

**RECOMMENDATIONS OF THE INTER-AMERICAN JURIDICAL FOR THE APPROVAL
OF DOMESTIC LEGISLATION ON THE REGULATION OF FIREWORKS AND
PYROTECHNIC ARTICLES IN THE AMERICAS**

GENERAL CONSIDERATIONS ON FIREWORKS OR PYROTECHNICS

Year after year dozens of thousands of people are hurt, or even killed, due to the use of pyrotechnics worldwide and in the American continent. Globalization and the peak of world trade have facilitated the presence of these artifacts in any corner of the planet, and this habit has been incorporated to diverse cultures.

In the case of pyrotechnics, there is a big difference between the intended effect and the effects achieved. Every year thousands of people, including children, are seriously injured by fireworks. The pyrotechnic device, once lit, becomes unmanageable, being able to affect whoever manipulates it and/or whoever observes it. Two thirds of fireworks victims under 15 years of age are bystanders, and injuries usually affect the upper limbs, the head and the eyes mainly, often with permanent sequelae.

In addition to individual injuries, collective tragedies are added, and tragedies related to pyrotechnics can be identified, with a large number of injuries and deaths in practically all nations. Without attempting to provide an exhaustive list, it is worth recalling some recent cases:

1997: La Bahía, Guayaquil. Fire in a pedestrian walkway. 11 dead.

1998: Bahía, Brazil. Explosion in a factory. 60 dead.

2000: Jiangmen, China. Explosion in a factory. 75 dead.

2001: Jiangxi, China. Accident at a school where a clandestine pyrotechnical factory operated. 41 children dead.

2001: Lima, Peru. Fire in the Mercado de Mesa Redonda. 277 dead.

2003: West Warwick, USA. Fire at a rock concert 96 dead.

2004: Buenos Aires, Argentina. Fire in a disco. 194 dead.

2005: Lahore, Pakistan. Explosion of a vehicle loaded with pyrotechnics for a marriage celebration. 40 dead.

2009: Bangkok, Thailand. Fire in a disco. 62 dead.

2009: Perm, Russia. Fire at a rock concert. 156 dead.

2013: Río Grande Do Sul, Brazil. Fire in a disco. 231 dead.

2016: Paravur, India. Fire in a religious festivity. 111 dead.

Fireworks are also the primary source of fires, with devastating consequences for the health of people, animals and the environment. In some countries of the region, there has also been a significant increase in the use of pyrotechnic devices such as firearms, both in organized attacks and in civil demonstrations, and in activities related to drug trafficking. Finally, a negative externality of great importance of pyrotechnics, and of which there is increasing awareness, refers to its effect on pollution and environmental toxicity in sound and chemical terms, with deep repercussions on flora, fauna and on human beings themselves.

In view of the general considerations set out, the specific considerations on the problem of pyrotechnics in relation to certain specific areas that are detailed below, and taking as a guide the mandate of the General Assembly of the Organization of American States, this report proposes a set of Recommendations that allow the countries of our region to advance progressively towards domestic regulation of pyrotechnics, through prohibition and regulation, as well as with the implementation of an institutionalized awareness-raising framework that will allow the eradication of practices that often turn traditional celebrations into human and environmental tragedies.

SPECIFIC CONSIDERATIONS ON FIREWORKS OR PYROTECHNICAL WORKS

NOTING:

- Sustainable Development Goal No. 3 of the United Nations 2030 Agenda that seeks to ensure healthy lives and promote well-being at all ages.
- Sustainable Development Goal No.11 of the United Nations 2030 Agenda that seeks to make cities safe, resilient, and inclusive.
- Sustainable Development Goal No.13 of the United Nations 2030 Agenda that seeks to adopt urgent measures to combat climate change and its effects;
- Sustainable Development Goal No.15 of the United Nations 2030 Agenda that seeks to halt biodiversity loss.

