

THE RIVER MHADEI: THE SCIENCE AND POLITICS OF DIVERSION

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THE SCIENCE AND POLITICS  
OF DIVERSION

EDITORS

PETER RONALD DESOUZA | SOLANO DA SILVA | LAKSHMI SUBRAMANIAN

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## The Science and Politics of Diversion

*Edited by*

Peter Ronald deSouza

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Goa 1556  
1220

2025

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*The River Mhadei: The Science and Politics of Diversion*

© 2025 Edited by Peter Ronald deSouza, Solano Da Silva, Lakshmi Subramanian

First edition published in 2025 by

*Goa* 1556  
1228

Goa, 1556, Saligão 403511 Goa, India.

<http://goa1556.in>

[goa1556books@gmail.com](mailto:goa1556books@gmail.com) +91-9822122436.

*This edition was printed and bound in India by SAP Print Solutions Pvt Ltd, Mumbai  
400013 [sapprinters@gmail.com](mailto:sapprinters@gmail.com), [www.sapprints.com](http://www.sapprints.com)*

*Cover design by Gasper D'Souza*

*ISBN (Print) 978-93-95795-68-5*

*ISBN (Ebook) 978-93-95795-67-8*

*Price in Goa: Rs 900*

<p>See Goa, 1556's catalogue at <a href="http://goa1556.in">http://goa1556.in</a></p>
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*To  
the people  
of the Mhadei*

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# 15. The Privatization of Community Property and Gambling with the Future of Goa

Aurobindo Gomes Pereira

***Abstract:** Over the centuries, the bountiful waters of the Mahadayi have sustained sui generis ecosystems, forests, and wetlands that form a UNESCO World Heritage Site. However, in 2018, the Mahadayi Water Dispute Tribunal (MWDT) passed an award that paves the path for the abstraction and diversion of precious freshwater, through a series of ill-conceived irrigations and hydroelectric river projects, that will ultimately destroy the Mandovi River Basin and the Gomantak. While the MWDT has looked at the river as a commodity to be apportioned and ignored the estuarine region, the casino cartels have managed to occupy the mouth of the river with seven “offshore” casinos and convert almost the entire riverbank of the capital city of Panjim into the unofficial casino capital of India. This conflicting reality contravenes the Public Trust Doctrine and is a problem not just for Goans and the state of Goa but also an issue of international significance. This chapter provides a possible solution to the evolving river conflict by applying the Public Trust Doctrine and the emerging jurisprudence on legal animism, in the hope that this might help save the Mandovi river and avert catastrophe.*

*No man ever steps in the same river twice, for it is not the same river and he is not the same man —HERACLITUS*

**A** sacred spring of precious fresh water, from deep within the womb of Mahamaya or Great Mother Earth, rushes to the surface at a village, now known as Kankhumbhi, creating a fountain of life that is a lifeline for the sacred Sahyadris or Western Ghats, and, for the Gomantak or Mandovi River Civilization and the people of Goa. As it flows westward this monsoon-fed river grows and combines with countless brooks, streams,

rivulets, and rivers to form the mighty Mahadayi in Karnataka. It briefly enters Maharashtra, where it is called the Mhadei, and eventually calms its currents to become the graceful Mandovi River in the state of Goa. As the Mandovi meanders through the sacred Sahyadris it naturally terraforms the topography. Over the centuries its bountiful waters have formed exquisite tropical riparian forestlands, Myristica swamplands, wonderful wetlands and natural harbours that have impacted the history of Goa.

In more recent times, however, the intrinsic value of the river seems to have been set aside. This became especially evident on 14 August 2018 when the Mahadayi Water Dispute Tribunal passed an Award that permitted the abstraction and diversion of water, from the west-flowing Mandovi river basin into the east-flowing Malaprahba river basin, through a series of ill-conceived irrigation and hydroelectric river projects. For the people of Goa, the majority of whom worship Mahamaya and her sisters as representations of Shakti or Mother Earth, the MWDT's award is not just a death sentence for the Mandovi and the entire riverine region but effectively also for the primordial Mandovi River Civilization or Gomantak—the land fed by the river. The MWDT ignored ecological concerns and overlooked the lack of reliable data and the socio-cultural traditions and customs of the locals and instead, treated the Mandovi like a commodity, ordering a distribution of river water using a regressive hydrological model of damming and diversion. This regressive approach is contrary to the Public Trust Doctrine, a foundational principle of jurisprudence according to which our natural heritage is not a mere possession but rather to be held in a sacred trust by the government for the collective welfare of the present and future generations (Sax 1979). It disregards global environmental protectionist policies and laws and therefore has no place in the spatial planning and sustainable development of the 21<sup>st</sup> century. Rivers and freshwater are not valuable solely as commodities or natural resources—they have intrinsic value.

