**Geography of Environmental Crime in Albania-Damage, Cutting and Burned of Forests**

Engjellushe Zenelaj¹*, Myzafer Elezi²

¹Department of Education, “Ismail Qemali” Vlora University, Vlore, Albania
²Department of Justice, “Ismail Qemali” Vlora University, Vlore, Albania

*Corresponding author: enxhizenelaj@gmail.com

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**Abstract**

Despite talk about the importance of the environment more and more problems are always present. After 1990, Albania is constantly faced with numerous environmental problems. Their origins, as a result of various causes, have brought major negative impacts, the recovery of which will require more time and more financial cost. Forests are the lungs of the world, and their role in our life is irreplaceable, but human consciousness forgets this concept, and constantly undermines them. Burning and illegal cuttings in order to obtain immediate and unlawful benefits only for a certain group of individuals are serious environmental crimes which are massively widespread in Albania. The aim of the article is to present a comprehensive environmental crime in Albania, its geographical distribution, but stopping the longest regarding environmental crimes related to illegal cuttings or burning of forests.

**Keywords:** environment law, environment crime, illegal cutting, burning of forest


**1. Introduction**

In Albania, environmental protection is sanctioned by law, and therefore mandatory for every resident, for all state authorities, as well as physical and legal persons, domestic and foreign, that operate in the territory of the Republic of Albania.

According to national legislation "environmental protection" includes activities aimed at preventing and limiting pollution, environmental degradation, updating, maintaining and improving it.

"Environmental damage" is the destruction of the physical, chemical and structural natural ecosystem, reduction of biological diversity and of natural and anthropic ecosystems, destroying the ecological balance and quality of life mainly caused by pollution of water, air, land of human activities or natural disasters, as well as the exploitation of natural resources and mineral.

**2. Legal Frameworks**

To protect the environment, the legislator has approved a special law¹ which is fully aligned with 2004/35/EC Directive of the European Parliament and the Council, dated 21 April 2004 "On environmental responsibility, prevention and remedying of environmental damage"[1], instruments derived from this law and environmental policy tools. The law aims to protect the environment at a high level, maintaining and improving its prevention and reduction of risks to human life and health, safety and improving the quality of life for the benefit of generations present and future, as and ensuring conditions for sustainable development of the country.²

Environmental protection in Albania consists of several aspects, such as:

1. the prevention, control and reduction of water pollution³, air pollution⁴, land pollution⁵ and other pollution of any kind;
2. preservation, protection and improvement of nature and biodiversity⁶;
3. preservation, protection and improvement of environmental sustainability, with public participation;

² See: Article.2 Law nr 10431, date 09.6.2011
³ Protection of waters include measures to protect and improve the quality of surface water, groundwater, transitional, coastal waters and the sea, on the whole, in order to avoid or reduce harmful effects on aquatic ecosystems, the whole environment, human health and quality of life. Article 17 of the law.
⁴ Air protection includes measures to protect the quality of its ingredients and in order to avoid or reduce harmful effects on human health, quality of life and the environment in general, the reduction and prevention of pollution that causes damage to the ozone layer and global climate change. Article 16 of Law nr 10431, date 09.06.2011
⁵ Soil protection includes preserving natural qualities and functions of soil, prevent its damage, monitoring the status of soil and changes in its quality, as well as upgrading and rehabilitation of damaged land. Article 18 of Law
⁶ Nature protection includes: a) the conservation of biodiversity, ecosystems and the natural landscape; b) measures for the protection of forests, natural, partly natural, forest complexes and forest land, rivers and water resources, flora and fauna in a forest region as well as genes stations and local varieties of seed trees

¹ Ligji nr 10431, datë 09.6.2011 “Për mbrojtjen e mjedisit”.
4. prudent and rational use of nature and its resources;
5. preservation and rehabilitation of the cultural and aesthetic values of natural landscape;
6. protection and improvement of environmental conditions;
7. protecting and improving the life quality and human health.  

Other laws which focus on environmental protection are:
- Law Nr. 9 587, date 20.7.2006 “For the protection of biodiversity”;
- Law Nr. 10440, date 7.7.2011,” For Environmental Impact Assessment ”;
- Law Nr. 10463, " For Integrated Waste Management ";
- Law Nr. 8897, date 16.05.2002 “Air from Pollution ”;
- Law Nr. 8905, date 06.06.2002 “For the protection of the marine environment from pollution and damage”;
- Law Nr. 8906, date 06.06.2002 “For protected areas”;
- Law Nr. 9385, date 04.05.2005 " For forests and forest service".

