

# Weather, weapons, famine and warfare: A short history

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A few years ago, when Aroon Raman was trekking in Nepal, he saw a cloud on top of a nearby mountain. Not a very unusual sight, you might think. But what struck Raman was the shape of the cloud. It looked like a mushroom cloud. It set Raman thinking of the possibilities of weaponized weather.

Raman is hard to define. He's been an entrepreneur, working with a family business. Since then, he's been a consultant, a public speaker, a columnist, and writer. A writer of good old-fashioned pulp, as he says.

The hunt for information about weather weaponization led Raman back to the 1960s, to the famines of 1965 and 1966.

"Those were terrible years, and the monsoons had failed twice in succession. If it was not for the US shipping grain to the country, it would have

been a disaster of an unimaginable magnitude," he says. But it wasn't all altruism, he says. According to Raman, this was US President Lyndon Johnson's way of forcing geopolitical compliance from India.

So what's the connection between an Indian famine and the weaponization of the weather?

Raman says that India, with its repeated famines became a testing ground for the process – through an operation called Project Gromet. Johnson was fascinated by the idea of harnessing weather to destruc-



**WEATHER WIZARD:** Lyndon Johnson was obsessed with manipulating weather, and made India a testing ground, says Aroon Raman (left)

tive purpose, and Project Gromet was an attempt, one of the earliest attempts, to induce precipitation through cloud seeding, he says.

The objective of Project Gromet, from the American point of view, was as a dry run for Project Popeye in Vietnam, says Raman. "In the Vietnam War, Project Popeye was an attempt to increase rainfall over the Ho Chi Minh trail (a logistical used in the Vietnam war), in the hope that the rainfall would check Vietcong movement in the area. The Americans used seeding techniques – impregnating clouds with silver iodide and dry ice," he says

Gromet was also intended to serve another purpose. In the mid-sixties, India had had a serious crisis of confidence – a result of the Chinese incursion into the Aksai Chin in 1962, and even more importantly, China's explosion of

a nuclear device in 1964. With the nuclear test, China had overtaken India's claims to a premier position in science and technology—a position that India badly needed to reclaim, in order to maintain influence within the Non-Aligned Movement. It was also the beginning of India's nuclear programme.

For the US, their diplomatic objectives in India during the later part of the 60s were twofold. One was to wean away India from their ties to the Soviets and set it up as a bulwark against Communist China. The other was to prevent India from going nuclear. The US state department believed that both these objectives could be achieved through "specific steps that might be taken to enhance India's political prestige, including scientific and technical projects" especially ones that showcased

"dramatic uses of modern technology to attack India's basic problems of food, population, health and education".

"Johnson had taken personal control of food shipments to India from USAID, the agency originally responsible for sending food aid to us," says Raman. "He kept India on a very short tether, releasing just enough grain to prevent disasters," he says. But Johnson also wanted to use India as a testing ground for his ideas on manipulating the weather. And a project that involved rainmaking with technology at a time of famine would serve multiple purposes. "Unfortunately, the project fell through, because it would involve operations that affected a deeply paranoid Pakistan. It would have been seen as India using cloud seeding to take away all of Pakistan's precipitation," says Raman.

"It's not just about weaponization, though," says Raman. "After all, one of the most public and visible uses of weather modification took place during the Beijing Olympics," he says.

While Raman's use of weaponized weather in his latest novel *Skyfire* may seem to verge on the fanciful – he admits that he did a lot of research for his novel by prowling through those dark corners of internet where people discuss conspiracy theories and see evil intent in almost everything – it's easy to forget that today's fiction could be tomorrow's reality. After all, when Ian Fleming introduced the idea of biological warfare in *On Her Majesty's Secret Service*, way back in 1963, most of his reading public dismissed the concept as fantasy.