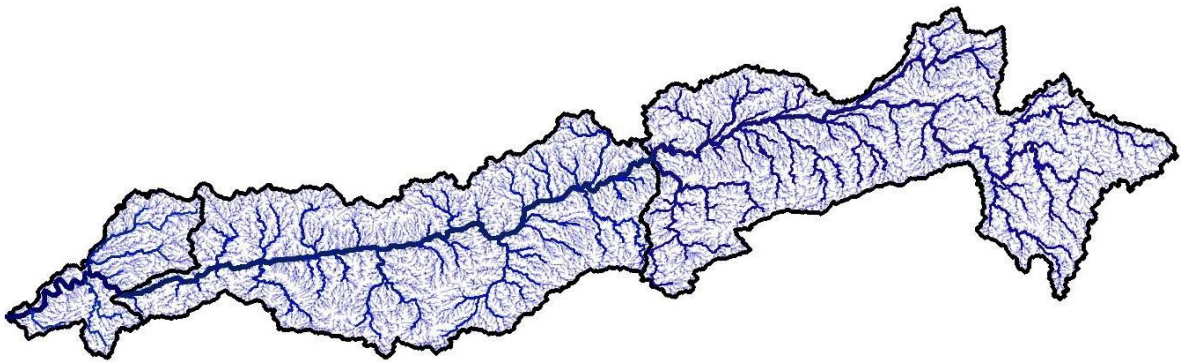




National River Conservation Directorate
Ministry of Jal Shakti, Department of Water
Resources,
River Development & Ganga Rejuvenation
Government of India

Legal and Institutional Landscape of Narmada River Basin



March 2025



© cNarmada, cGanga and NRCD, 2024

Legal and Institutional Landscape of Narmada River Basin



National River Conservation Directorate (NRCDC)

The National River Conservation Directorate, functioning under the Department of Water Resources, River Development & Ganga Rejuvenation, and Ministry of Jal Shakti providing financial assistance to the State Government for conservation of rivers under the Centrally Sponsored Schemes of 'National River Conservation Plan (NRCP)'. National River Conservation Plan to the State Governments/ local bodies to set up infrastructure for pollution abatement of rivers in identified polluted river stretches based on proposals received from the State Governments/ local bodies.

www.nrcd.nic.in

Centres for Narmada River Basin Management and Studies (cNarmada)

The Center for Narmada River Basin Management and Studies (cNarmada) is a Brain Trust dedicated to River Science and River Basin Management. Established in 2024 by IIT Gandhinagar and IIT Indore, under the supervision of cGanga at IIT Kanpur, the center serves as a knowledge wing of the National River Conservation Directorate (NRCDC). cNarmada is committed to restoring and conserving the Narmada River and its resources through the collation of information and knowledge, research and development, planning, monitoring, education, advocacy, and stakeholder engagement.

www.cnarmada.org

Centres for Ganga River Basin Management and Studies (cGanga)

cGanga is a think tank formed under the aegis of NMCG, and one of its stated objectives is to make India a world leader in river and water science. The Centre is headquartered at IIT Kanpur and has representation from most leading science and technological institutes of the country. cGanga's mandate is to serve as think-tank in implementation and dynamic evolution of Ganga River Basin Management Plan (GRBMP) prepared by the Consortium of 7 IITs. In addition to this, it is also responsible for introducing new technologies, innovations, and solutions into India.

www.cganga.org

Acknowledgment

This report is a comprehensive outcome of the project jointly executed by IIT Gandhinagar (Lead Institute) and IIT Indore (Fellow Institute) under the supervision of cGanga at IIT Kanpur. It was submitted to the National River Conservation Directorate (NRCDC) in 2024. We gratefully acknowledge the individuals who provided information and photographs for this report.

Team Members

Pranab Kumar Mohapatra, cNarmada, IIT Gandhinagar
Deepak Singhania, cNarmada, IIT Gandhinagar
Sujit Koonan (Legal Expert), Jawaharlal Nehru University, New Delhi
Vikrant Jain, cNarmada, IIT Gandhinagar
Vimal Mishra, cNarmada, IIT Gandhinagar
Udit Bhatia, cNarmada, IIT Gandhinagar
Ashootosh Mandpe, cNarmada, IIT Indore
Kiran Bala, cNarmada, IIT Indore
Manish Kumar Goyal, cNarmada, IIT Indore
Mayur Shirish Jain, cNarmada, IIT Indore
Preeti Sharma, cNarmada, IIT Indore
Priyank Sharma, cNarmada, IIT Indore
Vinod Tare, cGanga, IIT Kanpur

PREFACE

This report examines the legal and regulatory frameworks governing one of India's most significant river basins. The Narmada River, flowing through Madhya Pradesh, Gujarat, and Maharashtra, holds immense ecological, economic, and cultural importance. Yet its management involves intricate legal provisions, inter-state negotiations, and evolving institutional mechanisms. The report presents an analytical assessment of constitutional mandates, statutory instruments, and judicial interventions that collectively shape Narmada Basin governance.

Structured in key sections, the report begins with an analysis of the constitutional framework, detailing the division of legislative powers between the Union and the States under the Seventh Schedule. It then reviews major statutes like the Inter-State River Water Disputes Act, 1956, and subsequent amendments, highlighting their procedural strengths and practical challenges.

The report further explores institutional mechanisms supporting water governance by examining the roles of tribunals, committees, and authorities such as the Narmada Water Disputes Tribunal and the Narmada Control Authority, along with recent reforms under the Dam Safety Act, 2021, and the National Waterways Act, 2016. It identifies areas where these institutions interact, overlap, or conflict, adding complexity to the legal landscape.

This document is particularly valuable for policymakers as it maps existing legal and institutional structures while pinpointing gaps that hinder effective river basin management. The recommendations aim to foster a more integrated framework to support sustainable and equitable development and minimize conflicts among riparian states.

We express our sincere gratitude to the contributors whose expertise and insights were pivotal to this report, including government agencies, legal experts, and academic institutions. Ultimately, this report is intended as a practical resource for policymakers, researchers, and practitioners, contributing to a forward-thinking approach to river governance that secures the interests of both the environment and the communities dependent on this vital resource.

Table of Contents

PREFACE	4
<i>Introduction</i>	1
<i>Law Relating to Inter-state River Basins in India: An Assessment</i>	2
Constitution of India	2
The Fundamental Right to Water.....	7
The Supreme Court of India's Centralising Approach	8
Inter-state River Water Disputes Act, 1956	11
River Boards Act, 1956	19
The River Basin Management Bill, 2019.....	21
The Dam Safety Act, 2021	22
The National Waterways Act, 2016.....	24
Inland Waterways Authority of India Act, 1985	26
Pollution control laws	27
Land Acquisition and Rehabilitation and Resettlement Act, 2013.....	27
<i>Inter-State Disputes</i>	29
Sardar Sarovar Dam Controversy.....	29
Indira Sagar Dam Dispute.....	30
Bargi Dam Dispute.....	33
Water Allocation Disputes	34
<i>Inter-state Water Agreements</i>	35
Inter-state Agreement, 1963	35
The 1974 Agreement.....	37
<i>Committees and commissions</i>	39
Narmada Control Authority (NCA)	39
Narmada Review Committee	54
Narmada Valley Development Authority.....	54
<i>Reports and Studies</i>	57
Morse committee Report.....	57
Environmental Impact Assessment	59
<i>Landmark Judgements</i>	63
Narmada Water Disputes Tribunal Award (NWDT)	63
Narmada Bachao Andolan vs Union of India, 2000.....	66
Indira Sagar—Madhya Pradesh High Court Judgements	72
<i>Legal and Institutional Framework pertaining to the Narmada Basin: A Critical Assessment</i>	77
Key Issues with ISRWD Act 1956	77
The Inter-State River Water Disputes (Amendment) Bill, 2019	78
Multiple Institutions and Legal Challenges	79
Fundamental Right to Water	80
<i>Conclusions and Recommendations</i>	81

Table of Figures

Figure 1: Protest Against Omkareshwar Dam in 2007. Source: International Rivers (2012).	
.....	Error! Bookmark not defined.

List of Tables

No table of figures entries found.

List of Appendices

No table of figures entries found.

Introduction

Rivers in India have immensely shaped the region's political, social and cultural landscape. The country has 25 major river basins, many of these rivers flow through multiple states, resulting in interstate conflicts over water allocation for agricultural, industrial, and domestic consumption purposes.¹ As one of India's major westward-flowing rivers, the river Narmada flows through Madhya Pradesh, Gujarat, and Maharashtra. Due to its ecological, economic, and social importance, the Narmada River basin holds a significant space in the political imagination and cultural history of its traversed region. As a result, its management and regulation are critical issues for Indian federalism and require a clear and robust legal framework.

This report explores the complex legal landscape surrounding the Narmada River basin. It highlights constitutional provisions, statutory regulations, and judicial interventions that collectively govern the Narmada river basin. The report provides an analytical assessment of the legal mechanisms established by the Constitution of India, particularly focusing on the distribution of legislative powers between Union and State governments as outlined in the Seventh Schedule. It examines the role of statutes such as the Inter-State River Water Disputes Act, 1956, and subsequent amendments, in mediating disputes related to inter-state rivers, with specific emphasis on their procedural effectiveness and practical challenges. It also focuses on the complex institutional mechanism pertaining to the Narmada river basin.

This report presents the description and analysis in eight sections. The first section of the report analyzes the constitutional framework, specifically focusing on the distribution of legislative powers between the Union and State governments, as well as key statutory frameworks, notably the Inter-State River Water Disputes Act, 1956, and its subsequent amendments, evaluating their procedural strengths and practical challenges in managing and governing inter-state river water disputes. The second section examines prominent case studies within the Narmada Basin, such as the contentious Sardar Sarovar and Indira Sagar projects. The third section explores inter-state water agreements. The fourth section analyzes various committees and commissions related to the Narmada River Basin. The fifth section examines World Bank report and Environmental Impact Assessments in the context of the Sardar Sarovar Project. The sixth section analyzes the Narmada Tribunal Award, along with Supreme Court and High Court judgments concerning inter-state river water disputes in the basin. The seventh section provides a critical assessment

¹ Harish Salve, "Interstate River Water Disputes," in Sujit Choudhry, Madhav Khosla and Pratap Bhanu Mehta (eds), *The Oxford Handbook of The Indian Constitution* (New York: Oxford University Press, 2016).

of the legal and institutional framework governing the Narmada Basin, and the eighth section presents concluding remarks.

Ultimately, the report aims to provide a comprehensive overview of the existing legal framework governing the Narmada River basin, assessing its efficacy and identifying gaps with the goal of ensuring sustainable and equitable river basin management.

Law Relating to Inter-state River Basins in India: An Assessment

Constitution of India

Power sharing is an important feature of the Constitution of India. The distribution of authority among various state organs and between the federal and provincial units is considered fundamental to constitutional governance. Such distribution serves not only to allocate governmental functions but also acts as a crucial safeguard within a democratic federation, promoting accountability and preventing excessive concentration of power.

The division of powers between the Centre and the States is clearly outlined in the Seventh Schedule of the Constitution of India. It distinguishes both legislative jurisdictions and executive responsibilities.

Table 1: Division of Legislative powers under the Constitution of India

List	Description	Legislative Authority	Examples of Subjects
Union List (List I)	Contains subjects exclusively under the central government.	Parliament has exclusive legislative authority.	Defence, Foreign Affairs, Railways, Currency, Citizenship
State List (List II)	Contains subjects reserved exclusively for state governments.	State legislatures have exclusive legislative authority.	Public Order, Police, Health, Agriculture, Local Government
Concurrent List (List III)	Contains subjects where both Centre and States can legislate.	Both Parliament and State legislatures share authority (Centre's power prevails over the	Education, Marriage and Divorce, Bankruptcy, Forests, Adoption

		power of states in case of conflict).	
--	--	---------------------------------------	--

Article 248 of the Constitution of India grants the Union legislature residual legislative authority.² This implies that subjects not explicitly allocated to States vest in the Parliament of India. However, the legislative power under India’s constitutional framework does not exclusively rest with legislatures alone as there is no formal provision in the Constitution that ‘vests’ legislative power exclusively with either the Parliament of India or State legislatures.³ The executive and governors—especially in regions governed by autonomous district councils—also have certain legislative competencies. Notably, the recognition of customs and usages as valid legal sources as articulated in Article 13 of the Constitution of India adds complexities beyond the traditional doctrine of separation of powers.

The power to legislate on water is distributed in different entries in the Seventh Schedule of the Constitution of India. Entry 14 of List II (State List), relating to agriculture, inherently involves water issues. Similarly, Entry 18, addressing land improvement, implicates water-related concerns. Explicitly, Entry 17 of List II provides that ‘Water, including water supplies, irrigation and canals, drainage and embankments, water storage, and water power’, falls under the state jurisdiction, though expressly subject to Entry 56 of List I (Union List). This entry empowers the Centre to regulate and develop inter-state rivers and river valleys, provided such intervention is declared by Parliament as expedient in the public interest.

Table 2: water and legislative power

List	Legislative Authority	Water-related Entries
Union List (List I)	Exclusive legislative power of Parliament.	Entry 56—Regulation and development of inter-State rivers and river valleys to the extent to which

² Article 248—Residuary powers of legislation:

(1) Parliament has exclusive power to make any law with respect to any matter not enumerated in the Concurrent List or State List.

(2) Such power shall include the power of making any law imposing a tax not mentioned in either of those Lists.

³ Rather, the power to legislate is scattered in several places and not merely restricted to parts of the Constitution that deal with the distribution of legislative powers, and across several institutions (not merely the Central and State legislatures) in the text of the Constitution. See Part XI, Chapter I (Articles 245–55), Constitution of India. See Chapter 2 Water in India: Constitutional Perspectives in ‘Water and the Laws in India’ (SAGE Publications Inc) <<https://us.sagepub.com/en-us/nam/node/52814/print>> accessed 18 March 2025.

		such regulation and development under the control of the Union is declared by Parliament by law to be expedient in the public interest.
State List (List II)	Exclusive legislative power of State Legislatures.	Entry 14–Agriculture, including agricultural education and research, protection against pests and prevention of plant diseases. Entry 17–Water, that is to say, water supplies, irrigation and canals, drainage and embankments, water storage and water power subject to the provisions of entry 56 of List I. Entry 18–Land, that is to say, rights in or over land, land tenures including the relation of landlord and tenant, and the collection of rents; transfer and alienation of agricultural land; land improvement and agricultural loans; colonization.
Concurrent List (List III)	Shared legislative power of Parliament and States (with Parliament’s law prevailing in conflicts).	No explicit water-related entry.

The powers granted to states are not absolute. The Union holds exclusive jurisdiction in specific matters including shipping, navigation on national waterways, and the regulation of tidal and territorial waters. Article 262 explicitly provides for the adjudication of disputes related to inter-state rivers or river valleys, stating: ‘Any dispute or complaint with respect to the use, distribution or control of the waters of, in any inter-State River or river valley, the Parliament shall have the right to adjudicate the matter’. Further, Article 262(2) explicitly

empowers the Parliament to preclude the judicial interventions in inter-state river disputes adjudicated by specialised tribunals. Thus it provides that the Parliament is empowered to make law that excludes the Supreme Court or any other court from exercising jurisdiction in respect of inter-state river water disputes.

To understand the rationale behind this exclusion, one must examine Sections 130 to 134 of the Government of India Act, 1935, which influenced draft Articles 239 to 242 of the Constitution of India. Specifically, Section 133 of the Government of India Act, 1935 explicitly barred court jurisdiction in water disputes, while the remaining sections detailed the procedure for dispute resolution. Although initially incorporated into the draft Constitution as Articles 239 to 241, Article 242 retained the exclusion of judicial intervention. Consequently, Article 262(2) of the Constitution of India embodies this principle by expressly excluding the jurisdiction of the Supreme Court in the case of inter-state water disputes. It could be seen that the idea of relying on an exclusive specialised tribunal for resolution of inter-state river water disputes have a history longer than the Constitution of India. Probably, it was understood at an early stage itself the limitations of traditional courts and adjudicative mechanisms in peacefully settling inter-state water disputes which are, at a time, political, legal, emotional and cultural. Article 262 is not self-executable. It is an enabling provision that empowers the Parliament to enact a law that provides for the adjudication of such disputes, excluding all courts' jurisdiction, including that of the Supreme Court. Pursuant to this authority, the Parliament enacted the Inter-State River Water Disputes Act, 1956 (ISRWD Act), which under section 11 specifically prohibits the Supreme Court of India or any other court from exercising jurisdiction over disputes referred to tribunals established under the Act.⁴ This legislative framework suggests a clear exclusionary intent, positioning tribunals as the sole adjudicatory bodies. Nevertheless, States have relied on the Supreme Court's original and appellate jurisdiction to settle disputes or to obtain a definitive endorsement to a water-sharing formula designed by the Tribunal. It could also be the case that disputing states felt compelled to approach the Supreme Court of India ease the political pressure on them from their domestic constituencies.

While disputes between the constituent units of the Indian federation, that is between states or between a state and the Union government, fall within the original jurisdiction of the Supreme

⁴ Section 11 (ISRWD Act), Bar of jurisdiction of Supreme Court and other courts. —Notwithstanding anything contained in any other law, neither the Supreme Court nor any other Court shall have or exercise jurisdiction in respect of any water dispute which may be referred to a Tribunal under this Act.

Court of India under Article 131, inter-state water disputes remain outside its scope. The Supreme Court has extensive appellate jurisdiction, exercisable upon a certificate granted by the concerned High Court regarding any of its judgments, decrees, or final orders in civil or criminal cases involving substantial questions of law that require constitutional interpretation.⁵ However, the scope of this appellate jurisdiction is confined to decisions or orders from a High Court and to the certificate issued by it.

The mandate of Article 136 considerably amplifies the scope of the Court's appellate powers. Under Article 136, an aggrieved party can directly approach the Supreme Court of India seeking special leave to appeal against 'any judgment, decree, determination, sentence, or order in any cause or matter passed or made by any court or tribunal' throughout the country.⁶ Hence, the appellate jurisdiction under Article 136 is remarkably broad, applicable to orders or judgments from any court (not only High Courts) or tribunal. Nevertheless, this represents a discretionary power vested in the Supreme Court of India, and an aggrieved party cannot claim special leave to appeal under Article 136 as an inherent right. Thus, the Supreme Court of India may, at its discretion, decline to grant leave to appeal. Consequently, there is inherent uncertainty in the process, as the appeal is not automatic.

