



**“MY EYE EXPLODED”**

THE GLOBAL ABUSE OF  
KINETIC IMPACT PROJECTILES



Omega Research Foundation

AMNESTY  
INTERNATIONAL



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First published in 2023 by Amnesty International Ltd  
Peter Benenson House, 1 Easton Street London WC1X ODW, UK

**Index: ACT 30/6384/2023**  
**Original language: English**  
**[amnesty.org](http://amnesty.org)**



*Cover: A police officer aims a shotgun during clashes with protesters in Santiago, Chile, October 31, 2019.*  
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# EXECUTIVE SUMMARY

Across the world peaceful protesters have faced waves of repression from police and military forces in deliberate attempts to crush dissent. While less lethal weapons are promoted as safer alternatives to firearms, all too often these weapons are used unlawfully to harass, intimidate, punish or drive away protesters, undermining their right to peaceful assembly.

This briefing explores the widespread, global misuse of kinetic impact projectiles (KIPs), often called rubber or plastic bullets, in the policing of public assembly. It also examines the gaps in the regulation of their manufacture, use and trade, and looks at other types of projectiles, such as metal shot (which is not designed for use in law enforcement, is particularly dangerous, and whose use in law enforcement must be prohibited). Finally, it examines the unlawful use of tear gas grenades as projectiles fired directly against individuals, or at low angles into crowds, which is a disturbing global trend that has led to hundreds of serious injuries and some deaths.

Kinetic impact projectiles (KIPs) include plastic and rubber bullets and other projectiles such as bean bags, foam rounds and large and small balls, which are often fired from 37-40mm “riot gun” launchers. Single projectiles which can be fired reliably and accurately and cause only limited blunt trauma (as opposed to penetrating injuries) can have a legitimate role in law enforcement if used in line with international human rights law and standards on the use of force. When used lawfully instead of a lethal firearm, these KIPs can prevent deaths and injuries. But multiple projectiles, multiple-barrel launchers and poorly designed single projectiles which cannot be fired accurately or safely cannot be used lawfully and must be prohibited.

Law enforcement officials have often employed KIPs recklessly or for punitive effect in unjustified or disproportionate uses of force. KIPs have frequently been fired recklessly into crowds to disperse them. Attempts to target violent individuals have resulted in unintended injuries, as many launched projectiles are inaccurate, particularly at longer ranges. At shorter ranges, KIPs travelling at high velocity can inflict severe injuries, often resulting in permanent disability. In some cases, it appears that law enforcement officials have used force in a discriminatory manner, specifically targeting certain groups with the unlawful use of KIPs, as well as dangerous weapons not designed for crowd control, such as hunting shot.

This briefing begins by looking at the history of the adoption of KIPs from the 1950s, the large variety of different types now in use and the significant potential health impacts of these powerful and potentially life-threatening weapons. Using illustrative cases drawn from across the world, it shows how their misuse has inflicted serious injuries on peaceful protesters, journalists and bystanders alike – including eye loss and blindings - and in some cases have even led to death.

The briefing then examines the many types of inherently abusive KIPs that are currently manufactured, promoted, traded and used by police and military forces globally. These types are dangerous by design or manufacture, have a long record of causing serious injuries and must be prohibited for law enforcement. They include multiple projectiles and multiple-tube/barrel launch systems designed to launch multiple KIPs simultaneously or rapidly in succession that are impossible to use accurately

# LAW ENFORCEMENT OFFICIALS HAVE OFTEN **EMPLOYED KIPS RECKLESSLY OR FOR PUNITIVE EFFECT**



## **IN UNJUSTIFIED OR DISPROPORTIONATE USES OF FORCE**

and result in disproportionate and indiscriminate use of force. They also include certain types of single projectiles – such as large rubber balls – which are inherently inaccurate, cause unwarranted injuries and must not be used for law enforcement. Rubber-coated metal bullets penetrate the body and cannot be described as “less lethal” projectiles; their use must also be prohibited.

Some types of projectiles are not designed to be used for law enforcement and their employment for such purposes must be prohibited. Metal (usually lead) shot (including “birdshot” or “buckshot” designed for hunting) is used in some countries for crowd control – a practice that is entirely inappropriate, unlawful and has resulted in horrific spray-pattern injuries and thousands of blindings. Other law enforcement weapons, such as tear gas grenades, have been used in ways in which they were never intended to be deployed - fired directly at individuals risking death or severe injuries. Such dangerous methods of use must be prohibited.

This briefing analyses weaknesses and gaps in the way the use of KIPs is regulated, assessing law enforcement guidance manuals, laws and regulations which are often overly broad or permissive, and do not satisfy international law and standards on the use of force. It also presents illustrative cases of the irresponsible trade in KIPs and launchers that have been employed in an arbitrary and excessive manner, which in certain cases amount to torture or other forms of ill-treatment.

Given the grave human rights impacts of this equipment, robust domestic laws and standards on their adoption and use must be introduced or strengthened and thoroughly implemented. This includes rigorous, independent, scientific/ballistic testing and review of all equipment before it is authorized for use to ensure that it can be used safely, in line with international human rights law and standards on the use of force. It also includes regular training of law enforcement officials authorized to use KIPs; close supervision of use; recording and assessment of each discharge; chain of command responsibility and access to medical assistance for those targeted. Law enforcement officials found responsible for violations must be brought to justice in fair proceedings. Victims of violations must receive adequate remedy for any unlawful physical and/or psychological injuries suffered.

There is also an urgent need to introduce national, regional and global controls on the trade in KIPs. This would include, first, prohibitions on the manufacture, trade and use of inherently abusive KIPs and launchers; and, second, strict human rights-based trade controls on KIPs and launchers which can be deployed safely, to ensure they are traded responsibly.

Working with partners the International Human Rights Clinic of Harvard Law School and the Centre for Victims of Torture (CVT), Amnesty International and the Omega Research Foundation are advocating for the creation of a new Torture-free Trade Treaty. Such a treaty would close significant regulatory gaps by introducing global, legally-binding prohibitions and trade controls on law enforcement equipment used in the commission of torture or other ill-treatment.

At the same time as states discuss international regulation, they must impose their own restrictions, refusing to permit specific transfers of less lethal and other law enforcement equipment, including KIPs and related launchers, where there are clear human rights risks of misuse by the intended end users, and prohibiting the production and trade of inherently abusive models which cannot be used in line with international human rights law and standards on the use of force.

**Amnesty International and the Omega Research Foundation  
are calling on states to:**

- Prohibit the manufacture, trade and use of inherently inaccurate, indiscriminate or otherwise dangerous KIPs and related launchers;
- Impose strict, human rights-based trade controls on all other KIPs and related launchers, and prohibit their transfer where there is a clear or substantial risk that they would be used to commit or facilitate serious human rights violations, including torture or other forms of ill-treatment;
- Explicitly prohibit the use of KIPs for generalised crowd control, including dispersal;
- Ensure that KIPs may only be used against violent individuals posing an imminent threat of severe harm to persons, as a last resort when less extreme means is insufficient to achieve this objective, and are never aimed at the upper part of the body or groin area;
- Ban the use of weapons not designed for crowd control - such as hunting shotguns firing metal shot - in law enforcement;
- Provide adequate and prompt remedy including appropriate medical care and rehabilitation, and fair and adequate financial compensation to those impacted by unlawful use of KIPs.



## 2 METHODOLOGY

This briefing draws on research carried out by Amnesty International and the Omega Research Foundation over the last five years in over 30 countries and territories in all regions where the misuse of kinetic impact projectiles (KIPs) and related launchers has been documented. Research includes verified visual evidence, witness testimonies, medical reports and judicial and administrative rulings. Illustrative case studies on misuse of KIPs in Chile, Colombia, France, India, Iran, Israel, Lebanon, Spain, Sudan and the USA combine Amnesty International research with peer-reviewed medical studies, research by local NGOs, UN bodies and official government reports.

Amnesty International and the Omega Research Foundation surveyed published operational manuals, national laws, regulations and guidance documents on the use of KIPs in Argentina, Chile, France, South Africa, the UK and the USA. Published company literature featuring types and specifications of KIPs and related launchers was also consulted from the Omega Research Foundation's extensive archive of materials related to the global manufacture, trade, procurement, and use of military, security, and policing weapons.

For recommendations on use, Amnesty International and the Omega Research Foundation drew on the UN Human Rights Guidance on Less-Lethal Weapons in Law Enforcement, the Organization for Security and Co-operation in Europe (OSCE) Human Rights Handbook on Policing Assemblies, UN Office on Drugs and Crime (UNODC) Resource Book on the Use of Force and Firearms in Law Enforcement, the UN Basic Principles on the Use of Force and Firearms by Law Enforcement Officials and Amnesty International's Use of Force Guidelines.<sup>1</sup>

This briefing is part of a larger body of work developed by Amnesty International and the Omega Research Foundation examining the human rights risks of less lethal weapons,<sup>2</sup> including previous investigations into the misuse of tear gas,<sup>3</sup> and police batons.<sup>4</sup> Complementary policy papers on chemical irritants, batons and KIPs have been developed by Amnesty International Netherlands.<sup>5</sup> This work supports ongoing advocacy efforts to establish global regulations on the manufacture and trade in less lethal weapons, at domestic, regional and international levels. The UN is currently considering adopting international standards in this area, with the possibility of developing a binding International Torture-Free Trade Treaty.

Prior to publication, Amnesty International wrote to Alsetex, B&T AG, Combined Systems, Inc., Condor Tecnologias Não-Letais, Defense Technology® and TEC Harseim SpA outlining our main findings and inviting responses. B&T AG replied declining to comment; no other companies had responded at the time of writing.

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- 1 Office of the United Nations High Commissioner for Human Rights (OHCHR), UN Human Rights Guidance on Less-Lethal weapons in law enforcement (UN Guidance on Less-Lethal weapons), 2020; UN Basic Principles on the Use of Force and Firearms by Law Enforcement Officials (UN Basic Principles), adopted on 7 September 1990; Organization for Security and Co-operation in Europe (OSCE), Office for Democratic Institutions and Human Rights (ODIHR), Human Rights Handbook on Policing Assemblies (Handbook on Policing Assemblies), 2016 [osce.org/files/f/documents/c/5/226981.pdf](https://osce.org/files/f/documents/c/5/226981.pdf); United Nations Office on Drugs and Crime (UNODC), Resource book on the use of force and firearms in law enforcement (Resource book on the use of force), [ohchr.org/sites/default/files/Documents/ProfessionalInterest/UseOfForceAndFirearms.pdf](https://ohchr.org/sites/default/files/Documents/ProfessionalInterest/UseOfForceAndFirearms.pdf); Amnesty International, *Use of Force: Guidelines for Implementation of the UN Basic Principles on Use of Force and Firearms by Law Enforcement Officials*, August 2015, [amnesty.org.uk/files/use\\_of\\_force.pdf](https://amnesty.org.uk/files/use_of_force.pdf)
  - 2 Amnesty International and the Omega Research Foundation, *The human rights impact of less lethal weapons and other law enforcement equipment* (Index Number: ACT 30/1305/2015).
  - 3 Amnesty International, *Tear Gas: an investigation*, [teargas.amnesty.org/](https://teargas.amnesty.org/)
  - 4 Amnesty International and the Omega Research Foundation, *Blunt Force: Investigating the misuse of police batons and related equipment*, [amnesty.org/en/latest/research/2021/09/blunt-force/](https://amnesty.org/en/latest/research/2021/09/blunt-force/)
  - 5 Amnesty International, *Chemical Irritants in Law Enforcement: an Amnesty International Position Paper (Chemical Irritants in Law Enforcement)*, June 2021, [amnesty.nl/content/uploads/2021/07/Amnesty-position-paper-chemical-irritants.pdf](https://amnesty.nl/content/uploads/2021/07/Amnesty-position-paper-chemical-irritants.pdf); Amnesty International, *Batons and other Handheld Kinetic Impact Weapons: an Amnesty International Position Paper*, March 2022, [amnesty.nl/content/uploads/2022/06/Position-paper-striking-weapons-final.pdf?x49845](https://amnesty.nl/content/uploads/2022/06/Position-paper-striking-weapons-final.pdf?x49845)



# THE HUMAN RIGHTS IMPACT OF KIPS

## 3.1 BACKGROUND

Less lethal kinetic impact projectiles (KIPs) were originally developed by the UK and US military.<sup>6</sup> Early use was in Hong Kong in the late 1950s by UK military forces who deployed “skip-fired” (i.e., rebounded off the ground) “wooden bullets” made of teak against protesters, as direct fire of these projectiles was deemed too dangerous. The 1970s saw the use of rubber bullets, and later plastic models, developed by the UK Ministry of Defence for use by the British Army in Northern Ireland. These projectiles were highly inaccurate and dangerous, causing severe injuries in some instances, including the blinding of a 10-year-old boy, and up to 17 deaths, eight of whom were children.<sup>7</sup> Plastic bullets were also used to quell unrest in apartheid South Africa in the 1980s, leading to facial fractures and eye damage, among other injuries.<sup>8</sup>

In the USA, the US Army developed a range of different projectiles in the late 1960s and early 1970s, including wooden blocks – used against protesters in the University of California at Berkeley in 1968 – beanbags, rubber projectiles filled with liquid and small plastic balls. Concerns were repeatedly raised both in the UK and the USA about the safety and appropriateness of KIPs, and the lack of adequate research into the potential health impacts of this then-emerging technology.<sup>9</sup>

More recently, over a hundred different types and designs of kinetic impact projectiles and launchers have been developed and manufactured in many countries, with no international standards regulating product design or performance. KIPs have proliferated to law enforcement agencies across the world through a largely unregulated international trade involving a range of small, medium-sized and large companies based in both the global north and south.

There are growing concerns around the human rights impact of the widespread misuse of KIPs and other types of projectiles in crowd control throughout the world. In the protests that erupted in Chile in October 2019, *carabineros* fired over 100,000 rounds of rubberised buckshot at protesters resulting in hundreds of eye injuries.<sup>10</sup> During Colombia’s National Strike in April 2021 over 100 protesters suffered

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6 Less lethal weapons (LLW) are a wide category of weapons used by military, security and police forces, including for law enforcement. Chemical irritants (for example tear gas, pepper spray), kinetic impact projectiles (for example rubber or plastic bullets), police batons and projectile electric shock weapons are examples of LLW which are used where some degree of force is necessary and proportionate, but where the use of firearms would be unlawful. They are referred to as “non-lethal incapacitating weapons” in the UN Basic Principles (previously cited), but when used improperly they can lead to serious injury or even death.

7 BBC, “*Rubber bullets: Army kept real dangers in NI hidden*”, 11 June 2013, [bbc.co.uk/news/uk-northern-ireland-foyle-west-22848421](https://www.bbc.com/news/uk-northern-ireland-foyle-west-22848421); Sutton Index of Deaths, “*List of People Killed by 'Rubber' and 'Plastic' Bullets*”, [cain.ulster.ac.uk/issues/violence/rubberplasticbullet.htm](https://cain.ulster.ac.uk/issues/violence/rubberplasticbullet.htm). The Patten Report stated that “since 1981, a total of 41,657 [plastic baton rounds] have been discharged by the police, and 14,572 by the army. 11 deaths have been attributed to PBRs since 1981 (and 5 before that), and 615 injuries”, September 1999, The Patten Report, available at “*CAIN Archive - Conflict and Politics in Northern Ireland*”, [cain.ulster.ac.uk/issues/police/patten/patten99.pdf](https://cain.ulster.ac.uk/issues/police/patten/patten99.pdf), p. 54, 9.12.

8 See, for example, M A Cohen, “Plastic bullet injuries of the face and jaws”, 7 December 1985, *South African Medical Journal*, 68(12): pp. 849-52, [pubmed.ncbi.nlm.nih.gov/4071338/](https://pubmed.ncbi.nlm.nih.gov/4071338/)

9 N. Davison, “The Early History of “Non-Lethal” Weapons”, December 2006, University of Bradford, Department of Peace Studies, Occasional paper 1, [bradscholars.brad.ac.uk/bitstream/handle/10454/3994/BNLWRP\\_OP1\\_Dec06.pdf?sequence=1](https://bradscholars.brad.ac.uk/bitstream/handle/10454/3994/BNLWRP_OP1_Dec06.pdf?sequence=1), pp.10-11; see, for instance, US Department of Justice, *Evaluation of Less-Lethal Weapons*, 1977, NCJ Number 52037, p. 53, [ojp.gov/ncjrs/virtual-library/abstracts/evaluation-less-lethal-weapons](https://www.ojp.gov/ncjrs/virtual-library/abstracts/evaluation-less-lethal-weapons)

10 National Institute for Human Rights (INDH), “*INDH entrega nuevo reporte de cifras a cuatro meses de iniciada la crisis social*”, 19 February 2020, [indh.cl/indh-entrega-nuevo-reporte-de-cifras-a-cuatro-meses-de-iniciada-la-crisis-social/](https://indh.cl/indh-entrega-nuevo-reporte-de-cifras-a-cuatro-meses-de-iniciada-la-crisis-social/); Amnesty International, *Eyes on Chile: Police Violence and Command Responsibility during the period of social unrest*, October 2020, (Index: AMR 22/3133/2020), [amnesty.org/en/latest/research/2020/10/eyes-on-chile-police-violence-at-protests](https://www.amnesty.org/en/latest/research/2020/10/eyes-on-chile-police-violence-at-protests)

eye injuries resulting from various types of projectiles used by the police.<sup>11</sup> Physicians for Human Rights found that police forces had shot at least 115 people in the head and neck with KIPs across the USA in the first two months of protests after the killing of George Floyd, at least 30 of whom had suffered permanent eye damage.<sup>12</sup> A systematic review of medical literature published between 1990 and June 2017 on deaths and injuries resulting from the use of KIPs, found that at least 53 people had died as a result of injuries sustained by KIPs, with 300 people suffering permanent disability.<sup>13</sup>

***“Americans have the right to speak and congregate publicly, and should be able to exercise this right without the fear of blindness. You shouldn’t have to choose between your vision and your voice.”***

American Academy of Ophthalmology <sup>14</sup>

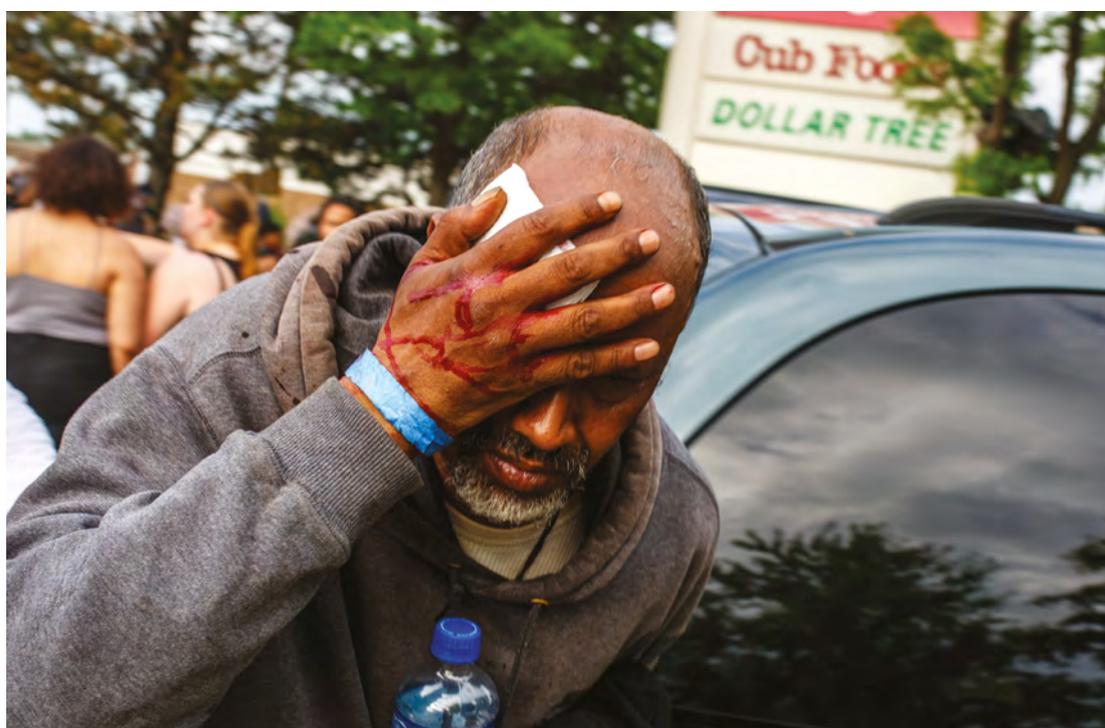
## **USA: “MY EYE EXPLODED”**

When protests erupted across the USA in the wake of the death of George Floyd on 25 May 2020, police frequently responded with excessive use of force. During the 10 days immediately following Floyd’s death, Amnesty International documented 125 cases of police violence in 40 states and the District of Columbia in response to Black Lives Matter (BLM) protests, many involving less lethal weapons, including KIPs, often used against peaceful protestors.