CONSIDERING:

- The inadequacy and ineffectiveness of countless actions that public authorities and bodies have adopted to prevent the damages caused by use of these explosives.
- The persistence, magnitude, and dangerousness of the problem.
- The prevalence of handcrafted or informal manufacture of pyrotechnics in various countries, with risks and consequences linked to the very conditions of manufacture, with several reported explosions.^[2]

AND CONSIDERING THAT:

- The States must foster measures to promote, maintain, and protect health, prevent the causes of disease, and encourage rehabilitation, in addition to adopting measures to prevent damage to the environment and animal life.
- In order for a law to be effective, it must be accompanied by health awareness and education efforts to enhance its force and scope. Ensuring respect for a law requires a compliance monitoring system, with exemplary penalties for those who violate the law.
- Laws have a decisive effect on disease prevention and promotion of the population's health and countries with good (specific and updated) legislative frameworks achieve defined health goals more satisfactorily, reducing the population's healthcare costs.
- The study of comparative legislation shows us that in the absence of a prohibitive standard, States fail to fully comply on the formal level with the duty to care for the Rights of Children and to properly safeguard the right to health protection.
- The case of Chilean law No. 19.680, later amended under Law No. 21.310, helped to drastically reduce the number of burns from fireworks, modifying the behavior of those who use them.

PROBLEMS OF PYROTECHNICS IN RELATION TO HUMAN HEALTH

NOTING THAT:

- The right to health is a human right.
- The WHO and PAHO define health as a complete state of physical and mental health, and their efforts focus on preventing risks to health.

- Each year thousands of people are injured or lose their lives due to the use of pyrotechnics throughout the world and injuries primarily affect the upper extremities, the head, eyes, and legs.
- Pediatric burns significantly impact the well-being and healthy development of children and their families.
- Scientific studies link the dispersion of particulate matter generated by pyrotechnics with deteriorating health, particularly among the elderly and toddlers.
- The health of individuals with neurodevelopmental disorders, such as those aged 80 or more, the visually impaired, and those diagnosed with autism spectrum disorders (ASD), Down syndrome, and other conditions, is seriously affected by the use of pyrotechnics.
- For those with post-traumatic stress disorder (PTSD), such as war veterans or survivors of accidents with explosives, the visual and auditory stimuli of pyrotechnics act as triggers of their emotional imbalance, generating panic attacks, psychotic breaks, heart attacks, etc.^[4]

B. PROBLEMS OF PYROTECHNICS IN RELATION TO THE ENVIRONMENT

NOTING THAT:

- Various pyrotechnic devices have caused widespread fires.
- Several global organizations warn that forest fires are one of the factors contributing to climate change.
- The environmental damage done by fires is permanent both in terms of biodiversity losses (flora and fauna) and in terms of economic losses.
- Substances found in pyrotechnical devices, such as barium and phosphorus, have negative consequences for living beings and the majority of their combustible compounds remain as suspended particulate matter, spreading over vast areas and being inhaled by humans and animals, and may be deposited on cultivated soils, ultimately affecting foods.

PROBLEMS OF PYROTECHNICS IN RELATION TO ANIMAL WELFARE

NOTING THAT:

- Pyrotechnics are unpredictable visual, auditory, and olfactory stimuli for animals, associated with a level of generalized stress and damage to their health.
- Increased visits to veterinarians and lost pets as well as accidents or deaths due to heart conditions in smaller animals are recorded in connection with celebrations with pyrotechnics.
- Pyrotechnic events alter the productive cycle of some animals and lead them to show erratic behaviors that usually lead to their death.
- The use of pyrotechnics represents a problem for wildlife, even leading to the temporary disappearance of bird species from their own habitat.

PROBLEMS OF PYROTECHNICS IN RELATION TO PUBLIC SAFETY

CONSIDERING:

- The notable increase in the use of pyrotechnic devices as firearms, both in organized attacks and civil protests, and the increasingly more frequent documentation of their use in connection with drug trafficking activities.^[5]

RECOMMENDATIONS FOR THE APPROVAL OF DOMESTIC LEGISLATION ON THE REGULATION OF FIREWORKS AND PYROTECHNICS IN THE AMERICAS

First recommendation. Regulated activities

1. The implementation of legislation regulating the activities related to Fireworks or Pyrotechnics, including but not limited to the following is hereby recommended:

- Manufacture
- Storage
- Transport
- Purchase
- Sale
- Use or handling
- Importation
- Exportation

§It is recommended that said regulations incorporate as an operational concept of Firework or Fireworks, any product that has a recreational and/or entertainment purpose, that generates visual, sound and smoke effects, and that fire is used for its activation, or that it is produced as a final result.