Additionally, the Supreme Court of India, being the final interpreter of the Constitution of India and laws, has also retained the right to determine the scope of the jurisdiction. An instructive instance of the exercise of this power is the engagement of the Supreme Court of India in the Cauvery Water Disputes Tribunal (CWDT). After the CWDT passed its final award in 2007, some of the States submitted references to the Tribunal under section 5 (3) of the ISRWD Act. Meanwhile, Kerala, Karnataka and Tamil Nadu filed special leave petitions before the Supreme Court of India under Article 136 challenging the Tribunal's award.⁷ Before the Supreme Court of India, the Union of India argued that these appeals were unmaintainable, primarily due to the restriction imposed by Article 262(2) and Section 11 of the ISRWD Act. However, the Supreme Court of India rejected this contention, clarifying that the bar on its jurisdiction applied only to taking cognizance of an original water dispute or complaint. It did not extend to an appeal under Article 136 against an order of a tribunal that had exercised original jurisdiction to adjudicate a water dispute. Once a water dispute has been adjudicated, it no longer falls within the scope of Article 262(1) or Section 11. Additionally, Section 6(2) of

⁵ Indian Constitution Article. 132, cl. 1; Article 133, cl. 1; or Article 134.

⁶ Indian Constitution Article. 136

⁷ *State of Karnataka v. State of Tamil Nadu*, (2017) 3 SCC 362.

the ISRWD Act states that once the Central Government publishes the decision of a Tribunal in the Official Gazette, it attains the same force as an order or decree of the Supreme Court of India. In the Cauvery dispute, the Central Government notified the award in 2013. Based on this statutory position, the Central Government contended that maintaining the appeal was impermissible, as the concept of an intra-court appeal is not recognized in Indian jurisprudence. However, this argument was rejected. The Supreme Court of India held that Section 6(2) could not be applied mechanically, as its primary objective was to confer the binding effect on the award of the Tribunal. The Parliament created this legal fiction for a specific purpose and there was no intention to exclude the Supreme Court's jurisdiction. The phrase "same force as an order or decree" in Section 6(2) cannot be interpreted to mean that an order of award of a Tribunal is as if the Supreme Court of India has adjudicated the matter. Instead, the intent behind such a language was to ensure that the award of a Tribunal award would be enforced as if it were a decree or order of the Supreme Court of India. In 2018, the Supreme Court of India reaffirmed this reasoning when it examined the merits of these appeals and endorsed the Cauvery Water Disputes Tribunal's final award, with certain modifications regarding water allocation.⁸

The practical implications of this judicial stance are profound. The Supreme Court of India has effectively reshaped the engagement rules relating to resolution of inter-state river water disputes. It has diluted the statutorily recognised right of reference, allowing parties to seek the Supreme Court India's special leave to appeal against the decisions of a Tribunal. Additionally, the Supreme Court of India appears to have rendered the constitutional mandate of Article 262(2) and Sections 11, 5(3), and 6(2) of the ISRWD Act redundant, thereby deviating from the original legislative intent. The admission of such matters in the Supreme Court of India, without classifying them as water disputes, introduces yet another layer of constitutional complexity. This shift has introduced significant uncertainty into the dispute resolution process, raising questions regarding constitutional fidelity, legislative intent, and jurisdictional coherence.

The Fundamental Right to Water

The recognition of the fundamental right to water in India has evolved primarily through judicial interpretation, significantly shaped by Article 21 of the Constitution of India, which guarantees the right to life and personal liberty. Initially articulated by the Supreme Court in

⁸ *The State of Karnataka v. State of Tamil Nadu*, MANU/SC/0126/2018.

the landmark case of *Subhash Kumar v. State of Bihar*,⁹ the fundamental right to water was affirmed as integral to the fundamental right to life, explicitly linking the enjoyment of pollution-free water to an adequate quality of life.

Further jurisprudential development occurred through the judgment in *Hamid Khan v. State of Madhya Pradesh*,¹⁰ wherein the High Court of Madhya Pradesh emphasised the duty of the State, derived from Article 47 of the Constitution of India, to ensure the provision of clean drinking water to safeguard public health. This judgment underscored the obligation of the State beyond mere passive non-interference, mandating proactive steps to provide safe water sources.

In subsequent rulings, notably *Vishala Kochi Kudivella Samarkshana Samithi v. State of Kerala*,¹¹ the judiciary explicitly characterised the provision of drinking water as a governmental priority and obligation, unequivocally stating that failure to supply safe and adequate drinking water constitutes a violation of the fundamental rights under Article 21 of the Constitution of India, thereby highlighting the absolute necessity of governmental action in ensuring water accessibility.

The High Court of Bombay's interim order in *Pani Haq Samiti v. Brihan Mumbai Municipal Corporation*¹² further expanded on the nuances of this right, affirming that the fundamental right to water extends even to occupants of unauthorised settlements. However, this right was contextually differentiated, permitting variations in water supply provisions based on the legal status of dwellings, thus indicating complexities and limitations in practical enforcement.

The Supreme Court of India's Centralising Approach

The Supreme Court of India has been active in establishing and empowering central institutions to address water management issues. In such cases, the judiciary has often prioritised broader environmental implications, bypassing an exhaustive constitutional analysis regarding explicit legislative jurisdictions.

In the case *In Re: Networking of Rivers v. The Nature of Mandamus*¹³, the petitioners contended that the interlinking of rivers across India was essential for the efficient and

⁹ *Subhash Kumar v. State of Bihar*, AIR 1991 SC 420 (Supreme Court of India, Judgment of 9 January 1991).

¹⁰ *Hamid Khan v. State of Madhya Pradesh*, AIR 1997 MP 191 (Madhya Pradesh High Court (Indore Bench), Judgment of 30 October 1996).

¹¹ *Vishala Kochi Kudivella Samarkshana Samithi v. State of Kerala*, 2006 (1) KLT 919 (High Court of Kerala, Judgment of 20 February 2006).

¹² *Pani Haq Samiti v. Brihan Mumbai Municipal Corporation*, Public Interest Litigation No. 10 of 2012 (High Court of Judicature at Bombay, Interim Order of 15 December 2014).

¹³ *In Re: Networking Of Rivers vs The Nature of Mandamus*, Writ Petition (CIVIL) NO. 512 OF 2002 with Writ Petition (CIVIL) NO. 668 OF 2002, Judgement Dated 27 February, 2012

equitable distribution of water resources and addressing the paradox of recurring floods in some regions and droughts in others. The petitioners based their claims on Article 262 of the Constitution of India, along with Entry 17 of List II and Entry 56 of List I of the Seventh Schedule, asserting that water management was a crucial national concern. Additionally, they argued that the preservation of water resources is a part of the fundamental rights to life and livelihood, enshrined in Article 21 of the Constitution of India and that the Central Government should take immediate and urgent steps to nationalise the rivers, so that equitable and proper distribution of water can be ensured for the betterment of the population. It is important to highlight that the Supreme Court of India, in its own words, observed that, “We have no hesitation in observing that the national interest must take precedence over the interest of the individual States. The State Governments are expected to view national problems with a greater objectivity, rationality and spirit of service to the nation and ill-founded objections may result in greater harm, not only to the neighbouring States but also to the nation at large”.

The Court in its judgement directed the Union Government to constitute a Committee to be called a ‘Special Committee for Inter-linking of Rivers’. The Court also laid down the composition of the committee; (a) Minister for Water Resources. (b) Secretary, Ministry for Water Resources. (c) Secretary, Ministry of Environment and Forests. (d) Chairman, Central Water Commission. (e) Member-Secretary, National Water Development Authority. (f) Four experts to be nominated, one each from the following Ministries/bodies: (i) One Expert from the Ministry of Water Resources (ii) One Expert from the Ministry of Finance (iii) One Expert from the Planning Commission (iv) One Expert from the Ministry of Environment & Forests (g) Minister for Water and/or Irrigation from each of the concurring States, with the Principal Secretary of the concerned Department of the same State. (h) The Chief Secretary or his nominee not below the rank of the Principal Secretary of the concerned Department in case of any other State involved directly or indirectly in the water linking river project. (i) Two social activists to be nominated by each of the concerned Ministries (j) Mr. Ranjit Kumar (Amicus Curiae).

The Court’s judgement directing the establishment of a Special Committee for inter-linking rivers led to debates on the basis of its implications for India’s water federalism. It arguably affects the established framework relating to the division of powers over water and practically centralizes its management.

In the case of *M.C. Mehta v. Union of India*,¹⁴ dealing with issue of groundwater, the Supreme Court of India directed the government to set up an authority at the Central level to deal with indiscriminate extraction of groundwater. In addition, several other related orders had been passed in the case.

Similar to the case aforementioned in this section, the striking feature of the nature of the order of the Supreme Court of India in intervening in ‘water’ matters has been its tendency to direct that Central-level institutions plan and coordinate matters relating to water. The question of whether the Central Government had explicit powers to deal with groundwater does not seem to have been examined in detail in this case. In an order dated 5 December 1996 in the same case of *M.C Mehta v. Union of India*, the court stated:

“Pursuant to this Court’s order dated November 21, 1996, Mr Arun Kumar, Additional Secretary, Ministry of Water Resources, Government of India, has filed an affidavit dated November 27, 1996. It is stated that because of the reasons given in the affidavit it would not be possible to have a workable mechanism by appointing authorities under Section 3(3) of the Environment (Protection) Act, 1986. We do not wish to comment on the stand taken in the affidavit. We are prima facie of the view that the Act being an Act made by Parliament under Entry 13 List I read with Article 253 of the Constitution of India, it has an overriding effect. It is not necessary for us to go into this question.”

On this basis, the Supreme Court of India concluded that the Central Ground Water Board constitutes an Authority under Section 3(2) of the Environment (Protection) Act, 1986. The primary role of this Board is to coordinate the work of water resources conservation and development. Notably, the Supreme Court of India refrained from addressing explicitly whether groundwater fell under state legislative jurisdiction, framing the matter instead within the broader context of environmental protection, thereby reinforcing central oversight under the Environment Protection Act, 1986.¹⁵

As discussed in this section, the Constitutional and statutory provisions related to inter-state water and the Supreme Court of India’s engagement with them and water governance as a

¹⁴ *M.C. Mehta v. Union of India* (1997) 11 SCC 312.

¹⁵ It must be remembered that starting from the 1970s, the Central Government had been drafting Model Groundwater Bills for the States to adopt without piloting a bill of their own. One reason for the Central Government’s reluctance in doing so may have been the question of whether they had the legislative competence to enact a law on groundwater at the Central level, given the distribution of entries in the Seventh Schedule. It must be noted that this reluctance however did not come in the way of the Coastal Regulation Zone. The Coastal Regulation Zone Notification, 1991 inter alia places a ban on the harvesting or withdrawal of groundwater within 200 meters of the High Tide Line.

whole facilitate ambiguity and complicate the question of ultimate adjudicatory authority, blurring the distinction between tribunal decisions and judicial oversight.¹⁶

Inter-state River Water Disputes Act, 1956

Inter-state River Water Disputes Act, 1956 (ISRWD Act) is the major legal framework in India pertaining to inter-state river basins. Several inter-state river water disputes have led to the establishment of specific tribunals to settle the disputes.

The ISRWD Act, under Section 2(c), explicitly defines a ‘water dispute’ as any disagreement or difference between two or more State Governments concerning:

- (i) the usage, allocation, or management of waters from inter-State rivers or river valleys; or
- (ii) interpretation or implementation of agreements governing the usage, distribution, or control of such inter-State water resources.

Adjudicatory Process under the ISRWD Act:

Initiation of Water Dispute (Section 3)

The process under the Act is initiated when a State Government perceives that a dispute has arisen or is likely to arise concerning the use, distribution, or control of inter-state river waters.

The following conditions may trigger such a dispute:

Executive action or legislation by another State affecting the interests of the complainant State.

Failure of another State or its authorities to exercise their powers concerning the river water.

Non-implementation of an existing agreement regarding the river water.

The aggrieved State Government may submit a formal request to the Central Government in a prescribed manner, seeking adjudication.

Examination by the Central Government (Section 4(1))

Upon receiving the complaint, the Central Government assesses whether the dispute can be resolved through negotiations. If negotiations fail within one year, the Central Government must constitute a Water Disputes Tribunal by publishing a notification in the Official Gazette.

Constitution of the Water Disputes Tribunal (Section 4(2) & 4(3))

The Tribunal is composed of:

A Chairman and two members, appointed by the Chief Justice of India from among judges of the Supreme Court of India or High Courts.

¹⁶ India's legislative and constitutional frameworks concerning inter-state water disputes embody considerable complexity, influenced significantly by historical legacies, institutional ambiguities, procedural inefficiencies, and evolving political dynamics. These complexities trace back to colonial legislative precedents established by the Government of India Acts of 1919 and 1935, which significantly shaped the governance structures established after independence.

Additional assessors may be appointed by the Central Government in consultation with the Tribunal to provide expert advice.

Reference of Dispute to the Tribunal (Section 5(1))

Once the Tribunal is constituted, the Central Government formally refers the dispute along with any connected matters for adjudication.

Investigation and Adjudication by the Tribunal (Section 5(2))

The Tribunal examines the evidence, conducts hearings, and deliberates on the matter. It is mandated to deliver its decision within three years, with a possible extension of two additional years in exceptional circumstances.

Review and Clarification of the Tribunal's Decision (Section 5(3))

If any party (Central Government or State Government) finds ambiguities in the Tribunal's decision or requires further guidance, they may request a review within three months of the decision. The Tribunal may take up to one additional year to provide clarification.

Finality and Binding Nature of the Tribunal's Decision (Section 6(1))

The decision of the Tribunal published in the Official Gazette is final and binding on all parties involved. The decision has the same legal force as an order or decree of the Supreme Court of India (Section 6(2)).

Implementation of Tribunal's Decision (Section 6A)

The Central Government may frame schemes for implementing the Tribunal's decision, which may include:

Establishing authorities for implementation.

Defining the composition, powers, and functions of such authorities.

Creating funds for execution and management of water-sharing mechanisms.

Powers of the Tribunal (Section 9)

The Tribunal has powers akin to those of a civil court under the Code of Civil Procedure, 1908.

These include:

Summoning and examining witnesses.

Requiring the production of documents.

Issuing commissions for witness examination.

Directing necessary surveys and investigations.

Jurisdictional Bar on the Supreme Court and Other Courts (Section 11)

No court, including the Supreme Court, has jurisdiction over matters referred to the Tribunal under this Act. This reinforces the exclusive authority of Tribunal in water dispute

adjudication.

Dissolution of the Tribunal (Section 12)

Once the Tribunal has delivered its final decision and there is no further necessity for reference, the Central Government dissolves the Tribunal.

Key Issues with The Inter-State Water Disputes Act, 1956

The IRWD Act was enacted to provide a legal mechanism for resolving conflicts between states regarding the use, distribution, and control of inter-state river waters. However, the Act has been subject to criticism for its procedural inefficiencies, jurisdictional ambiguities, and implementation challenges. The 2002 Amendment sought to address some of these concerns but introduced its own complexities.

A. Excessive Delays in Dispute Resolution

Time-Consuming Process:

Under *Section 4(1)*, the Central Government must first attempt to settle disputes through negotiations, which can be indefinite and cause prolonged delays.

Even after the Central Government determines that negotiations have failed, constituting a tribunal and adjudicating the matter takes years, if not decades.

Cases such as the Cauvery Water Dispute and the Krishna Water Dispute demonstrate the issues of prolonged litigation and delayed implementation of tribunal awards.

No Fixed timeline for Tribunal Formation:

Prior to its amendment in 2002, the original Act did not provide any timeline during which the Central government was obliged to set up a tribunal.

B. Weak Enforcement Mechanism

The Act grants tribunals the power to issue binding decisions (*Section 6*), yet states have frequently ignored tribunal rulings or delayed compliance.

Absence of penalties for non-compliance or delays leads to states refusing to follow the Tribunal's ruling, as seen in the Sutlej-Yamuna Link Canal dispute between Punjab and Haryana.

C. Jurisdictional Ambiguity and Judicial Intervention

Bar on Supreme Court's Jurisdiction:

Section 11 prohibits the Supreme Court of India from entertaining any suit or proceeding related to inter-state water disputes.

However, states and private entities have approached the Supreme Court of India for relief, leading to conflicting rulings.

The 2002 Amendment: Reforms and Persistent Issues

The Inter-State Water Disputes (Amendment) Act, 2002 was introduced to address some of these concerns, but it introduced new challenges.

A. Introduction of a Fixed Timeline for Tribunal Formation and Tribunal Awards

Section 4(1) (Amended) requires the Central Government to constitute a Tribunal within one year of receiving a state's complaint.

While this provision aimed to expedite the process, delays persist due to political reluctance in declaring disputes as non-negotiable.

Section 5 (Amended) requires the Tribunal to give its decisions within a period of three years (extendable by two years).

B. Tribunal Awards Given the Force of a Supreme Court Decree

Section 6(2) (Amended) mandates that Tribunal decisions, once published, carry the same force as a Supreme Court order or decree.

However, without a clear enforcement mechanism, states continue to delay implementation or seek repeated clarifications (*Section 5(3)*), leading to prolonged uncertainty.

Notably, the Act lacks an explicit definition for the term 'inter-state river'. This further contributes to the problem of jurisdictional ambiguity.

Lawyers who have had the experience of appearing before various inter-state river water disputes and other water experts have raised significant issues with the Inter-state water Disputes Act, 1956 and proposed different solutions. Thus, Fali S. Nariman critically highlights structural flaws, emphasizing that tribunals, initially conceived as innovative mechanisms for dispute resolution, have largely failed due to procedural loopholes and operational irregularities.¹⁷ Specifically, he identifies irregular sittings, infrequent hearings, procedural inconsistencies, and the lack of timely finality in tribunal decisions as major impediments undermining the tribunal's efficacy and credibility.¹⁸ Ramaswamy Iyer, a former Secretary with the Ministry of Water Resources, Government of India who was instrumental in developing the first national water policy of India, has opined that the structural flaws can be better addressed by giving original jurisdiction to the Supreme Court.¹⁹

¹⁷ Fali S. Nariman, 'Inter-state Water Disputes: A Nightmare' in Ramaswamy R. Iyer (ed), *Water and the Laws in India* (Sage: 2009), 32.

¹⁸ Fali S. Nariman, 'Inter-state Water Disputes: A Nightmare' in Ramaswamy R. Iyer (ed), *Water and the Laws in India* (Sage: 2009), 32.

¹⁹ Ramaswamy R. Iyer, 'Inter-State Water Disputes Act, 1956: Difficulties and Solutions' 37(28) *Economic and*

Harish Salve also emphasises operational shortcomings, highlighting delays in the constitution of tribunals, inconsistency in granting interim relief, and difficulties enforcing tribunal awards. He underscores that these inefficiencies often exacerbate inter-state tensions and undermine the confidence in the tribunal system. According to Salve, an important reason for delays is the absence of a structured, time-bound framework for tribunal proceedings under the original Act, necessitating later legislative amendments intended to address these lacunae. Salve, however, does not support the idea of entrusting the courts the tasks of resolving inter-state water disputes. He, instead, argues for further strengthening of the tribunal system.²⁰

Interstate River Water Dispute (Amendment) Bill, 2019

Recognizing the persistent challenges faced by the Inter-State Water Disputes Act, 1956, the Inter-State River Water Disputes (Amendment) Bill, 2019²¹ was introduced to bring about significant reforms to address procedural delays and enhance dispute resolution efficiency. The Inter-State River Water Disputes (Amendment) Bill, 2019, constitute an effort to strengthen the tribunal system in India vis-à-vis inter-state river water disputes.

