

Editor's Note: A major educational objective epitomized by several articles and essays in this special section, is that many environmental problems aren't understood, much less even partially addressed without consideration of often, multiple factors. What follows is an unique example of an ongoing environmental initiative in India that is both widely praised and condemned. Reading the essay and learning about the defenders and opponents of "Cauvery Calling" is a useful exercise that encourages the development of critical thinking. Hopefully, readers will enjoy the essay, the hoop-la surrounding the charismatic leader of the project, and be as intrigued by the variety of reactions as I was when exploring the controversies. All sidebars in this essay are by the EAA Editorial Office.

Cauvery Calling: A Possible Solution for a Dying River and Desperate Farmers

By Helen Kaibara



Cauvery Calling poster from the main Cauvery Calling project website at isha.sadhguru.org/rally-for-rivers/ourdyingrivers.

The Green Revolution

This story begins with a crisis of food insecurity. In 1966, a severe drought compounded India's problems of producing sufficient food for its growing population and created near famine conditions in many parts of the country. The government had to import large amounts of wheat from the United States to avoid calamity. As a result of this situation, and with external pressures from the United States and international organizations, the central government made a concerted effort to reform agricultural practices and ushered in what would come to be known as the Green Revolution. Consultations with American agricultural experts attempted to replicate farming methods developed in the United States and Mexico to Indian environments.¹ The idea was to import High Yield Variety (HYV) seeds of wheat, rice, and other crops, however, these seeds were dependent on intensive irrigation, chemical fertilizers, and pesticides. The main objective of the Green Revolution, food security, was met within a few years. In fact, the policy was initially very successful, especially in the Punjab region. By 1970, India was producing five times the amount of grain it had during the prior decade.² In order to ensure a basic livelihood for farmers, the government introduced Minimum Support Prices for staple monoculture crops, which ensured that farmers would grow them.

At this time the government was unaware of the devastating ecological effects the Green Revolution would have. As these HYV seeds required a consistent water supply, monsoon rains supplemented digging deep wells which greatly taxed the aquifers and began to deplete the underground water supply. This intensive irrigation meant that wells were pumping groundwater which otherwise would flow into rivers. Simultaneously, farmers reliant on expensive fertilizers cut trees on their property for fear their roots would absorb fertilizer instead of cash crops. Due to practices such as these, 87 percent of the tree cover has been cleared in the Cauvery River basin, and this is compounded by the problem of the overuse of chemical fertilizers in hopes of getting a better yield. The Green Revolution also ushered in a shift away from animal power in favor of tractors. The removal of both trees and animals from the farm deprived the soil of key ingredients it needed to retain nutrients. This poor soil became unable to absorb and retain the rain which fell during monsoons. Increasingly, monsoons meant that topsoil was washed away causing problems seen with nitrogen fertilizers in many parts of the world: soil and water pollution.

Climate Change

Weakened and erratic monsoons due to climate change have exacerbated the problems caused by the Green Revolution. In decades past, there were on average 140 days of monsoon rains per year in the State of Tamil Nadu and it was easy to make

use of water year-round as wells produced water when the rains stopped. Recently, monsoons rains have been occurring over roughly every forty-one to seventy-five days, leading to devastating floods. In this scenario, once the rains stop, the soil dries out because water is not sequestered by tree roots and transferred to the groundwater table. Moreover, a dearth of nutrients in topsoil means both a loss of biodiversity, including wild foods to supplement the diets of poorer farmers, and also that cash crops are far

less nutrient-rich.³ Furthermore, India is the largest extractor of ground water in world, utilizing around three times the amount that China does even with a similar population. In the Cauvery River basin, underground water extraction is around 90 percent annually and much of this water is used to produce monocrops. This mismanagement of the underground water table is a major reason for the river drying up.⁴

