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SAVING CAUVERY'S CRADLE

Relevant for: World & Indian Geography | Topic: Distribution of key natural resources - Water Resources incl. Rivers & related issues in world & India

"A forestdepleted Kodagu basin will have reduced capacity to capture and store rainwater." It is a picture of destruction in Hattihole near Somwarpet, Kodagu, after the floods. | Photo Credit: Sampath Kumar G.P.

We require water for everything: drinking, growing crops, producing electricity and industrial production. With the world population projected to grow to about 10 billion by 2050, according to the United Nations, and with climate change discernible, both the quantity and quality of freshwater will become critical, affecting health, food security, and economic well-being. A 2015 UN report, Water for a Sustainable World, pointed out that the gap between the availability of water and our need for water is only going to increase.

The growing demand on freshwater resources demonstrates the need for sustainable management of water. In this context, projects that are being contemplated, such as the laying of multiple railway tracks in the critical Cauvery river basin in Kodagu district, Karnataka, are not only economically unviable but also ecologically damaging. Mega projects pose a clear threat to the long-term water security of the three States that depend on the Cauvery (Karnataka, Kerala and Tamil Nadu), and exacerbate the threat posed by seasonal droughts and floods.

The Cauvery basin drains an area of about 81,000 sq. km. Originating in Talakaveri, Kodagu, the river irrigates agricultural fields, generates electricity, and provides drinking water to downstream communities across south India. The Cauvery and its tributaries contribute the bulk of water to the Krishna Raja Sagara dam near Mysuru, the primary water source for Bengaluru. However, increasing development pressure from the transportation and construction sectors poses a severe threat to the forests, riverbeds, wildlife and agricultural lands. This March, for the first time in decades, towns such as Virajpet in Kodagu faced a severe shortage of drinking water. The continuing loss of forest cover and illegal sand mining from river beds endanger water and food security for all the downstream communities in the Cauvery basin.

The three proposed railway plans have major implications. One, all the tracks will cut through large swaths of agricultural farms and fields as well as Protected and Reserve Forests that are spread across Kodagu and Mangaluru districts of Karnataka, and Wayanad and Kannur districts of Kerala. Along this sparsely populated area, transportation needs can be met by simply improving existing roads at a fraction of the monetary and ecological cost of the proposed railways. In fact, in its feasibility report of the Mysuru-Thalassery line, the Delhi Metro Rail Corporation stated that the project would not be beneficial to the State. In response to protests by the people of Kodagu in February, the plan to build the Mysuru-Thalassery line was scrapped in March. However, if history is any guide, plans to build the tracks will reemerge in time.

Two, they will affect the Western Ghats, one of the most biodiverse regions on earth. Kodagu has about 45% forest cover and about 30% agroforestry systems (coffee plantations and paddy fields). Between 2013 and 2015, a high-tension power line linking Mysuru and Kozhikode resulted in the loss of about 50,000 trees in Kodagu alone. If the proposed railway lines are constructed, they would conservatively result in tree loss that is 10 times more than this. Forests help capture rainfall, reduce run-off and soil erosion, recharge groundwater aquifers, mitigate flooding, support local communities, and provide refuge for native flora and fauna. Raised railway tracks will also impede wildlife and could result in the deaths of endangered animals such as elephants. Most importantly, a forest-depleted Kodagu basin will have reduced capacity

to capture and store rainwater. Even without the railway tracks, a satellite-based report titled India State of Forests 2017 noted that Kodagu lost 102 sq. km. of tree cover in just two years.

The Kodagu basin receives heavy rainfall, mainly during the southwest monsoon (June-September), that feeds the Cauvery. However, studies by the Indian Institute of Tropical Meteorology and others, published in the journal *Nature*, have found evidence for increasingly variable monsoon rainfall. Thus, we can expect to experience more extreme floods as well as droughts in the future. These are scenarios that make preserving forest cover more vital in order to mitigate the collateral effects of these extreme events.

During this year's southwest monsoon season, Kodagu received twice as much annual rainfall as usual and with greater intensity. This resulted in landslides and floods. A recent study of nearly 5,000 landslides around the world, published in *Earth and Space Science News (Eos),* has revealed that activities like construction, illegal mining and hill cutting are increasingly responsible for the uptick in fatal landslides, particularly in Asia. It will be hard to claim that the uncontrolled development and forest clearance in the steep slopes of the Western Ghats in recent years has not been a factor in the tragedy that just unfolded in Kodagu, and in the coastal districts of Kerala. With 100-year storms likely to become more frequent as the climate becomes warmer, business as usual is sure to increasingly endanger lives and property.

Erratic monsoon rains can cause flooding, droughts, water and food security. Preserving existing forests in the watershed provides an effective 'insurance policy' for reducing the effect of floods and droughts while recharging groundwater across the Cauvery river basin. *Nature* has reported that diminished access to water resources increases the risk of social unrest, political instability, intensified refugee flows and armed conflicts, even within borders. The variable nature of monsoons makes India one of the most vulnerable regions to water-related disasters associated with climate change and extreme weather events. According to a *BBC* report, Bengaluru is likely to run out of drinking water in the next decade. Economists should estimate the monetary and human cost of cities like Bengaluru becoming dry, and implement policies focused on achieving and maintaining sustainable water resources.

We are at the start of the UN Decade for Water, which emphasises water security for all. Everyone lives in a watershed, yet water remains a remote concept for those who consume it the most — people, industries and farmers. There are no substitutes for water as the very basis for life. Protecting the Cauvery's source is essential for the sustained well-being of the entire basin and of the three States that the river nourishes. In fact, good water governance of the nation's watersheds will be key to its sustainable future. We can begin by saving Cauvery's cradle.

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Last week Ram Kadam, a BJP MLA from Maharashtra, told the men in an audience that if they were interested in women who didn't reciprocate the feeling,

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