The 2002 amendment mandates the establishment of a Water Disputes Tribunal within one year upon receipt of a complaint from a state government regarding water disputes. However, the Amendment Bill proposes a revised dispute resolution mechanism. Under the revised framework proposed by the Bill, the Central government, upon receiving a dispute request from a state, would constitute a Dispute Resolution Committee (DRC).²² This committee is meant to foster negotiation and amicable resolution. The Committee is expected to resolve the dispute through negotiation within a one-year period, extendable by an additional six months, subsequently submitting its findings to the Central government. In cases where the DRC fails to reach a resolution, the matter is escalated to the Tribunal established under the amended Act. This proposed mechanism envisages a party-centric and non-adjudicatory mechanism at the

Political Weekly 2907 (2002).

²⁰ Harish Salve, 'Inter-State River Water Disputes' in Sujit Choudhary, Madhav Khosla and Pratap Bhanu Mehta (eds), *Oxford Handbook of the Indian Constitution* (Oxford University Press, 2016), 502.

²¹ 'The Inter-State River Water Disputes (Amendment) Bill, 2019' (*PRS Legislative Research*) <<https://prsindia.org/billtrack/the-inter-state-river-water-disputes-amendment-bill-2019>> accessed 22 March 2025.

²² Section 4A (1) The Inter-State River Water Disputes (Amendment) Bill, 2019; Under Section 4A (2) of the Bill, The Disputes Resolution Committee shall consist of— (a) a Chairperson, who is or has been an officer of the Central Government of the rank of the Secretary to the Government of India or equivalent having experience in water sector, to be nominated by the Central Government; (b) such expert members, as may be considered necessary, who are persons of ability, integrity and standing and having special qualifications and professional experience of not less than fifteen years in water sector, agriculture or such other fields as the Central Government may consider necessary, to be nominated by the Central Government; and (c) one member, each to represent the States which are party to the dispute, to be nominated by the State Government concerned from officers of that Government not below the rank of Joint Secretary to the Government of India.

first instance to resolve the dispute. In other words, adjudication is envisaged as a last resort. The 2019 Bill proposes the creation of a single Inter-State Water Disputes Tribunal with multiple benches, replacing all existing Tribunals. In other words, the 2019 Bill seeks to replace the existing system of ad-hoc and dispute specific tribunal with a permanent tribunal system. Disputes currently pending before the existing Tribunals would accordingly transfer to this newly constituted Tribunal. This Tribunal will comprise of a Chairperson, a Vice-Chairperson, three judicial members, and three expert members. Additionally, the Central government may appoint assessors with relevant expertise to support Tribunal proceedings, provided they do not originate from any disputant State.

The Bill further introduces specific timelines to enhance the efficiency and promptness of dispute resolution. Under the existing Act, tribunals have three years, extendable by an additional two years, to deliver their decisions. The Amendment Bill retains the initial three-year period but permits only a single extension of up to two years. Furthermore, while the original Act (as amended in 2002) allowed indefinite extensions for the Tribunal's explanatory or clarifying decisions, the Amendment Bill restricts such extensions to a maximum period of six months.

The decision of a Tribunal under the original Act is required to be published by the Central government in the official gazette, granting it the same legal status as an order by the Supreme Court. The amended Bill maintains this provision and additionally mandates that the Central government must compulsorily frame schemes to implement the Tribunal's awards.

The Bill proposes modifications concerning the maintenance of a data bank on river basins. While the original Act required the Central government to maintain a national data bank, the Amendment Bill provides that the Central government will appoint or authorise a specialised agency to maintain and manage this data bank comprehensively. The Bill lapsed following dissolution of 17th Lok Sabha.²³

List of inter-state river water disputes and tribunals²⁴:

²³ Business Standard, 'Bill on Water Dispute Adjudication Lapses Following Dissolution of 17th LS' (14 June 2024) <https://www.business-standard.com/india-news/bill-on-water-dispute-adjudication-lapses-following-dissolution-of-17th-ls-124061400990_1.html> accessed 22 March 2025.

²⁴ 'Interstate River Water Disputes' <<https://pib.gov.in/newsite/PrintRelease.aspx?relid=106832>> accessed 18 March 2025; 'MAHANADI WATER DISPUTES TRIBUNAL | Department of Water Resources, River Development and Ganga Rejuvenation | India' <<https://jalshakti-dowr.gov.in/mahanadi-water-disputes-tribunal/>> accessed 18 March 2025.

Tribunal	States Concerned	Date of Constitution	Current Status
Godavari Water Disputes Tribunal	Maharashtra, Andhra Pradesh, Karnataka, Madhya Pradesh, Odisha	April 1969	Report and decision given in July 1980.
Krishna Water Disputes Tribunal – I	Maharashtra, Andhra Pradesh, Karnataka	April 1969	Report and decision given in May 1976.
Narmada Water Disputes Tribunal	Rajasthan, Madhya Pradesh, Gujarat, Maharashtra	October 1969	Report and decision given in December 1979. Narmada Control Authority (NCA) was constituted to implement the decision.
Ravi & Beas Water Tribunal	Punjab, Haryana, Rajasthan	April 1986	Report and decision given in April 1987. Further Report is pending.
Cauvery Water Disputes Tribunal	Kerala, Karnataka, Tamil Nadu, Puducherry	June 1990	Report and Decision given on 5 February 2007. Supreme Court modified the

			decision on 16 February 2018. The Cauvery Water Management Authority (CWMA) and Cauvery Water Regulation Committee (CWRC) were constituted to implement the modified decision.
Krishna Water Disputes Tribunal - II	Karnataka, Andhra Pradesh, Maharashtra, Telangana	April 2004	Report and decision given on 30 December 2010. SLPs filed pending in the Court. The term of the Tribunal has been extended after the bifurcation of Andhra Pradesh. The matter is under adjudication in the Tribunal.
Vansadhara Water Disputes Tribunal	Andhra Pradesh, Odisha	February 2010	Report and decision submitted on 13 September 2017. Further Report is Pending.

Mahadayi Water Disputes Tribunal	Goa, Karnataka, Maharashtra	November 2010	Report and decision submitted on 14 August 2018. Further Report is pending.
Mahanadi Water Disputes Tribunal	Chhattisgarh, Odisha	March 2018	Under adjudication by the Tribunal. Report and decisions are awaited.

River Boards Act, 1956

The River Boards Act, 1956 aims to facilitate the regulation and development of inter-state rivers and river valleys. It explicitly provides for establishing River Boards, designed primarily to assist the Central Government in managing various dimensions of inter-state river governance.

The composition of River Boards is governed by Section 5 of the Act which delineates that; The Board shall consist of a Chairman and such other members as the Central Government thinks fit to appoint.

A person shall not be qualified for appointment as a member unless, in the opinion of the Central Government, he has special knowledge and experience in irrigation, electrical engineering flood control, navigation, water conservation, soil conservation administration or finance.

Under the provisions of the Act, River Boards are to be established with the intention of offering advisory and functional support to the Central Government. Despite the declared objective of regulating inter-state river water sharing by the central authority in the public interest, the Act explicitly confines the role of these Boards to advisory functions.

Consequently, their ability to influence state-level actions remains significantly limited. In instances of disagreements among states over the recommendations of the Boards, the Act envisages judicial arbitration as a recourse to resolve disputes.

This restricted advisory scope, particularly in influencing state action, has arguably resulted in

the non-implementation of the River Boards Act since its inception. As a result, no River Board has been constituted under the Act, even though bodies performing similar functions exist outside this statutory framework. The Brahmaputra Board was constituted under the Brahmaputra Board Act, 1980, to oversee the planning and implementation of measures aimed at flood control and bank erosion management in the Brahmaputra Valley, along with related matters.²⁵ After discussions with the Governments of Madhya Pradesh, Bihar, and Uttar Pradesh, the Bansagar Control Board was established under the Bansagar Control Board Act, 1976, to facilitate the efficient, cost-effective, and timely implementation of the Bansagar Project in Madhya Pradesh, along with all related works.²⁶ The Betwa River Board was established under the Betwa River Board Act, 1976, to construct and regulate the Rajghat Dam and Reservoir on the Betwa River, a tributary of the Yamuna. The Board, a joint initiative of Madhya Pradesh and Uttar Pradesh, is set up for the creation and management of a reservoir at Rajghat, including its regulation and operation.²⁷

The exact reason behind the avoidance of the River Boards Act remains unexplored and inadequately documented in academic and policy literature. Apparently, states have shown reluctance or lack of enthusiasm toward establishing boards under this Act. Interestingly, states appear to accept obligations under alternative mechanisms that impose significant obligations through channels other than the River Boards Act, 1956.

The limited advisory function assigned to River Boards under the Act is particularly problematic given the absence of alternative institutional mechanisms for mediating or mitigating the negative impacts arising from inter-state river conflicts. According to Nariman, the original conception of the River Boards Act as an advisory framework failed to foresee changes in India's political landscape, particularly the rise of strong coalition politics in the 1990s, which resulted in more empowered states and a correspondingly less assertive central government.²⁸ Such historical shifts underscore the necessity for regular reassessment and periodic reviews of legislative frameworks to align their operational capacity with evolving political and administrative realities.

²⁵ 'Brahmaputra Board Act, 1980' <<http://indiacode.nic.in/handle/123456789/1810>> accessed 18 March 2025.

²⁶ 'Bansagar Control Board Act, 1976 (No. 8/17/74-DW-III). | FAOLEX' <<https://www.fao.org/faolex/results/details/en/c/LEX-FAOC184936/>> accessed 18 March 2025.

²⁷ 'BETWA RIVER BOARD | Department of Water Resources, River Development and Ganga Rejuvenation | India' <<https://jalshakti-dwr.gov.in/betwa-river-board/>> accessed 18 March 2025.

²⁸ Fali S. Nariman, 'Inter-State Water Disputes: A Nightmare!' in Ramaswamy R Iyer (ed), *Water and the Laws in India* (SAGE) <<https://us.sagepub.com/en-us/nam/node/52814/print>> accessed 18 March 2025.

The River Basin Management Bill, 2019

The River Basin Management Bill, 2019, was proposed by the Government of India with the aim of creating a structured approach to the management and development of inter-state rivers and river basins across the country. The Bill proposes the establishment of a centralised River Basin Authority responsible for the integrated management, sustainable development, and regulation of inter-state river basins.

Under the Bill, the governance structure of this Authority is two-tiered:

Governing Council: this top-level body includes Chief Ministers and Ministers in charge of Water Resources from each of the basin states, thereby representing the political interests of the states involved.

Executive Board: this operational body consists of a Chairman appointed by the Central Government, bureaucrats from the states involved, and subject-matter experts appointed centrally. This board is tasked with preparing and implementing comprehensive River Basin Master Plans.

Additionally, the Bill suggests creating an Advisory Council to provide guidance to the Governing Council, although the Council's recommendations are not binding.

The core function assigned to the River Basin Authority under the Bill is the preparation of a detailed River Basin Master Plan. This plan is expected to consider multiple aspects, including the needs of water resources for basin states, impacts of human activities, and ecological, social, and cultural requirements within the river basin.

The Governing Council is responsible for approving these Master Plans, overseeing their implementation, and providing clearance for new projects or schemes related to water management. The responsibilities of the Executive Board include developing specific schemes for irrigation, flood control, water supply, drainage, hydropower projects, and other related developments.

The Bill outlines essential management principles to guide river basin management: sustainable utilisation, integrated management, demand management, cooperative governance, and conjunctive use of surface and groundwater resources. These principles aim to achieve efficient and sustainable management of water resources.

The Bill aims to repeal the River Boards Act, 1956, which remained unused, and establish a more practical and contemporary legislative framework for river basin governance in India. The Bill appears to follow the progressive idea of regulating and managing inter-state rivers by taking river basins as a unit for the purpose of regulation and management.

The Dam Safety Act, 2021

The Dam Safety Act, 2021 is an important recent legislation with implications for regulation and management of inter-state rivers. It adds another layer of governance structure over the existing ones.

The Dam Safety Act, 2021 was enacted by the Parliament of India to ensure the safety of dams through surveillance, inspection, operation, and maintenance mechanisms. It seeks to prevent disasters arising from dam failures and establish robust institutional structures at both the Central and State government levels to maintain and enhance dam safety across India.

The Act defines a ‘specified dam’ as any dam constructed either before or after the adoption of the Act that is either above fifteen meters in height or between ten to fifteen meters but meeting specific criteria, such as substantial length, reservoir capacity, flood discharge capability, complex foundation conditions, or unusual design characteristics.

The Act outlines the establishment of multiple institutional entities to oversee dam safety: The National Committee on Dam Safety (NCDS), chaired by the Chairman of the Central Water Commission (CWC), formulates policies, guidelines, and standards to prevent dam-related disasters.

The National Dam Safety Authority (NDSA) implements the policies and guidelines developed by the NCDS. It monitors surveillance, inspection, and maintenance practices across dams.

The State Committees on Dam Safety (SCDS) are responsible for preventing dam failures at the state level, following standards set by the national authorities.

State Dam Safety Organizations (SDSO) conduct continuous surveillance, regular inspections, and maintenance oversight of dams within their jurisdictions, maintaining detailed records and classifications of dams according to their vulnerability.

The Dam Safety Act, 2021 establishes the formation of the NCDS and the NDSA to frame policies, recommend regulations for dam safety standards, and resolve disputes between the states. The provisions governing the establishment of NCDS underscore the Union

Government's exclusive decision-making authority. The power to constitute the committee, appoint all its members, reconstitute it every three years, control the dissemination of collected data and generated knowledge, and manage its financial expenditures, as well as designate representatives for specific dams, consolidates the Centre's dominance in a highly contested federal landscape in the context of centre–state relations in India.

Chapter 3 of the Act grants the Union Government authority to form the NDSA, including the power to establish the body, appoint its head, determine its headquarters in Delhi or elsewhere in India, and oversees its operational functions such as inspection, surveillance, and dam safety enforcement. The NDSA is also tasked with resolving disputes between the SDSOs and dam owners, as well as addressing conflicts between SDSOs of different States. Additionally, the Act mandates that all decisions of the NDSA shall be binding on the parties involved, effectively elevating it to the final authority in dam safety governance.

The Union Government is further empowered to appoint employees and officers at its discretion and retains exclusive control over the recruitment of technical experts in fields such as hydro-mechanical engineering, dam design, hydrology, instrumentation, geotechnical investigation, and dam rehabilitation, reinforcing its central dominance in a domain that directly impacts water resources controlled by states. This arrangement clearly tilts the balance of power in favour of the Union government, potentially marginalising the basin states' autonomy and interests in dam management and related water disputes. Consequently, this centralised governance model might provoke dissatisfaction and political discontent among basin states, intensifying the existing tensions between basin states and undermining the federal consensus, particularly in contentious river disputes such as those involving the Cauvery and Mullaperiyar rivers.²⁹

The Act assigns clear duties to dam owners, mandating them to allocate sufficient resources for dam maintenance, adhere to technical guidelines, prepare emergency action plans, and conduct regular inspections. Owners must provide detailed documentation to SDSOs and the NDSA, ensure sufficient and trained personnel are available, and establish dam safety units within their operation and maintenance setups.

Comprehensive dam safety evaluations are required at regular intervals, with special evaluations after major modifications, unusual conditions, or extreme events. Each evaluation involves reviewing existing data on design, construction, operation, and the dam's

²⁹ 'The Dam Safety Act, 2021 | Economic and Political Weekly' (24 February 2023) <<https://www.epw.in/journal/2023/8/commentary/dam-safety-act-2021.html>> accessed 18 March 2025.

hydrological and seismic safety.

The Act further stipulates the establishment of monitoring infrastructure, including hydro-meteorological and seismological stations near dams, to facilitate the collection of accurate data on dam performance and environmental conditions.

In terms of emergency management, dam owners must create and maintain emergency action plans, undertake regular risk assessments, and ensure an effective emergency flood warning system is in place.

Penalties for non-compliance include fines and imprisonment, particularly if obstruction or refusal to comply leads to significant public danger. Enforcement powers rest with the central and state authorities, with judicial processes clearly outlined for addressing offences under the Act.

The Dam Safety Act, 2021 represents a significant legislative advancement in India's approach to dam safety, aiming to unify practices, improve institutional capacity, and strengthen accountability for dam safety across the country. It is important to note that the Dam Safety Act, 2021, although primarily designed to ensure dam safety through structured surveillance, inspection, operation, and maintenance mechanisms, indirectly relates to inter-state river water disputes. Since many dams in India are constructed on inter-state rivers, their safety, operational standards, and maintenance procedures can influence downstream water availability and usage. By mandating uniform safety protocols and oversight through national and state-level institutions, the Act aims to minimise the risk of dam-related incidents, which could otherwise exacerbate existing tensions or lead to new disputes among states over water rights and management of inter-state rivers. Thus, although the Dam Safety Act does not directly engage with water-sharing issues or dispute adjudication, its effective implementation is integral to reducing potential triggers for inter-state conflicts concerning river water management.

The National Waterways Act, 2016

The National Waterways Act, 2016 was enacted by the Parliament of India to facilitate the development and regulation of inland waterways for shipping and navigation. The Act specifically aims to enhance the management of national waterways by declaring certain waterways as national waterways, thus enabling their centralised control and coordinated development.

Under this Act, the five existing national waterways, numbered from 1 to 5 in the Schedule of the Act, which were established by the following Acts, namely:— (a) the National Waterway (Allahabad-Haldia Stretch of the Ganga BhagirathiHooghly River) Act, 1982; (b) the National Waterway (Sadiya-Dhubri Stretch of Brahmaputra River) Act, 1988; (c) the National Waterway (Kollam-Kottapuram Stretch of West Coast Canal and Champakara and Udyogmandal Canals) Act, 1992; (d) the National Waterway (Talcher-Dhamra Stretch of Rivers, Geonkhali Charbatia Stretch of East Coast Canal, Charbatia-Dhamra Stretch of Matai River and Mahanadi Delta Rivers) Act, 2008; and (e) the National Waterway (Kakinada-Puducherry Stretch of Canals and the Kaluvelly Tank, Bhadrachalam-Rajahmundry Stretch of River Godavari and Wazirabad Vijayawada Stretch of River Krishna) Act, 2008, were repealed. The five existing national waterways are now governed under the National Waterways Act, 2016. Additionally, the Act declares 106 new inland waterways, numbered from 6 to 111, as national waterways, each with specific geographical demarcations outlined within its schedule. Under the Act, National Waterway 73 establishes the Narmada River as a national waterway for the purposes of shipping and navigation. The Inland Waterways Authority of India invited Expression of Interest for operationalization of NW-73 (River Narmada) in the State of Gujarat in March 2023 for domestic investment in riverine ports. However, no concrete proposal was received for any investment.³⁰

The Act emphasises that the control and development of these waterways by the Union is essential for public interest, especially for navigation and shipping purposes. It integrates these national waterways under the regulatory purview of the Inland Waterways Authority of India (IWAI) Act, 1985, by amending its definition of ‘national waterway’.

