

KOSOVAR CENTER FOR SECURITY STUDIES

WHAT ARE THE IMPLICATIONS OF PYROTECHNICS USE IN KOSOVO?



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1. EXECUTIVE SUMMARY

The purpose of this policy brief is to provide an assessment concerning the risk of uncontrolled use of pyrotechnic means in Kosovo, and suggestions pertaining to taking the necessary measures towards reducing the eventual consequences which may be caused by this phenomenon. Certainly, this argument is based on the perspective of the security sector, as a result of the real implications on safety and public order and environmental security. Although a legal basis exists, state institutions have not created the basic conditions to prevent possible incidents. In this regard, there was an absence in foreseeing and undertaking awareness campaigns on the use of pyrotechnic means and their side effects - for human health, property and the environment - plants (air and water pollution) and animals. There has not been necessary measures undertaken for the qualification of people who trade with these tools; sales without permission are not being prohibited and consumers are not being protected. All these facts lead to a conclusion that public safety is being violated by pyrotechnic means. Institutions are instructed to take into consideration recommendations of this document in order to provide a proper implementation of the existing legal framework.¹

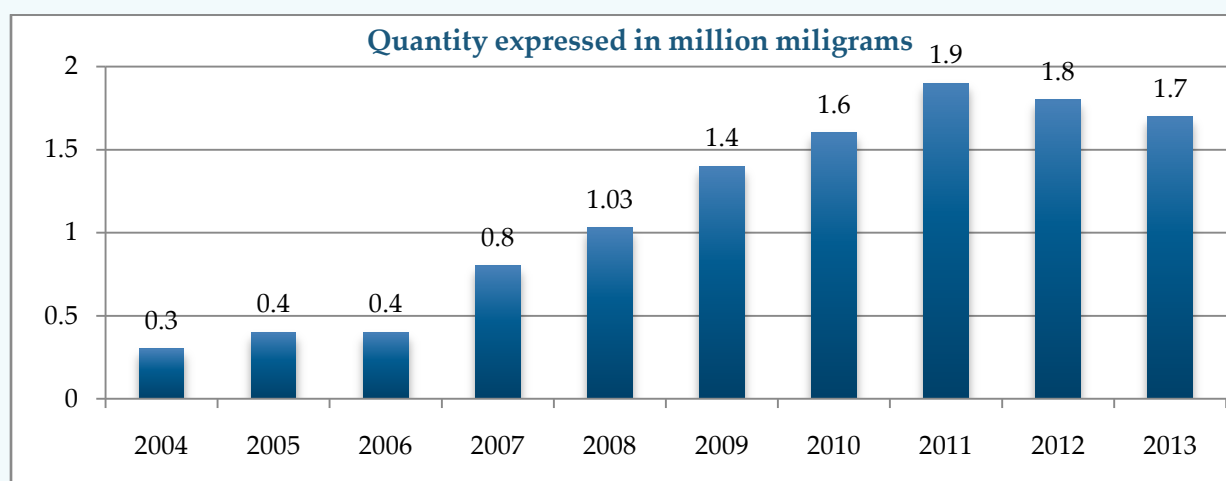


Table 1. Trend of pyrotechnic quantity imported in Kosovo over the past 10 years² (Kosovo Customs)

¹ The methodology used for drafting of this policy brief is based in qualitative research: the assessment of national and international legal framework, conducting interviews with relevant stakeholders and evaluation of the reports in this field.

² For the year 2013 the submitted data are up to date 21 October 2013.

MAIN FINDINGS

- National capacities are limited to preventing incidents for pyrotechnic use as well as responding to incidents if needed;
- There is no adequate protection of consumers -in practice, often children under the age of 12 appear as buyers and users of pyrotechnic means;
- People who sell pyrotechnics in Kosovo do not fulfil the basic conditions set by legislation in order to operate within this market;
- It is suspected that pyrotechnics entering Kosovo's market are inconsistent with those whose taxation manner is provided in law;
- There is lack of parental care in educating and discouraging children from using these means, which puts the children's health and well-being in serious risk.

