

## PREFACE

This admirable little book gives the reader excellent reasons for why India should not have nuclear weapons. But the arguments given are universally applicable. From the Pakistani side, I can do little but ditto almost every fact and remark made herein. In a sane world neither country would have these horrific weapons. Nor, for that matter, would any other country in the world.

Nevertheless, nuclear weapons are not on the way out in South Asia. India's enthusiasm for becoming a regional superpower remains high and drives the subcontinent's nuclear race while Pakistan continues to worship the Bomb, thinking that it will magically provide a way out of its terrible difficulties. Paradoxically, in spite of relatively good relations in recent times, the two adversaries are frantically producing more fissile materials and warheads, as well as extending, improving, and testing their intermediate-range ballistic missiles. The race to space is just around the corner.

That's not how it was supposed to be. Pro-establishment analysts in India and Pakistan, in a bizarre show of solidarity with each other, had long pooh-poohed the notion of nuclear racing. South Asians were not, they said, like the dumb, compulsive Soviets and Americans who had produced an unimaginable 70,000 nukes at the peak. At a conference in Chicago in 1992, the hawkish Indian strategist, K. Subramanyam, snapped at me that "arms racing is a Cold War concept invented by the western powers and totally alien to sub-continental thinking".

Minimal deterrence was the mantra of those days. The late General K.Sunderji, the chief of India's army, was a man who loved nukes dearly. But he also insisted that a few were plenty – India needed only a dozen or so Hiroshima-sized city-busters. And so did Pakistan! In a chance encounter in 1995, when I introduced myself to him as a Pakistani nuclear physicist, his eyes lit up. He hugged me warmly, insisting that a happy Pakistan must have nukes. I did not have the heart to tell him that I wanted all nukes to be done away with. One wonders if Sunderji might be sad knowing that tactical nuclear war-fighting, which he considered sinfully escalatory, is now part of current Indian and Pakistani military doctrines and that both arsenals are continuously expanding.

Escalation is a fact, but I must take issue with those anti-nuclear activists who argue that nuclear weapons are expensive and that poor countries, like Pakistan and India, should not have them. That may be so. However the most serious damage that comes from developing nuclear weapons is psychological and political, not material. The power to kill millions with the touch of a button has an enormous impact upon the way that any institution or country conducts itself. Indeed, the lasting and pernicious legacy of the May 1998 nuclear tests was the official celebration of violence, and the encouragement of public joy at acquiring the power to commit mass murder. The nuclear tests changed the national psyche.

Most significantly, they changed the way in which our military and political leaders thought, spoke, and behaved.

In Pakistan – which followed India into nuclear testing – the Bomb soon turned into a fantastic talisman, able to ward off all evil. For military men, Pakistani nukes were not just a counter to Indian nukes but also the means for neutralizing India's larger conventional land, air, and sea forces. For diplomats and politicians, the bomb was a sure way to guarantee that the world would make India negotiate. Flushed with success, the Pakistani leadership hit on what, in their view, was a brilliant strategy for confronting India – secret jihad by Islamic fighters with protection provided by Pakistan's nuclear weapons. This led to the Kargil disaster.

This booklet also makes a powerful case for why nuclear power holds nothing but illusions for South Asia. Although nuclear power is being re-advertised in the age of global warming as a panacea for energy problems, it is beset by problems without satisfactory solutions – nuclear electricity turns out to be more expensive than the alternatives (if one does an honest accounting), the price of uranium rises in proportion to that of oil, and spent fuel remains dangerous even on the geological time scale.

In South Asia there is an even graver problem that few wish to even think of – that of security. Having reactors close to population centres may actually be worse than storing nuclear bombs in its precincts. While a reactor cannot explode like a bomb, even a rather small 200 megawatt reactor, after one year of operation, contains more radioactive cesium, strontium, and iodine than the amounts produced in all the nuclear weapons tests ever conducted. These devastatingly deadly materials could be released if the containment vessel of the reactor is somehow breached. A serious Chernobyl-like accident, leading to a loss of coolant, is the nightmare scenario that dogs nuclear plants everywhere. This is why one should avoid building reactors near population centres, if they are to be built at all.

To create a reactor disaster is not easy, but is not very difficult either. A fast airplane, or armour piercing missile, could penetrate the reactor. A plume of radioactive gases and particles would then spread by the wind, leading to inhalation and ingestion of radioactive materials. A city like Karachi or Bombay, where the wind blows from the sea towards the land, is especially at risk. In the cities of developed countries there are emergency evacuation plans to deal with various nuclear emergencies. But for the subcontinent's megacities this is simply not possible and the losses would be simply colossal. The authorities have absolutely no way of dealing with nuclear disasters. Even normal natural disasters, like earthquakes and floods, invariably find them with their pants down.

Given that nuclear power carries obvious risks, concerned citizens everywhere have a right to ask questions such as: are there mechanisms presently in place for

the disposal of reactor wastes and chemicals? How are spent fuel rods being disposed off? Are there any effluent treatment plants in place? What disaster management plans exist?

In Pakistan, which has a miniscule anti-nuclear movement, we have had little luck in getting answers. The Pakistan Atomic Energy Commission (PAEC) and Pakistan Nuclear Regulatory Authority (PNRA) release absolutely no information on the pretext of secrecy. The latter is supposed to look after safety issues but it merely gives assurances, no facts. There is no independent monitoring. We simply do not know where the authorities dump reactor wastes. Or what happens during the process of nuclear mining. In fact, the PAEC and PNRA go out of their way to crush those who complain about their activities. For example, the frightened and wretchedly poor people of Baghalchur village near Dera Ghazi Khan finally mustered the courage to go to the Supreme Court with a complaint that nuclear waste dumped in the area had contaminated the environment and badly affected the health of both humans and animals. They were eventually unable to get justice and were rendered silent – the power of the authorities was too great.

In India, thanks to the dedicated efforts of countless grassroots campaigners – of whom Sandeep Pandey is an admirable example – there has been relatively more success in protecting the rights of those displaced by uranium and thorium mining. It is heartening to see in this book a respectably long list of independent organizations acting to protect the health rights of nuclear affectees. Regrettably, some of the Indian left takes an ambiguous position on nuclear matters. Fortunately, a sizeable fraction opposes nuclear weapons on grounds of principle.

Pakistanis opposed to nuclear weapons have been astonished and delighted by the fierce opposition put up by their Indian colleagues to the US-India nuclear deal. Alas, this deal – if it finally goes through – is likely to be a nonproliferation disaster and deeply damage regional stability. The Indian opposition showed, among other things, a desire to remain out of the American orbit and recognition of the pernicious effects that could follow from becoming America's junior military partner. Both India and Pakistan – particularly the latter – have paid the hefty price for being America's strategic partner.

To conclude, instead of playing grand geopolitical games, the subcontinent's leaders need to address the enormous problems of poverty and deprivation that bedevil the population. Nuclear weapons do not solve political problems but instead become a source of problems. It is a lie that they make nations great and powerful, or even secure. Moreover, ever present is the chance of the ultimate calamity, whether by design or accident. To bring about this realization, and thus to make change possible, is the fundamental task for peace activists across the world. This book will surely be a valuable means towards that ultimate end.

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