Acquiring WMD Capacity: How Difficult Is It?[1]

Chemical Weapons

The use of chemical weapons (CW) dates back to the First World War when chlorine and mustard gas were used against troops in France and Belgium. About 70 different chemicals were used or stockpiled as chemical warfare agents during the 20th century. Chemical weapons are classified as WMD by the United Nations, and their production and stockpiling were prohibited by the Chemical Weapons Convention (CWC) of 1993.

Blister agents such as mustard gas are relatively easy to manufacture, but they require large quantities of precursor chemicals. Nerve agents are made with several precursor chemicals and are much more difficult to synthesize. Because their fabrication requires high temperatures and sophisticated laboratories, and creates dangerous byproducts, terrorists are more likely to try to procure ready-made or existing nerve agents rather than making them.

The CWC monitors the international production and sale of such precursor chemicals to ensure that they are used only for permitted peaceful purposes. Furthermore, the Parties to the Convention are legally bound to destroy their weapons stockpiles.

Nuclear Weapons

Nuclear weapons are the most destructive form of WMD. Making a nuclear bomb requires access to fissile material—either plutonium or highly enriched uranium—and the scientific and technological knowledge to construct a warhead.

Many experts believe that if a terrorist group acquired the necessary quantities of fissile material, it could construct a crude nuclear weapon. Only 4 to 8 kilograms of plutonium (about the size of an orange) or 15 to 25 kilograms of highly enriched uranium (about the size of a grapefruit) are needed.

Gas masks have been used since WWI as protection against chemical weapons.

Terrorist groups could use container shipping to deploy WMD. The Canadian Border Services Agency uses a mobile vehicle and cargo inspection system to detect weapons and other dangerous goods in marine containers.

Photo: Canadian Border Services Agency (CBSA).

[1] For more information, see *World at Risk: The Report of the Commission on the Prevention of WMD Proliferation and Terrorism*. New York, 2008.