2. BACKGROUND

Kosovars are big users of pyrotechnic materials. Official statistics show that since 2004, the annual average of fireworks and pyrotechnics materials imported is 1,1million kg.³ China is one of the biggest exporters of pyrotechnics in Kosovo (over 50%), followed by Bulgaria and Croatia.⁴ Existing statistics show that the pyrotechnics which cost less are more harmful for health and the environment. Given this aspect, the standard of living of Kosovo citizens does not allow them to buy high quality pyrotechnic products. For the rest of the European countries, buying

Pyrotechnics have their origin in China hundreds of years ago, this country is also known as one of the largest for producing, exporting and using them. After China, the use of pyrotechnic means and fireworks has expanded in other parts of the world. However, this phenomena each year (from their first appearance) has affected people's lives; weakening the quality of life and resulting in loss of life. Only in the US during 2012 over six people have lost their life, 8,700 people have ended in hospital emergencies for treatment caused by fireworks injuries. 1,000 of them are injured from fireworks that are not considered dangerous for children's use.

³ KCSS, Email Interview with Mr. Adriatik Stavileci, Spokesman of Kosovo Customs, date: 27 November 2013

⁴ KCSS, Interview with Mr. Mensur Hoti, A.D. Director of Department for Public Safety, Ministry of Internal Affairs, Prishtina, date: 14 November 2013

pyrotechnic means is not allowed for persons under the age of 14, 16 or 18 years old, meanwhile in Kosovo purchases are legal and allowed for 12 year old children, whereas in practice, buyers happen to be children under this age.

While pyrotechnic sales generate great benefits for traders, implications regarding individual's physical safety and also environmental security are considerable. During the last three years the number of cases reported to the police as a result of using pyrotechnic materials (from 2010 to early 2013) includes over 34 persons injured and also more than 10 objects which were burnt or damaged by these means. At the same time frame, over 220 cases have sought for treatment in the Emergency Centre in Prishtina after being harmed by the use of pyrotechnics.

2.1. LEGAL FRAMEWORK

The use of pyrotechnic means is regulated by the Law No. 04/L-022 on 'the Civil use of Explosives', approved in late July 2011. This law determines the conditions and criteria for producing, trading, importing, exporting, transit, transfer, use and destruction of explosives or fireworks and the criteria for supervision and application of this law in order to protect individuals,

In total eight U.S. states forbid the use of the pyrotechnic means: Iowa, Illinois, Ohio and Virginia are four states which allow low risk pyrotechnics such as sparklers that are also allowed for inside use, whereas states like Delaware, Massachusetts, New Jersey and New York completely prohibit any use of these means.

properties and the environment. Within the context of pyrotechnic products is any product containing compounds, or mixtures of designed compounds, which release; heat, light, noise, gas, or smoke. Or a combination of these, creating effects through chemical reactions, exothermic reactions and self-consistent reactions for entertainment and other purposes. These are called fireworks.⁵The Law for Civil use of Explosives adheres to international regulations in this field. More specifically, this law, among others, is in compliance with the European Agreement for international transport of dangerous goods by (ADR)⁶road. As regarding the retail sales, only in September 2013 was the Administrative Guideline issued for introducing sales points of pyrotechnics materials and fireworks. This had specified technical conditions regarding the facilities to be used for selling these artefacts.

⁵ Law No. 04/L-022 for Civil use of Explosives

⁶ For more information please click on the following link:
http://www.unece.org/trans/danger/publi/adr/adr_e.html