Albanian Criminal Code, in Chapter IV has defined its environmental crimes which constitute criminal offenses. Of these is the pollution of air, soil, water, cutting and burning of forests and the forest environment.

If we refer to punitive penal policies, we find that they vary a fine of up to 5 years imprisonment. What is immediately noticeable is less punitive measures on environmental crimes.

This measure refers to the illegal cutting of forests, and under the Criminal Code, cutting or damaging forests without permission or prohibited times and places when there is an administrative act, is punishable by a fine or imprisonment up to one year.8

While other offenses which are regarded as criminal offenses, predict these sanctions:
- Air pollution through the emission of smoke, gases and other toxic radioactive substances beyond normal limit allowed when there is an administrative act, is punishable by a fine or imprisonment up to two years.
- The transit or storage on Albanian territory toxic and radioactive waste, punishable by one to five years.
- Pollution of the seas, rivers, lakes or network cumulative resources, distribution of water with toxic, radioactive or other substances that disrupt the ecological balance, shall be punished with imprisonment from one to five years. The same act, when serious consequences for the health of people sentenced to ten years.9
- The same act, when serious consequences for the health of people sentenced from five to fifteen years.10
- Cutting or damaging forests without permission or in time and forbidden places, where there is an administrative act, is punishable by a fine or imprisonment up to one year.13
- Cutting of decorative trees, and damaging gardens and parks in cities, constitute a criminal offense, punishable by a fine. Cutting trees in orchards, olive groves and vineyards, as has been previously refused cutting permit from the competent authorities, constitute a criminal offense punishable by imprisonment of up to three months.14

Since cuts or burns of forests make a tremendous environmental damage, the Albanian legislature has made improvements to the Criminal Code, specifically in Article 206, adding two paragraphs "a" and "b", which is classified forest fire damage and environmental intentionally and negligently performed...15, and provided more severe punishment with prison, according to the level of damage done, and fine, converted into money for pyromania.

Concretely, Article 206 / a, provides that: “Intentionally destruction or damage, with serious material consequences, of the forest fund, of the nursery forest, of the forest cluster or any similar entity, fire, punishable by three to five years and a fine of 500 000 (five hundred thousand) up to 1 000 000 (one million) Leke(Albanian Money).”

The same act committed with the purpose of changing land category and destination, punishable by three to ten years and a fine of 500 000 (five hundred thousand) up to 1 000 000 (one million) Leke (Albanian Money).

The same act, when serious consequences for property, health or human life or cause serious damage and long-time environmental or protected area, shall be punished by imprisonment of five to fifteen years and a fine from 1000 000 (one million) to 2 000 000 (two million) Leke.

Whereas, Article 206 / b, provides:
“Destruction or damage through negligence, with serious material consequences, of forest fund, of the nursery forest, of the forest cluster or any similar entity, fire, is punishable by one to three years. The same act, when serious consequences on property, health or human life or cause serious long-time damage to environmental or protected areas, is punishable by two to five years “.17

3. Forest Area in Albania

Forest functions as a separate ecosystem, which holds within its hundreds and thousands creatures, which in its self-regulating complex system, becoming a safe remover for biodiversity. His role as regulator of ecological parameters is irreplaceable in our planet.

And besides these, forest function, not stop here, because they are of great importance as timber manufacturers, and used for firewood, construction and paper products such as tires, etc. from year to year have

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8. Law nr 10431, date 09.6.2011
9. Article 201 – Air pollution
10. Article 202 - Transportation of toxic waste
11. Article 203 – Water pollution
12. Article 204 - Fishing prohibited
13. Article 205 - Illegal cutting of forests
14. Article 206 - Cutting of decorative trees, and fruit trees
15. Changes were made to the law no. 10 023, dated 27.11.2008, and its corresponding article 22
16. Article 206/a - Destruction with fire of forest and forest environment.
17. Article206/b - Negligently destruction with fire of forest and forest environment
increased because even the demands of society, as a result of increasing population and its demands for higher life standard.

Also, forests have a function, which relates to livestock feed. So to calculate the total economic value of forests, in order of their importance and irreplaceable, economic value is as clear, researchers consider four elements: Timber Products, Non-wood products, Recreational values, grazing for livestock

3.1. Forest Areas in Albania

Vegetation is an important element of the landscape that gives it a unique appearance and value. Its role in geographical terms is very large and so the role of geographic conditions affects all quite floristic characteristics of vegetation types of plants and its geographical distribution.

For the origin, composition and features geo-botanical vegetation of Albania, is part of the Mediterranean flora. Vertical extent of vegetation includes four zones.