There is an innate interconnection between the sacred Mandovi and the people of Goa. The Mandovi is not just a river and this is not just another inter-state river dispute. This understanding is consistent with the faith invested in rivers in India. Rivers are worshipped as sacred entities, testified to by the attendance of millions at the recent Mahakumbh celebrations (13 January–26 February 2025). However, the MWDT and water policy in general look at rivers as a natural resource to be harvested and used to generate hydroelectric energy. This is dystopian, and perhaps why the MWDT has only considered the river up to the weir in Ganjem, (located in Usgao village

in Ponda) and has ignored the Mandovi River Civilization and life as we know it. Fortunately, the award of the MWDT was immediately challenged before the Honourable Supreme Court of India by all three contesting state parties. This itself is *ex facie* evidence of injustice or the lack of judiciousness in the award. And so, there is still hope for justice, and time to save this sacred river and magical gift of Mahamaya.

It may be useful here to look at what the law says about rivers and commons.

### **From the Lens of the Law**

The Ancient Romans had a maxim called *res communes omnium* (things common to all) predicated on the principle that ‘things common to mankind by the law of nature are: air, flowing water, the sea and seashores.’ These elements are held by the sovereign in trust, in accordance with the Public Trust Doctrine, for the free and beneficial use of the public. The reason is that the air, seas, rivers, marshlands, forests, etc., are all gifts of nature, and therefore, should be freely available to everyone irrespective of social status. Because, they are of such a great importance to the people collectively, it would be wholly unjustified to make them a subject of private ownership. Once inscribed into the *Institutiones* of the *Corpus Juris Civilis*, enacted by Justinian I in 529 CE,<sup>1</sup> *res communes omnium* has since become a fundamental principle of law. The maxim has consistently evolved over the last 1,500 years, through laws and jurisprudence, to firmly recognize, ordain, and protect community property.

Furthermore, the Public Trust Doctrine finds expression in the thirteenth-century English legal documents Magna Carta of 1215 CE, where it is used to secure the right to navigate the kingdom’s rivers unimpeded, and the *Carta de Foresta* (Charter of the Forest) of 1217 CE, which grants “liberties of the forest” and customs traditionally enjoyed freely by the people *omnes de regno nostro* (“to everyone in our realm.”)<sup>2</sup> Therefore, there is a long legal precedent for considering river systems, including riparian forests and

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<sup>1</sup> Justinian I, also known as Justinian the Great, was Roman Emperor from 527 CE to 565 CE. His most enduring achievement is arguably the *Corpus Juris Civilis* (Body of Civil Law), a collection of fundamental works in Roman jurisprudence that continues to influence international public law. The *Institutiones*, an elementary textbook for novice students of law, is part of this great body of work.

<sup>2</sup> The term “forest” as used in the Charter of the Forest does not mean woodlands, as we take it to mean in modern English, but rather land reserved by the monarch in the medieval English context. Such reserved lands not only included wooded areas but also cultivated fields and houses where the king’s subjects lived. Royal forests were subject to their own distinct set of laws termed Forest Law, which was often far more draconian in nature than the laws that governed the realm in general. The Charter of the Forest was issued in 1217 in response to the perception that the unpopular King John and his two immediate predecessors Richard and Henry II had transformed over-large swaths of land into royal forests, thereby cutting out the rights of the people who lived on this land to use it in the ways to which they were accustomed.

entire riverine regions, as common or community property collectively held in trust so that, the people can enjoy the right to free access and beneficial enjoyment of this community property.

At the turn of the twentieth century, Professor Joseph L. Sax (1979, 4) writing in the backdrop of the modern state, adapted a version of the Public Trust Doctrine (PTD) to exert long-term public rights over short-term private rights and interests and to secure the rights of future generations by imposing three restrictions on the powers/authority of the sovereign trustee, i.e.:

1. The property subject to the trust must not only be used for public purposes, but also must be held freely available for the use and enjoyment of the general public.
2. The property held in trust cannot be sold, even for fair cash or its equivalent in value.
3. The property must be maintained in particular types of existing traditional use.

Thus, the Public Trust Doctrine mandates that community property must only be used for public purposes and must be made available for the use and enjoyment of the public. It cannot be sold, even for fair cash or its equivalent. And it must be maintained in consonance with the particular types of traditional existing uses.

### **Legal Animism and the evolution of the Public Trust Doctrine**

There is also an emerging jurisprudential trend of “legal animism,” where rivers and natural “living entities” are being recognized as having a distinct “juristic personality,” with the right to maintain their spirit, identity, and integrity. This is not a novel concept as it is based on the PTD, theology, and natural and customary law.

In 2008, Ecuador amended Article 71 of its Constitution to state that nature “has the right to integral respect for its existence and for the maintenance and regeneration of its life cycles, structure, functions and evolutionary processes,” thereby recognizing the right of the natural world to the same protection as people and corporations. Furthermore, on 30 March 2011, the Provincial Court of Loja, Ecuador applied the principles of legal animism

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Land that had been turned into royal forest under these three kings was declared disafforested under the Charter of the Forest and Forest Law itself became far less punitive. The Charter of the Forest was an extraordinarily long-lived statute, remaining on the books as late as 1971. It speaks to the respect accorded to the people in their right to use public land according to custom; such land cannot arbitrarily be enclosed by monarchs or ruling powers.

to Pachamama and recognized her *locus standi*.<sup>3</sup> Consequently, the natural rights of Los Cedros (a Protected Forest in northwestern Ecuador) and the Vilcabamba river were recognized under Article 71 of the Ecuadorian Constitution and planned river projects were halted.

