and floods, water purification, supply and protection of ground waters and water sources,

protection of soil, settlements and infrastructure from erosion and landslides, contribution to people's health, favourable effect on the climate and agriculture, aesthetic function, provision of areas for rest and recreation, development of hunting, rural and ecological tourism, noise protection and support in country defence and development of local communities.

In addition to the above mentioned, and for the purpose of further understanding this paper, it has to be underlined that there are five areas in total in the Republic of Serbia with the status of *a national park* given as follows: National Park Fruška gora, National Park Đerdap, National Park Tara, National Park Kopaonik and National Park Šar planina (The Law on National Parks, 2018).

Significance of forests and their impact on tourism

Based on the National Tourism Development Strategy for the period 2006 – 2015, it can be inferred that the overall contribution of tourism to GDP in the Republic of Serbia in 2015 accounted for 6.4%, that the tourism directly contributed to GDP by 2.2%, that the tourism and hospitality services accounted for 30,000 of the newly employed, that there are around 157,000 newly employed individuals in tourism and associated practices, that 'the invisible export' accounts for around 7.3% of the overall export in the Republic of Serbia, and finally, that all investments into the tourism in 2019 accounted for 4.1% of the overall investments in the Republic of Serbia. The Ministry responsible for tourism in the Republic of Serbia adopted a number of legal acts and took a number of activities in order to improve this sector, which is visible in the results that are getting better year after year (Danilović & Lazić, 2019). This is also supported by the preparation of the new Tourism Development Strategy for the period 2016-2025 for the Republic of Serbia. It is estimated that tourism accounts for more than 9% of the overall gross domestic product worldwide, and that every eleventh employee is actually employed in tourism-related industries. The advantages of developing this branch of industry are in developing new workplaces and positively affecting the development of economic policies (Danilović & Lazić, 2018).

Unfortunately, the number of those who take the natural wealth for granted and do not notice their contribution to tourism altogether is still high. How important are forests to us? Trees as a source of energy are a necessity. There are a lot of trees species worldwide whose redemption, as the only

way to be restored, requires hundreds of years. This is why we need to pose a question if clear cutting is necessary. Recently, there has been an increase in deforested areas for several reasons, with the paper production and provision of construction material as the primary one. Another reason would be provision of land for construction of new residential blocs and hospitality facilities, or the extension of the existing ones. This means that the economy takes over the nature and wildlife.

However, whatever report on tourism we analyse, we can notice that Zlatibor, Kopaonik and Tara are among the most frequented destinations in Serbia. These are closely followed by other mountains in Serbia, and spa and rural tourism as well. This results from the fact that city dwellers want to escape busy city life and go somewhere where they can enjoy clear air, greenery, long walks, doing sport in nature, but also to get away from noise. All of this can be found in forests and among the trees inside. National parks are usually not the leading tourist attraction of a country. However, in countries where eco-tourism is not merely a marginal activity serving to finance the environmental protection, but the key strategy in the national economy, national parks can become a tourist attraction and an appealing destination. We can take Tanzania as an example as it has a multitude of national parks and is a very popular destination among nature lovers.

Forests are a natural resource of capital that provides for but also requires sustainable development, ensuring new green workplaces, and creating and launching innovative tourism products and services, especially in well-being tourism⁴ (Konu, 2015). Bearing in mind the significance of forests as a natural source of capital, it is necessary to have a continuous study of the impact of forests on humans from a natural, biomedical, social and humanistic, as well as technical and technology points of view. Regardless of the fact that forests have a therapeutic effect and stand for a natural pharmacy offering abundance of food stuff, it is obvious that there is insufficient number of scientific research that would serve to create useful production programmes (Nilsson et al., 2011, p.8). In order to improve forest touristic products, it is necessary to organize interdisciplinary research of their development and make a connection between the findings in various scientific areas, disciplines and professions. With such offer, which could be labelled as forest tourist offer, any tourist destination rich

⁴ Well-being tourism is a free activity of tourists who, for their personal satisfaction, health and spiritual practice, personal well-being and welfare choose to travel to destinations that provide for a wide range of such services.

in forests can gain a significant competitive advantage. As a result of all the above, it would be justified to consider all realistic requirements of well-being tourism development. The term of well-being tourism stemmed from the concept of wellness and comprises physical and mental well-being. This area of tourism that has been developing since the 1990s, is focused on the increase and advance in the consumers' welfare. Well-being tourism is a branch of health tourism although there are authors who do not differentiate between the concepts of well-being and wellness tourism (Cvikl, 2016).