One protester, who was shot by a rubber bullet while attending a demonstration in Minneapolis, Minnesota on 31 May 2020 told Amnesty International: “My eye exploded from the impact of the rubber bullet and my nose moved from where it should be to below the other eye. The first night I was in the hospital they gathered up the pieces of my eye and sewed it back together. Then they moved my nose back to where it should be and reshaped it. They put in a prosthetic eye – so I can only see out of my right eye now.”<sup>15</sup> A study of medical admissions during the Minneapolis protests identified 45 patients with injuries from rubber bullets, 10 with eye trauma and 16 with traumatic brain injuries.<sup>16</sup>

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- 11 Amnesty International, Programa de Acción por la Igualdad y la Inclusión Social (PAIIS) and Temblores, *Colombia: Shoots on Sight: Eye Trauma in the Context of the National Strike*, (Colombia: Shoots on Sight), 26 November 2021, (Index: AMR 23/5005/2021), [amnesty.org/en/documents/amr23/5005/2021/en/](https://www.amnesty.org/en/documents/amr23/5005/2021/en/)
  - 12 Physicians for Human Rights, *Shot in the head*, 14 September 2020, [storymaps.arcgis.com/stories/29cbf2e87b914dbaabdec2f3d350839e](https://storymaps.arcgis.com/stories/29cbf2e87b914dbaabdec2f3d350839e)
  - 13 RJ Haar, V Iacopino, N Ranadive and others, “Death, injury and disability from kinetic impact projectiles in crowd-control settings: a systematic review”, 5 December 2017, *BMJ Open*, doi:10.1136/bmjopen-2017-018154
  - 14 American Academy of Ophthalmology, “Eye Injuries During Protests Are an Emerging Public Health Problem”, 19 June 2020, [aaopt.org/eye-health/news/restrict-use-rubber-bullets-eye-injuries-protests](https://www.aaopt.org/eye-health/news/restrict-use-rubber-bullets-eye-injuries-protests)
  - 15 Amnesty International, *The World is Watching Mass Violations by U.S. Police of Black Lives Matter Protesters’ Rights*, 4 August 2020, (Index: AMR 51/2807/2020), [amnesty.org/en/documents/amr51/2807/2020/en/](https://www.amnesty.org/en/documents/amr51/2807/2020/en/), p. 37.
  - 16 EA Kaske, SW Cramer, I Pena Pino and others, “Injuries from less-lethal weapons during the George Floyd protests in Minneapolis”, *New England Journal of Medicine*, 25 February 2021, [ijms.minneapolismn.gov/Download/FileV2/23349/Lethal\\_Weapons\\_Study\\_Appendix\\_2021.pdf](https://www.ijms.minneapolismn.gov/Download/FileV2/23349/Lethal_Weapons_Study_Appendix_2021.pdf), 384: pp. 774-5.

In response to the pattern of abuse US cities and some states have banned or proposed bans on the use of KIPs in the policing of public protest.<sup>17</sup> On 30 September 2021, the Governor of the State of California signed into law Assembly Bill No. 48 which prohibits the use of kinetic impact projectiles “to disperse any assembly, protest, or demonstration”.<sup>18</sup> On 30 October 2020, the US Congress introduced a bill directing the Secretary of Health and Human Services “to conduct a comprehensive study on the health care impacts of the use of kinetic impact projectiles in the United States” including “the frequency and severity of injuries and health impacts caused by the use of kinetic impact projectiles” and “a demographic and racial breakdown of individuals who have been impacted by kinetic impact projectile-caused injuries domestically”.<sup>19</sup> The Bill failed to pass in the 116th Congress and no similar bill was introduced in the 117th Congress.



*A protester suffers an eye injury during demonstrations against the death of George Floyd outside the 3rd Police Precinct on 27 May 2020 in Minneapolis, Minnesota. © AFP via Getty Images*

17 USA Today, “‘Protests shouldn’t end in people being blinded’: Cities, states begin to ban police use of rubber bullets”, 3 September 2020, [usatoday.com/story/news/nation/2020/09/03/rubber-bullets-police-protests-ammunition-portland-washington/5698346002/](https://www.usatoday.com/story/news/nation/2020/09/03/rubber-bullets-police-protests-ammunition-portland-washington/5698346002/); The Philadelphia Inquirer, “Philly City Council votes to ban tear gas and rubber bullets in demonstrations”, 29 October 2020, [inquirer.com/news/tear-gas-rubber-bullets-pepper-spray-ban-police-20201029.html](https://www.inquirer.com/news/tear-gas-rubber-bullets-pepper-spray-ban-police-20201029.html)

18 California Legislative Information, “An act to amend Section 12525.2 of the Government Code, and to add Sections 13652 and 13652.1 to the Penal Code, relating to law enforcement”, Assembly Bill No. 48, Chapter 404, Filed with Secretary of State, 30 September 2021, [leginfo.ca.gov/faces/billTextClient.xhtml?bill\\_id=20210220AB48](https://leginfo.ca.gov/faces/billTextClient.xhtml?bill_id=20210220AB48)

19 US Congress, 116<sup>th</sup> Congress 2d Session H. R. 8709, “Bill ... to conduct a comprehensive study on the health care impacts of the use of kinetic impact projectiles in the United States”, 30 October 2020, [govinfo.gov/content/pkg/BILLS-116hr8709ih/pdf/BILLS-116hr8709ih.pdf](https://www.govinfo.gov/content/pkg/BILLS-116hr8709ih/pdf/BILLS-116hr8709ih.pdf)

THOSE TARGETED OR HIT BY KIPS INCLUDE

**JOURNALISTS** **MEDICAL PERSONNEL** **&** **BYSTANDERS**

**THE PRINCIPAL VICTIMS HAVE BEEN THOSE EXERCISING  
THEIR RIGHT TO PEACEFULLY PROTEST**

In the last five years, Amnesty International has documented the unlawful, often punitive, use of kinetic impact projectiles in all regions, including in Angola, Bangladesh, Belarus, Bolivia, Cameroon, Chile, Colombia, Curaçao, Egypt, Eswatini, France, Georgia, Greece, Haiti, Hong Kong, Iran, Iraq, Israel/OPT, Kyrgyzstan, Lebanon, Morocco, Myanmar, Puerto Rico, South Africa, Spain, Sudan, Thailand, Togo, Tunisia, Uganda, the USA, Uzbekistan and Venezuela.<sup>20</sup> These cases include police firing projectiles at short range and at head height; firing randomly into crowds of peaceful protesters; firing at fleeing protesters; and one case of firing into a crowd from a military helicopter.<sup>21</sup>

While those targeted or hit by KIPs include journalists, medical personnel and bystanders, the principal victims have been those exercising their right to peacefully protest. These include Black Lives Matter (BLM) activists, refugees and migrants highlighting unfair asylum practices, and those protesting against rises in cost of living, corruption, electoral processes and house demolitions, among many other issues. Security forces have fired rubber bullets not just during demonstrations, but inside a mosque, in prisons, at a funeral gathering, inside a metro station, across border fences and in the street in order to enforce Covid-19 related lockdowns.<sup>22</sup>

## 3.2 WHAT ARE KINETIC IMPACT PROJECTILES?

Launched kinetic impact projectiles, sometimes referred to as 'baton rounds', 'impact rounds', 'rubber bullets', or 'plastic bullets', are typically fired from launchers or shotguns; some are expelled from grenades such as the "sting ball grenade", which can be hand-thrown or weapon launched. Different models of cartridge or grenade can contain different numbers of projectiles, and the projectiles can also differ in size, design and composition. Multiple projectiles, multiple-barrel launchers and poorly-designed single projectiles which cannot be fired accurately or safely cannot be used lawfully and must be prohibited (see Chapter 4 below).

Examples include rubber, plastic or PVC balls or "bullets"; large, sponge or foam-tipped cylinder projectiles; bean bags - fabric bags usually weighted with lead shot or silica sand; and cartridges filled with rubber or plastic balls. Different shapes and sizes include large and small balls or cylinders, and can be made of rubber, PVC, dense foam or wood. Certain types of KIPs are intended to burst and fragment on impact delivering their payload including chemical irritants such as chlorobenzylidenemalonitrile (CS), Oleoresin Capsicum (OC) or pelargonic acid vanillylamide (PAVA).<sup>23</sup>

20 For a full list of references, see Annex 1.

21 The helicopter case is based on testimony gathered from protesters in Sacaba, Bolivia, see Amnesty International, *Healing the pandemic of impunity: 20 human rights recommendations for candidates in the 2020 presidential elections in Bolivia*, (Index: AMR 18/2871/2020), [amnesty.org/ar/documents/amr18/2871/2020/en/](https://www.amnesty.org/ar/documents/amr18/2871/2020/en/), p. 16.

22 For example, Amnesty International, "Southern Africa: COVID-19 a pretext for surge in harassment of journalists and weakening of media houses by states", 3 May 2020, [amnesty.org/en/latest/news/2020/05/southern-africa-covid19-a-pretext-for-surge-in-harassment-of-journalists-and-weakening-of-media-houses-by-states/](https://www.amnesty.org/en/latest/news/2020/05/southern-africa-covid19-a-pretext-for-surge-in-harassment-of-journalists-and-weakening-of-media-houses-by-states/)

23 See, for example, PepperBall®, "Projectile product sheet specifications", [store-c19drjba2a.mybigcommerce.com/content/PEP-21006-Round-LIVE-Specs-120121.pdf](https://store-c19drjba2a.mybigcommerce.com/content/PEP-21006-Round-LIVE-Specs-120121.pdf)

## THE RIGHT OF PEACEFUL ASSEMBLY

The right to peacefully protest is a cornerstone of the human rights system. It allows people to express solidarity while publicly airing grievances and express aspirations, for example for the greater protection and promotion of other human rights, including social, cultural and economic rights. The right of peaceful assembly is particularly important to marginalized individuals and groups and its suppression is “typically a marker of repression”.<sup>24</sup> Law enforcement officials have a responsibility to facilitate and protect the exercise of the right of peaceful assembly, where possible through communication, negotiation and mediation. While law enforcement officials should focus on deescalating potential violence, in limited cases force may be necessary to protect life and physical integrity and to minimize harm and injury. Any use of force, including the use of less lethal weapons, must comply with the fundamental principles of legality, necessity, proportionality and precaution.<sup>25</sup> Less lethal weapons must not be used in situations of crowd control that can be addressed through less harmful means, especially in situations involving the exercise of the right of peaceful assembly.<sup>26</sup>

## 3.3 TYPES OF KIP LAUNCHERS

Many different types of launchers are currently used by military, security and police forces to launch KIPs, from handheld weapons to fixed or mountable multiple-barrel launchers. Some drone systems are also capable of launching KIPs, though have so far only been documented launching tear gas grenades.

### HANDHELD LAUNCHING WEAPONS

Some firearms, such as shotguns, can fire both lethal and less lethal ammunition. A wide range of more specialised large calibre firearms - commonly 37/38 mm, 40 mm or 56mm - are typically used to fire KIPs and other less lethal projectiles. Also known as “riot guns” or grenade launchers, they can be single or multiple-shot and can be identified by their wider barrels. A distinct type of specially-designed launcher is the air or CO<sub>2</sub> powered launcher, often distinguishable by the presence of a gas canister attached to the weapon. They are small calibre, often with a large “hopper” for the projectiles and are semi-automatic enabling rapid fire.<sup>27</sup>

### FIXED/MOUNTABLE MULTIPLE-BARREL LAUNCHERS

A broad range of multiple-barrel launchers have been developed which are usually mounted on ground vehicles, such as armoured personnel carriers, but can be fixed to structures, such as buildings, or employed as free-standing devices on tripods. The number and calibre of barrels varies, and they allow individual, sequential or simultaneous firing of a wide range of compatible ammunition, including KIPs. Such launchers cannot be accurately aimed and enable very high rates of uncontrolled firing, as such they cannot comply with the principles of necessity and proportionality and their use in law enforcement must be prohibited.<sup>28</sup>

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24 Human Rights Committee, General comment 37 on the right of peaceful assembly (article 21), 17 September 2020, CCPR/C/GC/37, paras 1-2.

25 See UN Basic Principles and Amnesty International, *Use of Force*, 4.3, pp. 95-102 (previously cited).

26 Human Rights Committee, General Comment 36 Article 6: Right to Life, 30 October 2018, CCPR/C/GC/36, para. 14; Amnesty International, *Use of Force*, p. 157 (previously cited).

27 OSCE/Omega Research Foundation, *Guide on Law Enforcement Equipment Most Commonly Used in the Policing of Assemblies*, p. 43, [www.osce.org/files/f/documents/4/7/491551\\_0.pdf](http://www.osce.org/files/f/documents/4/7/491551_0.pdf)

28 See Combined Systems, “VENOM system”, which has been widely exported, [combinedsystems.com/product/3037-venom-model-3037/](http://combinedsystems.com/product/3037-venom-model-3037/); Amnesty International, “Chemical Irritants in Law Enforcement”, (previously cited), p. 14.

## DRONES

A range of uncrewed aerial, ground or surface vehicles (UAV/UGVs/USVs), or “drones” have been developed and promoted, armed with launchers capable of firing KIPs along with other less lethal munitions. To date, armed drones have not been widely used for the policing of public assemblies, although UAVs were documented dropping tear gas during the Gaza Great March of Return protests in 2018.<sup>29</sup> Any kinetic impact projectile delivery mechanisms based on uncrewed vehicles that are inherently inaccurate or which result in unnecessary injuries must be prohibited.

### 3.4 WHAT ARE THE HEALTH EFFECTS OF KIPS?

***“Energy projectiles are very high on the use of force continuum and next on the scale to the use of firearms ... police must understand that energy projectiles are less lethal, but if used incorrectly they can cause death or serious injury.”***

OSCE, Human Rights Handbook on Policing Assemblies 30

KIPs should be used at a distance from the intended target and are meant to cause at most minimal blunt trauma (bruising) injuries while inflicting sufficient pain to deter or incapacitate those individuals targeted. They are intended to be used as an alternative to other forms of force, notably firearms. However, poor weapon and ammunition design and unlawful use of KIPs can result in penetrating wounds, life-changing injuries, and even death.

The health impacts of KIPs depend on the composition, size, mass of the projectiles; their stability, accuracy and velocity with which they are fired; the distance from which they are fired; and the type of launcher used.<sup>31</sup> There are a number of trade-offs which make KIPs particularly difficult to use safely. The closer the range to the target, the higher the velocity/kinetic energy a projectile will possess; at longer ranges the more inaccurate a projectile will be.<sup>32</sup> In practice, safe firing distances are difficult to specify, and vary greatly depending on the weapon type, the manufacturer, and national, state and individual police force regulations.<sup>33</sup>

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29 Amnesty International, “Israeli forces must end the use of excessive force in response to “Great March of Return” protests”, 13 April 2018, [amnesty.org/en/latest/news/2018/04/israelopt-israeli-forces-must-end-the-use-of-excessive-force-in-response-to-great-march-of-return-protests/](https://www.amnesty.org/en/latest/news/2018/04/israelopt-israeli-forces-must-end-the-use-of-excessive-force-in-response-to-great-march-of-return-protests/)

30 OSCE/ ODIHR, Handbook on Policing Assemblies (previously cited), p. 80.

31 For a detailed technical analysis of the impact of rubber bullets, see “Forensic aspects of rubber bullet injuries” in B’Tselem, *Death Foretold Firing of “Rubber” Bullets to Disperse Demonstrations in the Occupied Territories*, December 1998, Annex 2, [btselem.org/sites/default/files/publications/199812\\_death\\_foretold\\_eng.pdf](https://www.btselem.org/sites/default/files/publications/199812_death_foretold_eng.pdf), pp. 17-21.

32 In one study testing beanbags fired from 12-gauge shotguns the accuracy of some models declined over 15 metres, with shorter barrelled riot guns tending to be even less accurate, Charlie Mesloh and others, “Modular 12 Gauge Shotgun Beanbag Accuracy Study”, 1 September 2008, *Journal of Testing and Evaluation*, Vol. 36, No. 5, [researchgate.net/publication/249958790\\_Modular\\_12\\_Gauge\\_Shotgun\\_Beanbag\\_Accuracy\\_Study](https://www.researchgate.net/publication/249958790_Modular_12_Gauge_Shotgun_Beanbag_Accuracy_Study)

33 See INCLC and PHR, *Lethal in Disguise: The Health Consequences of Crowd-Control Weapons*, 2015, (pp. 31-34), [www.inclc.net/pdf/lethal-in-disguise.pdf](https://www.inclc.net/pdf/lethal-in-disguise.pdf)



Combined Systems 40mm Sponge Baton rounds in the gendarmerie barracks of Evry-Courcouronnes, south of Paris.  
© AFP via Getty Images

Generally, a projectile with a larger impact area reduces the risk of penetrative injuries, but because of its bulk and relatively low velocity such projectiles are less accurate. Overly powerful munitions resulting in high velocity projectiles can increase the risk of penetration injuries, including from beanbags which were claimed by manufacturers to reduce this risk.<sup>34</sup>

The specific circumstances of their use can increase risk of injury, including wind speed, weather conditions (which may affect visibility), how fast the target is moving and the thickness/coverage of clothing. According to one study, the stress levels of law enforcement officials confronting real-life crowd control operations also greatly affected accuracy.<sup>35</sup>

Historical medical studies have shown a pattern of injuries and deaths from the use of KIPs in Northern Ireland in the 1970s,<sup>36</sup> Israel/OPT in the 1990s,<sup>37</sup> with more recent work on Kashmir<sup>38</sup> and France.<sup>39</sup>

34 See Timothy M. Guenther and others, *Journal of Surgical Case Reports*, "Penetrating thoracic injury from a bean bag round complicated by development of post-operative empyema", 13 March 2020, [escholarship.org/content/qt70j141wr/qt70j141wr\\_noSplash\\_1035fef98cd1be8373643ea9a36a6bb8.pdf](https://escholarship.org/content/qt70j141wr/qt70j141wr_noSplash_1035fef98cd1be8373643ea9a36a6bb8.pdf), 4, pp. 1-4.