Social Unrest and Farmer Suicides

As a result of generations of dividing family land in inheritances, 83 percent of Indian cultivators own less than five acres of land, with the average land holding at around three-and-one-quarter acres. Yet collectively, farmers' lands account for 41 percent of all land holdings in the country. Most of these farms depend on rainwater for irrigation, so in recent years when rainfall has been erratic, farmers have greatly suffered.⁵ In 2015, for instance, during a drought in Andhra Pradesh, only 200 of the estimated 1,200 wells supplied water—even wells situated near a local water tank were dry. One desperate farmer even paid to have eight wells dug on his five-acre plot, but none of them provided water. Due to a restructuring of lending practices which occurred as a result of the

The infographic is divided into several sections. At the top, it states: 'Chennai has already run out of water, Bengaluru will go dry in 2 years' with a water drop icon. Next to it: 'Cauvery has depleted by over 40% because' with a diagram of a depleted river. To the right: '87% of tree cover in Cauvery basin is gone' with a diagram of a forest. Below this is a dark blue banner with white text: 'THE SOLUTION: Support farmers to plant 242 crore trees' with a tree icon. The middle section shows a cycle: 'Contribute ₹ 42 per tree Plant trees at CauveryCalling.org or by calling 80009 80009' leads to 'Government must provide incentives for farmers' which leads to 'Farmers grow trees'. Below this, a diagram shows a river with trees on the banks, labeled 'Cauvery flows again'. To the left of the river, it says '5 times increase in farmer's income' with a person icon. At the bottom left, a black box says 'Plant Trees Now'. To its right, it says 'Just ₹42 per Tree Will Save Cauvery CauveryCalling.org 80009 80009'. On the far right is a portrait of a man with a long white beard and a turban, with the name 'Isha' written below it.

Cauvery Calling information poster: isha.sadhguru.org/rally-for-rivers/ourdyingrivers.

Green Revolution (at the insistence of international organizations), cultivators frequently borrow from moneylenders, who charge high interest rates, when they need emergency funds.⁶ These wells are very expensive and often farmers need to borrow money to have them dug. Farmers are unable repay moneylenders when crops fail.⁷ Despite these problems, the cost of irrigating High Yield Variety (HYV) seeds is not the largest cost for cultivators. Chemical fertilizers are, and these account for an average of 24 percent of farmer expenditures. HYV seeds account for 11 percent, and pesticides make up an additional 7.5 percent. In the absence of climate and other mitigating disasters, farmers can expect to earn roughly twice the amount they spend producing crops.⁸ Farmer suicides have become a national problem in recent decades, and this trend is more pronounced in the Southern states of Maharashtra, Andhra Pradesh, Karnataka, and Madhya Pradesh (including Chhattisgarh).⁹ The situation is especially pronounced in the State of Maharashtra, where in a span of four months in 2014, 559 farmers committed suicide.¹⁰ The actual number of farmer suicides has likely been higher than the official numbers due to reporting irregularities.¹¹

The States of Karnataka and Tamil Nadu heavily depend on water from the Cauvery River and a dispute between the two over water rights has a very long history, culminating in a seventeen-year deliberation by the Supreme Court. The river has been depleted by nearly 40 percent in the last five decades,¹² and in 1991, dwindling water output and rising tensions over the allocation between the two states led to violent riots that shuttered businesses and schools for several days. The violence and animosity were directed along linguistic lines (the dominant language in Tamil Nadu is Tamil, and in Karnataka it is Kannada). The riots caused an estimated US \$78,300 in damages.¹³

The Isha Foundation's Efforts

In 1998, Sadhguru, a well-known mystic, yogi, and the founder of Isha, read a United Nations report which projected that by 2025, 60 percent of the State of Tamil Nadu would become a desert.¹⁴ After collaborating with scientists and experts from various fields, the Isha Foundation embarked on a twelve-year campaign to save the Cauvery River that focuses on planting trees along a .65-mile-wide area on either side of the riverine corridor. This would allow for the formation of organic content in the soil, and this revitalized soil will be better-able to retain moisture in order to replenish the groundwater table.¹⁵ This in turn, will lead to an increase in water level of Cauvery, as rivers are fed via the underground water table in addition to rain. Much of land in the river basin is owned by small-time cultivators, thus, farmer cooperation is vital. Sadhguru has been emphatic that any plan to save the

Sadhguru

Jaggi Vasudev, better known publicly as “Sadhguru,” is a popular Indian yogi (yoga teacher) and author. Sadhguru is known throughout India for his yoga gatherings and annual pilgrimages to Mount Kaliash and the Himalayas, as well as his contributions to India’s social services for which he was awarded the Padma Vibhushan, India’s second highest civilian award, in 2017.