The Act repeals earlier enactments specific to individual national waterways, such as the Allahabad-Haldia Stretch Act (1982), the Sadiya-Dhubri Stretch Act (1988), and other similar legislation. However, it preserves actions and measures already undertaken under those repealed Acts, provided they align with the new framework.

The National Waterways Act, 2016 seeks to streamline regulatory processes, boost inland water transport efficiency, and facilitate consistent policy implementation across India's inland waterways network. It holds relevance for inter-state river water disputes, as it explicitly places the regulation and development of designated waterways under Union control. By centrally managing these waterways, particularly those crossing multiple state boundaries, the Act

³⁰ ‘DOMESTIC AND FOREIGN INVESTMENT FOR DEVELOPMENT OF WATERWAYS’
<https://pib.gov.in/pib.gov.in/Pressreleaseshare.aspx?PRID=2042030> accessed 18 March 2025.

inherently intersects with state jurisdictions over water usage and management. Such centralisation can lead to jurisdictional overlaps or conflicts, especially when states have existing or potential disputes regarding water allocation, infrastructure projects, or ecological impacts. Thus, while aiming to promote coordinated inland navigation and shipping, the Act indirectly influences the dynamics of inter-state water resource governance, potentially becoming a factor in the existing or future inter-state river water disputes.

Inland Waterways Authority of India Act, 1985

The Inland Waterways Authority of India Act, 1985 was enacted by the Parliament of India to establish an autonomous body known as the Inland Waterways Authority of India (IWAI). The primary objective of the IWAI is to develop and regulate inland waterways to ensure efficient and coordinated shipping and navigation within the country.

The IWAI functions as a corporate entity with powers to manage assets, enter contracts, undertake surveys, and execute infrastructure projects critical to waterway development. It has been mandated to promote safe navigation, manage waterway infrastructure, implement conservation measures, and coordinate inland water transport systems alongside other transport modes to achieve a cohesive transportation network.

Additionally, the IWAI formulates schemes to develop terminal infrastructure, maintain navigational routes, dredging channels for safe navigation, and regulate traffic management to avoid congestion. The Act empowers the IWAI to establish infrastructure such as terminals and warehouses, implement conservancy measures, and oversee construction and maintenance of necessary navigational aids.

Furthermore, the Act delineates the authority of the IWAI to collaborate with central and state governments, as well as private entities, for enhancing inland water transport infrastructure and related facilities. It explicitly allows the Central government to transfer responsibilities and assets related to inland water transport from other agencies to the IWAI. The IWAI is accountable to the central government, which retains oversight through powers including the ability to direct activities and require compulsory acquisition of land for developing waterways infrastructure.

Overall, the Inland Waterways Authority of India Act, 1985 provides a clear legislative foundation for systematically developing inland waterways infrastructure, promoting efficient navigation, and integrating inland water transport into India's broader transportation network. It, while primarily focused on the development and regulation of inland water transport, has an indirect relationship with management of inter-state rivers and resolution of inter-state river

water disputes. Since many inland waterways traverse multiple states, their regulation, maintenance, and usage often intersect with state-level jurisdiction over water resources. The Act centralises the management of designated waterways under the IWAI, which may lead to conflicts when states assert control over river segments for irrigation, hydroelectric projects, or other purposes. Additionally, disputes may arise over dredging, navigation rights, or infrastructure projects that impact water flow, environmental conditions, or state-level water-sharing agreements. While the Act does not directly address water-sharing conflicts, its implementation influences inter-state river governance by granting the Union government oversight over specific waterways, potentially becoming a factor in broader inter-state water disputes.

Pollution control laws

Pollution control laws constitute an important legal framework pertaining to inter-state rivers. There are mainly two statutes relevant in this context—Water (Prevention and Control of Pollution) Act, 1974 and the Environment (Protection) Act, 1986. These statutes along with the rules framed under them form the key statutory framework on water pollution in India. There are mainly two aspects covered under these statutes which are relevant to this report. First, Water (Prevention and Control of Pollution) Act, 1974 prohibits water pollution and empowers the pollution control boards to take actions against the polluters. This could go to the extent of even issuing a closure order against industries by the central government under the Environment (Protection) Act, 1986. Second, the Environment (Protection) Act, 1986 gives an umbrella power to the Central Government to establish new institutions and authorities. This has, in fact, happened in the case of establishment of the Central Ground Water Authority which may have legal and institutional implications for the management and regulation of inter-state rivers and river basins. For instance, considering the link between aquifers and rivers, management and regulation of groundwater will have significant implications for the regulation and management of river basins.

Land Acquisition and Rehabilitation and Resettlement Act, 2013

The Land Acquisition, Rehabilitation and Resettlement Act, 2013 (LARR Act) was enacted to establish a comprehensive legal framework governing land acquisition while ensuring fair compensation, rehabilitation, and resettlement for affected landowners and communities. It replaced the Land Acquisition Act, 1894, addressing historical concerns regarding arbitrary land acquisition and inadequate compensation as well as the absence of legal provisions for resettlement and rehabilitation.

The Act applies to cases where land is acquired by the government for public purposes, transferred to private entities for infrastructural projects, or acquired by private entities with government support for large-scale development initiatives. Public purposes under the Act include strategic defense and security projects, infrastructure projects such as highways and railways, urban development, and rehabilitation of affected communities.

A key feature of the Act is the mandatory Social Impact Assessment (SIA) before any land acquisition. The SIA evaluates the potential displacement, environmental effects, and socio-economic consequences of the acquisition. It requires extensive public consultations and must be completed within six months. However, in cases of urgency, such as national security or disaster relief, the government may bypass the SIA process.

The Act mandates compensation at four times the market value in rural areas and twice the market value in urban areas to ensure fair compensation for landowners. It also requires additional benefits such as employment opportunities, alternative land allotment, housing, and infrastructure development in resettled areas. The Act establishes a Land Acquisition, Rehabilitation, and Resettlement Authority to resolve disputes, with appeals directed to the High Court.

To prevent speculative land acquisition, the Act specifies that if acquired land remains unused for 10 years, it must be returned to a land bank or the original owners. Furthermore, if landowners sell the acquired land without development, 20 per cent of the resale profit must be shared with the original landholders.

The Act aims to balance economic development with social justice, ensuring that those displaced receive adequate compensation and rehabilitation while facilitating infrastructure and industrial growth across India.

The LARR Act has an indirect but significant relationship with inter-state river water disputes, primarily due to its provisions governing land acquisition for infrastructure projects, including dams, irrigation systems, and hydroelectric projects. Many inter-state water disputes arise from the construction of water-related infrastructure that affects water distribution across state boundaries. When such projects necessitate large-scale land acquisition, disputes can escalate due to disagreements over compensation, rehabilitation, and environmental impact. The Act mandates Social Impact Assessments (SIA), fair compensation, and resettlement provisions, ensuring that affected communities—including those displaced by dam and reservoir projects—receive adequate safeguards. Additionally, since inter-state river disputes often involve competing claims over riparian rights and equitable water sharing, land acquisition

under such projects can exacerbate tensions, particularly when one state perceives a disproportionate impact on its land and communities. By formalising rehabilitation and resettlement processes, the LARR Act attempts to mitigate some of these conflicts, though it does not directly address water-sharing disputes between states.

Inter-State Disputes

Sardar Sarovar Dam Controversy

The Sardar Sarovar Project (SSP) is an integral part of a vast hydro-development initiative under the Narmada Valley Development Project (NVDP) on the Narmada River, encompassing over 3,000 small, 135 medium, and 30 large dams.³¹ Located in Gujarat, the Sardar Sarovar Dam constitutes the largest structure within this initiative. The project serves multiple objectives, including irrigation, drinking water supply, and hydroelectric power generation (1,450 MW).³² However, the project has been at the center of intense debate since its inception due to its scale, interstate impact, substantial legal, environmental and socio-economic complexities. The SSP affects four states: Gujarat, Madhya Pradesh, Maharashtra, and Rajasthan. It is meant to create the second largest concrete gravity dam in the world and forms a reservoir that will submerge 34,996–37,000 hectares of land in three states: Gujarat, Maharashtra, and Madhya Pradesh, including 248 villages.³³ Madhya Pradesh will be disproportionately affected because of the loss of land, since 193 of the villages fall within its territory.³⁴ According to an independent report submitted to the World Bank, at least 100,000 people live in the area affected by submergence and a significant number of them are tribals.³⁵

The inter-state nature of the project led to the establishment of the Narmada Water Disputes Tribunal (NWDT) in 1969 to adjudicate disputes among Gujarat, Madhya Pradesh, Maharashtra, and Rajasthan regarding water allocation and institutional and financial

³¹ 'Ej Atlas' <<https://ejatlas.org/conflict/dams-on-the-narmada-river-india>> accessed 18 March 2025; 'Narmada the Soul of India' <<https://sanctuarynaturefoundation.org/article/narmada-the-soul-of-india>> accessed 18 March 2025; Stephen McGlinchey, 'Mega Dams and the Narmada River' (E-International Relations, 26 November 2023) <<https://www.e-ir.info/2023/11/26/mega-dams-and-the-narmada-river/>> accessed 18 March 2025; Narmada Valley Development Department, Government of Madhya Pradesh, Indirasagar (Narmada Sagar) Project, Status Report <<https://shekharsinghcollections.com/content/Dams/Narmada/Other/1995---Indira-Sagar---Narmada-Sagar-Project---Status-Report-.pdf>>

³² 'Sardar Sarovar Narmada Nigam Ltd.' <<https://ssnnl.gujarat.gov.in/>> accessed 18 March 2025.

³³ John R Wood, 'India's Narmada River Dams: Sardar Sarovar under Siege' (1993) 33 Asian Survey 968; 'Sardar Sarovar Dam: A Case Study of Development-Induced Environmental Displacement on JSTOR' <<https://www.jstor.org/stable/45411572?seq=1>> accessed 18 March 2025.

³⁴ John R Wood, 'India's Narmada River Dams: Sardar Sarovar under Siege' (1993) 33 Asian Survey 968.

³⁵ Bradford Morse & Thomas R. Berger, Sardar Sarovar - Report of the Independent Review (Ottawa: Resource Futures International, 1992), pp. xi-xxv and 349-58 <<http://www.ielrc.org/content/c9202.pdf>>

arrangements for programme execution among the four states. Internationally, the involvement of the World Bank in financing the SSP, followed by its unprecedented withdrawal due to concerns over displacement and environmental compliance, marked a turning point in global dam policies. The SSP encountered significant opposition, particularly from the *Narmada Bachao Andolan* (NBA), a social movement that drew attention to serious shortcomings in rehabilitation and resettlement processes. The Supreme Court of India's judgment in the year 2000 permitted dam construction up to 90 meters, with environmental clearances mandated for any further height increments. Despite this judicial oversight, displacement and rehabilitation issues persist, making the SSP a crucial reference point in discussions surrounding the legal, ethical, and social implications of major water resource projects in India.

The height of the dam has been revised more than once. In June 2014 the NCA approved the dam height increase from 121.92 metre to 138.68 metre.³⁶ In the same year, it was announced that three metal radial gates, rising to a height of about 17 metres, would be installed on top of the dam taking the dam's height to 138.68 metres, from the previous 121.92 metres.³⁷ In its 89th Emergency Meeting on 16 June 2017, the NCA approved the further elevation of the Sardar Sarovar Dam by lowering its gates and allowing water impoundment in the reservoir up to the Full Reservoir Level (FRL) of EL 138.68 meters.³⁸

Indira Sagar Dam Dispute

Indira Sagar Project is another important project on the Narmada River providing significant storage site. The dam is proposed on the main river near village Punasa in Khandwa District in Madhya Pradesh. Omkareshwar and Maheshwar projects are proposed in the downstream to utilise the regulated releases of Indira Sagar Project for irrigation and Power generation. Hence the cascade of Indira Sagar, Omkareshwar and Maheshwar projects, together, is known as 'Narmada Sagar Complex'.³⁹

³⁶ Anupam Chakravarty, 'Centre Clears Sardar Sarovar Dam Height Increase' (Down To Earth, 12 June 2014) <<https://www.downtoearth.org.in/environment/centre-clears-sardar-sarovar-dam-height-increase--44734>> accessed 18 March 2025; 'Academics, Activists Concerned over Height Increase of Narmada Dam' The Hindu (5 September 2014) <<https://www.thehindu.com/news/national/sardar-sarovar-academics-activists-concerned-over-height-increase/article6383805.ece>> accessed 18 March 2025.

³⁷ 'Height of Controversy' (Frontline, 3 September 2014) <<https://frontline.thehindu.com/the-nation/height-of-controversy/article6364780.ece>> accessed 18 March 2025.

³⁸ Narmada Control Authority—THIRTY NINTH ANNUAL REPORT 2018-19, 'NCA - Downloads' <<https://nca.gov.in/downloads.htm>> accessed 18 March 2025.

³⁹ Narmada Valley Development Department, Government of Madhya Pradesh, Indirasagar (Narmada Sagar) Project, Status Report <<https://shekharsinghcollections.com/content/Dams/Narmada/Other/1995---Indira-Sagar---Narmada-Sagar-Project---Status-Report-.pdf>>

The Indira Sagar Project (ISP) situated in Madhya Pradesh is the largest storage reservoir planned under the NVDP and plays a critical role in water regulation, irrigation, and hydroelectric power generation (1,000 MW).⁴⁰ The NWDT Award of 1979, settled the dispute relating to the height of the Sardar Sarovar Dam establishing the dam's height and outlining water-sharing arrangements among Madhya Pradesh, Gujarat, Maharashtra, and Rajasthan, with Gujarat contributing 17.63 per cent of the project's costs.⁴¹ Designed to support downstream releases to the Sardar Sarovar Dam in Gujarat, the project was initially commissioned in 1987 by the Narmada Valley Development Authority (NVDA) but was later transferred to the Narmada Hydro-Electric Development Corporation (NHDC), a joint venture between the National Hydro-Electric Power Corporation (NHPC) and the Madhya Pradesh government.

However, the project has been at the center of legal and social contentions, primarily due to displacement, rehabilitation failures, and water-sharing disputes among Gujarat, Maharashtra and Madhya Pradesh.⁴² The dam, with a planned installed capacity of 1000 MW, led to the submergence of 91,378 hectares, including forests, agricultural lands, and Harsud town, affecting nearly 30,739 families (approximately 1.75 lakh people), predominantly cultivators and tribals.⁴³ Despite provisions under the NWDT and state resettlement policies guaranteeing land-for-land compensation, affected communities allegedly faced delays in compensation, forced evictions, and the imposition of fraudulent land purchase agreements. In 2005, the Madhya Pradesh High Court intervened to halt the closure of spillway gates due to rehabilitation lapses. Subsequently, rulings by the Supreme Court of India permitted the construction. Beyond displacement, the ISP has been a subject of inter-state water conflicts, particularly regarding water allocation, hydropower sharing, and delays in canal networks, which have affected Madhya Pradesh's irrigation benefits.

⁴⁰ Narmada Valley Development Department, Government of Madhya Pradesh, Indirasagar (Narmada Sagar) Project, Status Report <<https://shekharsinghcollections.com/content/Dams/Narmada/Other/1995---Indira-Sagar---Narmada-Sagar-Project---Status-Report-.pdf>>

⁴¹ NWDT Award, Clause X; 'The Sardar Sarovar Dam Project: Selected Documents' (Routledge & CRC Press) <<https://www.routledge.com/The-Sardar-Sarovar-Dam-Project-Selected-Documents/Cullet/p/book/9781138379008>> accessed 18 March 2025.

⁴² 'Oustees of Indira Sagar Dam: Saga of Harsud on JSTOR' <<https://www.jstor.org/stable/4416005?seq=1>> accessed 18 March 2025.

⁴³ 'Displacement with State Subterfuge | Economic and Political Weekly' (26 November 2005) <<https://www.epw.in/journal/2005/48/special-articles/displacement-state-subterfuge.html>> accessed 18 March 2025.

In 2009, in the case titled *Narmada Bachao Andolan vs State of M.P. and Others*⁴⁴ a writ petition was filed under Article 226 of the Constitution of India as a public interest litigation claiming appropriate reliefs in respect of the work in connection with the canals of the Indira Sagar and Omkareshwar Projects on the Narmada river. The High Court restrained the State of Madhya Pradesh or any other statutory authority of further acquisition of land or for any excavation or any construction of the canal network for the command areas of the Indira Sagar and Omkareshwar projects till the Command Area Development plans submitted to the Government of India, Ministry of Environment and Forest are scrutinised by the committee of experts and clearance is granted by the said Ministry. The State Government was further directed to provide rehabilitation and resettlement benefits under the Rehabilitation and Resettlement Policy (hereinafter called R&R Policy) for Narmada Valley Projects to the canal affected persons/families of Indira Sagar and Omkareshwar projects and the Narmada Control Authority was directed to ensure implementation of the aforesaid directions.

Aggrieved by the decision of the High Court, the State of Madhya Pradesh filed an appeal in the Supreme Court of India challenging the judgement of the High Court. The Supreme Court of India, in the case titled *State of M.P. & Anr vs Medha Patkar & Ors*, issued an order dated 25 February 2010. The Court took note of the directions previously issued by the High Court of Madhya Pradesh and recognised that the Command Area Development Plans were already under consideration by the Expert Committee of the Ministry of Environment and Forests. It also acknowledged that substantial excavation, canal construction, and land acquisition had already been carried out over several years, all of which had been halted by the High Court. Accordingly, the Supreme Court passed the following order:

In the above circumstances, excavation or construction of the canal work and acquisition of land may go on for the time being, however, it would be subject to approval of the MoEF of the revised plans submitted on 16th October, 2009. The State would be at liberty to file further details regarding the Command Area Development Plans to the MoEF and if such details regarding the Command Area Development Plans are filed, the same may be referred to the Expert Committee for consideration. The Expert Committee to take a decision within a period of six weeks and as soon as the Report is available to MoEF, the MoEF to take decision within a further period of four weeks thereafter.

