Mapping Arms Data (MAD):
Visualizing global exports and imports of small arms and ammunition

Frequently Asked Questions

What is this project about?

The Mapping Arms Data (MAD) visualization project is produced by PRIO and the Igarapé Institute. It represents an upgrade of the original global small arms, light weapons and ammunition visualization produced by Google as part of the Google Ideas INFO (Illicit Networks Forces in Opposition) Summit with support from the Igarapé Institute. The data features over 71,000 records of the exports and imports of small arms, light weapons and ammunition from more than 262 states and territories between 1992 and 2011. The updated tool incorporates additional data and new features and is available at http://legacy.prio.no/nisat/data-visualization.The original tool is still available at http://workshop.chromeexperiments.com/projects/armsglobe/.

Where does the data come from?

The underlying information for MAD is based upon 37 different data sources - including national export reports, the UN Statistics Division's Commodity Trade Statistics Database known as COMTRADE, and the UN Register of Conventional Arms. The data covers the period between 1992 and 2011 and documents the global transfer of firearms and ammunition from across 262 states and territories. It has then been analyzed and aggregated by PRIO, and all the source data is publicly available on PRIO's NISAT database (www.nisat.org).

What does the data cover?

The data contained covers the country of export, country of import, type of armament being transferred (military, civilian or ammunition) and the financial value of the transaction in (USD).

Are there any caveats to the data?

The data has a number of limitations that must be recognized up front:

- The sources used seldom provide information on the end-user for those small arms and ammunition that are traded between countries. Aside from crossing a border, there is rarely additional information on the ultimate destination of the weapon or ammunition tracked. In some cases arms and ammunition are re-transferred and diverted (often by dealers and brokers) after the initial transfer.
- The data may only partially capture non-commercial transfers, including military aid transported on military ships or aircraft. As such, it provides only a partial view of the overall movement of arms and ammunition.

- There is often uneven coverage of all authorized transfers due to poor or absent reporting by state. For example, large producing countries frequently censor reporting on military style light weapons and small arms while other less developed countries may lack the capacity to monitor and record all arms shipments.

- Prior to 2002 the data on military imports and exports includes some light weapons and artillery. It is not possible to disaggregate these specific weapons types from the available source.

- Due to weak or non-existent reporting in some countries, the data visualization tool provides an incomplete assessment of overall flows of small arms and ammunition. For example, countries such as China, North Korea, and Iran along with much of Central Asia and Sub-Saharan Africa report partial or no data.

What are small arms and light weapons

Governments have not agreed upon a universal definition of what constitutes a small arm, light weapon, part, component or ammunition. According to the United Nations, small arms and light weapons include any "man-portable lethal weapon that expels or launches, is designed to expel or launch, or may be readily converted to expel or launch a shot, bullet or projectile by the action of an explosive." This definition proceeds from the International Instrument to Enable States to Identify and Trace, in a Timely and Reliable Manner, Illicit Small Arms and Light Weapons (A/60/88), adopted by the United Nations General Assembly on 8 December 2005.

"Small arms" are generally referred to as weapons designed for individual use. They include revolvers and self-loading pistols, rifles and carbines, submachine guns, assault rifles and light machine guns. "Light weapons" are described as weapons designed for use by two or three persons serving as a crew, although some may be carried and used by a single person. They include heavy machine guns, hand-held under-barrel and mounted grenade launchers, portable antiaircraft guns, portable anti-tank guns, recoilless rifles, portable launchers of anti-tank missile and rocket systems, portable launchers of anti-aircraft missile systems, and mortars.

The data visualization focuses exclusively on small arms, and so just provides an important insight into global trends in small arms and ammunition transfers. However, it is not exhaustive. For the purposes of the data visualization project, all information is aggregated into three categories - military-style small arms, civilian-style small arms, and small arms ammunition:

- Military weapons include machine guns (sub, light, and heavy), assault rifles, combat shotguns, and machine pistols.

- Civilian arms consist of pistols, revolvers, sporting shotguns, sporting rifles (anything not rated as a military item including fully automatic weaponry).

- Ammunition includes shotgun shells and small caliber ammo (anything below 14.5mm which isn't fired from a shotgun).

Who was involved?

Dr. Robert Muggah from the Igarapé Institute and Nicholas Marsh from PRIO supported the development of the visualization project. Based in Rio de Janeiro, the Igarapé Institute is a southern think tank devoted to evidence-based policy and action on complex security and development challenges. Founded in 1959, PRIO is an independent research institution known for its policy-relevant research. PRIO's Norwegian Initiative on Small Arms Transfers (NISAT) was essential to the providing the underlying data. Special credit is also due to Google Ideas for providing support for the original tool in 2012.

Visit the MAD visualization at: **http://legacy.prio.no/nisat/data-visualization**