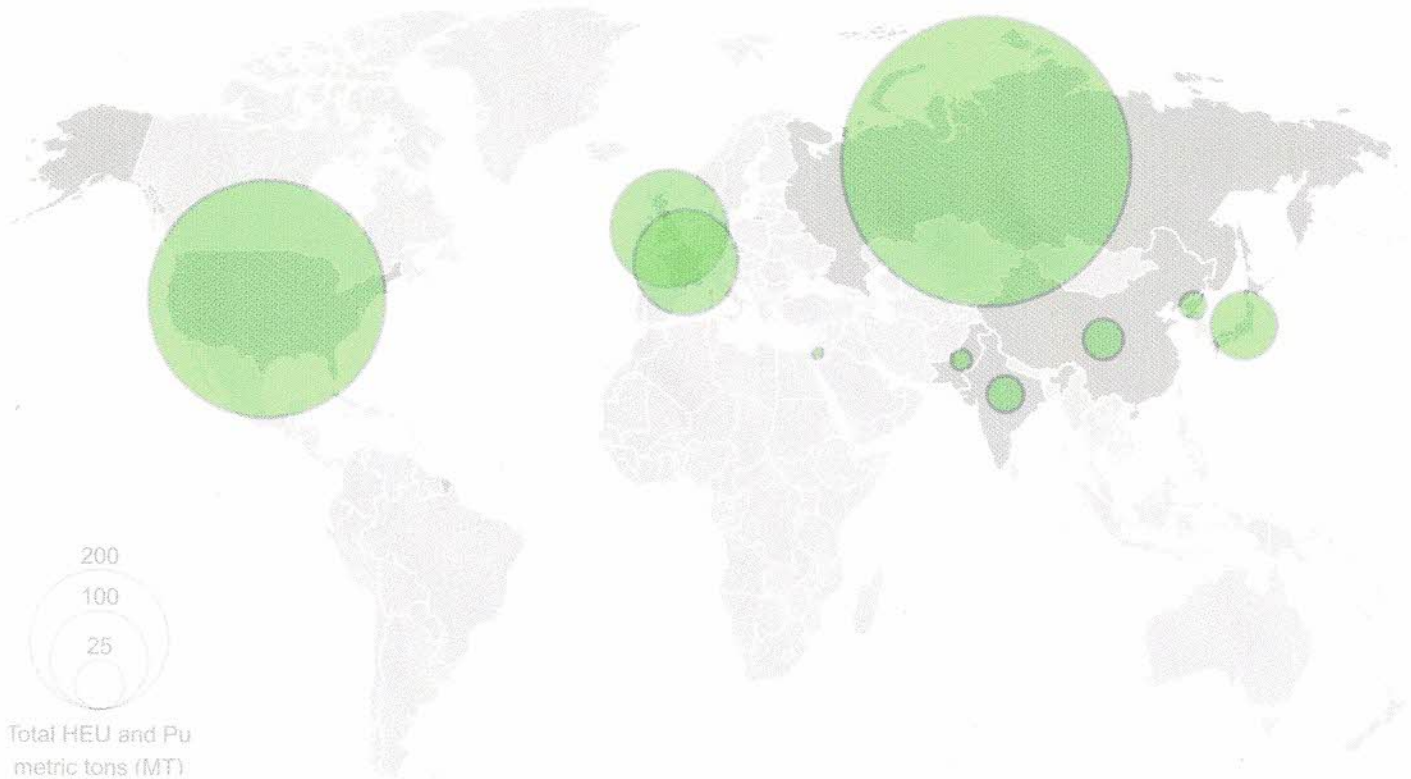


# International Panel on Fissile Materials : Stocks

Fostering initiatives to reduce stocks and end the production and use of highly enriched uranium and plutonium

As of the beginning of 2021, the global stockpile of unirradiated **highly enriched uranium (HEU)** was estimated to be about 1255 metric tons. Most of this material - about 1,100 metric tons - is in weapons or available for use in weapon programs. The global stockpile of **separated plutonium** was about 545 tons. Of this material, 405 metric tons were produced outside of weapon programs, covered by obligations not to use it in weapons, or not directly suitable for weapons. This leaves about 140 metric tons of plutonium in weapons or available for weapons.



The map and the table show amounts of fissile materials (combined HEU and plutonium) in nuclear armed states and in countries that own large amounts of civilian fissile materials. Numbers for weapon material for the United States and United Kingdom are based on official data. Most numbers for civilian plutonium are based on declarations submitted to IAEA and reflect the status as of December 31, 2020. Other numbers are non-governmental estimates, often with large uncertainties. See individual country entries for details.

Country	Total HEU, MT	Of this, HEU available for weapons, MT	Total Pu, MT	Of this, Pu available for weapons, MT
Russia	678	672	191	88
United States	495	361	87.8	38.4
United Kingdom	23	22	119.3	3.2
France	29	25	85.4	6
China	14	14	2.9	2.9
Pakistan	4	4	0.5	0.5
India	5		9.2	0.7
Israel	0.3	0.3	0.8	0.8
DPRK	0.7	0.7	0.04	0.04
Others	4		46.1	
TOTAL	1255	1100	545	140

Production of military fissile materials continues in India, which is producing plutonium for weapons and HEU for naval propulsion, Pakistan, which produces plutonium and HEU for weapons, Israel, which is believed to produce plutonium. North Korea has the capability to produce weapon-grade plutonium and highly-enriched uranium.

France, Russia, the United Kingdom, Japan, and India operate civilian **reprocessing facilities** that separate plutonium from spent fuel of power reactors. China is operating a pilot civilian reprocessing facility.

Thirteen countries - Russia, the United States, France, the United Kingdom, Germany, the Netherlands (all three are in the URENCO consortium), China, Japan, Argentina, Brazil, India, Pakistan, and Iran - operate **uranium enrichment facilities**. North Korea is also believed to have an operational uranium enrichment plant.

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