⁴⁴ *Narmada Bachao Andolan v. State of M.P. and Others*, Writ Petition (C) No.6056 of 2009, Judgement Dated November 11, 2009

Bargi Dam Dispute

The Bargi Dam, also known as the Rani Avantibai Sagar Irrigation Project, marked the first significant reservoir constructed on the Narmada River in Madhya Pradesh. The project meant to irrigate 4.37 lakh hectares of land and generate 105 megawatts of hydroelectric power. It resulted in the submergence of 26,797 hectares of land, displacing 5475 families, over a 1,00,000 people from 162 villages across Jabalpur, Mandla, and Seoni districts of Madhya Pradesh.⁴⁵ Of the 26,797 hectares of land submerged, 14,750 hectares were private ownership land, 8,478 hectares were forest land and 3,569 hectares were other government land. The displaced families include tribals (43 per cent), SC (12 per cent), OBC (38 per cent) and others (7 per cent).⁴⁶ The displacement process was marred by inadequate planning, with official records initially acknowledging only 70,000 affected individuals. Many resettlement sites were themselves submerged when the reservoir filled, forcing displaced families to occupy forest lands or migrate in search of livelihood. Moreover, the Narmada Valley Development Authority, which executed the project, said in a 1994 report that:

No specific resettlement and rehabilitation policy regarding the project affected people was existing when the [Bargi Dam] project was taken up for construction in 1971. There was, at that period of time, only provision for payment of compensation for land and property coming under submergence.⁴⁷

Compensation was meager, ranging between ₹500 and ₹9,940 per acre, making it impossible for most to purchase alternative agricultural land, thereby compelling many to take up wage labor or fishing. Subsequent protests by the displaced communities, including mass fishing demonstrations and election boycotts, led to commitments by the government for rehabilitation, but implementation remained inadequate.⁴⁸ The formation of cooperative fishing

⁴⁵ 'India: A Tale of Rehabilitation of People Displaced Due to Dam Construction | IWRM Action Hub' <<https://iwrmactionhub.org/case-study/india-tale-rehabilitation-people-displaced-due-dam-construction>> accessed 22 March 2025; Kumar Sambhav Shrivastava, 'Damned If You Do: As History Is Repeated on Narmada, Those Displaced in 1990 Serve as a Warning' (*Scroll.in*, 3 August 2017) <<https://scroll.in/article/845911/damned-if-you-do-as-history-repeats-itself-on-narmada-those-displaced-27-years-ago-issue-a-warning>> accessed 18 March 2025.

⁴⁶ Makarand Purohit, 'Damn the Dams, Say the Displaced' (India Water Portal, 30 August 2016) <<https://www.indiawaterportal.org/governance-and-policy/governance/damn-dams-say-displaced>> accessed 22 March 2025.

⁴⁷ Kumar Sambhav Shrivastava, 'Damned If You Do: As History Is Repeated on Narmada, Those Displaced in 1990 Serve as a Warning' (*Scroll.in*, 3 August 2017) <<https://scroll.in/article/845911/damned-if-you-do-as-history-repeats-itself-on-narmada-those-displaced-27-years-ago-issue-a-warning>> accessed 16 March 2025.

⁴⁸ Kumar Sambhav Shrivastava, 'Damned If You Do: As History Is Repeated on Narmada, Those Displaced in 1990 Serve as a Warning' (*Scroll.in*, 3 August 2017) <<https://scroll.in/article/845911/damned-if-you-do-as-history-repeats-itself-on-narmada-those-displaced-27-years-ago-issue-a-warning>> accessed 16 March 2025.

societies in 1994 provided temporary relief, granting displaced families exclusive fishing rights in the reservoir, but these were later revoked in 1998 following legal interventions by the Madhya Pradesh Fisheries Federation. Government efforts to allocate seasonal farming rights on land emerging from submergence were also discontinued, exacerbating economic hardship. Several model villages were established for rehabilitation, but lack of cultivable land and employment opportunities turned them into near-abandoned settlements. Even decades after displacement, many resettled villages, such as Kathotiya and Zero Tanki, continue to suffer from the absence of basic amenities, including roads, electricity, and drinking water, underscoring the persistent neglect of the displaced communities.

Water Allocation Disputes

Initially, the Narmada Water Disputes Tribunal (NWDT) addressed several preliminary issues over a period of two years. Madhya Pradesh filed a demurrer challenging the constitution and jurisdiction of the Tribunal. The Tribunal framed 24 issues, including Gujarat's right to build a high dam (FRL 530 ft) and a canal (FSL 300 ft). In 1972, the Tribunal confirmed its jurisdiction over disputes concerning the Narmada waters and concluded that Rajasthan, as a non-riparian state, had no entitlement to the river's water resources. This decision prompted appeals from Madhya Pradesh (MP) and Rajasthan to the Supreme Court of India, temporarily halting the proceedings of the Tribunal.

Subsequently, a political convergence occurred in 1972, with the Congress party assuming power across all the four involved states. This alignment facilitated an agreement among the Chief Ministers in July 1972 concerning water allocation, and prompted them to request the Prime Minister's intervention to reach an acceptable solution. The resulting 1974 agreement between the four states determined the total allocable water volume at 28 Million Acre Feet (MAF), allocating 0.25 MAF to Maharashtra and 0.5 MAF to Rajasthan. This figure, initially derived from limited historical observed data (1948–1962) and supplemented with hindcast data from 1915–1947, later proved controversial. Subsequent observations revealed a lower average annual flow, approximately 23 MAF, leading to ongoing concerns that conflicts could intensify once Madhya Pradesh fully utilises its entitlement, particularly if actual water availability is consistently lower than the initially estimated figure.

Following the 1974 accord, the NWDT resumed deliberations, culminating in its final decision in August 1978, formally gazetted in 1979 after further deliberations involving all concerned states. Notably, the Tribunal allocated 67 per cent of the available water (18.25 MAF) to

Madhya Pradesh and 33 per cent (9 MAF) to Gujarat. Additionally, it fixed the Full Reservoir Level (FRL) of the Sardar Sarovar Project (SSP) dam at 138.68 meters (455 ft). This height represented a reduction from the earlier Khosla Committee recommendations but was still greater than Madhya Pradesh's preferred height of 436 ft. Consequently, Madhya Pradesh advocated for lowering the height of the dam, arguing that doing so would reduce displacement by approximately 38,000 individuals and save around 25,000 acres of land from inundation. This concern prompted an agreement in 1996, involving the Prime Minister and Chief Ministers of the respective states, proposing initial operation of the dam at 436 ft for five years. However, this agreement was subsequently abandoned, prolonging the controversy surrounding the project's height and associated rehabilitation and resettlement issues.

Inter-state Water Agreements

Inter-state Agreement, 1963

In 1955, the Central Water and Power Commission conducted a comprehensive assessment of the hydroelectric potential of the Narmada basin. This investigation concluded with recommendations regarding the developmental prospects of the region. Initially, the Navagam site was proposed by the Commission for constructing a dam with a Full Reservoir Level (FRL) limited to 160 ft during its first stage, incorporating wider foundations to facilitate eventual expansion to 300 ft in the second phase. This later stage was also intended to accommodate a high-level canal.

However, the Government of Maharashtra suggested modifications, including raising the FRL from 300 ft to 320 ft. Subsequently, in 1960, the Ministry of Irrigation and Power appointed a panel of consultants which advised consolidating both stages into a single-stage construction, setting the dam's final FRL at 320 ft from the outset. Additionally, the consultants recognized potential to expand irrigation via the proposed high-level canal toward the Rann of Kutch.

The subsequent surveys by the Gujarat government in 1961 identified opportunities for further extending irrigation capacity by raising the dam's FRL to 425 ft, harnessing previously unutilised water downstream of the Punasa Dam, thus enabling irrigation of an additional area exceeding 20 lakh acres. Following further exploration, a narrower gorge was ultimately selected in November 1963 as the optimal location for the dam.⁴⁹

⁴⁹ 'The Sardar Sarovar Dam Project: Selected Documents' (*Routledge & CRC Press*)
<<https://www.routledge.com/The-Sardar-Sarovar-Dam-Project-Selected->

Subsequent interstate discussions led to a significant political accord, the Bhopal Agreement, finalised in November 1963 in a meeting convened between the Chief Ministers of Gujarat and Madhya Pradesh. Key elements of this Agreement are:⁵⁰

- a) The Navagam Dam should be built to FRL 425 ft by the Government of Gujarat and its entire benefits were to be enjoyed by the State of Gujarat.
- b) Punasa Dam (Madhya Pradesh) should be built to FRL 850 ft. The costs and benefits of the Punasa Power Project shall be shared in the ratio 1:2 between the Governments of Gujarat and Madhya Pradesh. Out of the power available to Madhya Pradesh half of the quantum was to be given to the State of Maharashtra for a period of 25 years for which the State of Maharashtra was to provide a loan to the extent of one-third the cost of Punasa Dam. The loan to be given by the State of Maharashtra was to be returned within a period of 25 years.
- c) Bargi Project was to be implemented by the State of Madhya Pradesh, Bargi Dam was to be built to FRL 1365 ft in Stage I and FRL 1390 ft in stage II, and the Government of Gujarat was to give total loan assistance of Rs 10 crores for the same

Following this Agreement, Gujarat developed a preliminary project proposal for the Navagam Dam at an FRL of 425 ft and submitted it to the Central Water and Power Commission. To address the subsequent interstate concerns and the unresolved disputes, the Government of India appointed the Khosla Committee on 5 September 1964, chaired by the then Governor of Orissa. The committee's terms of reference, formulated in consultation with the states of Madhya Pradesh, Maharashtra, and Gujarat, were:

- a) The drawing up of a master plan for the optimum and integrated development of the Narmada water resources;
- b) The phasing of its implementation for maximum development of the resources and other benefits;
- c) The examination, in particular of Navagam and alternative projects, if any, and determining the optimum reservoir level or levels;
- d) Making recommendations of any other ancillary matters.

[Documents/Cullet/p/book/9781138379008](#)> accessed 18 March 2025.

⁵⁰ 'The Sardar Sarovar Dam Project: Selected Documents' (Routledge & CRC Press)
<<https://www.routledge.com/The-Sardar-Sarovar-Dam-Project-Selected-Documents/Cullet/p/book/9781138379008>> accessed 18 March 2025.

The Khosla Committee submitted the unanimous report to the Government of India in September 1965 and recommended a master plan for the Narmada Water Development. However, the report could not be implemented on account of disagreement among the States. On 6 July 1968, the State of Gujarat made a complaint to Government of India under Section 3 of the Inter-State Water Disputes Act, 1956 stating that a water dispute had arisen between the State of Gujarat and the respondent States of Madhya Pradesh and Maharashtra over the use, distribution and control of the waters of the inter-state river Narmada.

The 1974 Agreement

The 1974 Agreement on the Narmada Water Dispute, signed by Madhya Pradesh, Maharashtra, Gujarat, and Rajasthan, established key principles for resolving the interstate dispute over the Narmada River waters. It recognised the urgency of development and set the available water in the Narmada at 28 million acre-feet (MAF) for planning purposes. It allocated specific quantities to Maharashtra (0.25 MAF) and Rajasthan (0.5 MAF), leaving a balance of 27.25 MAF for allocation between Madhya Pradesh and Gujarat by the Tribunal. The agreement directed the Tribunal to determine both the height of the Navagam Dam and the canal level, considering submissions from the parties involved. It also streamlined Tribunal proceedings by revising and removing certain previously framed issues. To implement this agreement effectively, Madhya Pradesh and Rajasthan agreed to withdraw pending proceedings in the Supreme Court of India, and Rajasthan was included in further Tribunal proceedings, with its non-riparian rights unaffected.

Table: Narmada Water Dispute, Agreement between Madhya Pradesh, Maharashtra, Gujarat and Rajasthan, 1974⁵¹

S. No.	Point of Agreement
1.	that the water dispute referred to the Narmada Water Disputes Tribunal be determined by the Tribunal on the basis of this agreement between the States of Madhya Pradesh, Maharashtra, Gujarat and Rajasthan (hereinafter referred to as ‘Madhya Pradesh’, ‘Maharashtra’, ‘Gujarat’ and ‘Rajasthan’ respectively);
2.	that development of Narmada should no longer be delayed in the best regional and

⁵¹ Narmada Water Dispute, Agreement between Madhya Pradesh, Maharashtra, Gujarat and Rajasthan, 12 July 1974. Signed by: Chief Minister of Madhya Pradesh, Chief Minister of Maharashtra, Adviser to the Governor for the State of Gujarat, Chief Minister of Rajasthan.

	national interests;
3.	that the quantity of water in Narmada available for 75 per cent of the years be assessed at 28 MAF and that the Tribunal in determining the disputes referred to it do proceed on the basis of that assessment;
4.	that the requirements of Maharashtra and Rajasthan for use in their territories are 0.25 and 0.5 MAF, respectively and that the Tribunal in determining the disputes referred to it do proceed on the basis that the requirements of Maharashtra for use in its territories are 0.25 MAF and that Rajasthan will get for use in its territories 0.5 MAF without prejudice to the level of the canal;
5.	that the net available quantity of water for use in Madhya Pradesh and Gujarat is 27.25 MAF and that the Tribunal in determining the disputes referred to it do proceed on the basis that the net available quantity of water for use in Madhya Pradesh and Gujarat is 27.25 MAF;
6.	that the Tribunal do allocate this balance of water namely, 27.25 MAF, between Madhya Pradesh and Gujarat after taking into consideration various contentions and submissions of the parties hereto;
7.	that the height of Navagam Dam be fixed by the Tribunal after taking into consideration various contentions and submissions of the parties hereto;
8.	that the level of the canal be fixed by the Tribunal after taking into consideration various contentions and submissions of the parties hereto;
9.	that in the light of this agreement, issue No. 4, 5, 7, 7(a), 7(c), 7(d), 7(e), 7(f), 8, 10, 11, 12 and 20 framed by the Tribunal on 28 January 1971 may be deleted and that issue No. 6, 7(b), 13 and 17 may be suitably modified as in the Annexure to this Agreement. All other issues may be determined by the Tribunal after taking into consideration the various contentions and submissions of the parties hereto;
10.	that for the limited purpose of effectuating the terms of this agreement Madhya Pradesh do withdraw the proceedings filed by it before the Hon'ble Supreme Court and arising out of the decision of the Tribunal dated 23 February 1972 on the preliminary issues of law;

11.	that for the limited purpose of effectuating the terms of this agreement, Rajasthan do withdraw the proceedings filed by it before the Hon'ble Supreme Court and arising out of the decision of the Tribunal dated 23 February 1972 on the preliminary issues of law; and
12.	that Rajasthan shall be a party to the further proceedings before the Tribunal, without prejudice to the legal position regarding the rights of a non-riparian State.

Committees and commissions

Narmada Control Authority (NCA)

Establishment

The Narmada Control Authority (NCA) was constituted pursuant to Section 6-A of the Inter-State Water Disputes Act, 1956, following the directives of the Narmada Water Disputes Tribunal (NWDT). The NWDT, in its report, provides for the setting up of a machinery for implementing its decisions and directions. Section 6A of the Inter-State Water Disputes Act, 1956 empowers the central government to 'frame a scheme or schemes whereby provision may be made for all matters necessary to give effect to the decision of a Tribunal'. Thus, the NCA was established through Notification S.O. 770(E) by the Ministry of Agriculture & Irrigation.

The NCA aims at the effective implementation and enforcement of NWDT's decisions regarding water allocation, power-sharing, and related infrastructural developments across Gujarat, Madhya Pradesh, Maharashtra, and Rajasthan. The decisions of the NCA are binding on the parties. In other words, the NCA was created with wide responsibilities, a robust mechanism for final resources and ample power to enhance the effectiveness of its decisions.

The NCA started functioning from 20 December 1980. It is a body corporate with representatives of the four States of Madhya Pradesh, Gujarat, Maharashtra, Rajasthan and representatives of Government of India. All the four states provide the fund to the NCA in equal proportions. Secretary (Water Resources), Government of India is the ex-officio Chairperson of the Authority, whereas the routine administration is the responsibility of the Executive Member of the Authority. The NCA presently has six subgroups. The Narmada

Control Authority has its headquarters in Indore.⁵²

Table: Powers, Functions, and Duties of the Narmada Control Authority⁵³

Category	Details
Structure and Composition	(1) The Narmada Control Authority shall be a body corporate having perpetual succession and a common seal and shall sue and be sued. (2)(a) The Authority shall consist of the following members namely: i) Secretary to the Government of India Ministry of Water Resources (Chairman) ii) Secretary to the Government of India, Ministry of Energy, Department of Power (Member) iii) Secretary to the Government of India, Ministry of Environment & Forests (Member) iv) Secretary to the Government of India, Ministry of Social Justice and Empowerment (Member) - iv(a) Secretary to the Government of India, Ministry of Tribal Affairs (Member) v) Chief Secretary to the Government of Gujarat (Member) vi) Chief Secretary to the Government of Madhya Pradesh (Member) vii) Chief Secretary to the Government of Maharashtra (Member) viii) Chief Secretary to the Government of Rajasthan (Member) ix) to xi) Three persons not below the rank of Chief Engineer to be appointed to by the Central Government as independent

⁵² 'Narmada Control Authority' <<https://nca.gov.in/>> accessed 19 March 2025.