Devastation of forests as criminal offence

Forest devastation as a criminal offence is stipulated by Article 274 of the Penal Code of the Republic of Serbia in the section referring to the environmental protection. According to this code, forest devastation is any act that is not in compliance with the regulations or orders of competent authorities, and which entails the instances of clear cutting, deforestation, tree damage, or any other devastation of trees, felling of one or more than one trees in a park, tree line, or another location where logging is strictly forbidden. The law prescribes either fines or imprisonment up to one year as coercive weapon in case of any of the above offences.

This criminal offence can have more severe consequences and, as a result, severe sanctions. Accordingly, positive criminal regulations stipulate that any forest devastation in protected forests, national park or any other special purpose forest will be penalized by three months to three years of imprisonment.

The act of this criminal offence entails deforestation or clear cutting on one hand, or any kind of damage or devastation of trees on the other. Such activities exclude any actions approved by the state and taken for the benefit of forest community. The notion of clear cutting or forest degradation entails well-known and easily comprehensible actions. However, a dilemma rises in case of devastation of forests which basically entails any action that endangers the survival of forests and their beneficial functions such as bark stripping, destruction of tree groves, cutting of rare groves and so on (Stojanović, 2019).

The criminal offence of illegal logging exists in cases when a single or more trees are felled in parks, lines of trees or any other places where this is forbidden. The analysis of the above shows that it is not necessary that a

tree is felled, destroyed or damaged in similar ways in a forest, but other areas as well. Indeed, an aggravated form of such offence exists when committed in a protected forest, national park or any other special purpose forest. In terms of culpability, it is necessary to confirm each perpetrator's premeditation and awareness that this is the case of a protected forest, national park or a special purpose forest.

Illegal logging as criminal offence

Chapter 24, Article 275 of the Criminal Code of the Republic of Serbia, as part of criminal offences regarding the environmental protection, defines timber theft as a criminal offence. The Code defines the perpetrators of theft as whoever fells one or more trees in a forest, park or avenue of trees and the quantity of timber exceeds one cubic metre. In case of such criminal offence, the offenders can be punished by a fine or imprisonment up to one year (Criminal Code, 2019).

More serious form of the above offence is a timber theft with the intent to sell the felled trees, or if the quantity of the felled trees exceeds five cubic meters, or if the offence is committed in a national park, protected forest or other forest intended for special purpose. Punishment for such offences can be a fine or imprisonment up to three years.

In the light of the importance of these criminal offences, both in terms of the environmental protection and human survival on the Earth, the legislator assumed punishment even in case of the attempt of these offences. Thus, it is not necessary to commit the entire offence in order to be found guilty and to be appropriately sanctioned.

Opinions in legal references are divided on the issue of these offences, and thus pose a question as to why these thefts are different from all the other types of theft, and singled out as a separate criminal offence. This means that all other types of theft make another group of criminal offences and are given under to a single concept, while this type of theft has a special place in the Code and professional references. For instance, if an individual appropriates any trees in a forest that had already been felled, this would be deemed as a common theft, but not as a criminal offence of illegal logging. The instance of the above criminal offence entails the instance of felling one or more trees for the purpose of theft. Felling entails tree cutting, i.e. its separation from the root. In addition, felling also entails the removal of trees together with the root. Therefore, the legislator decided to take a

wider, that is, more extensive approach to considering such a criminal offence.