Similarly, in 2017, the legislature of New Zealand enacted the Te Awa Tupua Act, declaring the Whanganui River a juristic entity and recognizing her intrinsic value to the Whanganui Maori and Iwi Tribes who consider the river an ancestor and follow the creed of *Ko au te Awa, ko te Awa ko au* (“I am the River and the River is me.”)

In the Indian context, on 20 March 2017, the High Court of Uttarakhand declared the Ganga and Yamuna rivers juridical persons, like Hindu deities, which had both rights and obligations (*Mohd. Salim v. State of Uttarakhand* 2017). And, the local government was, *in loco parentis*,<sup>4</sup> obligated to promote the health and wellbeing of the rivers, in consonance with Articles 48 and 51A of the Constitution of India. The High Court even proposed an alternative solution of giving the guardianship rights and obligations to the traditional communities living along the river or customarily associated with the river. However, four months later in July 2017, the judgment was surprisingly struck down by the Supreme Court as “unsustainable in law” (*State of Uttarakhand v. Mohd. Salim* 2017).

Conversely, in 2024, a Constitutional Court in Peru dismissed the State’s appeal against the Nautu Provincial Court ruling in favour of the Huaynakana Kamatahuara Kana, a federation of women of the Kukama people (an indigenous group residing primarily in the Peruvian Amazon) who petitioned to declare the Marañon river a living being with rights, because of its intrinsic value. To the Kukama the river is a *ser vivo* (living, organic being) and home to different forms of life. They believe that their first ancestors were born from the river and that their dead return to live in the river. And so, the Marañon is the vertebral column that articulates Kukama culture and identifies their people to life adjacent to and in the river.

According to the judgment of the Constitutional Court of Peru the Marañon River and all its tributaries now hold and have the following inherent legal rights:

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<sup>3</sup> Pachamama is a portmanteau combining the Quechua and Aymara word for “world,” i.e., “pacha,” and the Spanish word for “mother,” i.e., “mama” and denoting the embodiment of Mother Earth in Andean folklore. *Locus standi* is a legal term denoting the right to sue and be sued as distinct legal entity.

<sup>4</sup> A Latin term that translates to “in the place of a parent” and is a maxim of law that denotes the legal responsibility of a person or persons or an organization to perform the functions and responsibilities of a parent.

- The right to flow
- The right to exist in and support a healthy ecosystem
- The right to flow free from all contamination
- The right to feed and be fed by its tributaries
- The Right to biodiversity
- The right to be restored
- The right to the regeneration of natural cycles
- The right to the conservation of its ecological structure and function
- The right to protection, preservation, and recovery

Similarly, the Atrato, Plata, Tolima, Cauca, Pance and Otun rivers in Columbia; the Magpie in Quebec, Canada; the Snake and Klamath rivers in the United States of America, and all rivers in Bangladesh are now legally considered “living persons” with the right to exist, flow, flourish, evolve and regenerate, free from pollution and contamination. Furthermore, the draft Universal Declaration on the Rights of Rivers, acknowledges that, rivers are essential to all life and play a vital role in the functioning of the Earth’s hydrological cycle (Rights of Rivers 2024). It also clearly acknowledges the dependence and impact of humans on rivers and therefore proposes to:

- Declare that all rivers are living entities that possess legal standing in a court of law
- Declare that every river is entitled to the following fundamental rights:
  - The right to flow
  - The right to perform its essential functions within its ecosystem
  - The right to be free from pollution
  - The right to feed and be fed by sustainable aquifers
  - The right to native biodiversity
  - The right to regeneration and restoration.
- Ensure a healthy watershed and the health of all ecosystems and natural beings within a river basin
- Appoint legal guardians of a river, with at least one being an indigenous representative, to act on behalf of the river for the full and proper implementation of these rights

- Resolve that all states shall implement these rights in full and develop integrated watershed assessment agencies, with adequate governmental and financial assistance, to monitor, regulate and ensure a healthy river basin.

These examples are not isolated incidences of legal innovation, but are, representative illustrations of an emerging jurisprudence. In fact, legal animism is an evolution of the Public Trust Doctrine and the preeminent need to preserve and protect the natural world and the communities that inhabit the biosphere. Rivers and their fragile ecosystems are particularly vulnerable to the climate crisis. Therefore, we can no longer afford to treat them as natural resources to be exploited through an archaic *modus operandi* of careless abstraction. Therefore, legal animism is a step towards achieving climate resilience and the Sustainable Development Goals (SDGs) articulated by the United Nations (2015).