35 John Taverniers and Joel Suss, "A user-centred assessment of a less-lethal launcher: the case of the FN 303® in a high-pressure setting, *Ergonomics*", 18 June 2019, DOI: [10.1080/00140139.2019.1626916](https://doi.org/10.1080/00140139.2019.1626916), 62:9, pp. 1162-74.

36 Between 1970 and 1975, over 55,000 rubber bullets were fired in Northern Ireland, with an estimated death rate of one in 18,000 rounds used, and serious injury rate of one in 1,100 rounds, *Injuries caused by Plastic Bullets Compared with those caused by rubber bullets*, Laurence Rocke, *Occasional Survey*, 23 April 1983, Volume 321, Issue 8330, pp. 919-20, DOI:[doi.org/10.1016/S0140-6736\(83\)91340-5](https://doi.org/10.1016/S0140-6736(83)91340-5)

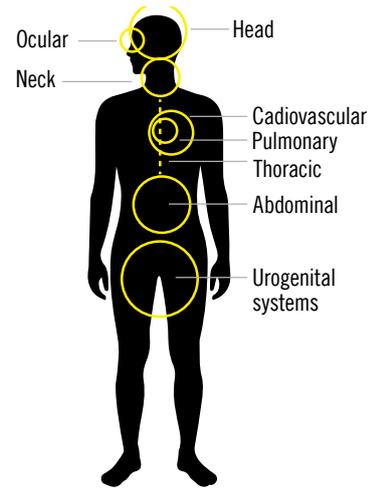
37 Ahmad Mahajna, MD and others, "Blunt and penetrating injuries caused by rubber bullets during the Israeli-Arab conflict in October, 2000: a retrospective study", 25 May 2002, Volume 359, Issue 9320, pp. 1795-1800, [thelancet.com/journals/lancet/article/PIIS0140-6736\(02\)08708-1/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(02)08708-1/fulltext)

38 Xin Wei and others, "A series of 777 pellet gun ocular injuries over a 4-month period in Kashmir", *Indian Journal of Ophthalmology*: October 2022, Volume 70, Issue 10, pp. 3465-69, doi: [10.4103/ijoo.IJO\\_721\\_22](https://doi.org/10.4103/ijoo.IJO_721_22); Shabir Ahmed Dhar and others, "Pattern of rubber bullet injuries in the lower limbs: A report from Kashmir, *Chinese Journal of Traumatology*", June 2016, *Chinese Journal of Traumatology*, Volume 19, Issue 3, pp. 129-33, [sciencedirect.com/science/article/pii/S1008127515001650](https://www.sciencedirect.com/science/article/pii/S1008127515001650).

39 The Lancet, "Yellow vests protests: facial injuries from rubber bullets", *Correspondence*, 10 August 2019, Volume 394, Issue 10197, pp. 469-70, [thelancet.com/journals/lancet/article/PIIS0140-6736\(19\)31764-7/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(19)31764-7/fulltext); The Lancet, *Ocular injuries caused by less-lethal weapons in France*, *Correspondence*, 2 November 2019, Volume 394, Issue 10209, pp.1616-17, [thelancet.com/journals/lancet/article/PIIS0140-6736\(19\)31807-0/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(19)31807-0/fulltext)

ACCORDING TO A MEDICAL LITERATURE REVIEW OF PAPERS PUBLISHED BETWEEN 1990 AND JUNE 2017,

**OVER 90% INJURIES CAUSED BY KIPS AFFECTING “HEAD AND NECK, OCULAR, NERVOUS, CARDIOVASCULAR, PULMONARY AND THORACIC, ABDOMINAL AND UROGENITAL INJURIES WERE SEVERE”**



According to a medical literature review of papers published between 1990 and June 2017, over 90% injuries caused by KIPs affecting the “head and neck, ocular, nervous, cardiovascular, pulmonary and thoracic, abdominal and urogenital injuries were severe”.<sup>40</sup> The review identified 1,984 people, 53 of whom died as a result of their injuries; 300 people suffered permanent disability. Deaths and permanent disability often resulted from strikes to the head and neck and involved KIPs with a metal core or composite.<sup>41</sup> Of particular concern are injuries to the eye which have resulted in multiple cases of eyeball rupture, haemorrhage or even retinal detachment leading to loss of sight.<sup>42</sup> Other injuries include cases of concussion, skull fracture and brain injury, lacerations, bone fractures, rupture of internal organs/internal haemorrhaging, testicular trauma,<sup>43</sup> heart and lung puncturing from broken ribs<sup>44</sup> and muscle/nerve damage.<sup>45</sup>

The catalogue of deaths and life-changing injuries caused by the use of KIPs in the policing of public assembly reinforces the need for strict regulations of their manufacture, design, use and trade. Of key importance is the prohibition of certain types of inherently abusive projectiles and launchers which is explored in the next chapter.

40 Haar RJ and others, “Death, injury and disability from kinetic impact projectiles in crowd-control settings: a systematic review”, 2017, *BMJ Open*, 7:e018154. doi:10.1136/bmjopen-2017-018154

41 Haar RJ and others, “Death, injury and disability from kinetic impact projectiles” (previously cited).

42 Independent Forensic Expert Group, “Review of visual evidence in relation to ongoing protests in Colombia”, 3 June 2021, [hrw.org/sites/default/files/media\\_2021/06/IFEG-IRCT%20submission%2C%20HRW%20Colombia%2C%20June%202021.pdf](http://hrw.org/sites/default/files/media_2021/06/IFEG-IRCT%20submission%2C%20HRW%20Colombia%2C%20June%202021.pdf); International Network of Civil Liberty Organizations (INCLLO), *Unhealed Wounds: The Faces Behind the Injuries of Crowd-Control Weapons*, [www.inclo.net/projects/unhealed-wounds/](http://www.inclo.net/projects/unhealed-wounds/)

43 Madison E. Kahle and others, “Testicular rupture following rubber bullet trauma case report”, August 2021, *Translational Andrology and Urology*, 10(8) pp. 3529–3531, [pubmed.ncbi.nlm.nih.gov/34532277/](https://pubmed.ncbi.nlm.nih.gov/34532277/)

44 Ken Hubbs and David Klinger, “Impact Munitions Data Base of Use and Effects”, February 2004, p. 19, [ojp.gov/pdffiles1/nij/grants/204433.pdf](http://ojp.gov/pdffiles1/nij/grants/204433.pdf)

45 Haar RJ and others, “Death, injury and disability from kinetic impact projectiles” (previously cited).

# 4 INHERENTLY ABUSIVE KINETIC IMPACT PROJECTILES

Some KIPs are so poorly designed that they are inherently problematic and cannot be used safely. To be used lawfully, KIPS must be capable of being accurately targeted and hitting the intended target. According to UN guidance this means that impact projectiles “should be capable of striking an individual to within a 10-centimetre diameter of the targeted point when fired from the designated range”.<sup>46</sup> The UN Guidance also states that multiple projectiles are inaccurate and “in general, their use cannot comply with the principles of necessity and proportionality”.<sup>47</sup>

## KIPS AND THE LAWFUL USE OF FORCE

Kinetic impact projectiles may only be used as a last resort against violent individuals posing an imminent threat of severe harm to persons. Projectiles may only be used to target an individual in order to contain and stop the violence and only when less extreme means are insufficient to achieve this objective. Projectiles must never be aimed at the head, upper-body or groin areas. KIPs and related launchers must be sufficiently accurate to be able to target specific parts of an individual’s body, and be designed to only cause blunt trauma (not penetrative injuries). According to UN guidance this means that impact projectiles “should be capable of striking an individual to within a 10-centimetre diameter of the targeted point when fired from the designated range”.<sup>48</sup> As with all use of less lethal weapons, law enforcement officials must use KIPs in compliance with the human rights principles of legality, legitimate aim, necessity and proportionality.<sup>49</sup>

## THE USE OF KIPS IN THE POLICING OF PUBLIC ASSEMBLY

While law enforcement agencies should be equipped with a broad range of less lethal weapons to allow for “a differentiated use of force” in the policing of public assembly, certain weapons pose heightened risk of causing unwarranted injuries. Law enforcement officers must exercise caution and restraint when using KIPs for policing violent incidents during protests due to the difficulties in targeting individuals in dynamic, fast-moving situations and tightly-packed crowds and the risks of hitting bystanders. Furthermore, in the event of injuries, medical response may be impeded from reaching impacted individuals. Given these risks, law enforcement agencies should seriously question the operational need for KIPs in the policing of public assembly and may only use these weapons when absolutely necessary for the protection of themselves and others from the imminent threat of violence. KIPs are intended to be only used to deal with specific violent individuals. They are not designed as a tool for general crowd control and must never be used to disperse an assembly.<sup>50</sup> KIPs must never be used for the purpose of punishment. Punitive use of KIPs against peaceful protesters could constitute acts of torture or other-ill-treatment.

46 UN Guidance on Less-Lethal Weapons, para. 7.5.4 (previously cited).

47 UN Guidance on Less-Lethal Weapons, para. 7.5.6.

48 UN Guidance on Less-Lethal Weapons, para. 7.5.4.

49 UN Basic Principles (previously cited).

50 UNODC Resource book on the use of force, pp. 94-5 (previously cited)

Many types of KIPs and related launchers that are currently manufactured, traded and used around the world do not meet the minimum requirements under international law and standards and must therefore be prohibited. These include:

- Ammunition containing multiple KIPs;
- Multiple-barrel KIPs launch systems;
- Any launcher that fires in automatic mode;
- Poorly designed, inherently inaccurate/dangerous single projectiles.

Below are illustrative examples of the problems that these types of KIPs and launchers have caused around the world.

## 4.1 KIP AMMUNITION CONTAINING MULTIPLE PROJECTILES

According to the UNODC: “Weapons that fire multiple projectiles at the same time ... should never be used due to the risk of injury to bystanders.”<sup>51</sup> Yet many types of multiple projectile rubber bullets and multiple rubber/wood/foam baton rounds are widely marketed. This includes various types of hand launched “sting-ball” grenades which on detonation spray up to a 180 rubber or plastic balls in all directions.<sup>52</sup> Multiple KIPs containing metals are particularly dangerous and have led to severe, life-changing injuries as well as deaths.

### RUBBERIZED BUCKSHOT

The Chilean company TEC Harseim has manufactured “rubber shot” “anti-disturbance” rounds that contain twelve spherical projectiles in each cartridge which travel at 410 metres per second, according to company literature.<sup>53</sup> In addition to the inherent inaccuracy of multiple projectile systems, the part-metal content of each projectile, and the amount of propellant in the shell, makes this type of projectile too heavy and fast to be used safely as a less lethal KIP. It resulted in hundreds of serious eye injuries during the protests in Chile in October and November 2019 before its use was limited on 19 November 2019.<sup>54</sup>



*A protester shows his wound after he was hit by a rubber bullet during clashes with security forces on a fourth straight day after protests, in Valparaiso, Chile on 21 October 2019. © AFP via Getty Images*

51 UNODC Resource book on the use of force, p. 94 (previously cited).

52 For example, Combined Systems’ 37MM .31Cal Sting-Balls contains approximately 180 rubber balls [combinedsystems.com/wp-content/uploads/2021/07/3553-Rev-D.pdf](https://www.combinedsystems.com/wp-content/uploads/2021/07/3553-Rev-D.pdf)

53 Caza, “Catalogo Invierno Tec Harseim”, 2018, p. 6, [/issuu.com/techarte/docs/tec\\_catalogo\\_caza\\_final\\_media](https://issuu.com/techarte/docs/tec_catalogo_caza_final_media)

54 Amnesty International, Eyes on Chile: Police Violence and Command Responsibility during the period of social unrest, (Eyes on Chile), (Index: AMR 22/3133/2020), [amnesty.org/en/documents/amr22/3133/2020/en/](https://www.amnesty.org/en/documents/amr22/3133/2020/en/)

## CHILE: CATASTROPHIC EYE INJURIES

In mid-October 2019, protests spread across Chile prompted by demands for decent pensions, housing, quality public education, and healthcare. President Sebastian Piñera responded with a state of emergency decree and deployed the army and police to suppress the protests. For over a month, police forces used heavier and faster than usual multiple kinetic impact projectiles - the TEC Harseim pellets - which were described as “spherical rubber units”, but in fact had traces of lead, silicon and aluminium, among other substances. During October more than 104,000 rounds were fired. After hundreds of injuries – many catastrophic eye injuries - the use of the TEC Harseim ammunition was limited for use in crowd control on 19 November 2019 but remains permissible for use “in certain circumstances” such as to prevent or repel aggressions against the physical integrity of demonstrators, other persons or police officers.<sup>55</sup>

According to an evaluation by Chile’s National Institute for Human Rights, police actions in the protests which began on 18 October resulted in more than 440 eye injuries, with over 30 cases of eye loss, or ocular rupture.<sup>56</sup> A peer-reviewed medical study on the impact of KIPs during the protests in Chile, which assessed the records of all patients who sought care or were referred to the Eye Trauma Unit during the protests, recorded 182 cases of ocular trauma related to the misuse of KIPs and found that 33 cases had total blindness and 90 cases (49.5%) had severe visual impairment or were blind at first examination. Around 20% of the cases caused by KIPs had open-globe trauma (i.e. penetrating eye injury).<sup>57</sup> One of the most severe cases was that of the 22-year-old student, Gustavo Gatica, who was blinded in both eyes after being hit in the face by pellets fired by police. Amnesty International continues to campaign for justice in this case, including a full, impartial investigation, prosecution of those held responsible in a fair trial and the provision of adequate remedy.<sup>58</sup> As yet there has been no accountability for those commanding the police operations.

## 4.2 POORLY-DESIGNED SINGLE PROJECTILES

Some single KIPs are inherently inaccurate and/or unstable and cannot be used to target specific parts of an individual’s body.<sup>59</sup> In Spain, the use of inherently inaccurate large rubber balls proved so dangerous that their use was prohibited by some police forces in 2014.

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55 Amnesty International, Eyes on Chile (previously cited).

56 National Institute for Human Rights, “*INDH entrega nuevo reporte de cifras a cuatro meses de iniciada la crisis social*”, 19 February 2020, [indh.cl/indh-entrega-nuevo-reporte-de-cifras-a-cuatro-meses-de-iniciada-la-crisis-social/](http://indh.cl/indh-entrega-nuevo-reporte-de-cifras-a-cuatro-meses-de-iniciada-la-crisis-social/)

57 Á Rodríguez and others, “Ocular trauma by kinetic impact projectiles during civil unrest in Chile”, 24 August 2021, *Eye* 35, pp. 1666–1672, [doi.org/10.1038/s41433-020-01146-w](https://doi.org/10.1038/s41433-020-01146-w)

58 Amnesty International, Write for Rights, Chile: Case Poster Gustavo Gatica, (Index Number: AMR 22/2586/2020), [amnesty.org/en/documents/amr22/2586/2020/en/](https://www.amnesty.org/en/documents/amr22/2586/2020/en/)

59 Amnesty International, “*Spain: Excessive use of force by National Police and Civil Guard in Catalonia*”, 3 October 2017, [amnesty.org/en/latest/news/2017/10/spain-excessive-use-of-force-by-national-police-and-civil-guard-in-catalonia-2/](https://www.amnesty.org/en/latest/news/2017/10/spain-excessive-use-of-force-by-national-police-and-civil-guard-in-catalonia-2/); Guardian, “*Catalonia police banned from using rubber bullets*”, 30 April 2014, [theguardian.com/world/2014/apr/30/catalonia-police-banned-rubber-bullets](https://www.theguardian.com/world/2014/apr/30/catalonia-police-banned-rubber-bullets)

## SPAIN: LARGE RUBBER BALLS



An inherently inaccurate rubber ball used by Spanish police forces in the streets of Barcelona on 18 October 2019. © 2019 Andrea Baldo

In Spain, the use of large, tennis-ball-sized rubber ball KIPs which are inherently inaccurate have caused multiple serious injuries, including eye injuries. The campaign coalition Stop Balas de Goma, has documented one death from head trauma and 24 serious injuries, including 11 cases of severe eye injury, four of which have led to loss of sight in one eye from 2000 to 2020.<sup>60</sup> In February 2014, members of the Spanish Civil Guard fired 145 rubber balls and 5 smoke grenades at 200 migrants, refugees and asylum seekers from Sub-Saharan Africa attempting to swim to El Tarajal beach in Ceuta, an autonomous city of Spain on the north coast of Africa, contributing to the deaths by drowning of at least 14 people.<sup>61</sup> As a result of multiple serious injuries, often to bystanders,<sup>62</sup> local police forces in Catalonia, Euskadi and Navarra

prohibited the use of rubber bullets between 2014 and 2017, though they are still used by the Cuerpo Nacional de Policía and the Guardia Civil across Spain.<sup>63</sup>

Swiss manufactured B&T AG SIR (Safe Impact Rounds) and the more powerful extended range variant SIR-X – were gradually adopted from 2014 after the banning of the rubber balls. However, their misuse by Spanish police forces has led to multiple serious injuries. The Generalitat de Catalunya has recommended that the SIR-X should be used at a range of between 20 and 50 metres, which is not in line with manufacturer’s recommended range of greater than 30 meters.<sup>64</sup>

Amnesty International has documented four serious injuries involving the use of foam impact rounds: two cases involved loss of eyesight, one the loss of a testicle and another which required the surgical removal of damaged skull tissue. A parliamentary commission on the police model has called on the Catalan government to withdraw the projectile SIR-X and to consider the replacement of all foam projectiles for less harmful options.<sup>65</sup> In one of the cases of Spanish police misuse of KIPs detailed by AI Spain, an unnamed 18-year-old man identified as “A” was walking very close to Plaça d’Urquinaona in Barcelona on 18 October 2019 where a protest was underway. Although he took no part in the demonstrations he was unexpectedly hit in the head by a foam bullet. After undergoing two operations, he ended up losing the sight in one eye. A criminal investigation was opened after he lodged a complaint but was closed due to the impossibility of identifying the perpetrator of the shooting. The investigation confirmed that his injury was caused by the impact of a less lethal projectile. He has commenced legal proceedings against the state through administrative channels seeking financial compensation.<sup>66</sup>

60 Instituto Internacional para la Acción Noviolenta (Novact) and Centro de Defensa de Derecho Humanos (Iridia), *Stop Balas de Goma*, novact.org/wp-content/uploads/2021/06/Final-Informe-Balas-de-Goma\_compressed1.pdf

61 Amnesty International, “Spain: Accountability urged for ‘appalling’ migrant deaths in Ceuta”, 14 February 2014, [amnesty.org/en/latest/news/2014/02/spain-accountability-urged-appalling-migrant-deaths-ceuta/](https://www.amnesty.org/en/latest/news/2014/02/spain-accountability-urged-appalling-migrant-deaths-ceuta/); “Spain: Ceuta migrant tragedy – deplorable disregard for human life”, 6 February 2015, [amnesty.org/en/latest/news/2015/02/spain-ceuta-migrant-tragedy-deplorable-disregard-human-life/](https://www.amnesty.org/en/latest/news/2015/02/spain-ceuta-migrant-tragedy-deplorable-disregard-human-life/); “El Tarajal, Historia de una tragedia sin nombres”, 5 February, 2015, [es.amnesty.org/en-que-estamos/blog/historia/articulo/el-tarajal-historia-de-una-tragedia-sin-nombres/](https://www.es.amnesty.org/en-que-estamos/blog/historia/articulo/el-tarajal-historia-de-una-tragedia-sin-nombres/)

62 Amnesty International, “Amnistía Internacional pide al Estado que se revise la utilización de las pelotas de goma por todas las Fuerzas de Seguridad”, 13 April 2012, [/tinyurl.com/yjmywuhm](https://tinyurl.com/yjmywuhm); Amnesty International, *Spain: The right to protest under threat*, 24 April 2014, (Index Number: EUR 41/001/2014), [amnesty.org.uk/files/spain\\_the\\_right\\_to\\_protest\\_under\\_threat\\_0.pdf](https://www.amnesty.org.uk/files/spain_the_right_to_protest_under_threat_0.pdf)

63 *Stop Balas de Goma*, (previously cited) p. 65.