In order for the criminal offence to exist, the quantity of felled trees has to exceed one cubic meter, and there has to be an intention to, by doing so, ensure illegal proceeds (Stojanović & Delić, 2013). Such criminal offence exists even if the perpetrator did not have the intention to sell the trees, but to use them to produce items intended for selling. Such criminal offence will be deemed as an aggravated case if the quantity of felled trees exceeds five cubic meters or in case of a smaller quantity (less than one cubic metre) but if this occurs in the area of a protected forest, national park or any other special purpose forest (e.g. in a mine area on tailings). Whatever the case, it should include a perpetrator's premeditation. This means that the offender has to be aware either of the quantity of felled trees, or the area where it occurs, or to have the intention to obtain proceeds by committing such acts.

This poses a question how to react in cases when the quantity of felled trees is less than one cubic metre, and if this should be punishable. The answer is yes, but with a slight difference. If the quantity of felled trees is less than one cubic metre, than this will not be considered as a crime, but as a misdemeanour (The Law on Forests, 2018) in case of which the punishment is a fine between 10,000 and 100,000 dinars.

Besides the statutory criminal sanctions, either as fines or as imprisonment, there is also an issue if the felled trees are to be impounded from the offender on the basis of precautionary measure of seizing the items, or on the basis of impounding unlawful proceeds. This dilemma was resolved by the Supreme Court of Cassation of the Republic of Serbia in the decision to protect the lawfulness Kzz. 16/04 when it took a stance that this is the case of impounding the proceeds resulting from a criminal offence.

Research findings on criminal offences of forest devastation and timber thefts in Republic of Serbia between 2009-2018

Bearing in mind the main subject of this paper, it is now necessary to point out that tourism development in the Republic of Serbia and worldwide is significantly hindered by forest devastation and timber thefts that are generally in legislation treated as a special group of criminal offences.

The biggest problem underlying any types of crime is the fact that is usually followed by either ‘dark statistics’ or a ‘negative correlation’ in a number of reported, accused or convicted persons. If crime is followed by a ‘dark statistics’, it means that these criminal offences are difficult to reveal and prove, which directly points at the incapacity of state authorities to reveal and prove certain criminal offences including forest devastation and timber theft. Hence, this statistics is usually invisible. The negative correlation, on the other hand, is visible, and represents the number of acquitted individuals that were found not guilty and subject to injustice and harm by being accused or convicted, or even imprisoned. In addition, the negative correlation also refers to the release of reported or accused individuals when their criminal liability has not been proven so that the competent court arrived at the verdict of acquittal. Follow-up effect of the negative correlation between the reported, accused and convicted persons for the instances of forest devastation and timber theft mean loss of credibility of judicial authorities, increase in public spending due to reimbursement of persons subject to injustice and wrongdoing. This in particular is the reason to pay due attention in this paper to the establishment of this negative correlation between the reported, accused and convicted persons for the instances of forest devastation and timber thefts in the Republic of Serbia in ten-year period between 2009 and 2018.

In the course of epistemological analysis of the negative correlation between the reported, accused and convicted persons for the instances of forest devastation and timber thefts in the Republic of Serbia, we systematized the official data from the Statistical Office of the Republic of Serbia in order to confirm or revoke the initial hypothesis that in the ten-year observed period such negative correlation actually exists, which is, for the purpose of better understanding, illustrated both in tables and charts below.