### **The Indian Perspective**

The Public Trust Doctrine is well recognized in India and has been interpreted and applied by courts to hold that community property like seashores, rivers, air, forests, ecologically fragile lands, etc., are all held in trust by the State as a custodian, and that the people are the beneficiaries of this community property (M.C. Mehta vs. Kamal Nath 1997, para. 34). The Supreme Court of India has gone a step further by holding that the Public Trust Doctrine imposes an affirmative duty on the State to protect the people's common natural heritage and stating that the State can exercise this authority over community property only in consonance with the purpose of the trust (Tirupathi vs. State of Andhra Pradesh 2006).

Furthermore, the Supreme Court has, in a landmark judgment originating from Goa, held that at the heart of the doctrine are the imposed limitations and obligations on the government agencies and the implicit embargo on the State from transferring public property to a private party, if such transfer affects public interest (Fomento Resorts vs. Minguel Martins 2009, paras. 53–54). Also, Article 39(b) of the Constitution enjoins the State to direct its policies towards securing the ownership and control of the material resources of the community and to so distribute them to best serve the common good. Therefore, the government cannot alienate, degrade, or divert community property.

Although the concept of common good has many diverging definitions and contradictory applications, it is an important part of jurisprudence because it is critical when reflecting on the public and private dimensions of social

life in a country. Therefore, it must always be interpreted to mean the greatest good for the greatest number.

The Directive Principles of State Policy postulate the creation of a legal and socioeconomic system that addresses inequalities, and ensures freedom of opportunity, dignity, and a healthy life. Article 48A of the Constitution also imposes a specific obligation on the government to protect and improve the environment and safeguard the forest and wildlife of the country.

Therefore, the Public Trust Doctrine or PTD was not an alien concept to Indian Constitutionalism when the Supreme Court first applied it to demolish a private resort belonging to Kamal Nath—a politician and Member of Parliament—because it blocked the flow of the mighty Beas river—one of the sacred rivers of the Sapta Sindhu. The courts have consistently held that the aesthetic use and the pristine glory of natural resources, the environment, and the ecosystems of our country cannot be permitted to be eroded for private, commercial, or any other use unless the courts find it necessary, in good faith, for the public good and in the public interest. Therefore, rivers today are undoubtedly a subject of the commons. As community property, a river must remain unobstructed and freely accessible for the beneficial enjoyment and use of the general public. More importantly, it cannot be alienated, and its natural flow and existing traditional uses must be maintained. Although the Supreme Court struck down the Uttarakhand High Court judgment that legally animated the Ganga and Yamuna Rivers in 2017, the law of legal animism is inherent to Indian jurisprudence, particularly because of the well-established *locus standi* of Hindu deities, companies, and cooperative societies.

### **The Goan perspective**

The Public Trust Doctrine seems to have had an early application in Goa, wherein large stretches of land were once ancestrally held collectively by the *comunidades* (ancestral village communities unique to Goa) under the traditional *gaunkari* system. Private property was by no means the norm, and vital natural resources were held collectively by the *comunidade*, barring some areas like Pernem. The *gaunkari* is a primordial village republic consisting of aggregates of pluralistic families (the diverse branches of extended family networks connected by blood and marriage), descending from a common trunk of a clan or *kul*, under the command of one or more leaders. The regime of ownership of property is of absolute communion (a Goan property regime that implies joint property holding) and perpetual associations based on birth rights.

Today, *comunidades* can consist of *gaonkars* (villagers), descending from the

original gaunkars who are also known as *jorneiros* or *zonnkars* because they collect *zonn* or dividends from the profits of a *comunidade*; and/or, *acessionistas* (shareholders) who have invested in the *comunidade* by purchasing shares. Each *gaunkari* or *comunidade* is profoundly influenced by the theological, philosophical, political, and economic persuasions of the individual *gaunkars*. Collectively, they exercise all the legislative, executive, and judicial powers necessary to administer the entire estate, i.e., the village and all its villagers. The land records across the *Velhas Conquistas*<sup>5</sup> reveal that titles to land almost always trace back to a *comunidade* or *gaunkari*. As with the Public Trust Doctrine, natural resources are held collectively and cannot be sold for fair cash or equivalent. The *Codigo de Comunidades*, i.e., Decree No. 2070, (15 April 1961), which governs all *comunidades* in the State of Goa, does not permit or provide for the transfer of title. It only permits parting with possession and provides a detailed procedure for the periodic public auction of properties for beneficial use and profit generation for the *comunidade*.

This public auction had to culminate with an agreement/contract stipulating the rent/*foro* and a payment schedule and clearly determining the rights of use of the leased land. Further, the *comunidade* was duty-bound to conduct periodic inspections, at least once a year, to ensure that the beneficial use of the land was being maintained. In actual practice, however, it would seem that anomalies crept into the working of the *comunidade*.