64 Amnesty International, *Derecho a la protesta en España: siete años, siete mordazas que restringen y debilitan el derecho a la protesta pacífica en España, 2022*, (*Derecho a la protesta en España*), (AI Index: EUR41700022), [doc.es.amnesty.org/ms-opac/recordmedia/1@000035052/object/47075/raw](https://www.doc.es.amnesty.org/ms-opac/recordmedia/1@000035052/object/47075/raw), p. 46.

65 Amnesty International, *Derecho a la protesta en España* (previously cited); Butlletí Oficial del Parlament de Catalunya, p. 98, 20 December 2022, [www.parlament.cat/document/bopc/316366043.pdf#page=98](https://www.parlament.cat/document/bopc/316366043.pdf#page=98), p. 98.

66 Amnesty International, *Derecho a la protesta en España*, p. 47; ; “A” is being represented by Iridia – Centro de Defensa de Derecho Humanos.

## RUBBER-COATED METAL BULLETS

Rubber-coated metal bullets used by the Israeli Defense Forces (IDF) in the Occupied Palestinian Territories (OPT) are rigid, heavy and are fired at high velocity, leading to penetrative injuries. According to the UN Human Rights Guidance on Less-Lethal Weapons in Law Enforcement, rubber-coated metal bullets “are particularly dangerous and should not be used”; the UNODC also cautions against use due to their “high risk of lethality.”<sup>67</sup> Indeed they should not be considered as less lethal weapons - they are lethal weapons which have led to scores of deaths. Their use has been banned for crowd control within Israel, but continues to be used in the OPT.<sup>68</sup>

### ISRAEL: DECADES OF SERIOUS INJURIES AND FATALITIES

The dangers of the use of rubber-coated metal bullets by the Israeli military, security and police forces, particularly against Palestinians, have been long identified.<sup>69</sup> On 2 September 2003, an official Israeli investigation, the Commission of Inquiry into the Clashes Between Security Forces and Israeli Citizens in October 2000, headed by Supreme Court Justice Theodore Or, concluded that rubber-coated metal bullets were lethal weapons and recommended that they should not be used by security forces for policing demonstrations.<sup>70</sup> His recommendation was adopted within Israel where the use of rubber-coated metal bullets are banned in all but the most extreme circumstances. However, their routine use has continued in the Occupied Palestinian Territories, resulting in hundreds of injuries and scores of fatalities. A peer reviewed study of 42 patients from the Occupied Palestinian Territories with severe eye injuries caused by kinetic impact projectiles during the Second Intifada concluded that “the term ‘rubber bullet’ is misleading. ‘Rubber bullets’ cause a wide variety of ocular and periocular injuries. Orbital fractures are common. The tissues of the orbit are easily penetrated. If the globe is hit, it is rarely salvageable.”<sup>71</sup> The almost exclusive use of these weapons against Palestinian protesters further raises serious concerns regarding the human rights principle of non-discrimination.<sup>72</sup>

More recently, the UN Human Rights Council’s Report of the independent international commission of inquiry on the protests in the Occupied Palestinian Territory recorded 438 injuries due to the use of rubber-coated metal bullets between 30 March and 31 December 2018 during the Great March protests.<sup>73</sup> The UN Office for the Coordination of Humanitarian Affairs have recorded thousands of injuries sustained by Palestinian protesters as a result of being hit with rubber-coated metal bullets, rubber bullets and tear gas grenades.<sup>74</sup>

67 UN Human Rights Guidance on Less-Lethal Weapons in Law Enforcement, 7.5.8; UNODC Resource book on the use of force and firearms in law enforcement, p. 95.

68 See Amnesty International, *Trigger-Happy: Israel’s use of excessive force in The West Bank*, 27 February 2014 (Index: MDE 15/002/2014), [amnesty.org/en/documents/mde15/002/2014/en](https://www.amnesty.org/en/documents/mde15/002/2014/en)

69 See, for example, Amnesty International, *Trigger-happy Israel’s use of excessive force in the West Bank* (previously cited); Amnesty International, “Israel/OPT: Military must end excessive force to avoid further bloodshed and deaths”, 21 December 2017, [amnesty.org/en/latest/press-release/2017/12/israelopt-military-must-end-excessive-force-to-avoid-further-bloodshed-and-deaths/](https://www.amnesty.org/en/latest/press-release/2017/12/israelopt-military-must-end-excessive-force-to-avoid-further-bloodshed-and-deaths/).

70 Theodor Or, *The Official Summation of the Or Commission Report*, 2000, available at the Legal Center for Arab Minority Rights in Israel (Adalah) [adalah.org/features/commission/orreport-en.pdf](https://www.adalah.org/features/commission/orreport-en.pdf)

71 T Lavy and S Asleh, “Ocular rubber bullet injuries”, 6 October 2023, *Eye*, 17, pp. 821–24, [doi.org/10.1038/sj.eye.6700447](https://doi.org/10.1038/sj.eye.6700447)

72 UN Human Rights Guidance on Less-Lethal Weapons, 2.11.

73 Human Rights Council, *Report of the independent international commission of inquiry on the protests in the Occupied Palestinian Territory*, 25 February 2019, A/HRC/40/74, [ohchr.org/sites/default/files/Documents/HRBodies/HRCouncil/ColOPT/A\\_HRC\\_40\\_74.docx](https://www.ohchr.org/sites/default/files/Documents/HRBodies/HRCouncil/ColOPT/A_HRC_40_74.docx), p. 6.

74 See, for example, OCHA, “Protection of Civilians Report, 30 August – 12 September 2022”, [ochaopt.org/poc/5-18-april-2022](https://www.ochaopt.org/poc/5-18-april-2022)

# 5 THE USE OF METAL PELLETS AND DIRECT-FIRED TEAR GAS GRENADES IN LAW ENFORCEMENT

## 5.1 METAL PELLETS

Shotgun fired cartridges containing metal pellets (including birdshot or buckshot designed for hunting) are completely inappropriate for use in the policing of public assembly. As each cartridge contains numerous small metal pellets they are inherently indiscriminate, as they cannot be used to target individuals. They consequently have a high risk of causing injury, especially eye injury.<sup>75</sup> Their use has been associated with deaths and multiple cases of blinding in Egypt,<sup>76</sup> India,<sup>77</sup> and Iran.<sup>78</sup>



An Indian police officer aims his shotgun at Kashmiri protesters during clashes in Srinagar, Kashmir on 18 May 2018.  
© 2018 SOPA Images

75 UN Guidance on Less-Lethal Weapons, (previously cited), para. 7.5.6; T Lavy and S Asleh, “Ocular rubber bullet injuries”, 6 October 2023, *Eye*, 17, pp. 821–24, [doi.org/10.1038/sj.eye.6700447](https://doi.org/10.1038/sj.eye.6700447)

76 Amnesty International, “Egypt: State-sanctioned pattern of excessive use of force by security forces”, 14 October 2013, [amnesty.org/en/latest/news/2013/10/egypt-state-sanctioned-pattern-excessive-use-force-security-forces/](https://www.amnesty.org/en/latest/news/2013/10/egypt-state-sanctioned-pattern-excessive-use-force-security-forces/)

77 New York Times, “An Epidemic of ‘Dead Eyes’ in Kashmir as India Uses Pellet Guns on Protesters”, 28 August 2016, [nytimes.com/2016/08/29/world/asia/pellet-guns-used-in-kashmir-protests-cause-dead-eyes-epidemic.html](https://www.nytimes.com/2016/08/29/world/asia/pellet-guns-used-in-kashmir-protests-cause-dead-eyes-epidemic.html); Washington Post, “My life is over”, 11 December 2017, [washingtonpost.com/news/world/wp/2017/12/11/feature/to-control-crowds-in-kashmir-police-fired-pellets-now-this-16-year-old-will-never-see-fully-again/](https://www.washingtonpost.com/news/world/wp/2017/12/11/feature/to-control-crowds-in-kashmir-police-fired-pellets-now-this-16-year-old-will-never-see-fully-again/)

78 Amnesty International, “Tortured prisoners in need of medical care”, UA: 69/20 (Index: MDE 13/2237/2020), [amnesty.org/en/documents/mde13/2237/2020/en/](https://www.amnesty.org/en/documents/mde13/2237/2020/en/)

## IRAN: WIDESPREAD USE OF METAL PELLETS AGAINST PROTESTERS

In recent years, Amnesty International has documented the widespread unlawful use of metal pellets by Iran's security forces against protesters across the country, which has led to multiple deaths and thousands of injuries.<sup>79</sup> During the ongoing nationwide uprising which erupted after the death in custody of 22-year-old Mahsa (Zhin) Amini on 16 September 2022, the organization has documented multiple cases of deaths and injuries caused by the unlawful use of birdshot and other metal pellets directed at protesters' upper bodies.

Since the protests began in mid-September 2022, Amnesty International has recorded the names of 19 people, including three children, who have been killed by security forces unlawfully firing metal pellets in provinces across the country.<sup>80</sup> Nima Shafaghdoost, aged 16, died in Urumieh, West Azerbaijan province, on 5 October 2022, several days after sustaining injuries from metal pellets fired at him by security forces, for which he had not sought medical treatment for fear of arrest.<sup>81</sup> Abolfazl Adinehzadeh, aged 17, was killed on 8 October 2022 after security forces fired metal pellets at him at close range in Mashhad, Khorasan-e Razavi province, resulting in kidney and liver damage. In a video released publicly, Abolfazl Adinehzadeh's father said that security forces had fired 24 metal pellets into his son's stomach.

Thousands of people have also been injured, including hundreds who have been blinded or sustained other serious eye injuries, due to security forces unlawfully firing metal pellets. During a deadly crackdown on largely peaceful protests after Friday prayers in the city of Khash, Sistan and Baluchestan province, on 4 November 2022, 17-year-old Amir Barahouie, sustained trauma in his left eye due to being shot with metal pellets. An X-ray image obtained by Amnesty International showed one metal pellet lodged near his eye and another in his cheek.<sup>82</sup>

According to research carried out by the France24 Observers, shotgun cartridges designed for hunting that are manufactured by the Franco-Italian company Cheddite have been recovered from protest sites.<sup>83</sup>

Metal pellets are inherently indiscriminate and carry a high risk of causing significant injury. Given the serious harm to physical integrity and the mental trauma caused, their use by the Iranian security forces against protesters violates the absolute prohibition on torture and other ill-treatment.

79 Amnesty International, *Trampling Humanity: Mass arrests, disappearances and torture since Iran's November 2019 protests* (Index: MDE 13/2891/2020), [amnesty.org/en/documents/mde13/2891/2020/en/](https://www.amnesty.org/en/documents/mde13/2891/2020/en/), pp. 14, 17, 26, 43-4, 51; Amnesty International, "Iran: Scores injured as security forces use unlawful force to crush protests", 15 January 2020, [amnesty.org/en/latest/news/2020/01/iran-scores-injured-as-security-forces-use-unlawful-force-to-crush-protests/](https://www.amnesty.org/en/latest/news/2020/01/iran-scores-injured-as-security-forces-use-unlawful-force-to-crush-protests/)

80 Amnesty International, *Iran: Killings of Children During Youthful Anti-Establishment Protests, (Iran: Killings of Children)* (Index number: MDE 13/6104/2022), [amnesty.org/en/documents/mde13/6104/2022/en/](https://www.amnesty.org/en/documents/mde13/6104/2022/en/); France24 The Observers, "How Iran's security forces are shooting to kill with 'non-combat' shotgun shells", 3 November 2022, [observers.france24.com/en/middle-east/20221103-investigation-iran-security-forces-police-basij-non-combat-shotguns-lethal](https://observers.france24.com/en/middle-east/20221103-investigation-iran-security-forces-police-basij-non-combat-shotguns-lethal)

81 Amnesty International has been unable to confirm the exact circumstances surrounding his death, including the exact date of the shooting, and has learned that security and intelligence bodies have harassed and intimidated his family and warned them against speaking out, *Iran: Killings of Children*, (previously cited), p. 11.

82 Amnesty International, *Iran: Urgent International Action Needed to Stop Mass Killings of Baluchi Protesters*, (Index number: MDE 13/6193/2022), [amnesty.org/en/documents/mde13/6193/2022/en/](https://www.amnesty.org/en/documents/mde13/6193/2022/en/), p. 3.

83 France24 The Observers, "How EU-made shotgun cartridges ended up being used to repress protests in Iran", 25 October 2022, [observers.france24.com/en/middle-east/20221125-iran-protests-eu-shotgun-cartridges-cheddite-sanctions](https://observers.france24.com/en/middle-east/20221125-iran-protests-eu-shotgun-cartridges-cheddite-sanctions); see also TF1 Info, *Manifestations en Iran : des munitions franco-italiennes utilisées malgré l'embargo?*, 8 December 2022, [tinyurl.com/2s3s8baw](https://www.tinyurl.com/2s3s8baw)

## INDIA: LOSING SIGHT IN JAMMU & KASHMIR

Security forces in Jammu & Kashmir have been using pump-action shotguns firing inherently indiscriminate ammunition containing metal pellets to police protests in the Kashmir valley since at least 2010, though they are not used in other parts of India. These shotguns fire around 500 metal pellets which spread over a wide area causing serious injury and deaths. Their use has blinded over a thousand and killed at least 14 people since July 2016. Amnesty International documented the cases of 88 people whose eyesight was damaged – some temporarily, some permanently – by metal pellets between 2014 and 2017.<sup>84</sup> The Shri Maharaja Hari Singh Hospital, where most of the eye injuries are treated, has estimated that 1,253 people had been blinded by the metal pellets used by security forces from mid-2016 to end of 2018,<sup>85</sup> while in January 2018, the Jammu and Kashmir government said that 6,221 people had been injured by shotguns firing pellets since 2016.<sup>86</sup> A medical study of 777 patients diagnosed with pellet gun-related ocular injuries admitted to a tertiary hospital in Srinagar between July and November 2016, concluded that “poor visual outcomes, high costs of medical care, and long-term visual rehabilitation process in these young working-age patients impose a significant physical, emotional, and socio-economic burden to both individuals and the society.”<sup>87</sup>

In 2016, the then-Home Minister of India urged the armed forces in Jammu & Kashmir to ‘refrain’ from using pellet guns against protesters.<sup>88</sup> In August 2016, the seven-member expert committee set up by the Ministry of Home Affairs to explore alternatives to pellet guns recommended that pellet guns be used only in “rarest of rare cases” but fell short of calling for a complete ban.<sup>89</sup> On the basis of the committee’s recommendations, the Government of India ordered the security forces to use PAVA-Chilli (Shells and Grenades), STUN-LAC (Shells and Grenades) and Tear Smoke Shells to disperse the “rioters” and only if these measures fail could the pellet guns be used.<sup>90</sup> In 2016, the Jammu & Kashmir High Court Bar Association filed a petition in the Jammu & Kashmir High Court calling for a ban on the use of pellet guns as a means of crowd control. The High Court dismissed the petition stating that use of force is ‘inevitable’ while dispersing violent mobs which negates a ban on pellet guns.<sup>91</sup> Pellet-firing shotguns have no place in law enforcement and their use for such purposes must be prohibited. Their exclusive use in Jammu & Kashmir further raises serious concerns regarding respect for the human rights principle of non-discrimination.<sup>92</sup>

84 Amnesty International, *India Briefing Losing sight in Kashmir – the impact of pellet-firing shotguns*, 2017, [phclondon.org/Kashmir%20Updates/Al%20Report%20Losing-Sight-in-Kashmir-The-Impact-of-Pellet-Firing-Shotguns.pdf](https://phclondon.org/Kashmir%20Updates/Al%20Report%20Losing-Sight-in-Kashmir-The-Impact-of-Pellet-Firing-Shotguns.pdf).

85 Association of Parents of Disappeared Persons and Jammu Kashmir Coalition of Civil Society, *Annual Human Rights Review: A Review of Human Rights in Jammu and Kashmir*, 31 December 2018, [forum-asia.org/uploads/wp/2019/01/Annual-Report-2018.pdf](https://forum-asia.org/uploads/wp/2019/01/Annual-Report-2018.pdf), p. 10.