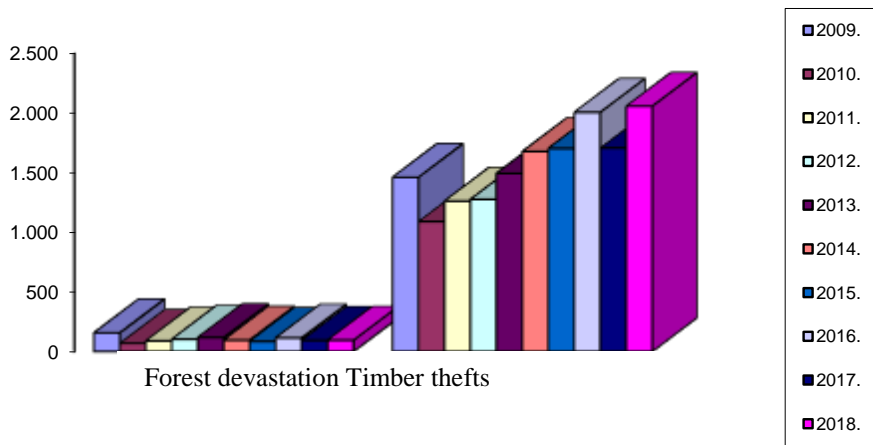
Table 1: *Number of reported persons of age for criminal offences of forest devastation and forest thefts in the Republic of Serbia 2009 – 2018.*

| Year | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|--------------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Forest devastation | 157 | 69 | 89 | 103 | 118 | 96 | 85 | 114 | 93 | 95 |
| Total: | 1,019 | | | | | | | | | |
| Timber thefts | 1.462 | 1.090 | 1.262 | 1.276 | 1.494 | 1.678 | 1.704 | 2.007 | 1.707 | 2.058 |
| Total: | 15,738 | | | | | | | | | |

Source: *Authors*

By means of quantitative analysis method of the content of Table 1 on the number of reported persons of age for criminal offences of forest devastation and timber thefts in the Republic of Serbia 2009 – 2018, it can be inferred that this number in the ten-year period fluctuated with a slight upward trend.

Chart 1: *Number of reported persons of age for criminal offences of forest devastation and forest thefts in the Republic of Serbia 2009-2018.*



Source: *Authors*

Based on the data in Table 1 and Chart 1, it is noticeable that in the period between 2009 and 2018 in the Republic of Serbia there was a higher frequency in committing timber thefts than in case of forest devastation, which was expected. In the observed period, in terms of yearly average, the criminal offence of forest devastation was reported 102 times, while the criminal offence of timber theft was reported 1,574 times. This means that timber thefts were reported 16 times more often than forest devastation, which was an expected result. The highest number of reported persons of age for the criminal offence of forest devastation was in the first year in the observed period whereas in the following year in the observed ten-year period this number was the lowest. In all the other years in this period, the number of complaints of this criminal offence was near the yearly average with a slight upward trend.

The highest number of timber theft offenders was in the final year of the observed period, which is a devastating result in terms of proclaimed Government policy on taking comprehensive measures to combat crime in general. On the other hand, we can state with certainty that the Republic of

Serbia is working on a daily basis to improve the standard of living, to upgrade its legislative framework, and to raise the citizens' awareness of the importance of the healthy environment. Although numerous measures aiming at the prevention of environmental pollution have already been taken (e.g. the use of non-biodegradable plastic bags was limited and banned), the people's awareness of the importance and value of natural resources is not on a high level. Similar phenomenon appeared in 2016 when there was a significantly higher number of individuals was reported for this criminal offence than in the other observed years. There was also an annual upward trend in the number of the reported offenders. This, naturally, leads to a question – Why? The answer directs at only two possibilities. It either means that the state authorities have become more efficient and, thus, have better results in discovering criminal offences and, consequently, more frequently report the offenders, or the awareness of people of the importance of forests is at a very low level, and, hence, they unreasonably destroy this natural resource having only their own interest in mind. The lesson learned in the observed ten-year period is that only one portion of such unlawful conduct is discovered and reported. The analysis that follows will show which of these two options is more possible.