Central to the formation of the *gaunkari* and its agrarian economy was the river whose flows encouraged human innovation. Through human intervention and traditional irrigation systems, the ancestral *gaunkars* of Goa established thriving organic orchards called *kulagars*, and reclaimed wetlands to form fertile farmlands called *khazans*. Here, riverine agrarian communities used an ingenious system of building earthen *bandhs* or dikes using stones, mud, and mortar to block the flooding river. Through a system of sluice gates, they would then regulate the flow of tidal water, divert flood waters, and harvest rainwater to irrigate large tracts of fertile farmland.

The *Gaunkars* also created an intricate network of ponds, lakes, streams and canals to supply drinking water and irrigate these vast agricultural lands along the banks of the Mandovi river. Most interestingly, the *gaunkaris* were able to produce saline-resistant rice paddies like *khorgut* (a salt-tolerant rice variety grown in *khazans*) within close proximity of the sea. Therefore, with a perennial source of fresh water and an indigenous network of *kulgars*, *khaz-*

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<sup>5</sup> Literally "Old Conquests," i.e., Tiswadi and surrounding areas in Bardez and Salcete which fell to the Portuguese in their first round of conquests.

ans, manos [sluice gates], lakes and saltpans, the early *gaunkars* of Goa were able to adapt to their unique environment and establish thriving agrarian and fishing communities along the banks of the Mandovi, thereby creating the *Gomantak* or Mandovi River Civilization.

The *khazans*, *kulgars*, *manos*, saltpans, lakes, ponds, and tanks were all prized possessions of a *gaunkari* and were considered high-value properties. The successful bidder would be entrusted with the right to use and enjoy these properties with a corresponding duty to manage and maintain them on behalf of the community. These instances indicate how both the Public Trust Doctrine and legal animism are inherent and alive in the law of *comunidades* or *gaunkari* of Goa.

### **A Reality Check**

Unfortunately, after the liberation of Goa and the introduction of the Goa Agricultural Tenancy Act, the *comunidades*' right of reversion under the Code of Comunidades (1961, Article 341, Section III of Chapter VI) was ignored as was Article 238 [§2] of the *Codigo*.<sup>6</sup> The convenience of redemption has been misconstrued, misused, and misapplied to enable the alienation of community properties. The socialist land reforms have decimated the *comunidades* and ruined agriculture and the *gaunkari* system. Across Goa, fields are being landfilled to build national highways, hotels, and second homes. Orchards and forests are being carelessly cut down and converted into settlement and commercial zones for profit.<sup>7</sup> And even though Goa is the only state with statutory spatial plans, vital community properties like shorelines, forests, plateaus, orchards, fields, and wetlands are being rampantly privatised through over-tourism and unsustainable development policies—one holiday home, hotel, beach resort, shack, bar, and nightclub at a time as evidenced by the Bombay High Court Goa's order dated 23 January 2025 (Goa Foundation vs. Town and Country Planning Board and Others 2025).

However, the ugliest disruption is the introduction of the cataclysmic casinos and the virtual decriminalization of gambling in Goa. The casino cartels now openly operate in the *sangam* of the Mandovi, Zuari and the Arabian Sea, in one of the most eco-sensitive regions of the river, right in Goa's capital city of Panjim.

<sup>6</sup> Article 238 permits the redemption of the *aforamento* [emphyteusis/grant] by paying twenty times the annual rent or *foro* at once.

<sup>7</sup> Ref: Order of the Bombay High Court at Goa dated 6 March 2025, in re illegal construction and encroachment i.e., in Public Interest Litigation Suo Motu No. 3 of 2024.

### **The Casino Conundrum**

The city of Panjim, Panaji, Pangim or Ponje, as the locals like to say, transitioned through human intervention over the centuries from an idyllic riverine wetland into a coconut grove of the *comunidade* of Taleigao into the pleasure island retreat of the legendary Yusuf Adil Shahi of Bijapur.<sup>8</sup> From 1510 CE until the turn of the eighteenth century, Adil Shah's palatial residence symbolically served as the landing point for the incoming viceroy of the *Estado da India*, at which time more lands were carved out of the *comunidade* of Taleigao to create Nova Goa or Cidade de Pangim, i.e., the last colonial capital of the *Estado da India*. The people of Goa were finally liberated from the 450-year-long rule of the Portuguese colonial empire on 19 December 1961. And until recently, the legislature of Goa sat in the palace of Adil Shah, then officially called the Secretariat. The Fazenda or Treasury was housed in the harem house opposite the former palace.

Post-liberation, the city of Panjim has remained a major urban hub. In order to boost economic growth and facilitate international beach tourism, the state government decided to permit gambling in Goa. And so, in the year 1992, through an ill-conceived tourism policy, “non-live gaming” was permitted to enable hotels and beach resorts to obtain five-star qualifications. In 1996, the legislature amended the Goa Public Gambling Act, 1976—which still specifically prohibits gambling—to enable offshore casinos to operate in the State of Goa. Ironically, the entry of the *MV Caravela* yacht into the waters of the Mandovi marks the momentous start of the recolonization of Goa.