86 Times of India, “6,221 pellet-gun injuries reported in unrest after Burhan killing”, 24 January 2018, [timesofindia.indiatimes.com/india/6221-pellet-gun-injuries-reported-in-unrest-after-burhan-killing-jk-govt/articleshow/62641050.cms](https://timesofindia.indiatimes.com/india/6221-pellet-gun-injuries-reported-in-unrest-after-burhan-killing-jk-govt/articleshow/62641050.cms)

87 Xin Wei and others, “A series of 777 pellet gun ocular injuries over a 4-month period in Kashmir”, *Indian Journal of Ophthalmology*: October 2022, Volume 70, Issue 10, pp. 3465-3469, doi: 10.4103/ijo.IJO\_721\_22

88 Defence Minister of India, Rajnath Singh, “Avoid using pellet guns, Rajnath Singh tells security forces on Kashmir visit”, 24 July 2026, [rajnathsingh.in/news-eng/avoid-using-pellet-guns-rajnath-singh-tells-security-forces-on-kashmir-visit/](https://rajnathsingh.in/news-eng/avoid-using-pellet-guns-rajnath-singh-tells-security-forces-on-kashmir-visit/)

89 NDTV, “Panel Recommends Alternatives, But No Blanket Ban on Pellet Guns”, 30 August 2016, [ndtv.com/india-news/panel-recommends-chilli-filled-grenades-as-alternatives-to-pellet-guns-1451916](https://ndtv.com/india-news/panel-recommends-chilli-filled-grenades-as-alternatives-to-pellet-guns-1451916)

90 Parliament of India, “Ministry of Home Affairs Lok Sabha, Answer to question re: use of pellet guns”, 28 March 2017, [loksabha.nic.in/Questions/QResult15.aspx?qref=50527&lsno=16](https://loksabha.nic.in/Questions/QResult15.aspx?qref=50527&lsno=16)

91 Jammu & Kashmir High Court - Srinagar Bench, *J&K High Court Bar Association vs Unknown* on 11 March 2020, [indiankanoon.org/doc/63200140/](https://indiankanoon.org/doc/63200140/)

92 UN Guidance on Less-Lethal Weapons (previously cited), 2.11.

## 5.2 THE USE OF TEAR GAS GRENADES AS PROJECTILES

In some cases, law enforcement officers have fired projectiles which are not designed for kinetic impact – such as tear gas grenades – directly at protesters causing serious injuries and deaths. Over the last five years, Amnesty International has documented multiple cases where tear gas grenades were fired directly at individuals or at low angles into crowds including in France, Gaza, Guinea, Iran, Iraq, Sudan, Tunisia, and countries across Central and South America.<sup>93</sup> In Iraq, security forces deliberately targeted protesters with Serbian and Iranian military-style grenades which are 10 times heavier than typical tear gas grenades, causing horrific injuries and at least two dozen deaths from October 2019.<sup>94</sup>

### THE VENOM LAUNCH SYSTEM IN COLOMBIA

From 28 April 2021, Colombia was enveloped by a wave of protests triggered by a tax reform bill promoted by President Iván Duque at a time when the country was experiencing a social and public health crisis during the Covid-19 pandemic. Since the start of the demonstrations, Amnesty International has documented the Colombian authorities' violent repression of largely peaceful protests through the excessive and unlawful use of force by members of the security forces, notably the Mobile Anti-Riot Squad (Escuadrón Móvil Antidisturbios, ESMAD).<sup>95</sup>

Colombian security forces have used a variety of lethal and less lethal weapons, including the less lethal US manufactured, Combined Systems Inc. multiple projectile launch system, VENOM. Originally developed for the US Marine Corps, VENOM is a “30-tube, lightweight, high capacity 38mm grenade launcher [intended for] mounted use on vehicles, tripod mounts, and static installations” which can launch up to 30 flash-bang, CS and smoke projectiles.

Amnesty International, Human Rights Watch,<sup>96</sup> local NGOs Temblores, Indepaz and Paisi,<sup>97</sup> as well as the media have documented the reckless use of the VENOM launcher by the security forces to suppress protest in several cities, including Bogotá<sup>98</sup>, Cali<sup>99</sup> and Popayán.<sup>100</sup> A research mission by the Inter-American Commission on Human Rights (IACHR) visited Colombia in June 2021; their subsequent “Observations and Recommendations” noted that its members had received reports “of excessive use of force with less lethal weapons – for example, through... the use of Venom grenade launchers”.<sup>101</sup>

93 See Amnesty International, *Tear Gas: an Investigation*, Incident map: “Direct Fire”, [teargas.amnesty.org/#incident-map](https://teargas.amnesty.org/#incident-map)

94 Amnesty International, “Iraq: Iranian tear gas grenades among those causing gruesome protester deaths”, 31 October 2019; Updated: 13 December 2019, [amnesty.org/en/latest/news/2019/10/iraq-gruesome-string-of-fatalities-as-new-tear-gas-grenades-pierce-protesters-skulls/](https://www.amnesty.org/en/latest/news/2019/10/iraq-gruesome-string-of-fatalities-as-new-tear-gas-grenades-pierce-protesters-skulls/); Amnesty International has also documented the use of air rifles and slingshots by police against protesters in Iraq, see Amnesty International, “IraqProtests Under Fire: The Weapons Used Against Demonstrators”, 5 March 2020, [citizenevidence.org/2020/03/05/iraqprotests-under-fire-the-weapons-used-against-demonstrators](https://citizenevidence.org/2020/03/05/iraqprotests-under-fire-the-weapons-used-against-demonstrators)

95 Amnesty International, *Colombia: Cali: in the epicentre of repression, human rights violations during the 2021 National Strike*, 30 June 2021 (AMR 23/4405/2021), [amnesty.org/en/documents/amr23/4405/2021/en/](https://www.amnesty.org/en/documents/amr23/4405/2021/en/)

96 Human Rights Watch, “Colombia: Egregious Police Abuses Against Protesters”, 9 June 2021, [hrw.org/news/2021/06/09/colombia-egregious-police-abuses-against-protesters](https://www.hrw.org/news/2021/06/09/colombia-egregious-police-abuses-against-protesters).

97 Temblores, Indepaz y Paisi, “Informe a la CIDH sobre las violaciones a los derechos humanos cometidas por la fuerza pública contra la población civil colombiana en el marco del Paro”, (Informe a la CIDH), June 2021, [derechos.org/nizkor/llll/colombia/doc/duque54.html#disparos](https://derechos.org/nizkor/llll/colombia/doc/duque54.html#disparos)

98 El Espectador, “Venom: el arma en la tanqueta del Esmad, que causó pánico en el sur de Bogotá, en el Paro Nacional”, 5 May 2021, [elespectador.com/bogota/venom-el-arma-en-la-tanqueta-del-esmad-que-causo-panico-en-el-sur-de-bogota-en-el-paro-nacional-articulo/](https://www.elespectador.com/bogota/venom-el-arma-en-la-tanqueta-del-esmad-que-causo-panico-en-el-sur-de-bogota-en-el-paro-nacional-articulo/); see also: Temblores ONG, Indepaz and Paisi report to the IACHR, June 2021; Human Rights Watch, 9 June 2021, “Colombia: Egregious Police Abuses” (previously cited)..

99 Amnesty International, *Colombia: Cali: in the epicentre of repression* (previously cited), pp.26-27.

100 Amnesty International and others, *Colombia: Shoots on Sight* (previously cited), pp. 34-6.

101 Organization of American States (OAS), “Inter-American Commission on Human Rights (IACHR), Observations and recommendations: Working visit to Colombia”, Visit: June 2021, [oas.org/en/iachr/reports/pdfs/ObservacionesVisita\\_CIDH\\_Colombia\\_ENG.pdf](https://www.oas.org/en/iachr/reports/pdfs/ObservacionesVisita_CIDH_Colombia_ENG.pdf), para 47.



*US manufactured Combined Systems Inc. multiple projectile launch system, VENOM, which was used extensively against protesters in Colombia in 2021. © CSI Website*

In one widely reported incident captured on video, law enforcement officials set up the VENOM multiple-barrel launch system on a tripod on the ground and fired tear gas projectiles recklessly into the crowd.<sup>102</sup> In their submission to the Inter-American Commission on Human Rights (IACHR), Temblores, Indepaz, and PAIS stated that ESMAD employed ground level employment of the VENOM launcher in Popayán on 12 and 13 May 2021.<sup>103</sup> In June 2021, an administrative judge of Popayán ordered the Metropolitan Police and ESMAD to suspend the use of the VENOM device until a protocol for its use was developed and all members of ESMAD were trained on the correct use of the device.<sup>104</sup>

As a powerful, militarized multiple projectile system which leads to the excessive and uncontrollable use of force, VENOM cannot be used in line with the principles of necessity and proportionality; nor can it be used in compliance with law enforcement officials' duty to minimize harm. Amnesty International and the Omega Research Foundation call for the trade and use of this type of weapon to be prohibited for law enforcement.

In Tunisia, Haykal Rachdi and Aymen Mahmoudi were struck in the head by tear gas grenades fired by anti-riot police at close range on 18 January 2021 in Sbeitla, according to relatives. Haykal Rachdi later died of his wounds on 25 January.<sup>105</sup> In France, 80-year-old Zineb Redouane was hit by a tear gas grenade which struck her head through her apartment window in Marseille on 1 December 2018; she died in hospital the following day.<sup>106</sup> In Venezuela, Juan Pernaleté, died after being shot directly in the chest with a tear gas grenade while he was demonstrating in Caracas in April 2017.<sup>107</sup> In October 2022 in Chile, a former police captain was sentenced to 12 years and 183 days in prison for the blinding of 36-year-old Fabiola Campillai, a bystander who was hit in the face by a tear gas grenade during the 2019 protests.<sup>108</sup> In December 2022, Amnesty International verified images of police firing tear gas grenades from close range directly at the bodies of protesters in Plaza San Martín in Lima, Peru.<sup>109</sup> In Ecuador, Byron Guatoca died after his skull was penetrated by a tear gas canister manufactured by the Brazilian company, Condor after an altercation with security forces.<sup>110</sup> Hasti Narouie, a 6-year-old girl from Iran's oppressed Baluchi minority, was killed on 30 September 2022 after being hit in the head with a tear gas canister. The fatal incident took place during a violent crackdown on a protest in Zahedan, Sistan and Baluchestan province, after Friday prayers outside a police station opposite a large prayer site.

102 France 24 Observers, "Protests in Colombia: Videos show 'dangerous' use of grenade launchers by police", 24 May 2021, [observers.france24.com/en/americas/20210526-colombia-police-protests-venom-grenade-launchers](https://observers.france24.com/en/americas/20210526-colombia-police-protests-venom-grenade-launchers)

103 Temblores ONG, Indepaz and Pais, *Informe a la CIDH* (previously cited).

104 Juzgado Décimo Administrativo Mixto de Oralidad Circuito de Popayán, File 19001-33-33-010-2021-00085-00 ACUMULADO AL PROCESO 1900133-33-010-2021-000089-00, 2 June 2021, [fecospec.org/wp/wp-content/uploads/2021/06/Sentencia-Venom-1.pdf](https://fecospec.org/wp/wp-content/uploads/2021/06/Sentencia-Venom-1.pdf), pp. 35-6.

105 Amnesty International, "Tunisia: Investigate circumstances of a young man's death following reckless tear gas use by police", 28 January 2021, [www.amnesty.org/en/latest/press-release/2021/01/tunisia-investigate-circumstances-of-a-young-man-death/](https://www.amnesty.org/en/latest/press-release/2021/01/tunisia-investigate-circumstances-of-a-young-man-death/)

106 Amnesty International, "Décès De Zineb Redouane : Les Révélations Inquiétantes De Disclose Et Forensic Architecture", 6 December 2020, [amnesty.fr/liberte-d-expression/actualites/decès-de-zineb-redouane-les-revelations-inquietantes-de-disclose-et-forensic-architecture](https://amnesty.fr/liberte-d-expression/actualites/decès-de-zineb-redouane-les-revelations-inquietantes-de-disclose-et-forensic-architecture)

107 Amnesty International, "Venezuela: Lethal violence, a state policy to strangle dissent", 10 July 2017, [amnesty.org/en/latest/news/2017/07/venezuela-violencia-letal-una-politica-de-estado-para-asfixiar-a-la-disidencia/](https://amnesty.org/en/latest/news/2017/07/venezuela-violencia-letal-una-politica-de-estado-para-asfixiar-a-la-disidencia/)

108 El País, "Condenado a 12 años de cárcel el carabínero que dejó ciega a una mujer en las protestas de 2019 en Chile", 12 October 2022, [elpais.com/chile/2022-10-12/condenado-a-12-anos-de-carcel-el-carabinero-que-dejo-ciega-a-una-mujer-en-las-protestas-de-2019-en-chile.html](https://elpais.com/chile/2022-10-12/condenado-a-12-anos-de-carcel-el-carabinero-que-dejo-ciega-a-una-mujer-en-las-protestas-de-2019-en-chile.html)

109 Amnesty International, "Peru: Crisis in the country must be addressed with full respect for human rights", 12 December 2022, [www.amnesty.org/en/latest/news/2022/12/peru-crisis-human-rights/](https://www.amnesty.org/en/latest/news/2022/12/peru-crisis-human-rights/)

110 Amnesty International, "Ecuador: Evidencias confirman que fuerzas de seguridad mataron a manifestante indígena en Puyo", 24 June 2022, [www.amnesty.org/es/latest/news/2022/06/ecuador-security-forces-killed-indigenous-protester-in-puyo/#:~:text=En%20la%20noche%20del%202021,Puyo%20a%20causa%20del%20disparo.](https://www.amnesty.org/es/latest/news/2022/06/ecuador-security-forces-killed-indigenous-protester-in-puyo/#:~:text=En%20la%20noche%20del%202021,Puyo%20a%20causa%20del%20disparo.)

## BRAZILIAN MANUFACTURED TEAR GAS IN SUDAN

In response to the military coup on 25 October 2021, a wave of protests erupted in Sudan, particularly in the capital, Khartoum. They were violently suppressed by the Sudanese security forces employing both live ammunition and less lethal weapons.<sup>111</sup> One tactic documented by human rights monitors has been the dangerous use of launched tear gas grenades as impact projectiles.

The Central Committee of Sudanese Doctors (CCSD) documented 537 blunt trauma injuries caused by tear gas projectiles, with 135 impacting the victim's head and 12 causing injuries to the eye - one of which led to the loss of the eye from 25 October 2021 until 6 January 2022.<sup>112</sup> Reuters reported in early January 2022 that according to the CCSD two people had been killed after being struck by tear gas projectiles fired by the security services during protests.<sup>113</sup> The OHCHR Joint Human Rights Office in Sudan "noted a pattern demonstrating that more than 25 per cent of those injured were hit directly by teargas grenades" raising concerns that "security forces are firing teargas grenades horizontally, directed at individuals, in violation of international standards."<sup>114</sup>

Verified photographic evidence shows that the Sudanese security forces deployed the GL-202 Long Range Tear Gas Projectile manufactured by the Brazilian company Condor Tecnologias Não Letais against protestors in Khartoum in November 2021. Export data published by the Brazilian Ministry of Development, Industry and Foreign Trade (MDIC) showed that a range of weapons and ammunition worth approximately \$1.85 million USD were exported from the Nova Iguaçu municipality, where Condor is headquartered, to Sudan in September 2021.<sup>115</sup>

Tear gas grenades and other types of projectiles which are not designed for kinetic impact use are totally inappropriate for such purposes, risk causing deaths and serious injuries, and must never be fired directly at individuals or into crowds. They should be fired at a certain angle clearly above the heads of people (the precise angle will depend on the distance of the launcher from the crowd).<sup>116</sup> Firing tear gas grenades directly at protestors is excessive and unlawful use of force and may amount to torture or other ill-treatment.<sup>117</sup>

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111 Amnesty International, "Sudan: Investigate the killings of people after military crackdown against protesters", 24 November 2021, [tinyurl.com/ypnuha2d](https://www.tinyurl.com/ypnuha2d); Human Rights Watch, "Sudan: Ongoing Clampdown on Peaceful Protesters, 3 Months After Coup: Concrete Action Needed to End Repression", 3 February 2022, [hrw.org/news/2022/02/03/sudan-ongoing-clampdown-peaceful-protesters](https://www.hrw.org/news/2022/02/03/sudan-ongoing-clampdown-peaceful-protesters); see also Amnesty International, "They descended on us like rain": Justice for victims of protest crackdown in Sudan, 10 March 2020, AFR 54/1893/2020, [amnesty.org/en/documents/afr54/1893/2020/en/](https://www.amnesty.org/en/documents/afr54/1893/2020/en/).

112 When the violence was at its worst, the CCSD were publishing reports every few days. The figures quoted in this case study are a collation of the information in CCSD reports published between October 2021 and January 2022. All of the reports published by the CCSD are available at: [theccsd.org/search?q=field+report](https://www.theccsd.org/search?q=field+report)

113 Eltahir, N/Reuters, "Sudanese security forces fire teargas at anti-coup protesters – witnesses", 10 January 2022, [tinyurl.com/bby24fxc](https://www.tinyurl.com/bby24fxc); Reuters, "Second Sudanese protester dies after Sunday protest – medics", 10 January 2022, [tinyurl.com/2muxay6v](https://www.tinyurl.com/2muxay6v)

114 OHCHR, "Spokesperson for the UN High Commissioner for Human Rights: Ravina Shamdasani, Press briefing notes on Sudan", 18 January 2022

115 Omega Research Foundation, "Tracking the trade and use of Brazilian weapons in Sudan", 14 December 2021, [storymaps.arcgis.com/stories/0a74a5a3a2c841a68304bca03f004a9b](https://storymaps.arcgis.com/stories/0a74a5a3a2c841a68304bca03f004a9b)

116 Amnesty International, Chemical Irritants in Law Enforcement (previously cited), p.13.

117 See, for instance, European Court of Human Rights (ECtHR), *Abdullah Yaşa and Others v. Turkey*, Application 44827/08, Second Section, 16 October 2013, [hudoc.echr.coe.int/eng?i=001-122874](https://hudoc.echr.coe.int/eng?i=001-122874), para 51.



# 6 REGULATION OF THE USE OF KIPS

According to the UN Human Rights Guidance on Less-Lethal Weapons for Law Enforcement, KIPs should “be used only in direct fire with the aim of striking the lower abdomen or legs of a violent individual and only with a view to addressing an imminent threat of injury to either a law enforcement official or a member of the public”.<sup>118</sup> In contrast, many national and local guidelines on the use of KIPs are vague or overly permissive and do not sufficiently restrict use to critical situations in which there is a specific threat of violence from an individual in line with UN standards.

## 6.1 GUIDANCE ON THE USE OF KIPS

Regulations on use of KIPs vary considerably at national, local and law enforcement agency level.

In the USA, policies related to the use of less lethal weapons are fragmented between federal, state and local law enforcement agencies, which authorize the use of different types of KIPs and have different regulations regarding their use.

For example, many law enforcement agencies authorizing the use of the combined chemical irritant/kinetic impact system, PepperBall, permit use in a variety of different, vaguely-defined circumstances which would not meet international law and standards on the use of force. The Georgia Department of Juvenile Justice allows use of the system for “escape prevention” and “the enforcement of lawful orders and directives, upon supervisor approval when other lesser intervention techniques have failed”. The policy does not explicitly restrict use on children, only noting that consideration must be taken of the “physical stature of the youth involved” prior to the use.<sup>119</sup> The Lebanon Police Department (New Hampshire) allows use “to gain compliance with a lawful command or order”, though does explicitly prohibit use for “coercion, harassment or any form of abuse or punishment”.<sup>120</sup> The Luna County Sheriff’s Office (New Mexico) includes as one type of acceptable use the extremely vague and permissive “when ordered by the commanding deputy in crowd control or riot situations.”<sup>121</sup>

There is a wide variety of permitted ranges for impact munitions. The Los Angeles Police Department’s (California) recommended engagement distance for Combined Systems Super Sock® Bean Bag projectiles for deployment in crowd control is “between five (5) feet and thirty (30) feet, however there is NO minimum range”.<sup>122</sup> The Portland Police Bureau (Oregon) recommends when firing KIPs: “under seven yards, members will aim for the legs. Over seven yards, members will aim anywhere below the waist line except the groin”;<sup>123</sup> while the Denver Police Department (Colorado) advises officers not to “intentionally deploy the 40 mm launcher from a range of less than five (5) feet”.<sup>124</sup>

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118 UN Guidance on Less-Lethal Weapons, (previously cited)7.5.2.

119 Georgia Department of Juvenile Justice, “OC Spray and the Pepperball System”, 1 May 2013, [djj.state.ga.us/Policies/DJJPolicies/Chapter08/DJJ8.330CSprayandthePepperballSystem.pdf](http://djj.state.ga.us/Policies/DJJPolicies/Chapter08/DJJ8.330CSprayandthePepperballSystem.pdf), D.2, 5.