Table 2: *Number of the accused persons of age for forest devastation and timber thefts in the Republic of Serbia 2009-2018*

| Year | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|--------------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Forest devastation | 77 | 38 | 36 | 49 | 29 | 62 | 46 | 37 | 31 | 29 |
| Total: | 434 | | | | | | | | | |
| Timber theft | 787 | 766 | 417 | 421 | 853 | 721 | 631 | 511 | 517 | 473 |
| Total: | 6,097 | | | | | | | | | |

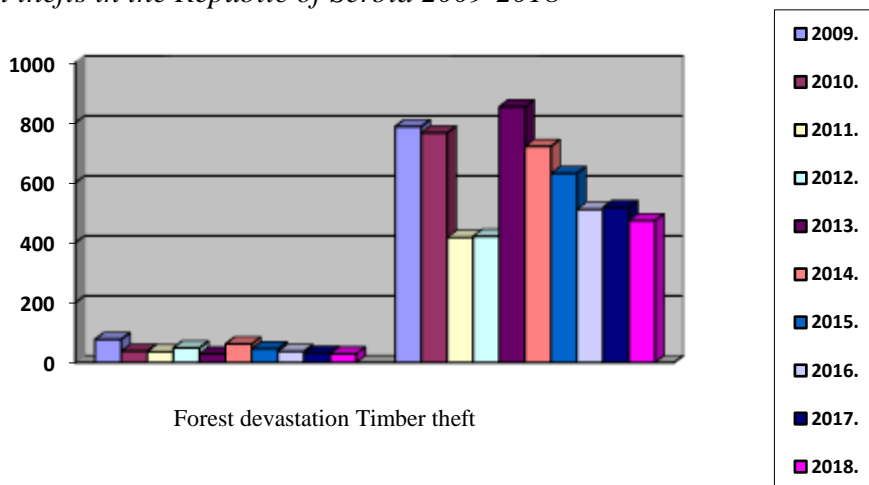
Source: *Authors*

In comparison with the total number of the reported persons for the criminal offence of forest devastation of 1,019 and the number of the reported persons for the criminal offence of timber thefts of 15,738 in the period between 2009 and 2018, the number of the accused persons of age for committing the act of forest devastation in the same period was 434 or 42%, and for committing the act of timber theft was 6,097 or 39%, which can be seen in Table 2.

The highest number of the accused for forest devastation was in the years of 2009 and 2014, while in case of timber thefts in the years of 2009, 2013 and 2014. In other years, this number was close to the annual average number of the accused persons, with the perceived downward trend in the

number of the accused compared to the number of the reported, which is not correlated with the established policies in the strategic documents on crime combating and deterrence.

Chart 2: *Number of the accused persons of age for forest devastation and forest thefts in the Republic of Serbia 2009-2018*



Source: *Authors*

In order to get a wider perspective and make impartial conclusions, it is necessary to look at the final stage of the criminal proceedings, i.e. the condemnatory judgements for the observed criminal offences.

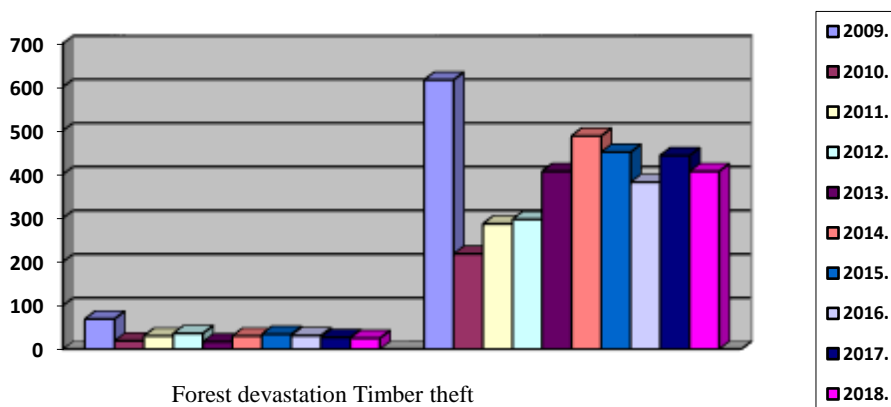
Table 3: *Number of convicted persons of age for forest devastation and forest thefts 2009-2018 in the Republic of Serbia*

| Year | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|--------------------|--------------|------|------|------|------|------|------|------|------|------|
| Forest devastation | 69 | 19 | 30 | 36 | 17 | 30 | 34 | 31 | 27 | 25 |
| Total: | 318 | | | | | | | | | |
| Timber thefts | 616 | 218 | 287 | 297 | 407 | 488 | 451 | 382 | 443 | 407 |
| Total: | 3,996 | | | | | | | | | |