By 2019, there were six vessels in the Mandovi. Their “offshore” location was challenged before the High Court of Bombay at Goa. However, despite an interim order restricting the grant of any further licenses without the leave of the court (Justice F. M. Reis, Division Bench, High Court of Bombay at Goa, P.I.L. no. 15 of 2017), and a contempt petition pending (Contempt Petition No. 22 of 2018 filed in [P.I.L.] no. 15 of 2017), the Big Daddy Casino entered the river (Justice R. D. Dhanuka, Division Bench, High Court of Bombay at Goa 2019).

Today, most of Panjim port and the riverfront, including prime public property like the ferry wharfs, jetties, and the buildings of the Captain of Ports and Fisheries Department of the Government of Goa, have been converted into front offices for the seven “offshore” casinos currently operating in the mouth of the Mandovi. In fact, what pretends to be “offshore” is a cause for

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<sup>8</sup> Yusuf Adil Shahi of Bijapur or Adil Khan, whom the Portuguese call Hidalcao, is an enigmatic figure said to be the brother of the Ottoman Sultan Mehmed II, Conqueror of Constantinople.

concern on both banks of the river. The casino cartels have managed to capture most of the riverbank and most of the navigable waters of Panjim port are blocked by large vessels permanently anchored and blocking the natural flow of the river. Through a combination of political intrigue, interim arrangements, and the power of money, the casino cartels have managed to take control of almost all of Panjim's 2.8 km. stretch of riverfront from Patto Bridge to the Bhagwan Mahavir Children's Park in Campal, virtually hijacking the entire coastline. The main public avenues and picturesque promenades along the riverfront have been carelessly commercialized and converted into grotesque front offices for money laundering and vice. The casino cartels are now not restricted to operating in five-star hotels and the seven vessels in the Mandovi as they have effectively captured large parts of the city and the emerging infrastructure developments, including the new jetties, airport terminals, and convention centers, all built on community property with public money.

The presence of the casino cartels is palpable the moment you enter the state of Goa and can be seen and felt everywhere you look or go thanks to their advertisements, which are plastered on almost every newspaper, billboard, airport, and available public space, including Goa Police barricades and road traffic signage, all of which have ended up normalizing the idea of casinos. Furthermore, the casino cartels have attracted a new type of tourism to Goa. The demands of this type of tourism have flooded the streets of Panjim with hawkers, drug peddlers, pimps, touts, and prostitutes. This has led to a drastic increase in crime, garbage, and carbon footprint in the city. Their presence is a public nuisance with several instances of crime, public urination, open defecation, and unruly drunkenness. It is no longer possible for a *Ponjekar* to walk along the riverfront, go fishing, or enjoy a sunset without being hounded and displaced by the obnoxious noise, smells, and trashy reality.

Most of the traditional family-run shops and establishments in the area have become commercialized tourist traps, serving this new type of tourist with cheap knockoff clothes, massage parlours and spas. As a result, it is almost impossible today to find traditional Goan cuisine in the capital city of the state of Goa. Ironically, as per the 2020 Amendment to the Goa Public Gaming Act, Goans are strictly prohibited from entering a casino. Paradoxically, moreover, gambling is still strictly prohibited in India by laws, customs, and traditions, and is officially *res extra commercium*—a matter outside commerce (R.M.D. Chamarbaugwalla vs Union of India reported in AIR 1957 SC 628). However, successive governments have, despite the public outcry and protest, enabled and facilitated the casinos and denies the people of Goa

access to prime community property in their capital city. What was once undoubtedly *res extra commercium*, is now the principal commercial activity in Panjim. This is not just dystopian, but a cause for grave concern, because the Mandovi and the Zuari are interconnected by the Cumbarjua canal and share an estuarine zone with a vast subterranean hydrological network of aquifers. Therefore, the seven casino vessels in the Mandovi are not just an eyesore or social blight but also an ecological concern. The seaworthiness of these vessels is dubious and their source of power questionable, as is their carbon footprint and impact on the ecology and environment of the fragile mouth of the Mandovi (Varadkar 2024).

### **A Socio-Ecological Perspective**

The Mandovi, its tributaries, and aquifers form part of important river system that is necessary for the survival of all who inhabit its basin—human and non-human alike. This is because the Mandovi originates and flows entirely through the Sahyadris or Western Ghats, a UNESCO World Heritage Site. According to the “Report of the Western Ghats Ecology Expert Panel” [WGEEP] a.k.a. the Madhav Gadgil Commission (2010), appointed by the Ministry of Environment and Forests of India [MoEF], the entire Western Ghats or sacred Sahyadris are a biodiversity hotspot with Ecologically Sensitive Areas that must be protected and preserved. The report mentioned how these riparian non-equatorial tropical evergreen forests have an exceptionally high level of biological diversity and endemism, making this region a unique biodiversity hotspot of outstanding universal value.