Fireworks or pyrotechnics shall be understood to mean any product intended to provide entertainment and/or a spectacle, that produces visual, sound, and smoke effects, and that is activated by or produces fire. They are known by the following names: gunpowder packs, gunpowder, fireworks, firecrackers, rockets, explosives, pyrotechnics, pyrotechnic devices, or other names according to the country where they are used.

COMMENT: These products are known by the following names in our Continent: gunpowder games, gunpowder, fireworks, firecrackers, rockets, explosives, pyrotechnics, pyrotechnic devices or others according to the country where they are used

It is hereby proposed that in domestic legislation neither Fireworks nor Pyrotechnics are defined in terms of their components, such as gunpowder, since these could be replaced by others that could equally cause damage.

As an example, in legislation like that of Guatemala, a concept is established without mentioning the composition of the product. Moreover, it states: "...as well as any composition, chemical mixture, or device intended to produce an effect ...". Chile, on the other hand, does not indicate a specific concept, and although the previous Regulation considered what fireworks was understood to mean by alluding to the components, this was eliminated.

Second recommendation. Level of danger

If at the local level the country defines the need to classify fireworks or pyrotechnics, it is advisable to do so according to their level of danger, for which the following should be weighed:

- Magnitude of sound and smoke effect when activated.
- How rapidly the product is consumed
- How rapidly the fuse is consumed
- Spatial area over which they are dispersed.
- The level of knowledge, responsibility, and will of the person authorized to handle them.
- Their components and volumes.

COMMENT: “Sparklers,” “little star,” “firecrackers,” “old ladies,” “rockets,” “shavings,” among others of the same class, are pyrotechnic devices that can cause burns and are more closely and directly handled by people. For this reason, in countries where the use of these items is not prohibited for children and adolescents, the responsibility of the parents is established, as we can see in Panama and El Salvador. Determining the requirements and the responsibility of individuals in the handling of such a volatile product is so complex that countries like Chile and the Dominican Republic have a total prohibition on selling pyrotechnic products to the public. As an exception, the Dominican Republic allows the sale of fuses for use in sports and pyrotechnic devices that only produce colored lights or sound effects in the air and are intended to be handled or used only by authorized pyrotechnics companies, which means that any activity related to the general population is prohibited. In Uruguay, in contrast, the standard is still in the draft stage, but the objective is the same, directed to prohibition.

Third recommendation. Scope

§ It is recommended that the legislation be applied to:

- a) Any individual or legal entity, with or without a profit motive, that engages in an activity related to fireworks or pyrotechnics, like those mentioned in Article 1, or others to be subsequently included
- b) The public authority, agencies, bodies, independent or autonomous entities owned or controlled by the State that engage in an activity related to those indicated in Article 1.

Fourth recommendation. On the regulation of activities related to fireworks

- 1 It is recommended that the States consider different requirements according to the various fireworks-related activities they wish to regulate. Recall that these activities are: the manufacture, storage, transport, sale, use, or handling, importation, and exportation. Only through compliance with previously established requirements will the State be able to authorize different agents to engage in any of these activities.
- 2 It is recommended that engaging in any fireworks-related activities such as those indicated in Article 1 be prohibited for those that national or local legislation considers to be: minors, those whom the law sees as having a different degree of responsibility, for example, those who have some type of disability; those under the influence of alcohol or other substances. Although special mention is made of the population individually defined above as a common recommended minimum, the regulatory horizon of comprehensive legislation in the area of fireworks – given the impossibility of controlling their effects regardless of those who handle them – is that they cannot be acquired, handled, or used by the general population, except with specific exceptions, for which the States will be able to plan a progressive strategy of incorporating the standard in the national legal system to achieve this objective.
3. It is recommended that standards referring to regulations on fireworks-related activities have national and local scope, that is to say the federal state and federated states, as well as national and regional levels when applicable in this latter case.

COMMENT 1: Countries such as El Salvador, Guatemala City, Panama, and Colombia prohibit sale to persons who are in an inebriated state or under the influence of other substances.