120 Lebanon Police Department, “Use of Force”, 18 June 2020, [lebanonnh.gov/DocumentCenter/View/12021/PR-246-Use-of-Force?bidId=, 2c, 3, p. 8](http://lebanonnh.gov/DocumentCenter/View/12021/PR-246-Use-of-Force?bidId=, 2c, 3, p. 8).

121 Luna County Sheriff’s Office, “Standard Operating Procedures Manual”, <https://cms6.revize.com/revize/lunacounty/SOP.pdf>, E.2, p.7.

122 Los Angeles Police Department, “Less Lethal/Munitions: Deployment Criteria for Super-Sock in Crowd Control”, [lapdonlinestrgaacc.blob.core.usgovcloudapi.net/lapdonlinemedia/2022/04/Less\\_Lethal\\_-\\_Munitions\\_30986.pdf](http://lapdonlinestrgaacc.blob.core.usgovcloudapi.net/lapdonlinemedia/2022/04/Less_Lethal_-_Munitions_30986.pdf), 1b, p. 2.

123 Portland Oregon Police Bureau, “Less Lethal Weapons and Tools: Kinetic Impact Projectiles (KIPs)”, [portlandoregon.gov/police/article/801102](http://portlandoregon.gov/police/article/801102), 3.1.

124 Denver Police Department, “Operational Manual: 40 mm launcher”, [denvergov.org/content/dam/denvergov/Portals/720/documents/OperationsManual/OMSBook/OM\\_Book.pdf](http://denvergov.org/content/dam/denvergov/Portals/720/documents/OperationsManual/OMSBook/OM_Book.pdf), 105.00, 4 d.

A US Government Accountability Office Report found that 10 federal law enforcement agencies which used less lethal weapons, including KIPs, in the George Floyd protests in Washington D.C. and Portland (Oregon) have no policies related to the policing of public assemblies. The report also found that most of the agencies had fundamental gaps in oversight and reporting on use of force.<sup>125</sup>

In the USA, in the wake of abuses committed by law enforcement during the BLM protests, federal, state and municipal regulations were introduced or proposed prohibiting or restricting the use of KIPs in the policing of public assembly. According to the International Center for Non-For-Profit Law (ICNL), as of February 2022, six states and the District of Columbia; six municipalities and two police departments have enacted restrictions; while a further eight states had proposed controls.<sup>126</sup>

In France, questions remain around the safety and accuracy of the 40 mm Lanceur de Balle de Défense (LBD) launcher<sup>127</sup> and the lack of special training for some law enforcement units responsible for policing the demonstrations.<sup>128</sup> Some of the regulations governing the use of the launcher and related munitions are also overly broad. Permitted use includes situations in which police “cannot otherwise defend the land they occupy” or against people escaping custody or refusing to stop for police to carry out investigations (if they can only be forced to stop through the use of weapons) and defence against property.<sup>129</sup>



Mural by the artist collective Black Lines inspired by the “Yellow Vest” (Gilets Jaunes) movement depicting an anti-riot police officer aiming a launcher known by its French initials “LBD”, in Paris, on 3 February 2019. © AFP via Getty Images

125 United States Government Accountability Office, *Federal Agencies Should Improve Reporting and Review of Less-Lethal Force*, December 2021, GAO-22-104470, [gao.gov/assets/gao-22-104470.pdf](https://www.gao.gov/assets/gao-22-104470.pdf)

126 International Center for Not-For-Profit Law (ICNL), “Reforms Introduced to Protect the Freedom of Assembly: Rubber bullets and less lethal projectiles”, Enacted: States and DC: California (AB 48); Colorado (SB 20-217 2020); Massachusetts (S 2963 2020); Nevada (SB 212); Oregon (HB 2928 2020; HB 2928 2021); Virginia (HB 5049 2020); Washington DC (B23-0825 2020). **Municipalities:** Boston (369 2021); Iowa City, IA (20-159 2020); New Orleans, LA (new police department policy); Philadelphia, PA (200538 2020); San Jose, CA (police department policy); Seattle, WA (CB 119805 2020; CB 120105 2021); Springfield, IL (2020-356 2020); Somerville, MA (ordinance 2021). **Proposed: States:** Georgia (HB 18); Hawaii (HB 1381); Illinois (HB 2788); Massachusetts (S 1637); Minnesota (HF2546/S2446); New Hampshire (HB 564); Pennsylvania (HB 2129); South Carolina (H 3049).

127 The LBD refers to 40mm GL06 less lethal grenade launcher manufactured by the Swiss company B&T AG GL06, see [bt-ag.ch/produkte/bt-waffen/gl06/](https://bt-ag.ch/produkte/bt-waffen/gl06/)

128 Défenseur des droits, Décision du Défenseur des droits n°2019-029, 30 January 2019, [https://juridique.defenseurdesdroits.fr/doc\\_num.php?explnum\\_id=18403](https://juridique.defenseurdesdroits.fr/doc_num.php?explnum_id=18403); Sénat, *Journal Officiel De La République Française*, Séance du jeudi 7 mars 2019, [senat.fr/seances/s201903/s20190307/s20190307.pdf](https://www.senat.fr/seances/s201903/s20190307/s20190307.pdf), p. 2902.

129 Ministère de L’intérieur, *Bulletin Officiel No. 2014-10*, 15 October 2014, [interieur.gouv.fr/content/download/74530/546550/file/boi\\_20140010\\_0000\\_p000.pdf](https://www.interieur.gouv.fr/content/download/74530/546550/file/boi_20140010_0000_p000.pdf), 2.4, p. 334 : “Lorsqu’ils ne peuvent défendre autrement le terrain qu’ils occupent, les postes ou les personnes qui leur sont confiés ou, enfin, si la résistance est telle qu’elle ne puisse être vaincue que par la force des armes ... Lorsque les personnes invitées à s’arrêter par des appels répétés de “Halte gendarmerie” faits à haute voix cherchent à échapper à leur garde ou à leurs investigations et ne peuvent être contraintes de s’arrêter que par l’usage des armes.”

## FRANCE: THE GILET JAUNE PROTESTS

At least 2,495 protesters were reported to have been injured in the “Gilet Jaune” (Yellow Vest) protests between November 2018 to May 2019.<sup>130</sup> Eighty-three complaints were filed by protesters who had suffered injuries allegedly due to the use by law enforcement officials of kinetic impact projectiles fired from the ‘Lanceur des balles de défense’ LBD 40,<sup>131</sup> manufactured by Swiss company B&T AG as the GLO6. Prior to the protests, in December 2017, the French Ombudsperson (Défenseur des Droits) had called for a ban on the use of the LBD 40 in law enforcement operations, because of its “dangerousness and the disproportionate risks it poses in the context of the demonstrations”.<sup>132</sup> After receiving 18 cases of injuries resulting from use of the LBD 40 in the context of the Gilet Jaune protests, French Ombudsperson reiterated this call on 30 January 2019,<sup>133</sup> a position supported by the Council of Europe’s Commissioner for Human Rights,<sup>134</sup> but not carried out by the French authorities. According to a French Senate hearing, around 85% of the 13,460 KIPs used against Gilet Jaune protesters were fired by police forces who were not trained to police demonstrations. Specific training of regular law enforcement officers in the use of the LBD 40 consists of “firing five bullets every three years, without a real-life situation or moving target”.<sup>135</sup> A medical review of 21 patients who presented with face and eye injuries caused by rubber bullets noted severe injuries including bone fragmentation, severe soft-tissue wounds, fractures and open-globe ruptures resulting in blindness.<sup>136</sup>

In Argentina, after serious abuses by the Federal Police and the Gendarmería, regulations applying to federal agencies were adopted. *Criterios mínimos sobre la actuación de los cuerpos policiales y fuerzas de seguridad en manifestaciones públicas* (Minimum Criteria for the Development of Protocols for Police and Security Forces at Public Demonstrations), 2011 Section 10 (2) is restrictive and explicitly prohibits the use of KIPs for dispersal: “Rubber bullets shall only be used for defensive purposes, when there is threat to the physical integrity of members of the security force, protesters or third parties. In no circumstances they shall be used as a means to disperse a demonstration.”<sup>137</sup> However, these regulations do not apply to state police forces which have registered multiple cases of abuse of force in the policing of public assembly.<sup>138</sup>

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130 L’Express, “Blessés, participation, coût... Un an de gilets jaunes en chiffres”, 2 November 2019, [lexpress.fr/actualite/societe/participation-blesses-cout-un-an-de-gilets-jaunes-en-chiffres\\_2105499.html](https://www.lexpress.fr/actualite/societe/participation-blesses-cout-un-an-de-gilets-jaunes-en-chiffres_2105499.html)

131 Sénat, Journal Officiel De La République Française, Séance du jeudi 7 mars 2019, [senat.fr/seances/s201903/s20190307/s20190307.pdf](https://www.senat.fr/seances/s201903/s20190307/s20190307.pdf), p. 2905.

132 Défenseur des droits, “Rapport sur ‘Le maintien de l’ordre au regard des règles de déontologie’”, Décembre 2017, [juridique.defenseurdesdroits.fr/doc\\_num.php?explnum\\_id=17160](https://www.defenseurdesdroits.fr/doc_num.php?explnum_id=17160). Recommandation n° 2, p. 29.

133 Défenseur des droits, Décision du Défenseur des droits n°2019-029, 30 January 2019, [https://juridique.defenseurdesdroits.fr/doc\\_num.php?explnum\\_id=18403](https://www.juridique.defenseurdesdroits.fr/doc_num.php?explnum_id=18403)

134 Council of Europe, “Mémorandum sur le maintien de l’ordre et la liberté de réunion dans le contexte du mouvement des « gilets jaunes » en France”, CommDH(2019)8, 26 February 2019, [rm.coe.int/memorandum-sur-le-maintien-de-l-ordre-et-la-liberte-de-reunion-dans-le/1680931add](https://rm.coe.int/memorandum-sur-le-maintien-de-l-ordre-et-la-liberte-de-reunion-dans-le/1680931add), para 29, p. 6. The CoE Human Rights Commissioner called for a suspension of the use of the LBD for law enforcement operations.

135 Sénat, Journal Officiel De La République Française, Séance du jeudi 7 mars 2019, [senat.fr/seances/s201903/s20190307/s20190307.pdf](https://www.senat.fr/seances/s201903/s20190307/s20190307.pdf), p. 2902.

136 The Lancet, “Yellow vests protests: facial injuries from rubber bullets”, 10 August 2019, Correspondence, Volume 394, Issue 10197, [thelancet.com/journals/lancet/article/PIIS0140-6736\(19\)31764-7/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(19)31764-7/fulltext), pp. 469-70.

137 Ministerio de Justicia y Derechos Humanos, Criterios mínimos sobre la actuación de los cuerpos policiales y fuerzas de seguridad en manifestaciones públicas, Ley 7.710, 11 de Noviembre de 2015, Article 10, “Las postas de goma sólo podrán ser utilizadas con fines defensivos en caso de peligro para la integridad física de algún miembro de las instituciones de seguridad, de manifestantes o de terceras personas. En ningún caso se podrá utilizar este tipo de munición como medio para dispersar una manifestación.” [tinyurl.com/y2bje5ww](https://www.tinyurl.com/y2bje5ww)

138 See, for example, CELS, “La policía de Rojas reprimió con balas de goma la protesta de los vecinos reclamando justicia”, 9 February 2021, [twitter.com/CELS\\_Argentina/status/1359207393062715398](https://twitter.com/CELS_Argentina/status/1359207393062715398); Catamarca es noticia, “Video: Impactante testimonio de un joven atacado con balas de goma durante el reclamo contra la Ley de Megaminería”, [airevision.com.ar/video-impactante-testimonio-de-un-joven-atacado-con-balas-de-goma-durante-el-reclamo-contra-la-ley-de-megamineria/](https://www.airevision.com.ar/video-impactante-testimonio-de-un-joven-atacado-con-balas-de-goma-durante-el-reclamo-contra-la-ley-de-megamineria/)

Chile's regulations of the use of KIPs have been modified several times over the past decade. The 2012, *Protocolos para el mantenimiento del orden público*, contained brief and extremely broadly framed regulations for the use of KIPs. Among other provisions, officers were instructed simply to “take into consideration the distance between the shooter and the crowd, the characteristics of the place (open, closed, alleyways, streets, etc.) or whether minors, women or the elderly are participating in the crowd.”<sup>139</sup> There was no reference to the threat level which would permit use. The protocol was updated in March 2019 specifying that KIPs could only be used when the threat reached level 4 (“active aggression”) or level 5 (“potentially lethal active aggression”).<sup>140</sup> An example of Level 4 is given as: “the person being restrained tries to attack the police officer, to resist or evade restraint” which would clearly be an inappropriate situation for use of KIPs.

After the hundreds of serious injuries and the death of one person due to KIPs during the 2019 protests and pressure from civil society, regulations were subsequently expanded in 2020 and 2021, adding the requirement that the *carabineros* must adopt an approach based on observation, dialogue and protection of demonstrations;<sup>141</sup> provisions that officers deploying KIPs must wear a body camera with all footage secured and archived; and that they must avoid pointing launchers at the face or upper abdomen.<sup>142</sup> However, the changes were insufficient: inherently abusive rubberised buckshot remains legal and the criteria for the use of shotguns is so broad that the abuses of 2019 could be repeated.



*Palestinian press members, closing their left eyes with hands, protest against Israeli violations against journalists, in Gaza City, Gaza, on 17 November 2019. © Anadolu Agency via Getty Images*

In Israel after the report by Supreme Court Justice Theodore Or recommended the withdrawal of rubber-coated bullets from use,<sup>143</sup> security forces began using blue and black sponge KIPs. They were initially regulated under “Professional Directive – Operation of 40 mm Foam Rifle”. According to this directive, such KIPs were only intended “to cause blunt injury and temporarily neutralize rioters during public disturbances” and were employed “in order to deter and arrest individual rioters during disturbances”.<sup>144</sup>

On 1 January 2015, the operations division of the Israel Police issued guidelines further restricting use of the heavier black sponge KIPs. According to Haaretz, the guidelines limited their use to “the most serious of circumstances”. They directed the police to aim for rioters’ lower extremities and not

139 Carabineros de Chile, *Protocolos para el mantenimiento del orden público*, 2.16/3, Empleo de escopeta antidisturbios, [tinyurl.com/4caphy53](http://tinyurl.com/4caphy53), p. 28.

140 *Protocolos Para El Mantenimiento Del Orden Público*, Circular No. 1,832, 2.8. Sobre Empleo De Escopeta Antidisturbios, 1 March 2019, [bcn.cl/leychile/navegar?idNorma=1129442&idVersion=2020-07-17](http://bcn.cl/leychile/navegar?idNorma=1129442&idVersion=2020-07-17)

141 Ministerio del Interior y Seguridad Pública; Subsecretaría del Interior; División de Carabineros; Carabineros de Chile; Dirección General, Protocolo para el mantenimiento y restablecimiento del orden público. Orden General 2.870 de 20 de septiembre de 2021. [bcn.cl/leychile/navegar?idNorma=1165383](http://bcn.cl/leychile/navegar?idNorma=1165383)

142 Ministerio del Interior y Seguridad Pública; Subsecretaría del Interior / División Carabineros; Carabineros de Chile; Dirección General, Uso de la fuerza: actualiza instrucciones al respecto: Actualiza Protocolo 2.8. Sobre Empleo De Escopeta Antidisturbios, Orden general Núm. 2.780.- Santiago, 14 de julio de 2020. Empleo de escopeta antidisturbios (munición con proyectiles menos letales), [bcn.cl/leychile/navegar?i=1147569&f=2020-07-17&p=10136509](http://bcn.cl/leychile/navegar?i=1147569&f=2020-07-17&p=10136509)

143 Theodor Or, *The Official Summation of the Or Commission Report*, 2000, available at the Legal Center for Arab Minority Rights in Israel (Adalah) [adalah.org/features/commission/orreport-en.pdf](http://adalah.org/features/commission/orreport-en.pdf)

144 The Association for Civil Rights in Israel, “A Letter to Chief Commissioner of the Israel Police and Attorney General of Israel, Re: use of black sponge bullets”, ACR1, 8 March 2015, [tinyurl.com/yy7uu2za](http://tinyurl.com/yy7uu2za)

to use the sponge KIP against the elderly, against children or against visibly pregnant women.<sup>145</sup> The regulations also included a prohibition on use at a range of less than 5 or 10 metres, depending on the type of sponge KIP employed.<sup>146</sup> In June, the operations division issued a revised, less stringent version of the guidelines. The use of the rifle and sponge KIPs is still only permitted in the most serious of circumstances, but the restrictions on targeting the elderly, children and pregnant women, is now caveated “to the extent possible”.<sup>147</sup>

South Africa’s *National Instruction 4 of 2014 Public Order Police: crowd management during public gatherings and demonstrations* prohibits the use of “birdshot (fine lead pellets) and buckshot (small lead pellets)” but allows the use of approved rubber rounds on command “as offensive measures to disperse a crowd in extreme circumstances, if less forceful methods have proven ineffective.”<sup>148</sup> South African Correctional Services Act, 1998 Section 34 allows use by trained correctional officials “during emergency situations”. It does not specify a minimum safe distance and appears to suggest that there are no restrictions on targeting individuals further than 30 metres away.<sup>149</sup>



South African police officers fire rubber bullets as they chase protestors in the streets of Johannesburg, on April 23, 2019. © AFP via Getty Images

Other police bodies, such as the UK College of Policing, have developed more detailed policies, dealing with deployment, authorization and criteria for use, effects, risk factors, oral and visual warnings and need for medical assistance, post-deployment and reporting requirements. The UK College of Policing advises against using KIPs for crowd control, stating that “the use of a kinetic energy device in a situation of public disorder may have

a profound impact on crowd dynamics, with implications for public safety and order”.<sup>150</sup> However, plastic bullets continue to be used for public order policing in Northern Ireland and their use remains highly controversial.<sup>151</sup>

145 Haaretz, “Ten days, five Israeli bullets, five Bedouin with serious head injuries” (“Ten days, five Israeli bullets”), 7 February 2022, [tinyurl.com/57emyuye](https://tinyurl.com/57emyuye)

146 Professional Directive: The Use of 40mm Sponge Bullets Gun, 1 January 2015, as cited in UN, Human Rights Council Fortieth session 25 February–22 March 2019 Agenda item 7, *Human rights situation in Palestine and other occupied Arab territories*, Report of [...] the independent international Commission of inquiry on the protests in the Occupied Palestinian Territory, A/HRC/40/CRP.2, 18 March 2019, [www.ohchr.org/sites/default/files/HRBodies/HRC/RegularSessions/Session40/Documents/A\\_HRC\\_40\\_74\\_CRP2.pdf](https://www.ohchr.org/sites/default/files/HRBodies/HRC/RegularSessions/Session40/Documents/A_HRC_40_74_CRP2.pdf), para. 288.