However, due to the industrialization of agriculture and manufacturing, vast tracts of the Sahyadris have been deforested, degraded, and diverted towards industries, housing, farms, fields, spice gardens, tea and coffee plantations, and tourism. This has adversely impacted the ecology of the entire region. Sadly, primary tropical forests are rare in the Sahyadris today and are primarily found only in parts of Wayanad District in Kerala and in the region between the Uttara Kanada District in Karnataka and Ahmednagar District in Maharashtra, because these are notified protected forests with tiger and elephant corridors.

Considering that the Mandovi river originates and flows entirely within this region of the sacred Sahyadris, it is the beating heart and lifeline of this hotspot of biodiversity. As it meanders through the Sahyadris, it brings with it nutrient-rich waters and alluvial soil to create *Myristica* swamps, marshlands and wetlands that support dense mangrove forests and *sui generis* ecosystems that are natural biodiversity habitats for endemic and migratory species. These wetlands are critically significant natural ecosystems. The

extraordinary Myristica Swamps found within this region are natural flood regulators, groundwater rechargers, carbon sequesters, and water filtration systems. They are important relic forests that are intrinsically part of the ancient socio-cultural landscape of the people of this region. Pursuant to India's obligations under the Ramsar Convention on Wetlands of International Importance (1979) and directions from the National Green Tribunal, the Government of Goa has identified 50 such wetlands and notified 35 of them under the Wetland (Conservation and Management) Rules, 2017.

Early users of these lands and forests were aboriginal, pre-Vedic, tribal communities, namely, the Gaudos, Kunbis, Velips, Dhangar, and Gouly, who lived symbiotically in peaceful coexistence with nature. These communities have an intimate understanding of the ecology and the complex ecosystems that surround them. They celebrate this symbiotic relationship in sacred groves through rituals and festivals. Hence, these sacred forests are now being protected under the Biological Diversity Act. The natural harbours of Velha Goa [Old Goa], Agassaim and Mormugao, all within the estuarine region and at the *sangam* of the Mandovi-Zuari and the Arabian Sea, have since time immemorial, sustained pluralistic civilized communities that have respected, revered, and even worshipped this sacred life-sustaining river.

### **In Conclusion**

The legendary Taoist philosopher Lao Tzu postulates in the *Tao Te Ching*, that we are in fact a river, once a drop of water born in the ocean and sprinkled on the earth; that, in a gentle rain we became a spring and then a stream, and finally a river, flowing deeper and stronger, nourishing all it touches as it nears its home once again. And so, this intercourse or interconnection, between rivers and humans is not limited to only fishing, irrigation, navigation, or even precious freshwater. Rivers also have a profound influence on the food, language, fashion, thoughts, beliefs, customs, traditions, and the lifestyles of the people living on their banks.

Therefore, rivers always have been and continue to be vital to our existence and humanity. The Mandovi is not an exception to this rule. What clearly emerges from the discussion above is that:

Rivers are not just commodities or natural resources but have an intrinsic value that is vital for human existence and the prosperity of the community.

The people who live along the river or in river basins have a deep and intimate connection with the river: this can be socio-cultural, religious, customary, and/or folklore.

The courts of law are now recognizing the distinct legal character of rivers

and that a river is inherently vested with certain fundamental rights, just like a living being.

Through the lens of the law, one can consider the entire river system, including the rivulets, aquifers, forests, Myristicas, wetlands, and the entire estuarine region, as commons or community property, which belongs to everyone and no one at the same time. So, no one can claim a right to the detriment of others. Therefore, the Public Trust Doctrine mandates that rivers, as part of community property, must only be used for public purposes; must be made freely accessible for the beneficial enjoyment of the general public; must not be alienated, diverted, or sold; and must be maintained in consonance with existing traditional uses.

Thus, the proposed trans-basin diversion of water from the Mandovi river basin to the Malaprabha river basin and the ill-conceived dams, irrigation, hydroelectric projects, and casinos are all violations of the Public Trust Doctrine and fundamental rights vested in the Mandovi River, only yet to be officially recognized as such. And considering the Mandovi river's intrinsic socio-ecological importance, the approach of the Mahadayi Water Disputes Tribunal is *ex facie* unjust and unfair as it has ignored the Public Trust Doctrine, the fundamental rights of a river, the estuarine region, the ecological concerns, the lack of reliable data, and the socio-cultural customs of the people.

Therefore, it is now time for the judiciary and legislature to step up and officially recognize the already well accepted reality that the natural world all around us is alive! And, if there is to be true justice for the Mandovi river and the People of the Gomantak, then we must first find the courage to ask ourselves:

*Does the River belong to Me?  
Or, do We belong to the River?*  
~+ \*~+ om mane padme hum ~+ \*~+

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**Helga do Rosario Gomes** is a Research Scientist at Lamont-Doherty Earth Observatory, Columbia Climate School. She graduated with a PhD in Biological Oceanography from University of Bombay and has held research positions in Japan and Maine. Dr. Gomes is interested in large-scale climatic questions such as the impacts of the new and unusual planktonic blooms in the Arabian Sea, the effect of Arctic warming and ice melt on the American lobster, the impact of urbanization on wetland systems, and ocean acidification and deoxygenation of waters from harmful algal blooms. With her colleagues she has been developing ocean monitoring and decision support systems tailored to meet needs for sustainable management of coastal resources in tropical countries experiencing climate change. She mentors postdoctoral, graduate, and undergraduate students, but her passion lies in providing guidance and support to high school students, some of whom have won national and international awards. She is a trustee and Science Advisor for Goa Chitra, an anthropological museum in Benaulim, Goa that preserves and showcases the culture and lifestyle of the people of the west coast of India.