Forests in Albania, constitute 36% of the surface, a figure many previous years, because damages are now greatly expanded, and reductions of green spaces.

The total area of the forests is 1,050,000 hectares, with a total volume of standing timber, 83 million m³, and with an average increase of about 1.4 m³ / hectare / year.

Forests have a rich biodiversity of highly diversified.

3.2. Forest Biodiversity in Albania

Although a small country, Albania has a very rich biodiversity. In our country grow about:
- 3250 plant species of which 29% of the European flora. 47% of the Balkan flora,
- 320 endangered species, 1.1% of the flora is endemic, 39% sub-endemic,
- 4700 invertebrate species of animals, 1150 species of vertebrates.
- 27 endemic species and 160 sub-endemic species of higher plants represent the importance of preservation [2].

As a result of this rich biodiversity and its values in our country, many areas have been declared protected.

So the table note that much of the forest fund, leafy forests occupy 56% and then ranked shrub forests about 26%;'s end with less surface coniferous forests with 16%.

While in terms of volume, there are changes in the rankings, and also as a result of forest types, so instead of seeing the volume of leafy forests are 67% more, then come coniferous forests with 24%, and in the end bushes with only 9%.

3.3. Exploitation of Forests

The forest area is increasingly subject to exploitation, particularly for timber, which used to work, and firewood. If you look at the official statistics of the Ministry of Environment shows that use is decreasing but that contradict each year after being added to the damage of forests in Albania.

According to sources from the tables show that the uses of materials for firewood has fallen nearly 86% for coniferous forests; while the timber it has decreased to less, with only 16%. Deciduous forests while the year-on-year usage has decreased more gradually, so that timber has fallen by nearly 38%, while for firewood has not passed the utilization decline by 10%.

<table>
<thead>
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<th>Year</th>
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<td>Article</td>
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<td>Leafy</td>
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<td>Timber for woodcraft</td>
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<td>Timber for woodcraft</td>
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<td>Coniferous</td>
<td>39.5</td>
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<tr>
<td>Leafy</td>
<td>38</td>
<td>140</td>
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But this kind of exploitation is based on the use of environmental permits and therefore they are legal intervention is decreasing as a result of increases in illegal interference.

Many individuals or private enterprises that have their basis of activity wood, are increasingly interfering unlawfully, and due to this, is the fact that 60% of the forest area in a municipality exceeds the jurisdiction municipality, which does not know how to manage, but considers the forests just like timber forest.

4. Statistical Database for Environmental Crime in Albania

With the continuous improvement of the legal framework and control of institutions, work against environmental crimes has intensified in recent years, being taken seriously by institutions like the police and prosecution.

According to data published by the Albanian General Prosecutor, specific weight group crimes against the environment for 2011 is 1.38% (percent) for 2010 is 0.99% (percent) of the total number criminal proceedings recorded on a national level. So an increase of this indicator for 2011 compared to 2010.

But according to the data of the Albanian General Prosecutor, the statistical data shows that "in 2011 an increase of 42.18% (percent) of all proceedings recorded compared to 2010.

Meanwhile, a decrease of 2.5% (percent) of proceedings sent to trial compared to 2010. In connection with the defendant, for this group of offenses, there is a decrease in the number of registered offenders against this total in 2010 of 13.6% (percent), a decrease in the number of defendants who are sent trial of 14.58% (percent) and a decrease in the number of defendants sentenced by the court to 4.72% (per cent) compared to 2010.

4.1. Illegal Cuttings

Until the 1990s cannot talk about cutting illegally, and that as a result of absolute control that institutions have on the area. Illegally cutting of forests are phenomena which arise after 1990 while although normative provisions have always come in addition to the year since, again logging levels have remained the same, and in some years, suffering huge increase.

| Table 3. Illegal cutting of forest areas in Albania (in he) |
|-----------------|------------|-----------|-----------|
| Article         | 2001       | 2002      | 2008      |
| Timber          | 18268      | 33455     | 5630      |
| coniferous      | 10263      | 8551      | 2259      |
| leafy           | 8005       | 24904     | 3371      |
| firewood        | 19634      | 23519     | 2988      |
| coniferous      | 1641       | 1526      | 540       |
| leafy           | 17993      | 21993     | 2448      |

Source: General Directorate of Forests and Pastures

As evident from the table, illegal cutting of forests, have been growing from year to year, and increasingly they are closer to protected areas of great value. Cutting forest for wood industry and firewood during last decades have high growth trend, but cutting for timber are greater extent, also as a result of increased private enterprises in the construction materials industry.

