Current status

India is estimated to have 90–110 nuclear warheads. It is also developing a range of delivery vehicles, including land- and sea-based missiles, bombers, and submarines. There are no official estimates of the size of India's stockpile of fissile materials, though it is known that India produces both HEU for its nuclear submarines and plutonium for weapons. India is estimated to have a stockpile of 2.4 ± 0.9 tons of HEU as of the end of 2012. With regard to plutonium, India is estimated to have a stockpile of 0.54±0.18 tons of weapon-grade plutonium by the end of 2012.

There has been speculation that India has used reactor-grade plutonium in its nuclear weapons, in which case, the nuclear arsenal could potentially be much larger: as of the end of 2012, between 4.7 tons of reactor-grade plutonium is estimated to have been separated from its power reactors. Its fast breeder reactor programme also provides another potential source of producing weapon-grade plutonium; however, construction of the first Prototype Fast Breeder Reactor has experienced a series of delays and it is now expected to be commissioned only in late 2014 or early 2015, about five years after the initial projection.

Modernization

The primary focus of modernization has been on increasing the diversity, range, and sophistication of nuclear delivery vehicles. In April 2012, India conducted its first test of its Agni-V nuclear-capable ballistic missile, with a range of over 5,000 km. This was followed with another test in September 2013. In January 2013, India conducted its first publicly announced test of a submarine-launched ballistic missile with a range of 700 km; this was followed by one more test in March 2014. India’s Defense Research and Development Organization (DRDO) is reportedly also working on the development of the sixth missile in the Agni family, the Agni-VI, with an estimated range of up to 10,000 kilometers (6,200 miles). The Indian navy is reported to be examining the possibility of developing a nuclear-powered aircraft carrier. According to the DRDO, India’s first nuclear submarine and the Agni-V missile are expected to be ready for military induction by 2015.

There are also plans to expand the nuclear weapons and missile production complex as well as the capacity to enrich uranium. The nuclear establishment is in the process of building a new complex in the eastern city of Vishakhapatnam, which will host two research reactors, including one that “will be similar in design to the existing Dhruva research reactor” that is used to produce plutonium for weapons.

Economics

The expansion of India’s nuclear and missile arsenals are part of a larger military build-up and consistently-increasing military spending. However, there is no reliable public estimate on nuclear weapon spending in India. Historically, the nuclear and defence research establishments have wielded considerable social, political, and economic power. They have been joined in recent decades by government laboratories, public sector and private companies, and universities, to form a burgeoning and powerful military-industrial complex.

International law and doctrine

Dating back to 2003, India’s official nuclear doctrine is very brief and gives little detail on what it envisions for its nuclear arsenal. However, a draft report from the National Security Advisory Board released a few years earlier is far more detailed. It calls for India’s nuclear forces to be deployed on a triad of delivery vehicles of “aircraft, mobile land-based missiles and sea-based assets” that are structured for “punitive retaliation” so as to “inflict damage unacceptable to the aggressor”.

Since the 1974 nuclear test, the Indian government’s focus in arms control diplomacy has been to resist signing onto any international treaties that impose any obligations on its nuclear arsenal. This allows the government to maintain that it is a responsible member of the international community because it has not breached any agreement. It also interprets this as meaning there are no legal constraints on any modernization activities that may affect the quantity or quality of its nuclear weapons. However, its activities may not be in complete concordance with international law; the 1996 advisory opinion of the International Court of Justice maintained that the obligation for disarmament is not restricted to signatories of the NPT.

Public discourse and multilateral engagement

Over the years, the idea that India has a right to possess nuclear weapons has become widely shared across much of the political spectrum. While nuclear weapons used to be seen as a “necessary evil,” there is now more enthusiasm for India to become a bonafide nuclear weapon power that can exercise its military might in the region. India attended both conferences on the humanitarian impact of nuclear weapons in Norway and Mexico and participated in the open-ended working group on nuclear disarmament and the high-level meeting in 2013. However, its positions have not changed to reflect these developments, and while the government continues to promote the 1988 Rajiv Gandhi plan for nuclear disarmament, this is somewhat hypocritical when viewed in the light of its ongoing modernization plans.

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