

Fire on the Roof of the World

During October 2017, I spent ten days in Nepal and Bhutan. After a day or two there, it became clear to me that neighboring India and China are constant, looming presences in both countries, which are caught in the diplomatic jostling between the two giants. That jostling involves both territory and water rights. What makes the situation even trickier is that both India and China are nuclear weapons states.

Nepal adjusts by purchasing motor vehicles and technological assistance from India and buying weapons from China. Bhutan, for all its legendary serenity, is in a tougher spot. For some years, China has been nibbling at Bhutan's northern border. With its tiny population of 771,000, it has become increasingly dependent on India both for road maintenance and national defense. The risk there is that India might eventually annex Bhutan, as it did with once-independent Sikkim. India's recent occupation of Kashmir is not a good omen, either. On my last day in Bhutan, one of my hosts said bluntly that his country was too dependent on India and needed to pay closer attention to China's views, if only as a balance against India's influence and to maintain its traditionally scrupulous neutrality.

What about those water rights? At the very least 700 million people in south Asia depend on the glacier-fed waters of the Indus, Ganges, and Brahmaputra Rivers, which originate in the Himalayas and the highlands of Tibet. Along with India, Nepal, and Bhutan, Pakistan and Bangladesh are also affected. Nepal is relatively safe, since it has its own rivers which feed into the Ganges. Bhutan is in a trickier spot, even though it does a splendid job economizing its water use. While it has waters of its own, which eventually flow into the Brahmaputra, some of its streams are in territory it disputes with China. Keep in mind as well that Pakistan, along with China and India, is a nuclear weapons state.

Then there's climate change. The glaciers in Tibet and the Himalayas are shrinking. In the short run, that will mean increased water flow throughout south Asia, but it will also mean more flooding. The waters will not always be kind, as the recent drowning of Pakistan has shown. And in the long run, the bounty will end. As water becomes scarce, competition for water rights will intensify. That leaves Bangladesh in the worst position, since it's downstream and 90 percent of its water flows out of India. India has a series of dams near the headwaters of the Ganges and Brahmaputra, and if it feels the need to tighten the spigot, Bangladesh may suffer badly. Not only will it have less fresh water, but salt water from the Bay of Bengal will seep into the Brahmaputra delta, Bangladesh's rice basket. That process has already begun, due to rising seas.

Climate change also means more erratic and more violent weather, as the 2022 monsoon has made plain. With rising temperatures, the low places in south Asia will steam and broil in the heat. India and Pakistan, south Asia's chief rivals, both have claims on the Indus. While India acknowledges that most of the water from the Indus should benefit Pakistan, disputes over the exact proportion could get more serious, especially because the Indus flows through Kashmir, which is upstream from Pakistan proper. If it comes to a fight, remember that India and Pakistan have gone to war four times already.

A fifth war between the two could lead to a nuclear exchange, in which case things could get really nasty. In a 2016 address at MIT, climatologist Alan Robock reported that a south Asian exchange of 100 average-yield nuclear missiles would set off a nuclear winter resulting in a worldwide famine where anywhere from one to two billion people would die. Those are the wages of small-scale nuclear war. Meanwhile, India and China stare warily at each other across the rim of the Himalayas.

The risks also affect southeast Asia, with its 245 million people. The Irrawaddy River starts in Tibet, flows into China, and then through Myanmar. The Mekong also starts in Tibet and touches China, Laos, Thailand, Cambodia, and Vietnam. In that region, China and the United States contend for power and influence. Even the Chinese themselves will be shaken, since the Yellow and Yangzi Rivers, which are already drying out, also start in Tibet.

Water, fire, and global warming are thus intertwined. If things get really bad, a fire which starts at the roof of the world could bring down the whole house.

References: Alan Robock, Address on Nuclear Winter at MIT, April 2, 2016; Asha Asokan and Ira Helfand, "Climate Change and Water Scarcity Will Increase Risk of Nuclear Catastrophe in South Asia," *The Bulletin of Atomic Scientists*, July 11, 2022

Prof. Robock is a Rutgers climatologist and the nation's leading researcher on the effects of nuclear winter. Asha Asokan is an international peace and security expert who has served with the United Nations and was Director of NuclearBan.us. Ira Helfand, MD, has lectured globally on the health effects of nuclear weapons. He is a member of the International Steering Group of the International Campaign to Abolish Nuclear Weapons (ICAN), which received the Nobel Peace Prize in 2017.