Sadhguru has launched a number of social and environmental initiatives including the Cauvery Calling project discussed in this article through the Isha Foundation, which he founded in 1992. Despite these accomplishments, Sadhguru is a controversial figure because of his alleged support for unsubstantiated pseudoscience such as the effectiveness of mercury in medicine and of Prime Minister Narendra Modi’s Bharatiya Janata Party (BJP) with its Hindu nationalist agenda (Hindutva) and anti-Muslim laws.

Sources: “The Official Website of Sadhguru,” *The Isha Foundation*, accessed May 20, 2021, <https://tinyurl.com/2jdk4jpa>; Angshuman Choudhury, “Why Hindu Nationalists Need a Sadhguru,” *The Wire*, March 9, 2019, <https://tinyurl.com/88476tcw>; “Jaggi Vasudev Doesn’t Understand Science (or the Nature of the Universe),” *Nirmutka*, July 26, 2012, <https://tinyurl.com/36snkxcf>.

river cannot disrupt peoples’ livelihoods because it would ultimately fail if it did; and he is also disturbed by the suicide epidemic within the farming community. Consequently, the foundation has worked to help farmers transition to agroforestry, a method of cultivation in which trees and shrubs are grown alongside cash crops. This, if implemented, can benefit the environment and improve the livelihoods of India’s farmers, who account for nearly 50 percent of the workforce.¹⁶ Shifting to agroforestry will mean an increase of between 300 percent and 500 percent in farmers’ earnings after a five-to-seven-year transition period.¹⁷

The Isha Foundation has petitioned the government to support farmers in various capacities, including providing a living stipend while they are transitioning from cash crops to agroforestry, offer zero-interest, or low-interest loans for farmers to purchase items necessary to set up agroforestry, offer fruit crop and livestock insurance, facilitate, and incentivize the use of organic rather than chemical fertilizers and pesticides, and provide certification for organic produce.¹⁸ Moreover, the Isha Foundation has worked with the government to allow farmers to harvest trees they grow on their land, which will allow farmers to have a source of emergency income, if needed, and curb the importation of illegally-harvested timber which India consumes in large quantities annually.¹⁹

To raise awareness of the campaign, Sadhguru commenced Rally for Rivers in September 2017. This was a massive campaign across India, and online, in which he assembled a motorcycle group and personally rode with them over 5,775 miles across sixteen states.²⁰ Over a span of thirty days, Rally for Rivers held events which were attended by politicians from every major party, experts, celebrities, and average citizens. The state governments, especially those of Karnataka and Tamil Nadu, pledged support for the program and spoke of hope that the people of their respective states could put aside memories of the Cauvery conflict.²¹ The Isha Foundation also launched a “missed call campaign” in which they asked people to call a number and then hung up in order to show their support. Over 162 million people called the phone number, and due to this volume of calls, government officials at all levels backed it. A nearly 800-page document outlining how rivers can be saved using agroforestry delivered to Prime Minister Narendra Modi has been recommended by the government thinktank, Niti Aayog, for implementation across India.²²

Engaging Students

One approach to having high school and college students understand the need for Rally for Rivers could be to have them visit the project’s main website (isha.sadhguru.org/rally-for-rivers/our-dying-rivers) and interact with the time lapse maps of the major, threatened Indian rivers to see the stunning visuals of these depleted waterways. This activity might be followed with a discussion of the sorts of conflicts which are likely to erupt between states or nations dependent on the same river for survival in a time of severe drought. Instructors also might ask them to envision an environment in which a car tag could make them a target for violence while visiting another state. Students could be prompted to think about how they would cope if one summer no water came out of the faucets and the only way to get water for cooking, bathing, and cleaning, was to fill jugs at a neighborhood gathering spot where the government had arranged for a water truck delivery every three days. How would relations with neighbors be affected if the water truck ran out of its supply before everyone could fill jugs? This thought exercise could then be followed by a viewing of the twenty-two-minute Discovery Channel documentary, *Cauvery Calling: A Race to Save a River*,

