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NEW SECURITY FRONTIERS: THE RESOURCE NEXUS CHALLENGE

by

Prof Dr Brahma CHELLANEY

Professor of Strategic Studies, Center for Policy Research, India

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Plenary Session 6**NEW SECURITY FRONTIERS: THE RESOURCE NEXUS CHALLENGE**

Brahma Chellaney

ABSTRACT

Asia is attracting international attention more than ever before, in large part because of its reemergence on the global stage after a two-century decline. Asia is now the world's largest creditor and main economic locomotive. Asia's rise, however, has been accompanied by an insatiable appetite for natural resources. This has set off a sharpening resource competition between Asian economies within Asia and far beyond in other continents.

Natural-resource constraints in Asia indeed raise troubling questions about its future growth trajectory. Asian economies facing a domestic resource crunch are being forced increasingly to rely on imported mineral ores, timber, and fossil fuels, bringing international supplies under pressure and triggering price volatility.

At a time when Asia is at a defining moment in its history, it faces important challenges relating to natural resources. Asia, given its land and population size, is a resource-poor continent. Fundamentally, Asia's rise has fueled an insatiable appetite for resources it does not have. Unlike North America and Europe, which are well endowed with natural capital, Asia is the world's most resource-poor continent in per-capita terms. Its resources are also unevenly spread. Even as resource-wealthy countries such as Australia, Brazil, Canada, and Russia enjoy commodity-export booms, Asia's resource struggles have

brought it to a treacherous point of growing external dependency, geopolitical tensions, and environmental degradation.

From Asian cities dominating the list of the world's most-polluted cities to many urban areas reeling under serious water shortages, Asia faces increasing resource-related stresses. Significantly, all the important Asian economies are in or near conditions of water stress—internationally defined as the per-capita availability of less than 1,700 cubic meters per year. China supports 19 percent of the world's population on its territory with a 6.7 percent share of global water resources, while the situation in India is grimmer: It has 17.8 percent of the global population but just 4.3 percent of the world's water.

A World Bank estimate placed the economic cost of water-resource degradation and depletion for China at 2.3 percent of GDP, including 1 percent due to the direct impact of rampant water pollution. The health and non-health impacts of both air and water pollution in China were estimated at \$100 billion a year, or about 5.8 percent of GDP. China, with a per-capita annual availability of 2,060 cubic meters in 2013, is not as yet in the category of water-stressed states, a list that includes a number of other Asian economies. Water-scarce India and South Korea, for example, are paying a higher price than China, with water shortages already beginning to reshape their economies, including the location of industries.

Asia's rate of utilization of freshwater already exceeds its renewable stocks. By digging deeper wells, damming rivers increasingly, and transferring surface water across some basins, Asia is using tomorrow's water to meet today's needs, thereby accelerating environmental degradation. State policies, including the provision of irrigation subsidies as well as subsidized electricity and diesel fuel to farmers, have unwittingly contributed to water-resource depletion and environmental degradation.

The fact that Asia has one of the lowest levels of water efficiency and productivity in the world makes a bad situation worse. With water stress projected to cover two-thirds of the

global population by the end of the next decade, up from about 50 percent today, the majority of the world's people living in water-related despair will continue to be in Asia.

Asian economies are already facing a new problem on the food front at a time when agriculture's appropriation of the bulk of the water resources is coming under challenge from expanding cities and industries. Growth in crop yields and overall food production is now beginning to lag growth in demand. Rising prosperity and changing diets, including an increased preference for animal-based protein, are compounding Asia's food challenges.

While new technologies, including genetic engineering, can serve as tools to enhance agricultural productivity, a way has not been found as yet to reduce dependence of crops on large amounts of water, except by installing expensive microirrigation systems. Unlike the large conglomerates that own much of the cropland in North America and Europe, most farmers in Asia have small acreage, limiting their capacity to invest in new technologies and irrigation systems.

How Asian states manage their resource challenges will shape their security and economic trajectories in the coming years. For example, the biggest enemies of alleviating economic poverty are water poverty and energy poverty. Water and energy poverty keep the poor chained to economic poverty. Asia needs an energy-technology revolution that can deliver cheap, reliable power to those mired in energy poverty and help clean up polluted or brackish waters, chemically treat and recycle wastewater, and make ocean water potable. Otherwise, water pollution—largely an intrastate challenge at present—is likely to assume transboundary dimensions and compound inter-country tensions and discord.

Competition for strategic natural resources—including water, mineral ores, and fossil fuels—has always played a significant role in shaping the terms of the international economic and political order. But now that competition has intensified, as it encompasses virtually all of Asia. Resource disputes have become common across Asia. For example, measures taken

by one nation or province to augment its water supply or storage capacity often threaten to adversely affect downstream basins, thereby stoking political or ethnic tensions. Asia must ways to tame its resource competition or face greater geopolitical tensions and environmental degradation.

While strategic competition for resources will continue to shape Asia's security dynamics, the associated risks can be moderated if Asia's leaders establish norms and institutions aimed at building rule-based cooperation. Asia is one of only two continents, along with Africa, where regional integration has yet to take hold, largely because political and cultural diversity, together with historical animosities, have hindered institution-building. Strained political relations among most of Asia's sub-regions make a region-wide security structure or more effective resource cooperation difficult to achieve.

Yet a balance between rights and obligations is at the heart of how to tame Asia's sharpening resource competition and achieve harmonious, rule-based relations between states. To be sure, any inter-country arrangement's comparative benefits and burdens should be such that the advantages of resource cooperation outweigh the duties and responsibilities, or else the state that sees itself as a loser may walk out or fail to comply with its obligations. Without improved inter-country relations and better trust, Asia's resource competition will remain grating. Asian economies cannot sustain their impressive economic growth without addressing their resource, environmental, and security challenges.