⁵³ See Page 64 'The Sardar Sarovar Dam Project: Selected Documents' (Routledge & CRC Press) <<https://www.routledge.com/The-Sardar-Sarovar-Dam-Project-Selected-Documents/Cullet/p/book/9781138379008>> accessed 18 March 2025; Constitution of the Narmada Control Authority, Ministry of Irrigation Notification, 10 September 1980 < <https://www.ielrc.org/content/c0611.pdf>>

	members one of whom shall be designated as the executive member of the Authority (Member) xi(a) One person not below the rank of a Joint Secretary to the Government of India or an Additional Secretary in a State Government having experience in the fields of Environment & Rehabilitation of displaced persons, to be appointed by the Central Governments as independent member (Member) xii) to xv) Four persons of the rank of Engineer-in-Chief, Chief Engineer in charge of the Irrigation Department or the Power Department or the State Electricity Board, one each to be appointed by the State Governments of Gujarat, Madhya Pradesh, Maharashtra and Rajasthan (Member). (b) The executive member will be in-charge of the administrative work of the Authority under the general supervision and control of the Chairman. The Central Government, or as the case may be, the State Government shall have the power to remove or suspend any of the members appointed under clauses (ix) to (xv) if in its opinion he is not suitable to continue as a member. (c) [omitted] (d) The Secretaries to the Government of India or the Chief Secretaries to the State Governments when unable to attend the meetings of the Authority may send their representative not below the rank of Joint Secretary in the Government of India or as the case may be a Secretary in the State. (3) Each independent member shall be a full-time member and be appointed for a term not exceeding five years. The members appointed by the State Governments shall be part-time members. The appointing authority for independent member or that for part time member, as the case may be, shall determine the terms and conditions of appointment in each case.
--	---

	(4) On any vacancy occurring in the offices of the three independent members, the Central Government shall appoint a person to such vacant office and on any vacancy occurring in the office of the four members other than the independent members, the State Government by whom the member whose office falls vacant was appointed shall appoint a person to the vacant office. Provided that in case of illness or absence for any cause whatever of a member, the Central Government or State Government by whom he was appointed, as the case may be, may appoint a person as an acting member during such illness or absence and such acting member shall, while so acting, have all the powers and perform all the duties & be entitled to the indemnities of the member, in whose stead he so acts. (5) [omitted]
Secretary of the Authority	The Authority shall employ a secretary, who shall be an engineer. He shall not be a member of the Authority.
Quorum	The quorum to constitute a meeting of the Authority (other than routine business) shall be 8 members. Of these at least one member each from any 3 of the 4 participating States shall be present. No decision affecting a State's interest shall, however, be taken without the presence of at least one member of that State Government being present in the meeting. The quorum for transaction of routine business shall be five members. Every question, except a routine business, brought before any meeting of the Authority shall be decided by a majority of members present and voting at the meeting before which the matter is brought. The Authority shall not prescribe as routine any business in which decisions are to be taken on any matter affecting the interest of more than one State. In the absence of the chairman, the member elected at the meeting shall preside over the meeting. In the case of equality of votes the chairman or member presiding

	over the meeting shall have a second or casting vote. Save as aforesaid the members shall have equal powers.
Disposal of Business by the Authority	(1) Subject to the provisions of sub-paragraph (2), the Authority may dispose of any matter before it either by circulation or by holding a meeting. However, it will be open to any member of the Authority to require that a matter shall not be disposed of by circulation but at a meeting. (2) On the following matters, the Authority shall record its decision by a Resolution at a meeting in which the Chairman and all the members from the party States are present. i) Framing of Rules of Business; ii) Delegation of functions to a member or Secretary or any official of the Authority; iii) Categorising any part of the business of the Authority as of a formal or routine nature; iv) Any other matter which any of the four party states require that it shall be decided at a meeting where all the members from the party states are present; Provided that, if any particular item cannot be disposed of at two successive meetings owing to the absence of one or more members from the party States, it shall be disposed of as provided in paragraph 4. (3) Subject to the foregoing provisions, the Authority shall frame its own rules for the conduct of its business. (4) The Authority shall cause proper minutes or records of all its proceedings to be kept as permanent record. (5) Where the Secretary to the Government of India, Ministry of Environment & Forests, is of the opinion that any decision of the Authority is inconsistent with the needs of environmental

	protection, the matter shall be reserved for the decision of the Review Committee.
Indemnity of Members	No member, officer or employee of the Authority shall be liable for loss, injury or damages resulting from (a) action taken by such member, officer or employee in good faith and without malice under the apparent authority of the orders, even though such action is later determined to be unauthorised or (b) the negligent or wrongful act of omission of any other person, employed by the Authority and serving under such member, officer or employee unless such member, officer or employee failed to exercise due care in the appointment of such other person or the supervision of his work.
Officers and Servants of the Authority	The Authority may from time to time appoint or employ such and so many officers and employees as it thinks fit and remove or dismiss them, under the rules & regulations applicable to the appointment, removal and dismissal of the Central Government officers and employees. All such officers and employees shall be subject to the sole control of the Authority. The Authority may, with the previous approval of the Central Government, make regulations to regulate conditions of service of all such officers and employees in respect of residential accommodation, house rent allowance, travelling allowance, daily allowance, conveyance allowance and medical reimbursement. The scales of pay and other service conditions shall be as applicable to Central Government employees. Persons employed in the services of the four states may be appointed or employed by the Authority in such proportions as the Authority may deem fit. The Authority shall arrange with the state governments to spare the services of the persons employed in state governments for whole-time employment with the Authority, or for the performance of any work or services for the Authority. The Authority may also make direct recruitment of any personnel or obtain the same from the

	Centre or other source as considered appropriate.
Administrative and Field Organisation Costs	(1) All expenses of the Authority (including the salary and expenses of the independent members) shall be borne by the State Governments of Madhya Pradesh, Gujarat, Maharashtra and Rajasthan in equal shares. The expenses pertaining to a member representing a State shall be borne by the State concerned. The expenses pertaining to the members representing the Central Government shall be borne by the Government. The cost of maintaining, operating and controlling the gauging and other hydrological stations in each State and the communication system for communicating the data shall be borne by the State concerned. (2) The costs of construction of the storages, power installations, diversion works, headworks and canal networks shall be borne wholly by the State Government in whose territory the work is located except for works whose cost has been ordered by the Tribunal to be shared between two or more party States. Where the capital cost is thus shared, the operation and maintenance cost shall also be shared in the same proportion.
Powers, Functions, and Duties of the Authority	(1) The role of the Authority will mainly comprise of overall coordination and direction of the implementation of all the projects including the engineering works, the environmental protection measures and the rehabilitation programme and to ensure the faithful compliance of the terms and conditions stipulated by the Central Government at the time of clearance of the aforesaid projects. 2. The Authority shall be charged with the power and shall be under a duty to do any or all things necessary, sufficient and expedient for the implementation of the Order of the Tribunal with respect to: i) the storage, apportionment, regulation and control of the Narmada waters; ii) sharing of power benefits from Sardar Sarovar Project; iii) regulated releases by Madhya Pradesh;

	iv) acquisition by the concerned States for Sardar Sarovar project of lands and properties likely to be submerged under Sardar Sarovar; v) compensation and rehabilitation and settlement of oustees; and vi) sharing of costs. (2)(a) The Authority may constitute one or more sub-committees and assign to them such of its function and delegate such of its powers as it thinks fit. (3) In particular and without prejudice to the generality of the foregoing functions, the Authority shall perform inter alia, the following functions: i) Madhya Pradesh or Gujarat as the case may be shall submit to the Authority the Sardar Sarovar Project Report, the Narmada Sagar Project Report, the Omkareshwar Project Report and the Maheshwar Project Report. The Authority shall point out to the States concerned, the Central Water Commission, the Central Electricity Authority and Planning Commission any features of these projects which may conflict with the implementation of the orders of the Tribunal. Any subsequent changes in the salient features or substantial increase in cost in respect of dams, power houses and canal headworks shall be reported to the Authority for taking appropriate action in the matter. ii) The Authority shall decide the phasing and shall coordinate construction programmes of the Narmada Sagar Project and Sardar Sarovar Unit-II (canals) with a view to obtaining expeditiously optimum benefits during and after the completion of the construction of the projects having due regard to the availability of funds. iii) The Authority shall obtain from the concerned States periodical progress reports both as to works and expenditure and shall on receipt of such reports review the progress of construction of different units of the projects and whenever necessary advise the State concerned on the steps to be taken to
--	---

	expedite the work, except in respect of Unit-I (dam and appurtenant works) and Unit-III (power complex of Sardar Sarovar Project). The States shall submit completion reports to the Authority in respect of projects referred to in sub-paragraph (3) (i). iv) The Authority shall issue appropriate directions whenever necessary for timely and full compliance by the concerned States within the orders of the Tribunal in the matter of acquisition for and making available to Gujarat lands and properties likely to be submerged under the Sardar Sarovar Project and in the matter of compensation and rehabilitation of oustees thereunder. v) The Authority shall cause to be established, maintained and operated by the State Governments concerned or any one or more to them, such stream and other gauging stations, equipped with automatic recorders, where necessary, discharge, silt and evaporation observation stations and measuring devices as may be necessary from time to time for securing the records required for carrying out the provisions of the orders of the Tribunal. If deemed necessary, the Authority may require the installation, maintenance and operation by the State concerned of measuring devices of approved type at the head of main canals as also at the off take of the canal for Rajasthan for measuring the amount of water diverted from Narmada River system. vi) Concurrent records shall be kept of the flow of the Narmada at all stations considered necessary by the Authority and the records correlated. vii) The Authority shall frame rules of regulation and water accounting as per guidelines given in Clause IX of the order of the Tribunal. It shall determine the share of water of each State for every ten-day period for purposes of regulation and water accounting. viii) The Authority shall ensure implementation of the orders of the Tribunal in respect of (a) quantum and pattern of regulated
--	---

	releases by Madhya Pradesh; (b) Payment for such regulated releases and sharing of costs. ix) The Authority shall collect from the State concerned data for the areas irrigated by Narmada waters in each season, of power generated at each hydro-electric power station at and downstream of Narmada Sagar, of withdrawals for domestic, municipal and industrial or any other purposes and of waters going down the river from Sardar Sarovar Project. x) The Authority shall determine the volume of water flowing in the river Narmada and its tributaries in a water year (1 July of a year to the 30 June of the next year). xi) The Authority shall determine from time to time the volume of water stored by each State in reservoirs and other storages and may for that purpose adopt any device or method. xii) The Authority shall determine at appropriate periodic intervals the use of Narmada Water made by the states, or such of them as necessary, at any place or in any areas at any time and for that purpose it may take note of all diversions or obstructions, whether natural or artificial or partly natural and partly artificial from the river Narmada and its tributaries and measure such use by any method as it deems fit. xiii) The Authority or any of its duly authorised representative shall have power to enter upon any land and property upon which any project or development of any project, or any work of gauging, evaporation or other hydrological station or measuring device has been or is being constructed, operated or maintained by any state for the use of Narmada water. Each state through its appropriate departments shall render all cooperation and assistance to the Authority and its authorised representatives in this behalf. xiv) The Authority shall meet as often as necessary and decide on a proper management of waters including in particular the manner and details of withdrawals of waters from the storages on
--	--

	the Narmada River system in accordance with the orders of the Tribunal. In particular, the Authority shall meet at the end of the filling season, and review the availability of waters in the storages on the Narmada River system and decide upon the pattern of their regulation for the next irrigation season, taking into account the carry over storage. xv) The Authority shall give directions for a phased programme of construction for generation and transmission of power in fulfillment of the shares of power allocated to the three States of Madhya Pradesh, Maharashtra and Gujarat from Sardar Sarovar and for payments therefore in accordance with the orders of the Tribunal. The Authority shall also ensure that generation and transmission of power from Sardar Sarovar complex are in accordance with the orders. xvi) The Authority shall issue appropriate directions for establishment, and maintenance and operation of an effective system of flood forecasting and flood control including reporting of heavy precipitation and telecommunication systems. The safety of a structure shall primarily be the responsibility of the Chief Engineer in charge of the structure and no decision or order shall be binding on him if in his opinion the safety of the structure will be endangered thereby. The Authority shall publish annually and make available to party States the data regarding operation of reservoirs during floods. (4) In the light of its experience, the Authority may modify or add to the functions enumerated in sub-paragraph (3) (i) to sub-paragraph 3(xvi) by a resolution. (5) All the concerned States shall submit to the Authority all the relevant information called for by the Authority in connection with the Narmada Valley Development expeditiously.
Financial Provision	(1) All the capital and revenue expenditure required to be incurred by the Authority shall be borne by the state governments of Madhya Pradesh, Gujarat, Maharashtra and Rajasthan equally.

	The Governments of the said States shall provide the necessary funds to the Authority to meet all capital and revenue expenditure required to be incurred by the Authority for the discharge of its functions. For this a fund to be called ‘The Narmada Control Authority Fund’ shall be constituted to which the sums paid by the States and other sums received by the Authority shall be credited. (2) On the constitution of the Authority, the Governments of the States of Madhya Pradesh, Gujarat, Maharashtra and Rajasthan shall each contribute a sum of Rs 5,00,000 to the fund of the Authority in the first instance. (3) The Authority shall in the month of September of each year prepare a detailed estimate of the amounts of money required during the twelve months from the first day of April of the ensuing year, showing the manner in which it is proposed to spend such money. The Authority shall on or before the fifteenth of October forward a copy of such detailed estimate to the concerned Chief Secretaries of the four States and indicate the amount required to be contributed by each state for the ensuing financial year. Each of the state governments shall pay to the Authority its contribution as indicated by the Authority on or before the 30 days of April of the ensuing year. (4) The Authority shall maintain detailed and accurate accounts of all receipts and disbursements and shall after the close of each financial year, prepare an annual statement of accounts and send copies thereof to the Accountant General as well as the concerned Chief Secretaries of the four States. The form of the Annual Statements of Accounts shall be such as may be prescribed by rules framed by the Authority. The accounts maintained by the Authority shall be open for inspection at all reasonable times by the Central Government and the governments of the party states through their duly authorised representative or representatives. (5) Disbursement shall be made from the funds of the Authority
--	---

	only in such manner as may be prescribed by the Authority. The Authority may incur such expenditure as it may think fit to meet any emergency in the discharge of its functions. (6) The accounts maintained by the Authority shall be audited by the Comptroller and Auditor General of India or his nominee who shall certify subject to such observation as he may wish to make on the annual accounts of the Authority. The Authority shall forward to the Accountant General and the concerned Chief Secretaries of the four States copies of the Report of the Comptroller and Auditor General of India and shall include the same in its Annual Report.
Review Committee	(1) There shall be a Review Committee which may suo moto or on the application of any party State or Secretary to the Government of India, Ministry of Environment and Forests review any decision of the Authority. In urgent cases the Chairman of the Review Committee may on the application of the Government of any party State, or Secretary to the Government of India, Ministry of Environment and Forests grant stay of any order of the Authority pending final decision on review. (2) The Review Committee shall consist of six members including a Chairman as under: i) Union Minister in charge of Water Resources (Chairman) - i(a) Union Minister of Environment & Forests (Member) ii) Chief Minister of Madhya Pradesh (Member) iii) Chief Minister of Gujarat (Member) iv) Chief Minister of Maharashtra (Member) v) Chief Minister of Rajasthan (Member) The Secretary to the Government of India, Ministry of Water Resources shall be the convenor of the Review Committee but shall not have any voting right. In case there is a President's Rule in any of the four party States, the governor of the state or his authorised representative will act as member of the Review

	Committee. (3) The Chief Ministers of the party states may nominate their respective ministers in charge of irrigation either generally or specially as the alternate member with full powers of voting, taking decisions, etc. (4) The Review Committee may review the decision of the Authority at a meeting at which the Chairman and all the members of the Review Committee are present. The decisions of the Review Committee will be by consensus. In cases, where no consensus is possible, the decision shall be by majority of votes of members including the chairman. (5) Advance notice of the proposed meeting of the Review Committee, its agenda and agenda notes will be forwarded by the convenor to the governments of the party states. (6) The decision of the Review Committee shall be recorded in writing and shall be final and binding on all the States. 17. The Authority may with the previous approval of the Central Government, make regulations for giving effect to the purpose of the Scheme. Annex-III: Environment Sub-group – Composition and Functions (a) Composition [omitted] (b) Functions i) To work out the environmental safeguard measures to be planned and implemented for the entire Narmada basin so that environmental safeguard measures are executed and remain fully in consonance with the clearance accorded to the Narmada Sagar and Sardar Sarovar Projects. ii) To determine the terms of reference of required surveys and studies necessary for implementation of environmental safeguard measures inclusive of the database required, the methods by which the database is to be prepared and also to identify the institutions/individuals to undertake the preparation of such documents.
--	---

	iii) To get prepared for clearance by the Ministries and NCA the action plans with regard to all environmental safeguard measures and the assessment criteria thereof. iv) To devise a suitable monitoring and evaluation mechanism so that the action plans are effectively implemented in consonance with stipulations at the time of clearance of the projects. v) To assess the necessary organization with management capability being set up for adequate implementation of environmental safeguard measures. vi) To undertake all measures necessary to assist Narmada Control Authority in the planning and implementation of environmental safeguard measures. Annex-IV: Resettlement and Rehabilitation Sub-group – Composition and Functions (a) Composition [omitted] (b) Functions i) To monitor the progress of land acquisition in respect of submergence land of SSP. ii) To monitor the progress of implementation of the action plan of rehabilitation of project affected families (PAFs) in the affected villages of SSP in concerned States. iii) To review the R&R action plan from time to time in the light of results of the implementation. iv) To review the reports of the agencies entrusted by each of the States in respect of monitoring and evaluation of the progress in the matter of resettlement and rehabilitation. v) To monitor and review implementation of resettlement and rehabilitation programmes pari passu with the raising of the dam height, keeping in view the clearance granted to SSP from environmental angle by Government of India and Ministry of Environment and Forests. vi) To co-ordinate state/agencies involved in the R&R programmes of SSP.
--	--

	viii) To undertake any or all activities in the matter of resettlement and rehabilitation pertaining to SSP.
--	--

Narmada Review Committee

The Review Committee for the Narmada Control Authority (RCNCA) was established as a body to oversee. It was established under the directives of the Narmada Water Disputes Tribunal (NWDT). It is Chaired by the Union Minister, Ministry of Water Resources (now the Ministry of Jal Shakti). The RCNCA includes the Chief Ministers of Gujarat, Madhya Pradesh, Maharashtra, and Rajasthan, as well as the Union Ministers for Environment and Forests, Social Justice and Empowerment, and Tribal Affairs as its members. The Secretary of the Ministry of Water Resources serves as the convener for the RCNCA.

The primary role of the RCNCA is to evaluate and resolve any disputes that arise from the decisions made by the Narmada Control Authority (NCA). In cases where disagreements emerge, the RCNCA's resolutions are conclusive and obligatory for all the involved parties. Other key responsibilities of the RCNCA are reviewing decisions of the NCA, overseeing project implementation, and ensuring adherence to NWDT's provisions. The decisions reached by the RCNCA carry the highest authority, rendering them final and binding for all participating states and relevant parties.

RCNCA appears to be second layer of the local level, basin specific institutional mechanism. It probably helps in preventing the disagreements or disputes from escalating. The NCA together with the RCNCA constitute a robust mechanism to build trust among the basin states in the Narmada basin.

Narmada Valley Development Authority

The Narmada Valley Development Authority (NVDA) is an organization of Government of Madhya Pradesh constituted for planning water resources development in the Narmada basin and to ensure expeditious implementation of projects. The NVDA was created in 1985. It is responsible for implementing the Narmada Valley Development Project. It oversees and implements water resource development projects in the Narmada basin. Its organizational structure consists of a Chairman, a Vice Chairman, and departments for Engineering, Finance,

Power, Rehabilitation, Environment & Forest, along with a Secretary.⁵⁴

The authority functions under the framework of the Narmada Water Disputes Tribunal (NWDT) Award of 1979, which allocates water resources among Madhya Pradesh, Gujarat, Maharashtra, and Rajasthan. While NVDA has been instrumental in developing water infrastructure, it has also faced criticism for issues relating to displacement, environmental concerns, and delays in rehabilitation efforts affecting thousands of projects affected families, particularly in tribal and agrarian communities. Nevertheless, the NVDA continues to play a central role in Madhya Pradesh's water management and hydro-development policies.