"An Open Letter to Leonardo DiCaprio"

The Isha Foundation's Cauvery Calling project aims to plant over 2.4 million trees in the Cauvery basin in order to revitalize rivers and natural habitats in the region and has drawn support from international organizations such as the United Nations and a number of private foundations dedicated to environmental causes. In July 2020, the UN's Environment Program accredited the Isha Foundation allowing it to participate in meetings of global groups and government representatives. In 2021, in separate decisions, the Arbor Day Foundation, an American nonprofit environmental organization dedicated to tree planting, and American motivational speaker Tony Robbins's foundation, which supports various social and environmental initiatives, agreed to the support of planting over 950,000 trees for the Cauvery Calling project.

At the same time, the project has faced criticism in India from various environmental organizations. Some of the most intense push back occurred after American actor Leonardo DiCaprio's foundation expressed support for the Cauvery Calling initiative in a September 2019 post on its Facebook account. An Indian nonprofit environmental justice organization called the Environmental Support Group (ESG) addressed an open letter to DiCaprio criticizing the Cauvery Calling movement following this Facebook post. The letter was supported by ninety-five individuals and organizations including Indian environmental groups such as the All India Union of Forest Working People, the Citizens Concern for Dams and Development, and the South Asia Network of Dams, Rivers, and People (SANDRP), as well as journalists from *The Hindu* newspaper and researchers from various India environmental science academic institutes.



The ESG letter argues that planting trees in the area is but one of a series of steps necessary to revitalize the Cauvery basin. While seemingly a well-meaning initiative, planting trees is a "simplistic solution" that when overdone can have unintended, destructive consequences like drying up streams and other bodies of water, and disrupting wildlife habitats. The organization also criticized the legitimacy of the Isha Foundation in conforming to Indian laws protecting human rights and the environment.

The Isha Foundation published a response to the ESG's claims on its website referring to the group as "pseudo-scientists" who merely wished to gain publicity but failed to adequately research the Cauvery Calling project before publishing its claims. The foundation argued concerns over disrupting the natural habitat of the basin are unfounded and its plan is a comprehensive, and not simplistic solution involving tree planting on private farmland in the basin, which will revitalize, rather than disrupt the habitats of the basin.

In this response, the Isha Foundation also listed the support of the Indian government in consulting with the Cauvery Calling project including the Karnataka state government and India's Ministry of Environment, Forests, and Climate Change. The project currently faces a series of lawsuits from the Karnataka state government over the legality of fundraising practices, usage of government-owned land, and its description as a government project. In March 2021, the Isha Foundation removed mentions on its website it was a government project in compliance with a Karnataka high court order and also received orders to disclose details of its fundraising. Lawsuits on the use of government land are still ongoing.

Leonardo DiCaprio never publicly withdrew his support for the Cauvery Calling project despite the ESG's letter and the lawsuits against the project, nor has his foundation removed its Facebook post supporting Cauvery Calling.

Sources: "Coalition For Environmental Justice In India Urges Leonardo Dicaprio To Back Down On His Endorsement Of 'Cauvery Calling,'" *Environmental Support Group*, September 25, 2019, <https://tinyurl.com/2399bwws>; "Truth About Allegations Against Cauvery Calling by Pseudo Environmentalists," *The Isha Foundation*, September 27, 2019, <https://tinyurl.com/4p3j6zja>; "Cauvery Calling Initiative Receives Support From the Arbor Day Foundation and The Tony Robbins Foundation to Plant More Than 950,000 Trees in Southern India," *The Associated Press*, March 26, 2021, <https://tinyurl.com/vzt78jr77>; "Isha Gets Observer Status for UN Environment Assembly," *The New Indian Express*, July 27, 2020, <https://tinyurl.com/h33fy928>

available on YouTube (<https://tinyurl.com/3be3rz7u>). Following these activities, instructors could share the PowerPoint presentation found on the website, "Cauvery Calling" with the class.