World Bank study in 2005 estimated that unregistered and illegal forest cutting felling in Albania exceeded that made by law to ten times. The same study said that the timber illegally in Albania sold in the domestic market for firewood or as a raw material in industry.

While official statistics if you do a simple calculation shows that illegal logging has on average increased by 10 to 20% each year.

Also some genes that give the National Environment Agency show that Albania annually loses approximately 7800 hectares of forest.

All these losses and damages, as well as fires deforestation from logging apart, bring the damage to biodiversity, among which mention highly endangered habitats of wild chestnut forests in mountain valleys Stravaj, Kardhiq, Bëncë Valley; birch forests in Shishtavec;-Ilqes Laurel forests in Karpen.[3]

Endangered habitats are: forests in Velipoja, Frasheri in Patok, forests of Xunkth-Frasherit in Kune Vain, Forests of Dafine-Frasherit in Patok, Oak forests in Ksamil, Sazan, Karaburun-Konispol [4].

According to data released by the General Prosecutor's Office, the offense provided for in Article 205 of the Criminal Code "illegal cutting of forests", in 2011, of 8.17% (per cent) compared with 2010.

According to data released by the General Prosecutor of Albania, specific weight of this offense in the criminal group "offense against the environment" is 63% for 2011, while in 2010 there were 82, 81% (percent).

| Figure 4. Illegal cutting of forests (Source: General Prosecutor of Albania) |

Turns out that the statistical data:

- in 2007 decrease by 12.77% (percent) compared with 2007 registered criminal proceedings;
- in 2009 by 6% (percent) compared with 2008 proceedings offenses recorded,
- in 2010 by 14.51% (percent) compared with 2009 criminal proceedings recorded in 2011
- and an increase of 8.17% (per cent) compared with 2010 proceedings recorded criminal offense provided for in Article 205 "illegal cutting of forests" of the Criminal Code.

The following graph presents data on the geographic distribution of recorded criminal proceedings to the prosecution in 2011 for the offense: Cases of illegal cutting of forests
4.2. Damaging of Forests from Fires

After 1990, our country still further deepened the massacre in the environment, although until this period had environmental damage, which along with positive effects on various sectors, the measures taken to prevent or remedy environmental damage. After 1990, the loss of state control, negligence face such situations, even in this respect there has been and continues to have negative effects, the effects of which are felt every day in different areas of Albania.

Fire cases in our country have increased significantly but what is most important is that: at least 61% of the cases of fires are undetermined causes, 29% come from carelessness and negligence, intentional 9%, 1% of events unusual as different military exercises or maneuvers. In Albania and in any other country of the Mediterranean region does not fall fires by high temperatures and wind.

They only favor the spread of flames to burn forests faster and more difficult to shut down or put them under control.

These results are derived from the study of the World Bank in Albania forests are disturbing but above all it is disturbing is the fact that 61% of the cases come from unknown causes, which is totally unacceptable and highlights negligence and functioning of institutions according to their hierarchy.

Fire cases have increased until they reach their maximum in 1997 where 840 cases were recorded forest fires, of which 140 have been very great economic damage.

Fires have covered about 7200 hectares of forest and burned about 2500 hectares. Most affected by forest fires were Vlora (110 cases), Permet (90 cases), Berat (82 cases), Gramsh (46 cases), Tirana (41 cases), Korce (39 cases) of Devolli (35 cases), ecological consequences associated with the loss of biodiversity has also been the setting of fires, in some protected areas, such as pine-hunting Poro (Fier and Vlora district) and the Lagoon ecosystem**, Divjaka Pine. In 1997 there were 840.

Fires have covered about 7200 hectares of forest and burned about 2500 hectares, with a damage value of 1.3 million Leke(Albanian money).

But it is not only the year of anarchy after 1997 because it would have been listed years that have passed so distinguish cases zjarreves 2000 with over 913 such cases and an economic loss worth 1.4 million lek[5].

For the past 5 years fires have an average 150 to 200 cases per year, a result of the conclusion of the General Directorate of Forestry.
• During 2009 fires have been small, and damages have been significant. So highlight some of the cases of larger fires this year which are:

• In Cakran Commune, Fier District, fire completely charred, 20 hectares of pine and scrub.

• In Lezha, four houses were burned, and over 300 hectares of forest were scorched.

• Orosh forests in Mirdita, as a result of the strong wind made the fire dangerous distributed in approximately 50 hectares of pine forest approaching only a few meters, forests part qualifying as a protected area.

• In the woods above the village of Fushe dragon Bulqize Municipal, has detected a focus fire, which damaged several hectares of forest.