Source: *Authors*

In comparison with the total number of 434 accused persons of age for forest devastation in the observed period (2008–2019), in 318 or 73% cases there was a legally binding conviction. The statistics is much worse in case of timber thefts, where, in the same period, only 3,996 out of 6,097 or 65.54% of the accused persons of age had a legally binding conviction of the competent courts (Table 3).

Chart 3: *Number of convicted persons of age for forest devastation and forest thefts 2009-2018 in the Republic of Serbia*



Source: *Authors*

Further epistemological analysis indicates that the competent courts in the entire territory of the Republic of Serbia made 32 condemnatory judgements on average for persons of age for the criminal offences of forest devastations per year. At the same time, the courts made 400 condemnatory judgements on average per year for criminal offences of forest thefts. The biggest number of condemnatory judgements for persons of age was made in 2009, and almost half as many in the years of 2010, 2011 and 2012. A lower number of convictions was made during political changes in the Republic of Serbia, which has been perceived by other researches as a regular pattern that should be considered by the administrative sectors in in the judicial system, especially in courts and public prosecution offices.

Conclusion

The purpose of comprehensive research data in this paper was to reach the solutions to two key issues associated with the importance of forests in terms of the preservation of ecosystem, and related hazards arising from the adverse effect of devastation and destruction of forests on the environment, tourism, and the health of people on the Earth in general.

One of the relevant findings in this paper is that the Republic of Serbia obtains the appropriate system of categorizing and defining forests, and, thus, that there are no dilemmas in defining the basic terms associated with forests, forest ground, national parks and the understanding thereof. In addition, the regulatory framework covering the entire area of forests, and

which is in connection with forests, with minor exceptions, is in compliance with the regulations of the developed of EU Member States. The biggest issues arise in the consistent exercise of regulations and inefficiency of the judicial system in terms of the implementation the existing regulations. This results in a perceived considerable need for the legislative, executive and judicial branches to coordinate their work on harmonizing and upgrading the normative regulations that treat the issue of forests through the standards accepted by the developed EU Member States.

A special segment of this paper is devoted to the description and scientific explanation of the importance of forests in terms of the entire ecosystem preservation, and the impact of the existing forest devastation and destruction on the environment, public health, and especially tourism and touristic offer in the Republic of Serbia. Although a lot has already been done in this field, there is more than enough to be achieved on national, regional and local level in order to have considerable advances in the existing state of forest management and husbandry. Besides the need for harmonizing normative and legal framework in this area with the standards of the developed countries in Europe and worldwide, there is a need to have a significant improvement in the marketing of mountain tourism, especially when it comes to recreational tourism in parks, forests and mountains. In addition to improving the marketing, educational system and work with children should be utilized to raise the awareness of the importance of preserving parks and forests, radical recovery of forest groves, and quality maintenance and treatment of the existing forests. Strategic, regional and local levels of authorities in Serbia should ensure higher investments into parks and forest infrastructure, offer new innovative contents to attract tourists, develop the system of professional and volunteering monitoring services that would maintain the cleanliness and accessibility to forest area on the entire territory of Serbia.

The Republic of Serbia also has to overcome the challenge of increasing accommodation capacities and improving their quality without harming the greenery and wildlife. It is especially important to work continuously on promoting national parks and their beauty in order to encourage majority of citizens to spend their holidays in Serbia. The prime challenge in further development of mountain, spa, river and rural tourism in the Republic of Serbia, both in summer and winter periods, should be to expand the versatility in quality organic food that our country has in abundance.