NOTES

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2. Judith Walsh, *A Brief History of India* (New York: Facts on File, 2006), 219.
3. A.R. Vasavi, "Killing Fields," *The Hindu*, May 2, 2015.
4. Discovery Channel, *Cauvery Calling: A Race to Save a River*, 2020.
5. Vasavi, 36.
6. Tom Dieters (Dir.), *Toxic Tears*, 2011.
7. R. Avadhani, "Drought, Debt Driving Farmers to Suicide," *The Hindu*, April 13, 2015.
8. Rukmini S., "Does it Pay to Be a Farmer in India?," *The Hindu*, December 22, 2014.

Exploring the Controversies: Student and Instructor Resources

Especially interested students and instructors who may wish to examine a more in-depth exploration of both supportive and critical perspectives on the Cauvery Calling Project have an opportunity to do so by exploring the following online resources:

Project Overview from The Isha Foundation and Cauvery Calling Supporters

"Everything you need to know about Cauvery Calling," *The Isha Foundation*, January 11, 2020, <https://tinyurl.com/27adexvn>.

"A Blueprint for the Tropical World," *The Isha Foundation*, <https://tinyurl.com/hwmmkt6k>.

"Cauvery Calling Initiative Receives Support From the Arbor Day Foundation and The Tony Robbins Foundation to Plant More Than 950,000 Trees in Southern India," *The Associated Press*, March 26, 2021, <https://tinyurl.com/vzt78jr7>.

Sadhguru's YouTube channel: "Cauvery Calling Successes So Far" January 14, 2020, <https://tinyurl.com/nzh7tey>.

Prem Shankar Jem, "Cauvery Calling: A Daring Venture That Must Be Allowed To Succeed," *Outlook*, September 4, 2019, <https://tinyurl.com/99ku56hw>.

Critics of Cauvery Calling

"Coalition For Environmental Justice In India Urges Leonardo Dicaprio To Back Down On His Endorsement Of 'Cauvery Calling,'" *Environmental Support Group*, September 25, 2019, <https://tinyurl.com/2399bwws>.

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Nanditha Chandraprakash, "Mass tree planting along India's Cauvery River has scientists worried," *Mongabay*, January 22, 2020 <https://tinyurl.com/4h7rwfty>.

Nityanand Jayaraman, "But Why Is the Cauvery Calling?," *The Wire*, November 5, 2019, <https://tinyurl.com/s2sxct65>.

"Disclose details of money collected under 'Cauvery Calling': HC to Isha Foundation," *The New Indian Express*, January 8, 2020 <https://tinyurl.com/6k7cypn7>.

"Cauvery Calling' is not govt. project, Isha Outreach clarifies on website," *The Hindu*, February 24, 2021 <https://tinyurl.com/bfuse4n4>

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11. P. Sainath, "Farm Suicides Worse After 2001-Study," *The Hindu*, July 13, 2007.

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14. co-Walk-the-Talk, "Sadhguru Jaggi Vasudev: Project Green Hands and Tree Planting in Tamil Nadu," Isha Foundation, Accessed February 7, 2021. <https://isha.sadhguru.org/rally-for-rivers/>.

15. Isha Foundation, *Revitalization of Rivers in India: Draft Policy Recommendations* (Isha Foundation: Coimbatore, India, 2017), 5.

16. Mazumdar-Shaw, "Growing Money on Trees: Agroforestry Can Spark a New Economic Revolution for India"

17. Draft Policy, 5.

18. Ibid., 8-10.

19. Mazumdar-Shaw.

20. Isha Foundation, "What is Rally for Rivers?," accessed February 1, 2021, <https://isha.sadhguru.org/rally-for-rivers/>.

21. Isha Foundation, "Two Weeks on Two Wheels-Cauvery Calling Glimpses," accessed February 3, 2021, <https://isha.sadhguru.org/rally-for-rivers/>.

22. Mazumdar-Shaw, "Growing Money on Trees: Agroforestry Can Spark a New Economic Revolution for India"

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