• Kukes, fire, included massive bush, the Mountains area Mamez-Kalimash Kolshi respectively. We learned that massive bush are burned about 5 acres, where damages, as reported by the forest service. In Kukes, the fire burned 1.5 hectares of forest, near Bjeshkeve Bardhok.

• A fire between a fallen pine surface in the hill village Mengele, Elbasan has damaged several hectares of forest.

• Gjirokastra, fires burned 10 hectares of pasture and another fire near the town of Keceyra district of Gjirokastra, burned an area of forested acres.

• Another powerful fire swept a wide area with pine bushes in the hills of Ura-Vajigurore. The fire burned an area of about 3 hectares of woods and bushes and a few hundred m2 of cultivated pine massif.

• In Lalezi Gulf burned an area of 3 acres, damaging many pines.

• In Puke fires, acres burned pine forest considerable area near Lumbarth and Tuc villages.

According to data obtained from the General Prosecutor of Albania, in the group of offenses against the environment, there is a tendency to increase the recorded proceedings for the criminal offense referred to in Article 206/b Criminal Code "negligent destruction of forest fire".

In 2011, 14 criminal proceedings were recorded, while in 2010 it recorded only one criminal proceeding for this offense. The specific weight of this offense in the criminal group "against the environment" is 5.12% for 2011, while in 2010 it was 0.52%.

In terms of geographical distribution of recorded criminal proceedings for the offense, "negligent destruction of forest fire" resulting from the statistical data that the local prosecution of Durres, Fier and Shkodra have recorded by one criminal proceeding, in the Gjirokastra district prosecutor are recorded 3 judicial criminal proceedings, and the local prosecutions of Elbasan and Lezha have recorded from four criminal proceedings.

4.3. The Punishment of Perpetrators

From year to year, enrollment has increased the number of offenses related to damaging the forests from logging or fires.

General Prosecutor and District Prosecutors have added intensity of work being seriously engaged in finding the perpetrators of criminal acts to damage forests. In connection with the defendant for this group of offenses, from the statistics show that during 2011 a total of 151 defendants were under investigation and in 2010 a total of 199 defendants have been under investigation. So even in this indicator observed decrease of 24.12% (percent) of the defendants in the investigation in 2011 compared to 2010.

As a result of the work of Prosecution in 2011, 123 were taken to court the defendant, and in 2010 were sent to the court 44 defendants.

In terms of gender ratio and age structure, five defendants were minors male and no female; defendants adult (over 18 years) 2 females and 133 males.

In connection with the defendants education data shows that 95 defendants are primary and secondary education and 44 with high education and one of the defendants with higher education. As noted criminogenic factors that affect the performance of this offense dealing primarily with the educational level of the defendants, where most of them seem to be educated non more than 9 years [7].

Given that most of the forest lie in rural areas shows that 35 defendants have residence in the city and 105 of them in commune. In connection with the state court defendants, note that most of the defendants are unconvicted before.

5. Conclusions

Despite improvements in environmental law, found a discrepancy between the Albanian and European legislation in the field of environment, mainly associated with soil damage, misuse of land, etc., which significantly affects the quality of life and environment.

This considerable gap requires a review of existing legislation, and after monitoring results indicate non-compliance with these environmental current European standards in a number of environmental components, including air and water.

Should evaluate tourism-environment relationship, as good quality of the environment including the national tourism potential, bring increased tourism in the country, thus increasing the national income, while the environmental, human health damage, affecting the development potential and reducing the potential for economic benefit activities, such as a high-value tourism.

Need that, through government programs, to be continuously awareness campaign for environmental protection to citizens and schoolchildren. In our country, "forest governance" today is at a crossroads and that the fact that:

On one side appears inability of municipalities that do not know what to do with forests do not know how to manage, or at least not as you defend him, but on the other hand, demand for the forest economy, which comes constantly growing, because it cannot be denied that half of the population still lives in rural areas, which means that a good part of the activity is based, especially in mountainous areas, the forest, which is the only source of animal feed, building material production and firewood.

While are not only rural areas having such requirements but also urban centers have increased demand for forest areas, whether wood products, non-timber or recreations value. In such a situation comes out bad government and mismanagement, acting according to each its interests.
As a result of lack of coordination, problems arise in forest areas, where as a result of damage which are in different forms, the negative consequences in some areas which are unrecoverable.

6. Recommendations

1. Performing tasks with precision from the relevant institutions
2. Fire Protection
3. Preservation from illegal cutting
4. Care approximate to areas that are damaged ASRY different
   • New forests
   • Society's awareness for the values of green spaces
   • Protection zones which are evaluated in several categories for their values
   • Powerful Marketing for tourism forest use, not only for timber or firewood.

References