The NVDA is currently overseeing several under-construction projects aimed at enhancing irrigation potential and hydroelectric power generation in the region. The Rani Awanti Bai Lodhi Sagar Project is expected to irrigate 1.57 lakh hectares, with 90 MW of power already generated from the River Bed Power House and 10 MW from the Left Bank Canal Head Power House. The Bargi Diversion Project aims to expand irrigation to 2.45 lakh hectares. The Indira Sagar Project has already completed its 1,000 MW River Bed Power House and 15 MW Canal Head Power House, while the Omkareshwar Project has achieved 520 MW of power generation, with an additional 4.5 MW from the Canal Head Power House still proposed. Other critical irrigation projects include the Upper Beda Project, Shaheed Bhima Nayak Sagar Project, Punasa Lift Project, Upper Narmada Project, and Halon Project, collectively adding 0.902 lakh hectares of irrigation potential. The Sardar Sarovar Inter-State Project contributes 57 per cent of the 826.5 MW power share. Additionally, the Maheshwar Hydro Power Project, being constructed by a private firm, will add 400 MW of hydroelectric capacity upon completion. In total, these projects represent 7.622 lakh hectares of irrigation potential and 2,461.5 MW of completed power generation, alongside 404.5 MW still under construction or proposed.⁵⁵

The NVDA is also planning several projects aimed at further enhancing irrigation capacity and hydroelectric power generation in the region. These include key projects like Raghawpur, Singarpur (Basaniya), Upper Budner, Atariya, Chinki, Sher-Machharewa-Shakkar Composite Project, Sitarewa, Dudhi, Morand-Ganjal Composite Project, and multiple minor and micro-hydel projects, which together are expected to irrigate 2,63,302 hectares. In addition to

⁵⁴ 'Organizational Structure | Narmada Valley Development Authority, Government of Madhya Pradesh' <<https://nvda.mp.gov.in/organizational-structure-0>> accessed 19 March 2025.

⁵⁵ 'Under Construction Major Projects | Narmada Valley Development Authority, Government of Madhya Pradesh' <<https://nvda.mp.gov.in/projects/under-construction-major-projects>> accessed 19 March 2025.

irrigation, these projects are to contribute 301 MW of hydroelectric power, with significant contributions from Rosara (25 MW), Sitarewa (15 MW), Gopalpur (25 MW), Hoshangabad (45 MW), Handia (55 MW), and Boras (60 MW). The NVDA continues to expand its efforts in optimizing water resource utilization and renewable energy production, ensuring sustainable development in the Narmada Basin.⁵⁶

The State of Madhya Pradesh through the Narmada Valley Development Authority's Proposal for Amending the Terms of Resettlement and Rehabilitation under NWDT (2001) proposed that following Sub-clause IV(7)(a) of Clause XI, proviso may be added in the NWDT Award below the Clause IV (7):

“Provided that the displaced family shall have the option of obtaining full compensation for settling down and purchasing land in a village of his choice by submitting an application to this effect in writing, to the concerned officer of the State of Madhya Pradesh or Maharashtra. An option once exercised shall be final and no claim for allotment of land can be made afterwards.”

Compliance with the NWDT Award has been a subject of intense debate over the years, particularly with the introduction of the so-called Special Rehabilitation Package. Beneath the veneer of the term "special," the Madhya Pradesh government has, since 2001, systematically undermined the land-for-land compensation principle enshrined in the NWDT Award. The Special Rehabilitation Package appears to be a last-resort measure by a government struggling to secure adequate land for resettling oustees while attempting to demonstrate at least nominal compliance with the Award's terms. As proposed since 2001, the state acknowledges that it is unable to find enough land to resettle all oustees and that compliance with the NWDT Award would considerably slow down the project. Consequently, it proposes to withdraw from the provision of land and give oustees money with which they can purchase land. The special rehabilitation package is in direct contravention to the NWDT Award directing land for land compensation and contradicts the 2000 Supreme Court judgment, which praised the NWDT Award for exceeding the limited compensation scheme under the Land Acquisition Act. Nevertheless, the Supreme Court has failed to challenge its validity in recent orders. As a result, the Government of MP has made wide-ranging use of the special rehabilitation

⁵⁶ ‘Proposed Major Projects | Narmada Valley Development Authority, Government of Madhya Pradesh’ <<https://nvda.mp.gov.in/projects/proposed-major-projects>> accessed 19 March 2025.

package.⁵⁷

Reports and Studies

Morse committee Report

Background and Mandate

The Morse Committee, officially titled the Independent Review Committee, was appointed by the World Bank in 1991 to critically evaluate the resettlement, rehabilitation, and environmental impacts of the Sardar Sarovar Project (SSP). Chaired by Bradford Morse and with Thomas R. Berger as Deputy Chairman, the Committee undertook extensive field investigations, interactions with governmental authorities, non-governmental organizations, and affected communities in India.

Key Findings

1) Resettlement and Rehabilitation

The Committee identified significant inadequacies in the assessment and implementation of resettlement and rehabilitation (R&R) measures:

- a) Both the World Bank and the Indian authorities failed to conduct thorough assessments of the human impacts associated with SSP, resulting in insufficient baseline data and inadequate consultations with affected populations.
- b) Lack of proper consultation with displaced populations has contributed significantly to project opposition.
- c) Essential Bank policies established in 1980 and 1982 regarding involuntary resettlement and tribal communities were inadequately applied, causing considerable hardship to displaced populations.
- d) Major disparities in resettlement policies across states (Gujarat, Madhya Pradesh, Maharashtra) created severe inconsistencies, especially regarding land entitlements for major sons and tribals categorized as encroachers.
- e) Maharashtra and Madhya Pradesh failed to comply adequately with the Bank's directives, leading to insufficient land allocations for tribal populations.

⁵⁷ According to NCA report given in 2006, out of the 4,262 oustees entitled to land compensation covered in that report, 3,834 oustees (or 90 per cent of this group) have opted for the special rehabilitation package and 428 oustees have been allotted government land. See Narmada Control Authority, Resettlement and Rehabilitation Sub-group, Minutes of the 63rd Meeting, Item No. LXIII-2 (345), 8 March 2006.

- f) Significant numbers of displaced individuals have not been sufficiently rehabilitated, and the scale of required resettlement severely strained the resources and capabilities of Gujarat.

2) Environmental Issues

The Committee highlighted multiple environmental concerns:

- a) Comprehensive environmental impact assessments were never adequately completed prior to the project's initiation.
- b) The Bank and Indian authorities overlooked essential environmental safeguards, particularly regarding downstream ecosystems and fisheries, upstream sedimentation and flooding risks, and public health impacts, notably malaria.
- c) No cohesive environmental work plan was available, resulting in piecemeal and inadequate mitigation measures.
- d) Cumulative impacts from associated upstream projects, especially Narmada Sagar, were largely ignored, potentially exacerbating environmental issues.

3) Institutional and Procedural Shortcomings

- a) The Morse Committee found a consistent disregard of established World Bank and national policies, reflecting a prioritization of engineering and economic imperatives over social and environmental concerns.
- b) The incremental strategy adopted by the Bank to enforce compliance proved ineffective, ultimately compromising the project's outcomes.

Recommendations and Conclusions

The Morse Committee concluded that the flaws in the Sardar Sarovar Project were fundamental and could not be rectified through incremental improvements. It advised:

- a) The World Bank to step back and thoroughly reconsider the project, ensuring comprehensive assessments and genuine consultations with affected populations.
- b) Immediate rectification measures were recommended for canal oustees and Kevadia villagers, alongside the adoption of a policy addressing downstream impacts and public health concerns.
- c) A halt on further construction was recommended until sufficient data and assessments were completed to facilitate informed decision-making.

- d) The Committee emphasized adherence to international human rights and environmental standards as essential for equitable and sustainable development, underscoring the necessity of integrating resettlement and environmental considerations comprehensively into project planning from inception.
- e) The report found that both the Indian government and the World Bank Group are responsible for the project's failures. At the request of the Indian government, the Bank Group cancelled the remaining undisbursed portion of the loan for SSP. The Indian government decided to complete construction work on its own on March 30, 1993.⁵⁸

Environmental Impact Assessment

Historical Background of Environmental Impact Assessment in India

The Environmental Impact Assessment (EIA) framework in India serves as a critical regulatory mechanism aimed at integrating environmental and social considerations into developmental decision-making processes. Till the 1960s, EIA process in India's project appraisals relied heavily on Cost-Benefit Analysis (CBA), a technocratic tool critiqued for overlooking significant environmental and social externalities, particularly impacting marginalized communities. Persistent public opposition to projects due to inadequate assessment of these externalities prompted the central government to adopt more inclusive environmental appraisal methodologies in the 1970s, notably formalised through the Central Water Commission guidelines of 1975 to conduct investigations regarding major irrigation and hydroelectric projects. These guidelines marked a transition toward recognising the ecological impacts of developmental initiatives, though their practical application remained limited. The EIA guidelines introduced in 1985 by the Ministry of Environment and Forests for River Valley Projects emphasised integrating environmental considerations into developmental planning to achieve sustainable economic growth. Essential measures included detailed field surveys, mitigative planning for potential ecological disruptions, and incorporation of ecological considerations during both planning and construction phases to prevent long-term environmental harm.⁵⁹

⁵⁸ 'Announcement of Indian Government Cancels World Bank Loan for Sardar Sarovar (Narmada) Project on March 30, 1993' (*World Bank*) <<https://documents.worldbank.org/en/publication/documents-reports/documentdetail/en/804881629297573622>> accessed 20 March 2025.

⁵⁹ Manju Menon and Kanchi Kohli, 'Environment Impact Assessment in India: Contestations Over Regulating Development' in Philippe Cullet and Sujith Koonan (eds), *Research Handbook on Law, Environment and the Global South* (Edward Elgar, 2019), 435.

The Environment (Protection) Act, 1986, subsequently institutionalised EIA procedures, culminating in the 1994 EIA Notification by the Union Ministry of Environment and Forests (MEF), Government of India, making Environmental Clearance (EC) mandatory for specific categories of projects.⁶⁰ The notification underwent significant revisions between 1994 and 2006. The 2006 EIA Notification⁶¹ set in place a revised system of environmental approvals, it includes four steps: Screening, Scoping, Public Consultation and Appraisal, significantly restructuring the regulatory landscape and introducing a decentralized clearance process, by setting up the State Environment Impact Assessment Authority. Despite these formal enhancements, the revised regulation encountered persistent implementation challenges, notably in terms of procedural compliance, assessment quality, expert impartiality, and public participation efficacy.

Sardar Sarovar Project

One of the critical procedural shortcomings in the initiation of the SSP is the notable absence of a rigorous and comprehensive Environmental Impact Assessment. The environmental arguments against the SSP can be summarised as:

First, no comprehensive Environmental Impact Assessment (EIA) was conducted for SSP, representing a profound lapse in regulatory compliance for a project of such magnitude. The absence of such an essential evaluation is alarming. It is also to be noted that a well-established mandatory EIA process was not in place when the SSP was conceived. The mandatory EIA system as part of environmental law in India came into being when SSP was being implemented.

Second, the conditional environmental clearance provided to SSP by the Ministry of Environment and Forests in 1987 has effectively lapsed due to persistent non-fulfillment of stipulated conditions by the Ministry of Environment and Forests. Continued construction, therefore, constitutes a violation of environmental laws.

The gravest ecological consequences were anticipated in Gujarat, where more than half of the designated irrigation area faces a significant risk of moderate to severe waterlogging and soil salinisation. The potential loss of approximately one million hectares of agricultural land due

⁶⁰ S.O.60(E)–The Environment Impact Assessment Notification 1994, Ministry of Environment & Forests, January 27, 1994

⁶¹ S.O. 1533(E)–The Environment Impact Assessment Notification 2006, Ministry of Environment & Forests, September 14, 2006

to these issues constitutes an environmental crisis of monumental proportions, likely negating the projected benefits of the project. Additionally, substantial negative environmental impacts are expected downstream and in areas beyond the immediate project impact zone, notably in forest regions designated for rehabilitation purposes.⁶²

Furthermore, critical studies examining various environmental impacts remain incomplete or uninitiated. Consequently, without comprehensive assessments and access to available research findings, the full extent and nature of SSP's ecological repercussions, as well as potential mitigation and preventive strategies, remain uncertain.

Lack of Comprehensive Environmental Impact Assessment (EIA)

Despite guidelines established as early as 1975 by India's Central Water Commission to conduct investigations regarding major irrigation and hydroelectric projects,⁶³ SSP was not subjected to such an EIA prior to clearance. Moreover, the study presented as an EIA in the early 1980s was only a preliminary statement of impacts.⁶⁴ These assessments inadequately considered essential environmental parameters, including downstream aquatic ecosystems, waterlogging potential, and microclimatic impacts. Even the preliminary EIA conducted by M.S. University in Vadodara,⁶⁵ widely referenced by project proponents, lacked comprehensive data and robust analysis, examining impacts solely within the Gujarat portion of the upstream and downstream areas and excluding seasonal variations or command area implications.

Conditional Environmental Clearance and Its Implications

In 1987, the Ministry of Environment and Forests (MoEF) issued a conditional environmental clearance for SSP.⁶⁶ It was stipulated that within a specified timeframe, various assessments and work plans had to be completed. The underlying implication was that failure to meet these requirements would result in revocation of clearance, effectively halting further construction. However, despite the well-documented and longstanding non-compliance, the clearance has

⁶² Ashish Kothari, 'Environmental Aspects of the Narmada Valley Project' (1989)

⁶³ Central Water Commission, Guidelines for Investigations of Major Irrigation and Hydroelectric Projects (Government of India 1975).

⁶⁴ Ashish Kothari, 'Environmental Aspects of the Narmada Valley Project' (1989)

⁶⁵ MSU. 1983. The Sardar Sarovar Narmada Project Studies on Ecology and Environment. Department of Botany, The M.S. University of Baroda, Baroda. Sponsored by Narmada Planning Group, Government of Gujarat.

⁶⁶ Government of India, Ministry of Environment and Forests, Office Memorandum (Environmental Clearance), 24 June 1987, No. 3-87/80-IA.

not been formally revoked, and construction has been allowed to proceed.

Ecological Impacts of SSP

The environmental consequences of SSP are multifaceted, spanning upstream and downstream ecosystems, the reservoir area, and the extensive command region.

Upstream Impacts:

Loss of Terrestrial Biodiversity: Approximately 13,743 hectares of forest land within the submergence zone harbor significant ecological diversity vital for sustaining local populations. Although officially labeled as "degraded," these forests support over 150 economically and culturally significant plant species and diverse faunal populations. Compensatory afforestation, primarily carried out in Kutch an ecologically different than Narmada valley, inadequately addresses this loss, resulting in a permanent ecological deficit.⁶⁷

Aquatic Biodiversity Disruption: The transformation of a flowing river ecosystem into a static reservoir environment potentially threatens aquatic species, notably the globally threatened Marsh crocodile. Current mitigation plans prioritize commercial fisheries, neglecting broader aquatic biodiversity considerations.⁶⁸

Reservoir Impacts:

Waterlogging and Disease Vectors: Formation of the reservoir potentially exacerbates waterlogging issues, particularly in Madhya Pradesh's Nimar plains, threatening soil quality and amplifying risks of vector-borne diseases like malaria. Current vector management strategies, reliant on pesticide usage, risk long-term ecological harm and health implications.⁶⁹

Downstream Impacts:

Riverine and Estuarine Degradation: Reduced flow downstream from SSP significantly threatens riverine ecosystems, fisheries like hilsa and freshwater prawn, and estuarine biodiversity. Decreased freshwater flow is argued to increase saltwater intrusion, impact agricultural practices through groundwater salinization, and intensifies pollution concentrations, undermining local economies and livelihoods.⁷⁰

⁶⁷ Ashish Kothari, 'Environmental Aspects of the Narmada Valley Project' (1989)

⁶⁸ Ashish Kothari, 'Environmental Aspects of the Narmada Valley Project' (1989)

⁶⁹ Ashish Kothari, 'Environmental Aspects of the Narmada Valley Project' (1989)

⁷⁰ Ashish Kothari, 'Environmental Aspects of the Narmada Valley Project' (1989)

Command Area Challenges:

Waterlogging and Salinization: The project's command area faces substantial risk from waterlogging and salinization, potentially impacting over half of the irrigated lands. Current technological and infrastructural interventions proposed by project authorities remain largely experimental, presenting uncertain outcomes amid socio-economic and managerial complexities.⁷¹

Landmark Judgements

Narmada Water Disputes Tribunal Award (NWDT)

Background

The Narmada Water Disputes Tribunal was established under the Inter-State Water Disputes Act, 1956, to resolve water-sharing disputes among the Indian states of Madhya Pradesh, Gujarat, Maharashtra, and Rajasthan. After extensive deliberations and expert consultations, the Tribunal issued its final order in 1979.⁷²

Determination of Utilisable Quantum

The Tribunal set the utilisable quantum of water from the Narmada River at the Sardar Sarovar Dam site at 28 million acre-feet (MAF), assessed with a 75 per cent dependability rate.

Allocation of Water Resources

The Tribunal apportioned the available Narmada waters as follows:

- Madhya Pradesh: 18.25 MAF
- Gujarat: 9 MAF
- Rajasthan: 0.5 MAF
- Maharashtra: 0.25 MAF

The Tribunal clarified that these allocations pertained to actual withdrawals, allowing states autonomy within their allocated quotas to adjust water usage and beneficiary areas as necessary.

⁷¹ Ashish Kothari, 'Environmental Aspects of the Narmada Valley Project' (1989)

⁷² Narmada Water Disputes Tribunal, Final Order and Decision of the Tribunal, 12 December 1979, 'NWDT Award | Narmada Valley Development Authority, Government of Madhya Pradesh' <<https://nvda.mp.gov.in/nwdt-award>> accessed 22 March 2025.

Excess and Shortfall Management

The Tribunal addressed scenarios of surplus and deficit water availability. Any surplus water exceeding the allocated utilisable flow of 28 Million Acre Feet (MAF) or 34,537.44 million cubic meters (M.cu.m.) in a given water year, spanning from 1 July to 30 June of the following calendar year, is distributed among the states in specified proportions: 73 per cent to Madhya Pradesh, 36 per cent to Gujarat, 1 per cent to Maharashtra, and 2 per cent to Rajasthan. Similarly, any shortfall in the utilisable water during the same period will also be allocated among these states according to the same ratios. The Tribunal also mandated Gujarat to inform designated representatives of all the concerned States and the Narmada Control Authority during periods when excess water flows downstream unused.

Duration and Review

These allocations were set to remain in effect for at least 45 years from the publication date of the Tribunal's decision, subject to subsequent review.

Infrastructure Specifications

The Tribunal ordered specific infrastructure parameters, notably:

- a) The Full Supply Level (FSL) for the Navagam Canal was fixed at 91.44 meters (300 ft).
- b) The Full Reservoir Level (FRL) for the Sardar Sarovar Dam was determined at 138.68 meters (455 ft), with a Maximum Water Level at 140.21 meters (460 ft).

Cost and Benefit Sharing

The Tribunal determined that the net power produced at the Navagam canal head and riverbed powerhouses would be allocated among Madhya Pradesh, Maharashtra, and Gujarat in proportions of 57 per cent, 27 per cent, and 16 per cent, respectively. Capital costs for the Navagam power complex include complete electrical and control works, transmission lines in Gujarat, and 56.1 per cent of shared infrastructure costs such as the dam and associated facilities. The states are required to provide their respective funding shares annually to ensure the Sardar Sarovar Dam's completion within ten years from the publication date of the Tribunal's final order. Madhya Pradesh and Maharashtra must reimburse Gujarat annually for their share of both the capital and operational costs of the power facilities based on initial budget estimates, subject to year-end adjustments against actual expenses. Furthermore, states may modify these financial and power-sharing arrangements by mutual consent. Transmission

lines within Gujarat to supply power to the border of Madhya Pradesh and Maharashtra will be built and maintained by Gujarat, while lines beyond this border will be the responsibility of the respective states. Gujarat will oversee the construction, maintenance, and operation of the powerhouses and related infrastructure, subject to the directives of the Narmada Control Authority on water usage. Operational schemes, including power distribution schedules among states, must be finalised at least one week before each month starts and remain unchanged during the month unless otherwise agreed or emergencies arise. Upon integration with regional or national power grids, the Narmada Control Authority will ensure states receive their designated power and energy shares.