147 Haaretz, “Ten days, five Israeli bullets” (previously cited).

148 Operational Response Services, *National Instruction 4 of 2014 Public Order Police: Crowd Management During Public Gatherings and Demonstrations*, 14 (5) and (6), p. 17., available at [protestguide.org.za/national-instruction.pdf](https://protestguide.org.za/national-instruction.pdf)

149 Correctional Services the Republic of South Africa, *Correctional Services Act No. 111 Of 1998, Section 34*, [tinyurl.com/3tjs3akm](https://tinyurl.com/3tjs3akm): “(5) Weapons equipped for firing rubber-type ammunition may only be issued to trained correctional officials and then only for training purposes or during emergency situations. (6) (a) Rubber-type ammunition may as a general rule only be fired at a distance of more than 30 metres from a person. (b) If such ammunition is fired at less than 30 metres from a person, the line of fire must be directed at the lower body of the person. (c) Rubber-type ammunition may not be fired within a building.”

150 UK College of Policing, *Attenuating energy projectiles: authorised professional practice*, 23 October 2013, Updated 2 September 2021, <https://tinyurl.com/4dxy3m28>

151 Belfast Telegraph, “MLA Gerry Carroll renews call for PSNI to ban plastic bullets”, 15 September 2022, [tinyurl.com/yc6mm779](https://tinyurl.com/yc6mm779)



# LACK OF REGULATION OVER THE TRADE IN KIPs

States have a positive obligation to prevent acts of torture and other forms of ill-treatment.<sup>152</sup> Furthermore, under the International Law Commission's (ILC) articles on state responsibility, a state can be held responsible for certain harms by another state that occur outside its territory if it knowingly "aids or assists another State in the commission of an internationally wrongful act".<sup>153</sup> This could include, for example, the provision of material aid, such as law enforcement equipment, to a state that is known to use such equipment to commit serious human rights violations, including torture or other ill-treatment. Companies producing law enforcement equipment also have a responsibility to respect all human rights wherever they operate throughout their operations and supply chains, up to and including the use of their products and services by third parties.<sup>154</sup>

## THE RESPONSIBILITY OF COMPANIES PRODUCING KIPs

Worldwide, manufacturing companies in every region promote a huge variety of different types and models of KIPs – some inherently problematic such as multiple projectile ammunition - to law enforcement departments across the world.<sup>155</sup> While local law enforcement agencies must be held accountable for human rights violations, companies also have a responsibility to respect human rights. Under the globally-endorsed UN Guiding Principles on Business and Human Rights (UN Guiding Principles),<sup>156</sup> all companies have a responsibility to respect all human rights wherever they operate throughout their operations and value chains, up to and including the use of their products and services by third parties. To this end, companies should carry out due diligence to "identify, prevent, mitigate and account for how they address their impacts on human rights."<sup>157</sup>

Among other things, they must avoid causing or contributing to human rights harm through their activities and, if harm occurs, cease the activities and remedy the harm. Business responsibility to respect human rights under Pillar II of the UN Guiding Principles "exists independently of States' abilities and/or willingness to fulfil their own human rights obligations".<sup>158</sup> Companies exporting equipment that is at risk of being misused by police forces – particularly to countries with a poor record of compliance with international human rights law and use of force principles - must apply rigorous human rights due diligence before proceeding with the sale. If it is impossible to prevent or mitigate adverse human rights impacts of the use of their products and services, then the company must suspend or cease supply.<sup>159</sup>

152 Committee against Torture, General Comment 2: Implementation of article 2 of the Convention against Torture by States parties, 24 January 2008, CAT/C/GC/2, paras 3-4.

153 Article 16 of the International Law Commission's Articles on the Responsibility of States for Internationally Wrongful Acts, (Articles on State Responsibility), commended by the General Assembly, A/RES/56/83, 12 December 2001. The customary law status of the Articles on State Responsibility was affirmed by the International Court of Justice in its Genocide Case Judgment (*Bosnia v. Serbia*), 26 February 2007.

154 UN Guiding Principles on Business and Human Rights (UN Guiding Principles) [ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR\\_EN.pdf](https://www.ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR_EN.pdf)

155 Omega Research Foundation company archives and INCLO, Lethal in Disguise, 3.1 Kinetic Impact Projectiles, [inclo.net/issues/lethal-in-disguise/](https://inclo.net/issues/lethal-in-disguise/)

156 UN Guiding Principles (previously cited).

157 UN Guiding Principles, Principle 15 (b).

158 UN Guiding Principles, Principle 11, Commentary.

159 UN Guiding Principles, Principle 19, Commentary.

However, despite the high human rights risks associated with their use, the manufacture and trade in KIPs is poorly regulated. In some countries - for example the USA - trade in some types of launchers are regulated through export controls on military use items. But there are no global controls on the trade in law enforcement equipment.

Regional trade controls on some law enforcement equipment are in force through the EU Anti-Torture Regulation.<sup>160</sup> The Council of Europe (CoE) has adopted a formal recommendation which provides a framework for states to better regulate the trade in goods which could be used for “capital punishment, torture or other cruel, inhuman or degrading treatment,” which also includes some crowd control equipment.<sup>161</sup> But neither the EU Anti-Torture Regulation nor the CoE recommendation include KIPs or related launchers.

## 7.1 LACK OF TRANSPARENCY

Unlike transfers of military equipment which many states regulate and report at least to some extent domestically and internationally through national reporting, the UN Register of Conventional Arms and their annual ATT export and import reports,<sup>162</sup> there is a dearth of data on transfers of policing equipment. Non-governmental organisations, including Amnesty International and the Omega Research Foundation, along with national human rights activists and journalists have pieced together aspects of the trade through open-source investigations of equipment filmed or photographed at protest sites and documented in places of detention.<sup>163</sup>

While precise chains of custody are often impossible to establish, Amnesty International and the Omega Research Foundation have identified serious misuse of identifiable foreign manufactured KIPs and launchers in crowd control, which in certain cases have amounted to torture or other forms of ill-treatment.

## 7.2 FRENCH MANUFACTURED EQUIPMENT MISUSED IN LEBANON

From October 2019 and 2020 there were mass protests across Lebanon in response to rising prices, high unemployment, dire public services and rampant and systemic corruption. During this period, at least 1,000 protesters were injured due to unlawful use of force by Lebanese security forces. Amnesty International documented repeated targeting of peaceful protesters with rubber bullets, including police shooting rubber bullets indiscriminately into the crowd at chest-level, sometimes at close range, indicating that they were shooting to harm. Many of the protesters sustained upper body injuries to the eyes, face, neck, chest and upper arms.<sup>164</sup>

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160 The Official Journal of the European Union, Regulation (EU) 2019/125 of the European Parliament and of The Council of 16 January 2019 concerning trade in certain goods which could be used for capital punishment, torture or other cruel, inhuman or degrading treatment or punishment, 31 January 2019, [eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019R0125&from=en](http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019R0125&from=en)

161 Council of Europe, Recommendation CM/Rec(2021)2 of the Committee of Ministers to member States on measures against the trade in goods used for the death penalty, torture and other cruel, inhuman or degrading treatment or punishment, Adopted by the Committee of Ministers on 31 March 2021, [search.coe.int/cm/pages/result\\_details.aspx?objectid=0900001680a1f4e5](http://search.coe.int/cm/pages/result_details.aspx?objectid=0900001680a1f4e5)

162 For example, UN Register of Conventional Arms, [unroca.org](http://unroca.org); Arms Trade Treaty, Annual reports, [thearmstradetreaty.org/annual-reports.html?templateId=209826](http://thearmstradetreaty.org/annual-reports.html?templateId=209826); Stockholm International Peace Research Institute (SIPRI), National reports on arms exports, [sipri.org/databases/national-reports](http://sipri.org/databases/national-reports)

163 Amnesty International, “Police Riot Gear, Old and New”, 8 September 2020, [citizenevidence.org/2020/09/08/police-riot-gear-old-and-new/](http://citizenevidence.org/2020/09/08/police-riot-gear-old-and-new/)

164 Amnesty International, “Suppressing Protests: French Less-Lethal Weapons Used In Lebanon”, January 2021, [amnesty.org/en/latest/research/2021/01/lebanon-french-less-lethal-weapons/](http://amnesty.org/en/latest/research/2021/01/lebanon-french-less-lethal-weapons/); Amnesty International, “Lebanon: Military and security forces attack unarmed protesters following explosions – new testimony”, 11 August 2020, [amnesty.org/en/latest/press-release/2020/08/lebanon-military-and-security-forces-attack-unarmed-protesters-following-explosions-new-testimony](http://amnesty.org/en/latest/press-release/2020/08/lebanon-military-and-security-forces-attack-unarmed-protesters-following-explosions-new-testimony)

In January 2020 Jean George Prince was wounded on whilst protesting peacefully near Le Grey Hotel. He was hit in the face by a rubber bullet, resulting in a deep cut on his lower lip that required reconstructive surgery. He told Amnesty International “We were peaceful protesters, forming a line in front of the riot police. We weren’t moving towards them. They were only four or five meters away... I saw one of them shooting and pointing directly at the people”.<sup>165</sup>

Although the shotguns employed could not be identified, at least some of the projectiles fired were identified from their discarded cartridge cases as being “Gomm-Cogne” rubber projectiles manufactured by the French company SAPL (Société d'Application des Procédés Lefebvre).<sup>166</sup>

In August 2020, security forces recklessly fired tear gas grenades into the crowds from launchers, causing several serious injuries. Jad (not his real name) was in the Azarieh district when he was hit in the face by a tear gas grenade. He told Amnesty International: “As we were packing to leave, I was hit in the face above my right eye with a tear gas grenade. My nose is broken and my whole face is swollen.” Faten (not her real name) was hit by a tear gas grenade in her right shoulder. She was also in the Azarieh district when riot police attacked the crowd. She told Amnesty International: “The riot police were only 10 meters away. I felt I was hit by something on my shoulder. I couldn’t feel my arm anymore. I thought I lost it, and then I collapsed. They were shooting tear gas at chest level directly at the people.”<sup>167</sup>

Verified video evidence from 8 August 2020 shows Lebanese security forces employing a variety of French manufactured launchers and tear gas projectiles. This included SAE Alsetex hand-held Cougar 56mm launchers and SAE Alsetex Land Cougars which are 12 barrelled versions of the standard Cougar launchers that can be used on the ground or from a vehicle. They fire 56mm calibre munitions, in single shot fire, or in 4 or 12 grenade salvos. At a maximum rate of 12 grenades in less than a minute, which according to the company, allows “full coverage over a wide area”.<sup>168</sup> Both the handheld Cougar and the vehicle mounted Land Cougar launchers can utilise the full range of SAE Alsetex 56mm grenades, and among the munitions identified on that day were SAE Alsetex SM6 tear gas grenades.

***“We were peaceful protesters, forming a line in front of the riot police. We weren’t moving towards them. They were only four or five meters away... I saw one of them shooting and pointing directly at the people”***

Jean George Prince who was wounded whilst protesting peacefully near Le Grey Hotel

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165 Amnesty International, Suppressing Protests (previously cited).

166 Amnesty International, Suppressing Protests; SAPL Catalogue, Non Lethal Ammunition, [sapl.fr/fichiers/bibliotheque//1663049701-catalogue\\_etatique\\_2022.pdf](http://sapl.fr/fichiers/bibliotheque//1663049701-catalogue_etatique_2022.pdf), p. 44-7.

167 Amnesty International, “Lebanon: Military and security forces attack unarmed protesters following explosions – new testimony”, 11 August 2020, [tinyurl.com/9tuvrvdb](https://tinyurl.com/9tuvrvdb)

168 SAE Alsetex, Law Enforcement 56mm Range, (undated) catalogue, p.27.

When questioned about the transfer of French manufactured law enforcement equipment to Lebanon, the French Ministry of the Armed Forces answered in writing to National Assembly that the most recent military licences for combined-effect hand grenades (tear gas/acoustic/flashbang grenades) and single-effect hand grenades (acoustic) were issued in the first quarter 2019, but did not address the issue of rubber bullets and related launchers.<sup>169</sup>

As a powerful, militarized multiple projectile system which leads to the excessive and uncontrollable use of force, the vehicle mounted multiple-barrel Cougar system cannot be used in line with the principles of necessity and proportionality; nor can it be used in compliance with law enforcement officials' duty to minimize harm. Amnesty International and the Omega Research Foundation call for the trade and use of this type of weapon to be prohibited for law enforcement.



*Lebanese soldiers fire rubber bullets and tear gas at protesters amid clashes in the northern port city of Tripoli on 26 January 2021.*  
© AFP via Getty Images

## 7.3 US MANUFACTURED KIPS MISUSED IN ISRAEL

As a result of the 2003 Or Commission recommendations prohibiting the use of rubber-coated bullets,<sup>170</sup> the Israeli Police introduced kinetic impact projectiles (KIPs) that had a sponge or foam tip: the 40mm eXact iMPact Sponge Rounds manufactured by US company, Defense Technology; and the 4557 Foam Baton and (potentially also the 4557 HV Foam Baton) manufactured by a second US company, Combined Systems Incorporated.<sup>171</sup> The black sponge 4557 Foam Baton KIP is twice as heavy as the blue sponge eXact iMPact KIP, and is composed of a harder, less compressible foam tip.

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169 Assemblée nationale, 15ème législature, Question N° 36289 de M. Didier Le Gac (La République en Marche - Finistère), 16 February 2021, [//questions.assemblee-nationale.fr/q15/15-36289QE.htm](https://questions.assemblee-nationale.fr/q15/15-36289QE.htm)

170 Theodor Or, *The Official Summation of the Or Commission Report*, 2000, available at the Legal Center for Arab Minority Rights in Israel (Adalah) [adalah.org/features/commission/orreport-en.pdf](https://adalah.org/features/commission/orreport-en.pdf)

171 B'Tselem, *Crowd Control: Israel's Use of Crowd Control Weapons in the West Bank, (Crowd Control)*, January 2013, [www.btselem.org/download/201212\\_crowd\\_control\\_eng.pdf](https://www.btselem.org/download/201212_crowd_control_eng.pdf) p.43.

According to the Association of Civil Rights in Israel (ACRI), 35 Palestinians were injured by the black sponge KIPs between July 2014 and the end of 2016. Sixteen of them were minors and 28 of the victims, including 12 minors, were hit in the head. Seventeen lost their sight in one or both eyes. Among the injuries sustained by the others were shattered jaws and teeth, multiple facial bone and skull fractures, brain haemorrhaging and irreversible brain damage.<sup>172</sup> Local NGO B'Tselem has also documented the grave impact of a range of KIPs on Palestinian protesters and bystanders over many years.<sup>173</sup> Recent cases include the death of a 10-year-old after being hit in the chest by a black sponge KIP on 19 July 2016,<sup>174</sup> and the fracture and bruising of a 16 year old's skull on 6 January 2019 after an Israel Border Police officer fired a sponge KIP without any warning.<sup>175</sup>



A member of Israeli security forces takes aim with a launcher as Palestinians protest following Friday prayers on 18 June 2021.  
© AFP via Getty Images

Sponge-tipped projectiles have caused multiple injuries during the various Al Aqsa Mosque protests. On 27 July 2017, Amnesty International documented Israeli security forces “firing stun grenades, tear gas and sponge-tipped bullets into a peaceful crowd as they stood at the entrance of the al-Aqsa mosque compound and inside.” Following this incident the Palestinian Red Crescent Society reported that at least 96 Palestinians were injured in and around the mosque.<sup>176</sup> On 22 April 2022, the Office of the High Commissioner for Human Rights (OHCHR) reported that “a number of Palestinians, including elderly, women, children and at least one journalist, who did not appear to pose any threat to the Israeli security forces in any manner, were beaten with batons or shot with sponge-tipped bullets from close range. Many sustained broken bones. Some were injured from stun grenades including some directly striking their heads.”<sup>177</sup>

172 Haaretz, “Ten Days, Five Israeli Bullets”, (previously cited); see also: ACRI, *Report to the UN Special Rapporteur on the use of Less-Lethal Weapons in East Jerusalem*, 1 June 2015, [tinyurl.com/38uedvz3](https://www.tinyurl.com/38uedvz3); ACRI, *Accounts of injuries from sponge-tipped bullets in East Jerusalem*, July 2014 - February 2016, [tinyurl.com/2p8bdvjc](https://www.tinyurl.com/2p8bdvjc)

173 See, for example, B'Tselem, *Crowd Control* (previously cited).

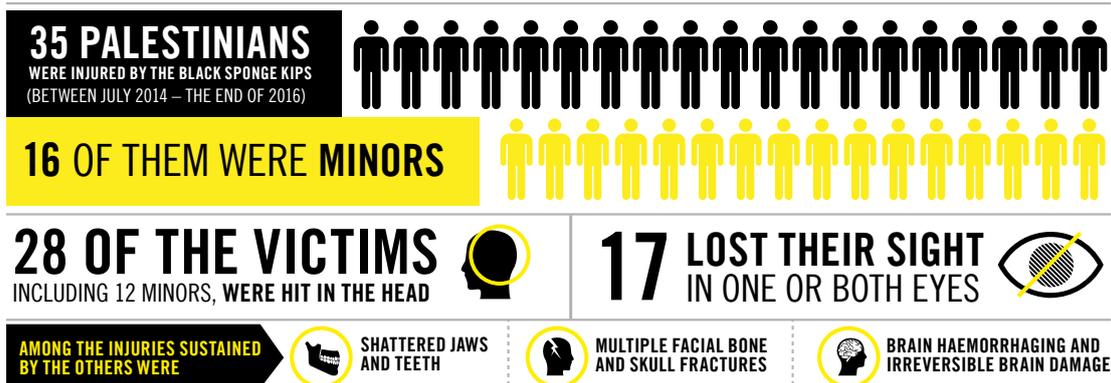
174 B'Tselem, “Israeli Border Police fire black sponge round at chest of 10-year-old boy in a-Ram, killing him No Accountability”, 3 August 2016 [btselem.org/firearms/20160802\\_killing\\_of\\_muhyi\\_a\\_din\\_a\\_tabakhi](https://www.btselem.org/firearms/20160802_killing_of_muhyi_a_din_a_tabakhi)

175 B'tselem, “Israeli Border Police fire sponge round at 16-year-old from less than 10 meters away, endangering his life and fracturing his skull”, 4 February 2019, [btselem.org/firearms/20190402\\_border\\_police\\_fire\\_sponge\\_round\\_at\\_16\\_yr\\_olds\\_head](https://www.btselem.org/firearms/20190402_border_police_fire_sponge_round_at_16_yr_olds_head)

176 Amnesty International, “Israeli forces attack peaceful crowds at Jerusalem holy site”, 27 July 2017, [tinyurl.com/3w8zbxp8](https://www.tinyurl.com/3w8zbxp8).

177 OHCHR, “Press Briefing Notes: Israel OPT, Spokesperson for the UN High Commissioner for Human Rights: Ravina Shamdasani”, 22 April 2022, [www.ohchr.org/en/press-briefing-notes/2022/04/israel-opt](https://www.ohchr.org/en/press-briefing-notes/2022/04/israel-opt)

ACCORDING TO THE ASSOCIATION OF CIVIL RIGHTS IN ISRAEL (ACRI)



## 7.4 THE NEED FOR GLOBAL TRADE CONTROLS ON LESS LETHAL EQUIPMENT

These examples show the urgent need for international prohibitions and controls on the trade in KIPs and related launchers. Like tear gas, KIPs occupy an ambiguous position straddling military and policing equipment control lists and associated trade control measures. Consequently, there is a lack of clarity in many states as to whether, and if so, how governments apply human rights risk assessments to potential transfers of such less lethal weapons. Furthermore, in many countries there is a lack of transparency around export licencing decisions and trade data which means this equipment is transferred without adequate oversight and accountability from national legislature and the public.