COMMENT 2: Paraguay, Panama, Guatemala City, El Salvador, Colombia, and Costa Rica prohibit selling fireworks to minors in particular. Countries such as Brazil, Nicaragua and Argentina refer to prohibiting sales of certain fireworks to children and adolescents, with Argentina making distinctions by age and categories of fireworks according to how they are classified, distinguishing between those under age 14 and those under age 16. The handling of fireworks such as “little stars” that have low sound and smoke effects, can be dangerous not only for the person handling them but also for third parties. Considering that the responsibility of minors receives special treatment and that it is the duty of the State to ensure their special protection and physical and psychological well-being, we feel that the prohibition should refer to all types of activity.

COMMENT 3: There are cases of specific prohibitions, such as occurs in Ecuador, where we see that selling to anyone with a criminal record is prohibited. We can also mention the example of Costa Rica, where there is an absolute prohibition on the sale and use of gunpowder of any kind to persons declared to be mentally unfit.

Fifth recommendation. Requirements for the State to authorize fireworks-related activities

§ To determine the requirements necessary for the State to authorize the different fireworks-related activities, consideration of the following criteria is recommended:

- a) No minors or persons with some type of disability in the use of reason may be involved in the activity.
- b) The activity may only be carried out with prior authorization granted by the competent authority.
- c) To access authorization, an agent who wants to engage in the activity must submit a plan with proposed safety measures to prevent fires and personal injuries or property damages that could occur, and an emergency plan to mitigate such damages should they occur.
- d) To access authorization, an agent who wants to engage in the activity must submit a plan with proposed prevention, mitigation, and repair measures against environmental damages that could occur.
- e) An agent who wants to engage in the activity should certify having pursued technical studies on the subject.
- f) Particularly for mass events, festivities, and pyrotechnic spectacles, persons who handle or use fireworks shall be required to have training in the correct use and potential consequences of improper or incorrect handling.
- g) Consider other criteria such as determining zoning for public spectacles, population density, proximity to flammable substances or materials, advance notice in the case of high noise impact for the population, etc.

Sixth recommendation. Grading of the penalty in the case of non-compliance

§ It is recommended that the legislation on fireworks include penalties in the case of non-compliance with the regulations and requirements established in Articles 4 and 5 above, to be considered by each State according to its own legal system, but the following penalties are recommended:

- a) In the event there are minors or persons whom the law sees as having a different degree of responsibility involved in these activities, particularly the sale, handling, and manufacture of fireworks, it is proposed that the **maximum penalty** be imposed on anyone whose action or omission allows access to fireworks or a related activity. This should be such that the penalty sufficiently discourages the action, considering the interest and protection of these subjects. In this regard, criminal penalties are suggested, involving deprivation of liberty for any individual directly involved in the action, dissolution of a legal entity, sizeable monetary penalties and punitive damages where this type of crime is contemplated. It is

also recommended to establish penalties to those who are in charge of minors or persons with a different degree of responsibility, if negligence could be imputed to them.

b) In the case where these activities are carried out without the corresponding authorization, penalties are proposed that provide for the deprivation of liberty, monetary penalties, and seizure and destruction of the pyrotechnic devices and everything used to manufacture them.

c) For purposes of determining the specific penalty, the court or competent penalizing authority shall observe criteria such as: prior conduct of the offender, offender's intent, economic benefit obtained from the violation, offender's economic capacity, magnitude of the damage caused or danger of the action, irreversibility of the damage, danger presented by the fireworks, etc.

§ In addition to the criminal administrative and civil penalties, specific environmental responsibility is also recommended, in the sense that anyone, as a consequence of the use, manufacturing, sale of handling of pyrotechnical devices, causes any damage to any component of the environment shall be obligated to repair the damage.

§ In the case of mass pyrotechnical events, the establishment in the legislation of criteria for determining the objective responsibility of the agents responsible in the case of damage to the environment is also recommended.

COMMENT: The grading of penalties should be consistent with each country's domestic legislation, but there should be a higher (aggravating) classification in all cases involving children or adolescents.

Seventh recommendation. Control and oversight

§ It is furthermore recommended the legislation to establish expressly that the control and oversight of compliance of the regulation on fireworks and pyrotechnical devices shall be the responsibility of one or more decentralized bodies of the State, with specific jurisdiction in these matters, which shall assume responsibility for authorizing, overseeing, imposing fines, and/or pursuing the corresponding sanctions (except in the case of criminal penalties corresponding to the specialized organ), and in general seek compliance with standards related to the regulation of fireworks activities.

