

India @ 70: Is 'virtual water' a useful concept for India?

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*The second panel at the LSE India Summit 2017, presented by Apollo Tyres Ltd, reflected on India's water security and understanding how water is used – or indeed overused – in certain sectors. **Arjun Bhatia** offers a summary of the session.*



India is home to nearly a fifth of humanity, but it only holds four per cent of the world's water. While conserving, harvesting and sharing water has been a key part of India's development, this precious resource is getting depleted in the form of 'virtual water' or the embedded water content in food items and other commodities. India's food product exports have made it one of the world's biggest exporters of virtual water, despite being a water-scarce country itself. With domestic and international conflicts over sharing water on the rise, India @ 70: LSE India Summit 2017 brought together a panel of eminent scientists and environmentalists to discuss the future of India's water security.

Professor of Sociology at the Institute of Economic Growth Amita Baviskar opened the session by reflecting on the looming crisis of water security in India: 'Our economic growth has come at a great cost. We tend to be complacent about water, thinking of it as a renewable resource.' She criticised the 'systematic encouragement of overuse' through schemes involving the supply of free water that are made for 'political gains,' while also dismissing India's project for the [inter-linking of its rivers](#) as a 'short term' gain.



Water panel at India @ 70: LSE India Summit. From left: Amita Baviskar, Biksham Gujja, Tony Allan, Manoj Misra, Marcu Moench

Environmentalist Manoj Misra supported the opinion. 'A river is far more than the water flowing through it,' he observed. Misra stated that a study conducted during the [India Rivers Week](#) last year found that 205 out of 290 or 70% of the country's rivers are 'either dead or dying.' Drawing attention to the use of wastewater for agriculture in several parts of the country, he batted for paying attention to food and water quality while talking about security. Misra further threw light on the high impact of industrial effluents on water pollution, despite industries' low share in water consumption. Until runaway industrialisation is put in check, 'India at 70 is not safe,' he said.

Stockholm Water Prize winning researcher Professor J A (Tony) Allan, who coined the term 'virtual water' in 1993, revealed that agriculture accounts for 92% of India's water consumption. In that light, he also praised the cultural practice of vegetarianism in India for its low [water footprint](#). Producing a kilogram of sugar crops and cereals, for

example, requires around 200 and 1,650 litres of water respectively, while the same amount of beef needs over 15,000 litres of water.

While speculations over the scarcity of water sparking off the next world war have been rife for decades, Professor Allan considers it an unlikely scenario. When facing the prospect of water scarcity, he said, countries hold on to their water resources by becoming net importers of virtual water, [the UK, Germany and Japan](#) being notable examples. However, [disputes, protests and violent incidents](#) related to staking claim over water are breaking out across the world. India too has witnessed vehement protests over the sharing of the waters of the river [Kaveri](#) and [Narmada](#). Tensions over the provisions of the [Indus Water Treaty](#) between India and Pakistan have also risen in the aftermath of the [Uri attack](#) last September.

‘Water is not just embedded in food. It’s also a central aspect of political and economic relations,’ observed Dr Marcus Moench, who has over four decades of experience in research on the environmental and social aspects of water related issues. As cities usually grow in the vicinity of water bodies, water represents the flow of people, power and money. Sustainable agriculture and water resources management researcher and entrepreneur Dr Biksham Gujja, seconded the thought. With water’s maximum usage in the agricultural sector, which is also the biggest job-provider in India, water is effectively a major source of livelihood, he remarked.

Water being a vital resource for industries and individuals alike, water security is contingent on its judicious and thoughtful usage at every level. Dr Moench criticised the usage of water for sanitation due to the pollution caused by it and the extra funds and energy expended in treating water, while stressing on the need for switching to ‘zero water’ sanitation solutions. Such a change, however, would require a major ‘identity shift,’ he noted.

Dr Gujja emphasised the need for taking measures for improving India’s agricultural productivity and reducing water footprint. He suggested revising the standard operating practices in the country’s agricultural sector, supporting his view with examples of innovative solutions for sugarcane and rice farming: ‘Rice doesn’t need standing water to grow; water is needed for killing the weeds that grow around it.’ India’s rice farmers typically get less than half the yield while using a ten times greater quantity of water than their Chinese counterparts.

While noting the scope for improvement in water utilisation, Dr Gujja allayed concerns over India’s virtual water exports, noting that only 2 per cent of its water was lost that way: ‘Virtual water is an important concept. But we are not really there yet.’ Observing that most experts had written India off at the time of its independence, he acknowledged that ‘India @ 70 has done phenomenally well.’

The informative session at the India Habitat Centre’s Stein Auditorium concluded with the audience engaging with the panel on various technical, socio-political, and humanitarian aspects of water usage and India’s future in its context.

[India @ 70: LSE India Summit 2017](#) ran from 29-31 March 2017. Videos of all panels are available [on our Facebook](#), and video and podcast interviews with panellists will be available on the [South Asia Centre website](#) soon.

About the Author

Arjun Bhatia is a writer based in Delhi and is presently working on his debut novel. He has served as an Associate Editor at *Inshorts*, India’s biggest mobile news company, and has written for the *Jaipur Literature Festival* and *e-Fiction India* magazine. He has also co-authored an anthology of short stories called *Mango Chutney*. He loves listening to audiobooks, holds stand-up comedians in high regard, and recommends that you watch *Before The Flood*, before it floods.



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