**Dhirendra M. Deshpande** has nearly four decades of experience in Indian higher education, starting as a Lecturer in a degree college in Goa, working in various capacities in reputed institutions such as Symbiosis, Pune, KLE Society, Bengaluru, as Faculty, Principal, Director and finally retiring as the Vice Chancellor of ISBM University in Chhattisgarh. As a columnist for a leading daily newspaper in Goa, he has rich experience in writing on a range of economic and policy issues such as budgets, monetary policy, reforms and liberalization. As a faculty in Symbiosis, he was associated with guiding and evaluating various finance-related projects that included building economic models for producing hydroelectricity, long-range demand and sales forecasting.

**Leon Morenas** is the Principal of the Goa College of Architecture. He was Associate Professor of Architecture at the School of Planning and Architecture, Delhi. He was also a Fellow at the Indian Institute of Advanced Study, Shimla where he worked on a project entitled “Mohallas and Smart Cities: Post-Colonial Development in Delhi.” He was a World Social Sciences Fellow in Sustainable Urbanization (2014) and Programme Coordinator of the Masters in Social Design at Ambedkar University, Delhi (2013). He is an architect with a Master’s in Urban Design from the School of Planning and Architecture, Delhi and a PhD in Architectural Sciences—with a specialization in Informatics—from Rensselaer Polytechnic Institute, Troy, New York. Professor Morenas’s research uses the disciplinary lens of Science and Technology Studies (STS) to understand the relationship of technology with contemporary design, architecture and urban planning. His most recent writings have focused on urban governance through technology with a focus on smart cities and their command centres. He is also working on a set of essays that attempt to answer the question: “Is there an Indian way of thinking about technology?” using the foils of history, metaphysics and literature.

**Manisha Rodrigues** is an architect based in Goa. She holds a Bachelor’s degree from the Goa College of Architecture and a Master’s in Architecture with a specialization in architectural conservation from CEPT University, Ahmedabad. With over a decade of experience in practice and more than three years as an assistant professor at her alma mater, the Goa College of Architecture, her work often explores the intersections of water, heritage, and the built environment. She was part of projects like the Serampore Initiative led by the National Museum of Denmark, which documented Indo-Danish heritage along the Hooghly River. Her academic and professional work reflects a deep connection to water and cultural landscapes—from the Sabarmati and Hooghly to the Sal and Mandovi rivers in Goa. As a fellow of the Goa Wa-

ter Stories fellowship by the Living Waters Museum, she explored “What is a river?” through the lens of the built environment of the Mhadei–Mandovi–Mahadayi River. She currently leads her practice in Margao and continues to engage with architectural education as visiting faculty at the Goa College of Architecture.

**Aurobindo Gomes Pereira** is an Advocate, with an L.L.M. in Constitutional and Administrative Law, and a resident of the city of Panjim, Goa. He can be contacted at [thegoanphilosophicalociety@gmail.com](mailto:thegoanphilosophicalociety@gmail.com).

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**Sujata Noronha** is an educator specializing in early literacy and enjoys working with children and books. She is deeply interested in the power of the printed word and the pathways to access and growth emerging from it. In Goa, she works out of her organization called Bookworm, that provides resources and facilitates libraries and reading within the community of Panjim and in schools around the state. She consults with the Tata Trusts within the education portfolio.

**Maya de Souza** has an inter-disciplinary background with over twenty years’ experience in public policy and the law. She graduated from Oxford University in Philosophy, Politics and Economics before studying and practising law. After an L.L.M. (London), graduating with distinction, she joined the Department for the Environment, Food and Rural Affairs in the UK Government Legal Services and later moved to policymaking. She headed various teams on better institutional structures for flood risk and integrated water management where she led a project on holistic approaches to water management in the climate risk context. She has also headed the Business Environment Council Hong Kong’s Policy and Research Team, leading projects on climate resilience; and served on the BITC–UK Circular Economy team as Co-Director, Environment. Maya has been an elected Green Party councillor in London, playing an active role in town and country planning and scrutiny of the environment among other policy areas. Currently, Maya lives and works in Goa, and is a co-director of Act for Goa, co-founder of Materia Verde (a new biomaterials industry accelerator powered by Quicksand). She was previously with Bangalore-based think tank, CSTEP. She also works with various consultancies on future-proofing and strategic insight.