In June 2019, the UN General Assembly adopted Resolution 73/304, *Towards torture-free Trade...*, which initiated a process for “examining the feasibility, scope and parameters for possible common international standards” for regulating international trade in this area.<sup>178</sup> In May 2022, a UN-mandated Group of Governmental Experts (GGE) recommended that the UN General Assembly “could proceed to negotiate an international legally binding instrument” on the torture trade.<sup>179</sup> Such an instrument - a Torture-Free Trade Treaty<sup>180</sup> - would introduce global, legally-binding prohibitions and trade controls on law enforcement equipment used in the commission of torture or other ill-treatment. Amnesty International and the Omega Research Foundation, working with a strong civil society network of over 30 organizations, wholeheartedly support these efforts.<sup>181</sup>

While states discuss international regulation, they must impose their own restrictions, refusing to permit specific transfers of less lethal and other law enforcement equipment, including KIPs and related launchers, where there are clear human rights risks of misuse by the intended end users, and prohibiting the production and trade of inherently abusive models which cannot be used in line with international law and standards on the use of force.<sup>182</sup>

178 UN General Assembly (UNGA), Resolution 73/304: Towards torture-free trade: examining the feasibility, scope and parameters for possible common international standards, adopted on 28 June 2019, UN Doc. A/73/L.94.

179 OHCHR, *Towards torture-free trade: examining the feasibility, scope and parameters for possible common international standards: Report of the Group of Governmental experts*, A/76/850, 31 May 2022, [tinyurl.com/yy6uhxvn](https://tinyurl.com/yy6uhxvn)

180 Amnesty International, the Omega Research Foundation and the International Human Rights Clinic of Harvard Law School have outlined the essential elements that should inform the content of such a treaty, see *Essential Elements of a Torture-Free Trade Treaty*, 23 September 2022, (Index: IOR 40/5977/2022), [amnesty.org/es/wp-content/uploads/2022/09/IO4059772022ENGLISH.pdf](https://www.amnesty.org/es/wp-content/uploads/2022/09/IO4059772022ENGLISH.pdf)

181 Amnesty International, “Amnesty International signs declaration calling for international controls to combat trade in tools of torture”, 20 January 2023, [www.amnesty.org/en/latest/news/2023/01/declaration-calls-for-curbs-on-trade-in-tools-of-torture/](https://www.amnesty.org/en/latest/news/2023/01/declaration-calls-for-curbs-on-trade-in-tools-of-torture/); The Shoreditch Declaration for a Torture-Free Trade Treaty, available at The International Human Rights Clinic, Harvard Law School, [humanrightscampus.harvard.edu/wp-content/uploads/2023/01/The-Shoreditch-Declaration-ENG.pdf](https://humanrightscampus.harvard.edu/wp-content/uploads/2023/01/The-Shoreditch-Declaration-ENG.pdf)

182 See, Amnesty International and the Omega Research Foundation, *Ending the Torture Trade: The Path to Global Controls on the ‘Tools of Torture’* (Index: ACT 30/3363/2020), 11 December 2020, [amnesty.org/download/Documents/ACT3033632020ENGLISH.PDF](https://www.amnesty.org/download/Documents/ACT3033632020ENGLISH.PDF)



# 8 CONCLUSIONS AND RECOMMENDATIONS

The deployment of kinetic impact projectiles (KIPs) and other types of projectiles against protesters has led to thousands of injuries across the world - including permanent disabilities, such as loss of sight in one or both eyes - and scores of deaths. In many cases KIPs have been used on peaceful protesters, to disperse crowds or as a tool of intimidation and punishment. They, along with other types of less lethal weapons, have caused lasting physical and psychological damage to individuals exercising their right of peaceful assembly. Despite these grave risks, there are no international regulations on the manufacture and trade of this equipment.

Certain KIP models, including various types of multiple projectiles, multiple-barrel launch systems, inherently inaccurate single projectiles and rubber coated metal bullets, have no place in law enforcement and must be prohibited. Projectiles which are not designed for crowd control, such as metal pellets used for hunting, must never be used in law enforcement.

Projectiles which can be used in line with international human rights law and standards on the use of force must be used to the minimum extent necessary by trained law enforcement officials under specific, narrowly-defined circumstances in order to avoid the very real risks of serious, including life-changing, injury. KIPs are not appropriate tools for generalised crowd control and must never be used to disperse public assemblies. They must never be used against certain groups on the basis of “race, ethnicity, colour, sex, sexual orientation, language, religion, political or other opinion, national or social origin, disability, property or birth, or other similar criteria”, thus violating the human rights prohibition on discrimination.<sup>183</sup>

Finally, given the high risks of harm, police forces must rigorously assess whether there is an operational need for the use of KIPs in law enforcement – especially for the policing of public assembly. Some countries, states within countries and individual police forces have been able to operate without the need for KIPs in crowd control, avoiding the complexities that surround the lawful use of these powerful, and potentially dangerous, weapons.

## USE OF KIPS

KIPs may only be used lawfully in very limited circumstances. They may only be used as a last resort against violent individuals posing an imminent threat of severe harm to persons. Single projectiles may only be used to target an individual, in order to contain and stop the violence and only when less extreme means is insufficient to achieve this objective. Single projectiles may only be discharged from a safe distance, be carefully targeted and aimed only at persons directly involved in such violence. Projectiles must never be aimed at the head, upper-body or groin areas. They must not be fired from moving vehicles or by officers who are running; to minimize risks, the firer should be stationary.

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<sup>183</sup> UN Guidance on Less-Lethal Weapons, (previously cited), 2.11.

Each deployment must be authorized by a senior officer, recorded and evaluated for compliance with international use of force standards. Use against individuals at higher risk of more serious injury, such as pregnant women, children and older people, must be avoided, and particular care must be taken when using KIPs in the vicinity of those at elevated risk. KIPs must not be intentionally rebounded off the ground (“skip fired”) before striking the target. Kinetic impact projectiles must never be used to control a crowd or disperse a public assembly. Nor should KIPs be fired from the air or an elevated position, due to increased risks of striking targets in the head.<sup>184</sup>

Extreme caution must be exercised when targeting violent individuals in the dynamic environment of a public assembly where risks of hitting bystanders are high. Unless absolutely impossible, clear warnings should be given before firing KIPs allowing sufficient time for the warning to be heeded. Medical care must be promptly made available to anyone injured by such projectiles.

***“States parties must ensure that all weapons, including less-lethal weapons, are subject to strict independent testing, and that officers deployed with them receive specific training, and must evaluate and monitor the impact of weapons on the rights of those affected.”***

UN Human Rights Committee's General comment on the right of peaceful assembly<sup>185</sup>

## WEAPONS REVIEW

Each type of projectile and launcher, its sighting system, zeroing protocol<sup>186</sup> and associated regulations for use, and training package must be treated as a single system. The whole system must have undergone rigorous, independent, scientific/ballistic testing and review to ensure that projectiles and related launchers can be used safely and effectively, without causing unwarranted injuries, in line with international human rights law and standards on the use of force. Reviews must include assessment of a projectile's weight, composition, velocity, range for safe use, and importantly, accuracy, to ensure that it is fit for human rights compliant law enforcement use. Projectiles must be capable of striking an individual to within a 10-centimetre diameter of the targeted point when fired from the designated range.<sup>187</sup> Technical reviews must assess the complete system – that is the launcher and the projectile as a single unit – as different combinations of launchers and projectiles can produce radically different results.

KIPs must only be used when they fulfil a legitimate operational need. Their use in real life situations should be regularly monitored and weapons must be immediately withdrawn if their use results in patterns of unwarranted harm.<sup>188</sup> Results of standardised scientific/ballistic models of KIPs and launchers should be used to inform clearly defined recommendations for lawful use, including

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184 UN Guidance on Less-Lethal Weapons, 7.5.3.

185 UN Human Rights Committee, General comment 37 (2020) on the right of peaceful assembly, CCPR/C/GC/37, 17 September 2020, [digitallibrary.un.org/record/3884725/files/CCPR\\_C\\_GC\\_37-EN.pdf](https://digitallibrary.un.org/record/3884725/files/CCPR_C_GC_37-EN.pdf), para. 81.

186 Zeroing protocol involves firing a group of shots at a target and adjusting a weapon's telescopic sight accordingly to achieve greater accuracy and consistency.

187 UN Guidance on Less-Lethal Weapons, (previously cited), para. 7.5.4.

188 Accuracy in real life situations may be substantially worse than in a lab setting, in part due to end-user stress, John Taverniers & Joel Suss, “A user-centred assessment of a less-lethal launcher: the case of the FN 303® in a high-pressure setting”, 18 June 2018, *Ergonomics*, 62:9, DOI: [10.1080/00140139.2019.1626916](https://doi.org/10.1080/00140139.2019.1626916), pp. 1162-74.

permitted ranges and relevant targeting information. Such guidance should be based on international human rights law and standards on the use of force and be publicly available. The testing should be carried out by independent medical, legal, policing and other experts and should not merely follow the manufacturer's claims regarding their safety. Projectiles should also be periodically assessed throughout their life span. Materials might harden and/or change and affect their flight behaviour if stored for long periods of time. Storage conditions and duration need to be defined to ensure that projectiles continue to meet standards and conditions under which they were initially tested and evaluated. Any munition beyond its shelf life must not be used operationally.

## PROHIBITED KIPS

Munitions containing, or devices firing, multiple KIPs are inherently inaccurate, they cannot be targeted only to an individual engaged in violence and will cause unwarranted injury, and therefore have no legitimate law enforcement use and must be prohibited.<sup>189</sup> KIPs containing metals are particularly dangerous due to their weight and penetrative effects and cannot be used safely. Rubber-coated metal bullets present a great risk of causing excessive harm, including potentially death, and must be prohibited for the policing of public assemblies. Multiple projectile rubberized buckshot is both inherently inaccurate and carries an elevated risk of serious injuries because of the metal content of its projectiles and thus must be prohibited. Multiple-barrel launchers designed to launch multiple KIPs simultaneously cannot comply with the principles of necessity and proportionality and their use must be prohibited for law enforcement.<sup>190</sup>

## USE OF OTHER PROJECTILES

Metal shot designed for hunting cannot be adequately targeted, causes serious unwarranted injuries, including eye injuries, and must never be used in the policing of public assembly. Tear gas grenades are not designed as impact projectiles and must never be fired directly at individuals.

## TRAINING

Law enforcement agencies must ensure that use of KIPs is confined to the smallest necessary number of specially trained officers. Such officers must receive regular, adequate training – independent of manufacturers - on the use of KIPs and related launchers, including scenarios that accurately reflect actual operational use. Training must include obligatory human rights considerations regarding when and how to resort to the use of these weapons, including specific instructions on acceptable trajectory, velocity and target range. There must be an obligatory certification process in which law enforcement officials are required to obtain a certain standard of proficiency to be allowed to use the weapon, with initial training followed by regular refresher courses. Officers who have not received adequate training must not be issued with KIPs. Officers must be trained to think of KIPs as particularly dangerous weapons that can cause serious injury and even death.

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189 See, for instance, the 37/40mm Stinger® 32-cal Rubber Ball smokeless powder round which contains 130 rubber balls fired at 91 metres per second (over 300 km per hour), [defense-technology.com/wp-content/uploads/2020/06/37-40mm-Stinger-32-Cal-Rubber-Ball-Round-6296.pdf](https://defense-technology.com/wp-content/uploads/2020/06/37-40mm-Stinger-32-Cal-Rubber-Ball-Round-6296.pdf)

190 Amnesty International and the Omega Research Foundation, *The human rights impact of less lethal weapons and other law enforcement equipment*, (Index: ACT 30/1305/2015), [amnesty.org/download/Documents/ACT3013052015ENGLISH.PDF](https://www.amnesty.org/download/Documents/ACT3013052015ENGLISH.PDF) p. 17,

## ACCOUNTABILITY

Each instance of the use of less lethal weapons, including KIPs, must be carefully monitored by the authorities to ensure that it complies with international human rights law requirements of legality, legitimate aim, necessity and proportionality in the use of force. As with any use of force, the use of less lethal weapons must be subject to the requirement of obligatory reporting to a superior. The higher the risk of serious injury or even death resulting from the use of the device, the more thorough the reporting process must be. Monitoring must be carried out with a view to not just holding officers found to have misused less lethal weapons to account, but also improving standard practice to minimize the harm caused by the lawful use of less lethal weapons in all circumstances. Timely and accurate data on factors such as types of equipment authorized for use, frequency of use and injuries and deaths resulting from use should be regularly made publicly available.

## TRADE

The UN has begun a process related to international measures to control the trade in goods that could be used for torture or other ill-treatment. Amnesty International and the Omega Research Foundation advocate for crowd control equipment, including KIPs and related launchers, to be explicitly covered by a binding Torture-free Trade Treaty.<sup>191</sup> In relation to KIPs and related launchers, such a treaty must prohibit manufacture, trade and use of:

- ammunition containing multiple KIPs;
- single KIPs that are inherently excessively injurious or inaccurate;
- multiple-barrel launchers designed for the simultaneous launch of KIPs for law enforcement.

A Torture-free Trade Treaty must also include strict, human rights-based controls on the export and transit of:

- single KIPs, including plastic bullets, rubber bullets and other projectiles such as bean bags that are not inherently inaccurate;
- kinetic impact projectile launchers designed to launch single KIPs.

While states discuss international regulation, they must impose their own restrictions, stop the trade in less lethal and other law enforcement equipment, including KIPs and related launchers, where there are clear human rights risks, and strictly controlling their use domestically.<sup>192</sup>

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191 Amnesty International and the Omega Research Foundation, *Ending the Torture Trade: The Path to Global Controls on the 'Tools of Torture'* (Index: ACT 30/3363/2020), 11 December 2020, [amnesty.org/download/Documents/ACT3033632020ENGLISH.PDF](https://www.amnesty.org/download/Documents/ACT3033632020ENGLISH.PDF)

192 See Amnesty International, Omega Research Foundation and the International Human Rights Clinic of Harvard Law School, *Essential Elements of a Torture-Free Trade Treaty*, 23 September 2022, (Index: IOR 40/5977/2022), [amnesty.org/es/wp-content/uploads/2022/09/IOR4059772022ENGLISH.pdf](https://www.amnesty.org/es/wp-content/uploads/2022/09/IOR4059772022ENGLISH.pdf)

# RECOMMENDATIONS

Amnesty International and the Omega Research Foundation are calling on states/law enforcement agencies to:

## PRIOR TO ADOPTION

- Assess whether there is an operational need for the use of KIPs for law enforcement, and if this is the case, define as narrowly as possible what that need is.
- Carry out independent, rigorous, scientific/ballistic testing and review on equipment to be authorized for use to ensure that it can be used safely, in line with international human rights law and standards on the use of force.
- Update or reinforce guidance on use to include permitted equipment types, range limits, explicit prohibitions on use for generalized crowd control/dispersal, explicit warnings on health impacts and post-deployment and reporting requirements.
- Restrict the use of KIPs to specialised, highly trained law enforcement officials.
- Ensure that all law enforcement officers authorized to use independently tested and approved KIPs and related launchers undergo initial training followed by regular refresher courses in order to be certified to use the equipment.
- Make publicly available information about the types of equipment permitted for use, how they have been tested, what guidance there is on permitted use and what training on use has been undertaken.
- Ensure kinetic impact projectiles and launchers are uniquely marked and registered when issued to each individual officer, in order to facilitate the later identification of an official who discharged their weapon in any given situation.

## WHILE IN USE

- Mandate the issuing of clear warnings particularly in the policing of public assembly to give crowds adequate time and a safe space to move away from targeted individuals;
- Ensure each use is authorized by a commanding officer, clear warnings are given before discharge and adequate medical care is available and provided promptly to those needing it.
- Strictly monitor the use of KIPs, logging each discharge and review each incident to ensure compliance with international human rights law and standards on the use of force.
- Thoroughly and independently investigate any incidents of suspected unlawful use and ensure full accountability for those found responsible, including along chains of command.
- Continuously evaluate overall effectiveness and necessity of use.
- Publish disaggregated data on use, injuries and deaths and accountability processes for misuse.
- Provide adequate and prompt remedy including appropriate medical care and rehabilitation, restitution, and fair and adequate financial compensation to those impacted by reckless and/or unlawful KIPs.

## PROHIBITIONS

States/law enforcement agencies must also prohibit the use of kinetic impact projectiles that are inherently inaccurate and/or too powerful to be used safely for law enforcement, and dangerous methods of use, including:

- Ammunition containing multiple KIPs.
- KIPs containing metals including rubberized buckshot and rubber-coated metal bullets.
- Single KIPs which are inherently inaccurate or excessively injurious by design.
- Multiple-barrel launch systems that are overly powerful and which cannot be used in line with the principles of necessity and proportionality.
- Techniques which make it impossible to accurately target an individual engaged in violence such as skip firing (ricocheting off the ground).
- The use of tear gas munitions as direct impact projectiles.

## TRADE CONTROLS

With regard to the international trade in law enforcement equipment, states must:

- Introduce regulations or strengthen existing national controls on the trade in goods used for torture or other forms of ill-treatment.
- Increase public accountability and transparency over the transfer of law enforcement equipment through regular, thorough public reporting of all transfers of law enforcement equipment.
- Support the development of regional and international instruments in this area, including by taking an active diplomatic role in the current UN process and support initiatives aimed at the development of an international “Torture-Free Trade Treaty”.
- If not already a member, Join the global Alliance for Torture-Free Trade - a group of over 60 states from all regions pledging to take measures to control and restrict exports of goods used for torture or other ill-treatment.<sup>193</sup>

## RESPONSIBILITY OF COMPANIES

Companies manufacturing and trading KIPs and related launchers must:

- Commit to respect human rights and develop and implement robust human rights due diligence policies and processes which cover human rights risks and abuses connected with the use of their products and services.
- Refrain from transfers where a company has identified a risk that KIPs and related launchers will be used for serious human rights violations, including torture or other forms of ill-treatment, and is unable to or chooses not to mitigate the risk.
- Cease manufacture and transfer of inherently abusive KIPs and KIP launchers, including multiple-barrel kinetic impact launchers designed for the simultaneous launch of multiple KIPs, ammunition containing multiple KIPs and single KIPs that are inherently injurious or inaccurate.

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<sup>193</sup> Alliance for Torture-Free Trade, [torturefreetrade.org/](http://torturefreetrade.org/) The Alliance also works for controls/restrictions on goods used to carry out executions.

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# “MY EYE EXPLODED”

## THE GLOBAL ABUSE OF KINETIC IMPACT PROJECTILES

The deployment of kinetic impact projectiles (KIPs) and other types of projectiles against protesters has led to thousands of injuries across the world - including permanent disabilities and scores of deaths. In many cases KIPs have been used as a tool of intimidation and punishment against peaceful protesters. Given the grave human rights impacts of KIPs, strict national, regional and global regulation over not just their adoption and use, but their design and trade is essential. This includes the creation of a robust Torture-free Trade Treaty which bans inherently abusive law enforcement equipment and introduces strict, human rights-based trade controls on other equipment.