COMMENT: The proposed body may vary according to the nature of the State's organization in each country, whether presidential or federal. There may be more than one body with jurisdiction, but it is advisable to have one body with exclusive jurisdiction and the ability to delegate functions to other bodies.

Eighth recommendation. Registry

§ It is recommended that the legislation expressly establishes registration of each firework manufactured and/or introduced in a specific State in a registry in charge of a competent body and which shall contain at least the following data:

- . Classification in order to be clear regarding the danger it presents.
- . Technical or invented name.
- . Name and domicile of the legal entity or individual authorized to use it.
- . Safety recommendations for its use or handling.
- . Quantity contained in each container.
- . Calculation programmer or professional for reporting on the installation, development, and safety measures for pyrotechnic spectacles.
- . Fireworks handler license, in the case of pyrotechnical spectacles.

Nineth recommendation. Promotion and awareness measures

§It is recommended that the legislation establish one or more public bodies in charge of raising awareness of the danger of fireworks in order to promote a cultural change aimed at their eradication. Said body must be in charge, with adequate funds and resources, the preparation and implementation of a public policy on fireworks and pyrotechnical games aimed at raising awareness on the matter, and in particular the generation of awareness regarding their risks in Primary and Secondary Education. This public policy must also take into consideration the proper creation of awareness about the economic consequences of the use of fireworks, whether on the environment (reforestation in cases of fire), as well as on people's health, as well as the consequences in flora and fauna, including animal welfare.

Tenth recommendation. Principles of progressive implementation and non-regression

§It is recommended that the legislation establishes the express commitment of progressiveness and non-regression in terms that once a certain regulation is incorporated, there will not be a regulatory involution in the future in the sense of restoring greater freedoms or reducing the penalties regarding activities related to fires. artificial. The foregoing in special consideration of human rights whose duty of protection falls on the States, and which are threatened by fireworks and its serious consequences.

ENDNOTES

[1] According to reports from the following experts and professionals: Alan Mackern Hopkins, Director of International Affairs of the COANIQUEM Burned Children Foundation; Ciro Colombara, Founder and Director of Pro Bono Foundation and member of the Executive Committee of the Pro Bono Network of the Americas; Cristián Pincheira Barrera, Executive Director of the Chilean Red Cross; Domingo Moreno, Director of Strategic Planning, DDB, Colombia; Goldy Rivas Velásquez, Communications and Public Relations Director of the Guayaquil Fire Department, Ecuador, a member entity of the Organization of American Firefighters (OBA); Graciela Argüello, Geologist, *Venia Docendi*, National University of Cordoba, Argentina; Dr. Ignacio Ibarra, Legal and Health Advisor of the Pan American Health Organization; Chilean Police Major Jacqueline Jorquera Escobar, Administrative Sub-Prefect of the Arms and Explosives Control Prefecture; Dr. Jorge Rojas Zegers, President of the COANIQUEM Burned Children Foundation; Dr. Linda Guerrero, President of Skin to be Reborn, Colombia; Luis San Martín Sepúlveda, District Governor 2020-2021, D.4340; Melissa Lizano Chaves, specialist in sensory integration, Psychiatric Hospital of Costa Rica; Paulina Díaz P., Veterinarian, Royal Canine Scientific Communication, Chile.

[2] Taken from the report of the President of Skin to be Reborn Foundation, Colombia, during her participation in the webinar cycle #NoMoreFireworks organized by the COANIQUEM Burned Children Foundation. Audiovisual record:<https://www.youtube.com/watch?v=PhkTvdEB1JE>

[3]<https://www.nfpa.org/fireworksreport>

[4] Taken from the report from the geologist at the University of Cordoba, Argentina, during her participation in the webinar cycle #NoMoreFireworks organized by the COANIQUEM Burned Children Foundation. Audiovisual record:<https://www.youtube.com/watch?v=L7hMuXADh5Q> .

[5] Taken from the report of the Chilean Police Major, during her participation in the webinar cycle #NoMoreFireworks organized by the COANIQUEM Burned Children Foundation. Audiovisual record:<https://www.youtube.com/watch?v=9JbcpOuxviQ>