2.2. CHALLENGES

Despite the existence of respective legislation that regulates sales and the use of pyrotechnic materials and fireworks in Kosovo, it can be concluded that in general there is an institutional weakness in preventing and handling these incidents. Local capacities are quite limited when it comes to responding to citizens' needs and situations which may be encountered. The Ministry of Internal Affairs (MIA), namely the General Inspection Authority within the Department of Public Safety, with only (five) inspectors, has limited capacities.⁷ Studies have shown a lack of basic knowledge on how to trade these means amongst traders whom generally have deviated from the criteria determined by both local and international legislation. These materials have been sold by persons and business that did not possess the correct licences. Moreover, until the second half of 2013, retail sales of pyrotechnics were conducted despite the fact that there was no legal basis to regulate this. In this direction it should be mentioned that pyrotechnic means were sold without taking into consideration the distance between selling points (the selling of these means is not allowed close to public, religious, educational and similar institutions) and without fulfilling technical requirements such as: a licence to sell these products, a fire extinguisher, and other requirements determined by national legislation. The regulation on age of persons allowed to buy permitted categories of fireworks has not been respected. It should be noted that Section 15 of the Law on Civil Use of Explosives determines categories of pyrotechnics and their level of risk, which foresees that the minimum age of persons allowed to buy these materials (according to predetermined categorization) is 12 years old. Yet the facts on the ground show the opposite, especially when we consider the evidence from the Kosovo Emergency Centre where it is noted that precisely minors from 7-12 years are the most common victims of incidents caused by pyrotechnics. Likewise, in the case of handling incidents, limited capacities were noted. The Emergency Centre in Prishtina has limited capacities to respond to any emergency situation, because of a limited number of beds⁸, since comparing the needs and requests over the past three years it has been insufficient in responding to citizens' needs.

⁷ KCSS, Interview with Mr. Mensur Hoti, A.D. Director of Public Safety Department, Ministry of Internal Affairs, Prishtina, date: 14 November 2013

⁸ Emergency Centre in Prishtina has only 23 beds.

3. IMPLICATIONS ON PUBLIC ORDER AND SECURITY

Each year dozens of citizens in Kosovo end up in the Emergency Centre because of injuries caused by the use of pyrotechnics. This happens because citizens are not aware of the correct method for using these kinds of means because of the lack of consumer protection and an absence of a clear definition on how to use these materials. So far, victims of injuries from these means have been mostly younger generations, respectively persons aged from 7 until 18 years.⁹ Problematic in this context was also the misuse of these pyrotechnics by younger people, mostly males, who like to experiment by combining pyrotechnics to create an even larger effect of sound/noise; which in case of carelessness could have major consequences regarding incidents/injuries. Beside physical injuries, a certain level of citizens must cope with psychosocial consequences. Given that Kosovo not so long ago has faced a wartime environment as a result of armed conflict, using pyrotechnic materials may stimulate the effect of involuntary memory return (re-experiencing a past experience) which affects emotional states of traumatized citizens and negatively affects their perception about the environment where they live. As well, seen from environmental safety, using pyrotechnic means leads to the destruction of flora, air pollution and can contaminate water brings significant health consequences for humans.¹⁰ From a socioeconomic perspective, using pyrotechnics may have result also in the accidental fire-infliction and demolition of various buildings, whether public or private.

3.1. HUMAN SECURITY - Risk of Personal Safety

The use of pyrotechnic means mostly endangers personal safety of individuals. In ‘minor’ cases, it can cause damage to the physical and psychological health of individuals, whereas in major cases, it can cause their death. Some of medical problems that occur as a result of using pyrotechnic materials are: injuries and bodily mutilation, cardiovascular problems, hearing impairment, loss of eyesight, causing fear, stress, psycho-social impact and similar. Pyrotechnics

⁹ KCSS, Interview with Mr. Mensur Hoti, A.D. Director of Public Safety Department, Ministry of Internal Affairs, Prishtina, date: 14 November 2013

¹⁰ For more information please click the link below:

http://www.backcountryattitude.com/toxic_fireworks.html, seen the last time on 22 November 2013

are harmful objects, which in most cases can create an unsafe environment in the place where they are used. With their use by random individuals during the holiday season, in different circumstances where health and psychological implications which have affected in creating an environment quite chaotic.