A considerable portion of this paper deals with the issue of destroying a crucial part of mountain tourism – by timber theft and devastation. The research findings in the paper confirmed the initial hypothesis on negative correlation and inconsistency between the numbers of reported, accused and convicted citizens of age for criminal offences of forest devastation and timber thefts. Based on the exact results of conducted analysis of the content of documents filed for the past ten years in the judicial authorities of the Republic of Serbia, it has been confirmed that in terms of the criminal offence of forest devastation, on average, 102 citizens of age were reported, the official charges were filed only in 44 cases, and legally binding condemnatory decision was made for 32 persons of age. These exact indicators show that 30% of reported instances of forest devastation are never processed. In respect to timber thefts, this criminal offence was reported 1,574 times per year, with 615 charges and 400 condemnatory judgements. It can be, thus, concluded that the average of 25% of reported cases of timber thefts are never processed, which is a disastrous fact that indicates the inefficiency of the judicial system in the Republic of Serbia.

The circumstances are even more complex in view of the overall analysis of the official sentences for criminal offences of forest devastation and timber thefts. For instance, in the last analysed year (2018), 25 persons of age were officially convicted of the offence of forest devastation, of which, only one person was sentenced to 3 to 6 months of imprisonment, nine persons were fined, and 15 persons had a suspended sentence.

On the other hand, out of 407 persons convicted for the criminal offence of timber theft in 2018, 37 were officially sentenced to imprisonment (majority of them to 3 to 6 months of imprisonment), and 66 were fined between 10,000 and 100,000 dinars. As in case of other criminal offences, this offence also has the highest number of suspended sentences – for 304 individuals.

Such chaotic punitive policy indicates the urge to change and amend legislative measures and to have concrete punitive sanctions. The research findings unambiguously confirmed that it is necessary to change regulations in the field of criminal sanctions, and in case of criminal offences of forest devastation and timber thefts, to have more stringent punishments, and then to harmonize coercive policy of the courts with such changes.

Stringent coercive policy for these criminal offences would contribute to lower number of cases of forest devastation and timber thefts, which would have a positive effect on better forest management and husbandry, as well as tourism development in Serbia.

References

1. Cvikl, D. (2016). Forest well-being tourist product: The case of shinrin-yoku, Obedska bara, Srbija. *Turističko poslovanje*, Vol. 18, 99-107.
2. Danilović, N., Lazić, D. (2018). Environmental pollution as an obstacle to tourism development. *TISC - Tourism International Scientific Conference Vrnjačka Banja*, Vol. 3, No. 2, 452-471.
3. Danilović, N., Lazić, D. (2019). Corruption and corruption offences in tourism. *TISC - Tourism International Scientific Conference, Vrnjačka Banja*, Vol. 4, No. 1, 663-681.
4. Konu, H. (2015). Developing a forest based wellbeing tourism product together with customers – An ethnographic approach. *Tourism Management*, Vol. 49, 1-16.
5. Nilsson, K., Sangster, M., Gallis, C., Hartig, T., Sjerp, V., Seeland, K., Schipperijn, J. (2011). *Forests, Trees and Human Health*, Springer, New York.
6. Nonić, M., Nedeljković, J., & Nonić, D. (2017). Strategic and legal frameworks for conservation of forest genetic resources in Serbia. *Selekcija i semenarstvo*, Vol. 23, No. 1, 11-26.
7. Stojanović, Z. (2019). *Comment on Criminal Code*, Official Gazette, Belgrade.
8. Stojanović, Z., Delić N. (2013). *Criminal Law – general part*, Law reference book, Faculty of Law, University of Belgrade, Belgrade.
9. The Criminal Code, *Official Gazette RS*, No. 85/2005, 88/2005 - corr., 107/2005 - corr., 72/2009, 111/2009, 121/2012, 104/2013, 108/2014, 94/2016 and 35/2019.

10. The Law on Forests, *Official Gazette RS*, No. 30/2010, 93/2012, 89/2015 and 95/2018 – other law.

11. The Law on National Parks, *Official Gazette RS*, No. 84/2015 and 95/2018 – other law.

12. World Health Organization, (2019), <https://www.who.int/publications/> (10 December 2019).