

FAR FROM RISING SEAS, CLIMATE CHANGE PLAGUES KATHMANDU



A month's walk from the nearest sea, Kathmandu—elevation almost a mile—is as vulnerable to climate change as the world's coastal megacities.

The capital of the poorest Asian country after Afghanistan already is feeling the effect: Rising temperatures are crimping power and food supplies as rural migrants stream to a city of 1 million that's among the world's most crowded. "Kathmandu is the country's production and consumption center," said Mahfuzuddin Ahmed, an adviser in the Manila-based Asian Development Bank's regional and sustainable development department. "Any climate-related hazards that spill into the national economy will be amplified there." The mountainous Himalayan nation may have crossed a tipping point of irreversible damage. Its glaciers have lost about one-third of their ice reserves since 1977.

Just like giant icebergs in the ocean, those glaciers play a critical role in the high-altitude jet streams that can delay monsoons, prolong droughts or spawn storms. "It's affecting daily life," says Ram Sharan Mahat, Nepal's finance minister. He calculates the economy will grow half a percentage point slower this fiscal year because of an erratic monsoon that hit crops, the mainstay of the economy. "I'm sure that's largely attributable to climate change." Ahmed led a June study projecting Nepal could lose 10% of its annual gross domestic product (GDP) by

2100 because of climate change. That makes it the second-most vulnerable in the region after the Maldives.

There's something a mountain city like Kathmandu—some 966km from the Indian Ocean—shares with an atoll threatened with extinction from rising seas: a spectacular incapacity to do much about it. Acrid smog An acrid brown smog shrouds the metropolis, obscuring the snow-capped Himalayan peaks in the distance that beckon trekkers worldwide. Diesel vehicles that would have been phased out in Europe years ago choke its narrow lanes, making cloth face masks indispensable. Residents shop for vegetables and spices by candlelight amid blackouts lasting most of the day in the winter, when hydropower plants sputter as snow-fed rivers dry up. Garbage has turned the city's sacred Bagmati River into a sewer, too filthy for fish to survive, though Hindu worshipers still bathe in its waters.

Economists and environmental experts warn that climate change will hurt those who have the least because they don't have the resources or capacity to minimize the threats. Ice melt Nepal lacks the network and skills to forecast the weather three days in advance, much less the complex changes in rainfall, snow and temperatures linked to ice melting in the world's least-studied glaciers. Like most of South Asia, water isn't stored when the rivers are full, making the population vulnerable to the vagaries of glacial melt and the monsoon—the annual wet season bringing 80% of its precipitation. Its remittances-dependent economy is smaller than each of the 50 US states. Its 28 million people have the lowest spending power of any Asian country apart from Afghanistan of about \$2 a day, World Bank statistics show. Runoff from glaciers storing the world's largest body of ice outside the polar regions sustains Kathmandu and more than a billion people beyond. It's the source of rivers that flow as far west as Iran and east to the South China Sea, including the Ganges, which feeds the world's most populous basin. “Glacial melt is the most obvious and potentially game-changing impact of climate change,” said Johannes Zutt, the World Bank's country director for Nepal and Bangladesh. “If it reduces over time because there's less ice to melt, that can have an incredibly destabilizing impact in a region where, during the dry period, it can get very dry.” ‘Threat multiplier’ Climate change is a “threat multiplier” that escalates the risk of conflicts, the US defence department said in a March report. That's a worry for Nepal, which suffered a decade-long Maoist uprising that ended in 2006.

By 2050, Himalayan glaciers are projected to recede so much that declining water could threaten the ability to feed 70 million people, according to the United Nations Environment

Programme. Meanwhile, the runoff is pooling into more than 2,000 lakes scattered across the Nepalese Himalayas. Many didn't exist just a few decades ago.

At least 21 may be at risk of overflowing or bursting, potentially unleashing a wall of mud and water that can travel as fast as a speeding car for more than 200km. Such floods, known as glacial-lake outbursts, could have devastating repercussions because \$13 billion of planned hydropower projects, farmlands and popular tourist-trekking routes lie in paths at risk, according to the International Centre for Integrated Mountain Development in Kathmandu. Electricity impact Climate-change hazards in Nepal are similar to the risks of saltwater intrusion destroying farmlands and cities in coastal economies, Ahmed said. "One is a flood coming from the mountain, the other from the sea."

Blackouts in Kathmandu worsened in August when the deadliest landslide in a decade blocked the Sun Koshi river, about 80km northeast of the capital. Water pooling behind the wall of debris submerged one hydropower plant, while other facilities along the river were damaged. In total, it knocked out 10% of the nation's power capacity. At an open-air market on the outskirts of Kathmandu, Ram Sharan Upreti, 38, sells onions and potatoes grown in Palanchok about 60km from the city. "Rains don't come like they used to," he says, gesturing with gnarled hands and blackened nails toward the sky. Three years ago, they never came and he lost everything he'd invested that year.

His three children are studying so they can get city jobs either in Kathmandu or abroad, he said. "I don't want this life for my children," he said. "It's too uncertain."

Source : <http://chimalaya.org/2015/01/14/far-from-rising-seas-climate-change-plagues-kathmandu/>