3.1.1. MEDICAL EFFECTS

Health risks which can be caused from using pyrotechnic means are multiple. First of all, being exposed to polluted air from fireworks increases the risk of cardiovascular mortality by 125.11%; and the relative risk for cardiovascular disease increased by 175.16% compared to an ordinary winter day.¹¹ Smoke from fireworks is mostly composed from toxic dust which can easily break through into lungs, this poses a serious threat for persons who suffer from asthma or have multiple chemicals sensitivity (MCS).¹² Burning fireworks in Kosovo causes large noises, which in many cases exceed 140 decibel of sound, meanwhile lag noises bigger than 85 decibels can cause temporary damage or permanent aural injury.¹³ Despite this, usage of pyrotechnics has result in causing a significant number of injuries; which include self injuries and the injury of third party citizens. Over the past three years, since 2010 until end year of 2012 (beginning of 2013) over 220 cases of Prishtina's citizens being injured by the use of pyrotechnic materials where announced to the Emergency Centre in Prishtina.¹⁴ From this number, 120 injured cases are reported to have happened in 2010, of which 97% have been light injuries, mostly upper extremities, and 3% serious cases that resulted with limb loss. In 2011 the number of incidents reported was 70 and in following year (2012) this number was 33. The age grouping which tops the list of injuries is mostly the younger ages, respectively 7 to 12 years old, while males top the list of persons who are more afflicted with this kind of accident.

Year :	2010	2011	2012
Physical injuries:	120 people	70 people	33 people

Table 2. Number of incidents reported in Emergency Centre in Prishtina

¹¹ B. Thakur, "Air pollution from fireworks during festival of lights (Deepawali) in Howrah, India - a case study", *Atmósfera*, Vol. 23, No 4, 2010

¹² Fireworks - Cheap Thrills with Toxic Consequences, linku: http://www.backcountryattitude.com/toxic_fireworks.html, last accessed on 20 November 2013

¹³ Noise Induced Hearing Loss NIHL, <http://www.dangerousdecibels.org/education/information-center/noise-induced-hearing-loss/>, seen the last time on 22 November 2013

¹⁴ KCSS, Interview with Sci. Dr. Basri Lenjani, Director of Emergency Centre, Emergency Centre, Prishtina, date: 13 November 2013

On the other hand, the Kosovo Police, during the end of year holidays, reported 34 cases of injured persons over last three years on a national level. At the end of 2010, in total 15 persons were reported to have suffered injuries from pyrotechnics.¹⁵ The following year (2011), in total 11 persons were reported to be injured from these means.¹⁶ At the end of 2012 a total of six (6)¹⁷ cases of injury, and one death as a consequence of fire, where caused by pyrotechnic materials.¹⁸

Year:	2010	2011	2012
Physical injuries:	15 people	11 people	8 people

Table 3. Number of cases reported to Kosovo Police

3.1.2. PSYCHOLOGICAL EFFECTS

Seen from a psychological perspective, it is found that various blasts caused by different pyrotechnic materials affect negatively citizens of a country. This appears mostly in the Kosovo context when considering the recent war in Kosovo. The perception is that people need to know they live in a safe and civilized environment, and by using pyrotechnics during holidays does not give this idea to the average individuals in the society. For them, these kinds of noises make them feel like a country which is in chaos, where there is no control, where different classes of society- including children- express their aggressiveness and destructiveness allowing them to express this behaviour freely and unobstructed and without precaution creates a bad image for such behaviour.¹⁹ As a result, this kind of situation usually is associated with a society which is tolerant to violence,²⁰ becoming part of the image of the citizens towards their country as an insecure environment.

Various bangs caused by pyrotechnics may be, for certain categories of the population, stimulation encourage 'flashbacks²¹' (revisit a past event) - in case of persons who have experienced trauma, this will encourage Post-Traumatic Stress Disorder (PTSD) based on these

¹⁵ Announcement for Media, General Directorate of Kosovo Police, Prishtina, date: 01.01.2011

¹⁶ Announcement for Media, General Directorate of Kosovo Police, Prishtina, date: 01.01.2012

¹⁷ Announcement for Media, Reported incidents during the New Years Eve 2012 – 2013, General Directorate of Kosovo Police, Prishtina, date: 01.01.2013

¹⁸ KCSS, Interview with Mr. Brahim Sadriu, Spokesman of Kosovo Police, Prishtina, date: 15 November 2013

¹⁹ KCSS, Interview with Prof. Ass. Dr. Dashamir Berxulli, Faculty of Philosophy, Psychology Department, University of Prishtina "Hasan Prishtina", date: 12 November 2013

²⁰ Refers to violence on schools, family, use of weapons, homicide with low intention.

²¹ Flashback or repeated involuntary memory is a psychological phenomenon where individuals suddenly and vigorously re-experience a past experience or elements from the past.

traumas. Trauma is an event which threatens the physical integrity of individuals to a degree, therefore different kind of sounds can create insecure physical events, psychological and social. This fact must be paid a special attention and taken completely into account when using pyrotechnics, especially when it comes to children and persons with mental disabilities. There are no exact statistics regarding to the psychological effect of pyrotechnic means, however it is assumed that using these means in larger amounts have implications on one part of citizens, especially to younger people.

3.2. ENVIRONMENTAL SAFETY

The chemical composition of pyrotechnics has an effect on the deterioration of environmental safety; this respectively has implications above all on human health and also to the environment, such as towards animals and flora. Pyrotechnic devices contain destructive substances for the environment. Dust and smoke caused by the ignition of the fireworks can contain a mixture of sulphur-coal ingredients, trace of heavy metals, gases or other toxic chemicals.²² The smoke created by the fireworks which are used by citizens, compared to organized professional performances are quite disturbing because they are ignited at a low level, which allows for greater inhalation of these gases (which include carbon dioxide (CO₂) and ozone).²³ Some of the toxic elements that are part of pyrotechnic means stay for long in the environment, contaminating the air and water resources among others; respectively groundwater and superficial waters that serve either for personal use or for agriculture, farming and similar; which automatically deteriorates the quality of life. Looking in the Kosovo context, in regard to air quality, there has been no study that has monitored or analysed air quality and toxic contents in the case of the ignition of fireworks.

3.3. ECONOMIC SAFETY - Risk from Causing Material Damage

Regarding the negative effect caused by using either correctly or wrongly pyrotechnics, and the contamination of air, plants and water there are also other ways of causing damage. In this case it comes to the damage of buildings, whether private or public; this following damage is caused

²² Fireworks - Cheap Thrills with Toxic Consequences, link: http://www.backcountryattitude.com/toxic_fireworks.html, seen the last time on 20 November 2013

²³ Ibid

by individuals. In Kosovo over the past three years, Kosovo Police has reported over 10 cases of property damages caused by the incorrect use of pyrotechnics. In 2010, four buildings were damaged, three of them commercial buildings and one a residential property, whereas in 2012, four car damages and one fire incident where caused, wherein a residential facility burned and one person was killed.²⁴

Year:	2010	2011	2013
Number of damaged objects:	4	2	4

Table 4. Number of incidents reported to Kosovo Police

4. CONCLUSION AND RECOMMENDATIONS

There is no doubt that using pyrotechnic means in Kosovo has resulted in the violation of physical integrity, psychosocial problems and health care needs. The study has proven that there is no present way to inform about, and raise the awareness of, the modalities for using these risky means. Furthermore; there are no basic capacities to prevent incidents, never mind their adequate treatment.

Given these facts, KCSS recommends radical measures regarding the issue of pyrotechnic materials in Kosovo. KCSS is aware that the following recommendations below can have implications on the business and results of certain companies, however, we consider that physical safety, environmental and economic, must prevail compared to material benefits. KCSS recommends as following:

- In lack of adequate mechanisms and functional exercise of institutional control regarding the sale, sales period , period of use and the method of use of Pyrotechnics, the Kosovo Government should entirely stop selling, distributing and using pyrotechnic means in Kosovo;
- This measure should cover a period of up to 2 years where on the return of these materials in the market, respective institutions would be able to create proper oversight

²⁴ Announcement for Media, General Directory of Kosovo Police, Prishtina, dates: 01.01.2011, 01.01.2012 and 01.01.2013

mechanisms. As well, until then the tradition of abusing these means by citizens would be interrupted, and therefore the implications of this would be smaller;

- In accordance with the decision for the temporary suspension of these means, the Kosovo Government should issue a legal act that establishes sanctions for sellers of these materials in the black market while potential smugglers should be prosecuted under the Penal Code of Kosovo;
- With this legal act, the Kosovo Government will assert that during the period of prohibition, they will create the entire necessary legal and institutional basis to regulate and control this field on the basis of contemporary international standards.

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