Rehabilitation and Resettlement

Clear directions were provided for the compulsory acquisition of lands submerged due to the project. Gujarat was assigned the responsibility for bearing all costs related to compensation, land acquisition, and rehabilitation of displaced families, including providing necessary civic amenities.

Narmada Control Authority

The Narmada Control Authority (NCA) was established to oversee compliance with the orders of the Tribunal. It comprises of representatives from involved states and independent central government-appointed members. The NCA is charged with coordinating water allocation, supervising project implementation, and managing inter-state issues.

Financial Provisions

All administrative and operational expenses incurred by the NCA are shared equally among Madhya Pradesh, Gujarat, Maharashtra, and Rajasthan.

Dispute Resolution

The Tribunal provided for arbitration procedures to resolve conflicts between states regarding compensation, land acquisition, and rehabilitation terms. Additionally, a Review Committee consisting of the Union Minister for Irrigation and the Chief Ministers of the four states was instituted to handle significant disputes or disagreements. This structured allocation framework, established by the Narmada Water Disputes Tribunal, aimed to facilitate harmonious inter-state cooperation, effective resource management, and equitable development benefits from the Narmada River.

Narmada Bachao Andolan vs Union of India, 2000

The case of *Narmada Bachao Andolan etc. v. Union of India and Ors.* represents a pivotal legal and social discourse surrounding the SSP. While development projects typically seek to promote public welfare, the SSP notably sparked significant controversy due to the environmental and humanitarian challenges linked to displacement and rehabilitation.

Background and Humanitarian Concerns

The Sardar Sarovar Project was initially embraced by the governments of the beneficiary states—Rajasthan, Gujarat, Maharashtra, and Madhya Pradesh—for its extensive benefits such as improved access to drinking water, irrigation, and power generation. Nevertheless, the large-scale displacement, predominantly affecting marginalised groups like Dalits and Adivasis, became the epicenter of controversy. The *Narmada Bachao Andolan*, a social movement emerged first to oppose the SSP and subsequently focused a lot on the issues of resettlement and rehabilitation of the project affected people, highlighted severe shortcomings in government efforts concerning rehabilitation and compensation, emphasising the need for livelihoods rather than mere monetary payments.

The agitation of the displaced communities reached national prominence when activists took their protest to New Delhi, aiming to attract broader media attention. Critics also raised concerns that the dam would disproportionately benefit industrial interests over marginalized agrarian communities.

Judicial Intervention and Fundamental Issues

In response to ongoing disputes, the Government of India constituted the Narmada Water Disputes Tribunal under Section 4 of the Inter-State Water Disputes Act, 1956. The tribunal's award of 12 December 1979 mandated that no submergence could occur until displaced persons were adequately rehabilitated.⁷³ It also established the Narmada Control Authority (NCA) to ensure adherence to its directives. Affected individuals, facing displacement without adequate rehabilitation measures, approached the Supreme Court, seeking intervention against

⁷³ Clause XI, Narmada Water Disputes Tribunal, Final Order and Decision of the Tribunal, 12 December 1979, 'NWDT Award | Narmada Valley Development Authority, Government of Madhya Pradesh' <<https://nvda.mp.gov.in/nwdt-award>> accessed 22 March 2025.

state authorities for not complying with the R&R measures laid down in the NWDT Award.

Supreme Court Judgment

In 1994, a writ petition was filed in the Supreme Court.⁷⁴ In 1995, the Supreme Court ordered that for the time being the effective height of the dam would be maintained at 80.30 meters.⁷⁵ It is this petition of 1994 which gave rise to the judgment of 18 October 2000, a judgement that brought finality to several controversies relating to the SSP.⁷⁶ The *Narmada Bachao Andolan* petition argued that the assumptions underlying the 1979 NWDT Award had significantly changed, particularly in relation to rehabilitation and environmental costs. The petitioners contended that the scale of displacement and environmental damage had been grossly underestimated, making it impossible to implement the project as per the NWDT Award without violating human rights and environmental protections. The petitioners invoked Article 21 of the Constitution of India, arguing that forced displacement without proper rehabilitation violated the fundamental right to life, including the right to livelihood and dignity. They also contended that no submergence should be permitted unless proper resettlement measures were completed, as mandated by the land-for-land rehabilitation policy in the NWDT Award.

In its judgment dated 18 October 2000, the Supreme Court of India was of the opinion that:

- 1) Displacement itself does not constitute a violation of fundamental rights, provided adequate rehabilitation occurs.
- 2) Proper rehabilitation would significantly enhance the living standards of displaced individuals.
- 3) Resettlement sites offer better amenities compared to original settlements.
- 4) Assimilation into mainstream society through rehabilitation would foster overall societal progress.

The Court observed the liberalisation of state resettlement policies, noting increased benefits beyond tribunal awards. However, it critically assessed Madhya Pradesh's inadequate implementation of rehabilitation measures, emphasising the state's obligation to actively ensure

⁷⁴ *Narmada Bachao Andolan v. Union of India and Others*, Writ Petition (Civil) No. 319 of 1994, Written Submissions on Behalf of the Petitioners, January 1999

⁷⁵ *Narmada Bachao Andolan v. Union of India & Others*, Writ Petition No. 319 of 1994, Order of 5 May 1995

⁷⁶ *Narmada Bachao Andolan v. Union of India and Others*, Judgement dated 18 October, 2000

proper resettlement.

Table: Directions of the Supreme Court⁷⁷

S. No.	Directions
1.	Construction of the dam will continue as per the Award of the Tribunal.
2.	As the Relief and Rehabilitation Sub-group has cleared the construction up to 90 meters, the same can be undertaken immediately. Further raising of the height will be only <i>pari passu</i> with the implementation of the relief and rehabilitation and on the clearance by the Relief and Rehabilitation Sub-group. The Relief and Rehabilitation Sub-Group will give clearance of further construction after consulting the three Grievances Redressal Authorities.
3.	The Environment Sub-group under the Secretary, Ministry of Environment & Forests, Government of India will consider and give, at each stage of the construction of the dam, environmental clearance before further construction beyond 90 meters can be undertaken.
4.	The permission to raise the dam height beyond 90 meters will be given by the Narmada Control Authority, from time to time, after it obtains the above-mentioned clearances from the Relief and Rehabilitation Sub-group and the Environment Sub-group.
5.	The reports of the Grievances Redressal Authorities, and of Madhya Pradesh in particular, shows that there is a considerable slackness in the work of identification of land, acquisition of suitable land and the consequent steps necessary to be taken to rehabilitate the project oustees. We direct the States of Madhya Pradesh, Maharashtra and Gujarat to implement the Award and give relief and rehabilitation to the oustees in terms of the packages offered by them and these States shall

⁷⁷ *Narmada Bachao Andolan v. Union of India and Others*, Judgement dated 18 October 2000.

	comply with any direction in this regard which is given either by the NCA or the Review Committee or the Grievances Redressal Authorities.
6.	Even though there has been substantial compliance with the conditions imposed under the environment clearance the NCA and the Environment Sub-group will continue to monitor and ensure that all steps are taken not only to protect but to restore and improve the environment.
7.	The NCA will within four weeks from today draw up an Action Plan in relation to further construction and the relief and rehabilitation work to be undertaken. Such an Action Plan will fix a time frame so as to ensure relief and rehabilitation <i>pari passu</i> with the increase in the height of the dam. Each State shall abide by the terms of the action plan so prepared by the NCA and in the event of any dispute or difficulty arising, representation may be made to the Review Committee. However, each State shall be bound to comply with the directions of the NCA with regard to the acquisition of land for the purpose of relief and rehabilitation to the extent and within the period specified by the NCA.
8.	The Review Committee shall meet whenever required to do so in the event of there being any unresolved dispute on an issue which is before the NCA. In any event the Review Committee shall meet at least once in three months so as to oversee the progress of construction of the dam and implementation of the R&R programmes.

Continuing Challenges and Recommendations

Under the NWDT award, in case of an impasse, the decision-making power lies with the Prime Minister. However, despite the ministers' report, the Prime Minister did not take any position prior to the matter being decided by the Supreme Court of India. In May 2006, the Supreme Court of India threw out the *NBA*'s case for a halt to further raising of the height of the dam unless those displaced were resettled. The Court stated that it would wait for the report of the Sardar Sarovar Relief and Rehabilitation Oversight Group (set up by order of the Prime

Minister in April 2006 to evaluate the status of resettlement) and that the NBA should stop interfering with the construction of the dam. In effect, the Supreme Court of India has ruled that the construction of the dam and resettlement do not go hand in hand. In doing so it overruled its own directions of 2000 as well as the NWDT's ruling in 1979. The Oversight Group has recently submitted its report to the Supreme Court, which has to a large extent reiterated the concerns raised by the ministers' report. However, the Supreme Court of India and the Prime Minister consistently maintained there is no need to stop construction of the dam.⁷⁸

Due to the failure of the Respondents to implement the Court's directions in letter and spirit, the petitioners filed applications seeking orders to ensure their rehabilitation in accordance with the NWDT Award and the Court's rulings.⁷⁹ They also requested that the orders issued by the Grievance Redressal Authority (GRA) be set aside and not acted upon. The petitioners in I.A. No. 4 of 2004, comprising 23 residents of Picchodi village, and those in I.A. No. 11 of 2004, consisting of 14 residents of Jalsindhi village, further sought a directive preventing any increase in the height of the dam until all affected individuals at the 110-meter level were fully rehabilitated. While the petitioners challenged the GRA's orders, the Court, without addressing this issue at the outset, directed them through orders dated 16 April 2004, and 23 July 2004, to first present their grievances before the GRA.

In its order dated 11 September 2004, the GRA directed the State of Madhya Pradesh to rehabilitate the applicants in accordance with the Supreme Court's judgment of 18 October 2000. Considering the availability of farmland at Khajuri, which the NVDA had offered for the resettlement of eligible oustees, the GRA instructed the State to allot agricultural land to eligible applicants based on their entitlements, along with house sites nearby at the R&R site. Additionally, the State was required to provide civic amenities and other reliefs mandated by the NWDT Award and the State's R&R Policy. However, the State of Madhya Pradesh allotted land *pattas* to only five of the 23 applicants from Picchodi village and five of the 14 oustees from Jalsindhi village, while distributing just seven and 14 house plots to the respective groups. Consequently, the applicants of I.A. No. 4 of 2004 and I.A. No. 11 of 2004 approached

⁷⁸ 'Sardar Sarovar: Disputes and Injustices' (*Forced Migration Review*) <<https://www.fmreview.org/oleschak/>> accessed 21 March 2025.

⁷⁹ *Narmada Bachao Andolan v. Union of India and Others*, Writ Petition (Civil) 328 of 2002.

the Supreme Court.

The Court reaffirmed that, under the NWDT Award, every displaced family whose 25 per cent or more agricultural landholding had been acquired was entitled to irrigable land equal to the acquired land, subject to the State's ceiling and a minimum of two hectares. It held that oustees could not demand specific land, and land should be allotted from the State's land bank unless it was found unsuitable. The oustees must be provided with cultivable or irrigable land, along with the basic civic amenities and benefits specified in the Award. The Court noted that the NVDA-offered lands had been found acceptable by Jalsindhi applicants and directed the Respondents to immediately allot these lands to them. As the farmland available at Khajuri was insufficient to accommodate all eligible applicants from I.A. No. 11, the Court directed the GRA to reconsider the matter and identify suitable irrigable and cultivable land for those still awaiting allotment. The Court expected all parties would fully cooperate with the GRA to identify and allot suitable irrigable and cultivable land to the applicants from Village Picchodi within three months from the date of communication of the order.⁸⁰

A Special Leave Petition was filed in the Supreme Court for settlement and rehabilitation of the project-affected families (PAFs) in the SSP.⁸¹ Acknowledging that 1,358 Project Affected Families had received both installments of compensation but were unable to purchase land, the Supreme Court directed the concerned authorities to provide each family with an additional compensation of Rupees 15 lakhs. This amount was intended to enable them to acquire alternative land at a reasonable rate. While disbursing the payment, any previously received amounts were to be deducted, and each recipient was required to submit an undertaking affirming that the compensation constituted a full and final settlement of their claim under the Sardar Sarovar Project. Any claimant who failed to furnish this undertaking would not be entitled to the compensation.

The Supreme Court of India also directed the payment of Rupees 60 lakhs per family as compensation to 681 project-affected families who had not yet received complete compensation, based on their entitlement for two hectares of land each.

The Court did not examine the issue of civic amenities mandated under the NWDT Award but

⁸⁰ *Narmada Bachao Andolan v. Union of India and Others*, Writ Petition (Civil) 328 of 2002.

⁸¹ *Narmada Bachao Andolan v. Union of India and Others*, Special Leave Petition(C) No.7663/2016

permitted affected families to raise grievances before the GRA within one month. If the GRA accepted any such grievance, the State Government was directed to implement its recommendations without unnecessary objections. In cases where grievances remained unresolved within three months, the affected families retained the right to seek legal recourse before a competent court.

Indira Sagar—Madhya Pradesh High Court Judgements

A Writ Petition (No. 3022 of 2005) was filed in the Madhya Pradesh High Court at Jabalpur⁸² by the *Narmada Bachao Andolan* challenging the notification dated 31 December 2004, which directed residents of 91 villages earmarked for submergence due to the Indira Sagar Project to vacate their properties by 30 April 2005. The petitioner sought an interim stay against the eviction process and requested an interim directive for stopping further construction on the Indira Sagar Project to ensure that the water level of the dam would not exceed 245 meters until full Resettlement & Rehabilitation of all Project Affected Families, in accordance with the NWDTA, Supreme Court's orders and judgment, and the state government's R&R policy. In view of significantly disputed questions of fact presented by both parties, the High Court ordered the GRA for the Indira Sagar and Omkareshwar Projects to conduct a thorough assessment and submit a report within one month. The report was mandated to verify if the villagers of the 91 affected villages had received adequate reliefs, that is land for land, as per NWDTA and whether compensation has been disbursed. Additionally, the GRA was further instructed to outline any compliance shortfalls and specify whether such shortfalls were due to non-cooperation by the oustees themselves.

In a subsequent order dated 1 July 2005 relating to Writ Petition (No. 3022 of 2005) the High Court of Madhya Pradesh addressed the concerns raised by *Narmada Bachao Andolan* against the Narmada Hydro-electric Development Corporation (NHDC) and others regarding the Indira Sagar Project.⁸³ The Madhya Pradesh Government issued a notification on 31 December 2004, which directed residents of 91 villages expected to be submerged during the 2005 monsoon to vacate their homes by 30 April 2005. The petitioner contended that the State and NHDC had failed to fulfill their legal obligations concerning R&R and that the gates should be

⁸² *Narmada Bachao Andolan vs. Narmada Hydro-electric Development Corporation* in the Madhya Pradesh High Court at Jabalpur, Writ Petition (No. 3022 of 2005), Order dated May 18, 2005.

⁸³ *Narmada Bachao Andolan vs. Narmada Hydro-electric Development Corporation & others*, Writ Petition (No. 3022 of 2005), Order dated July 1, 2005.

kept open so that water does not rise above the crest level until the fulfillment of the R&R measures to the 91 villages as required by (a) NWDTA; (b) decisions of the Supreme Court; (c) conditions stipulated in the clearances granted by the Ministry of Environment & Forest and the Planning Commission; (d) Memorandum of Understanding dated May 16, 2000 between the Government of Madhya Pradesh and the NHDC; and (e) R&R policy of the Madhya Pradesh Government.

The petitioner emphasised that displaced families were entitled to land-for-land compensation, house plots, and infrastructure facilities, including access to water, electricity, healthcare, and education. It was further asserted that 40 per cent of the land acquisition awards were issued after 31 December 2004, and compensation had not yet been fully disbursed, and therefore the villagers cannot be required to vacate their houses and lands. The petitioners also alleged that NHDC, with the support of State authorities and law enforcement, was attempting to force villagers out before the monsoon.

The Advocate General, appearing on behalf of the State and NHDC, assured the Court that NHDC would reassess the effect of raising water levels, recalculate backwater levels, conduct a fresh survey of affected villages, and re-examine the entire matter with reference to R&R measures. He further submitted that, until further orders, NHDC would ensure that the water level in the Indira Sagar Dam remained at 245.13 meters (crest level) and that the dam gates would not be closed to increase the water level beyond this point and no coercive action would be taken against the residents of the 91 villages, except in cases involving encroachers.

Recording these commitments, the Court adjourned the matter to 18 July 2005, for further hearing on the interim relief sought by the petitioners. The State and NHDC were directed to submit a report on the following aspects at the next hearing:

- a) A list of residents of the 91 affected villages.
- b) Details of land and sites available for allotment to displaced families.
- c) An affidavit from the Director of Printing regarding the publication of the December 31, 2004 Gazette Notification, including details of its printing, the number of copies printed, and when it was made available to the public.

In a subsequent order dated 17 August 2005⁸⁴ relating to Writ Petition (No. 3022 of 2005) the High Court of Madhya Pradesh addressed concerns regarding interim relief in context of the R&R of PAFs impacted by the Indira Sagar Project. The petitioner raised concerns over the incomplete R&R measures and the risk of submergence faced by residents of 91 villages identified in a notification dated 31 December 2004. Upon reviewing the submissions and reports, the High Court noted substantial ongoing R&R efforts by the Narmada Hydro-Electric Development Corporation (NHDC), including disbursement of compensation and grants aggregating about Rs. 28 crores between 27 July 2005 and 10 August 2005. The Court also acknowledged discrepancies between the claims made by the NHDC and the petitioner regarding the number of families still residing in the affected villages. Considering the incomplete R&R activities and the potential risks of prematurely raising the water level to the FRL, the Court issued modified interim directives:

- a) NHDC was permitted to raise the Indira Sagar dam's water level only up to 255 meters (instead of straight away increasing it up to the FRL of 262.13), to ensure that there is no submergence of the 91 villages during the 2005–2006 monsoon.
- b) NHDC was directed to complete all R&R measures for the PAFs of the 91 villages by December 31, 2005, and issue a fresh notification for residents to vacate before the 2006 monsoon.
- c) The Court prohibited the coercive eviction of current occupants. The Order did not entitle those who had already left the 91 villages or received the ₹21,000 Special Compensatory Allowance to return. Families remaining in the villages and yet to vacate would not be eligible for the allowance, as it was intended only for oustees displaced without adequate notice.
- d) The Grievance Redressal Authority was directed to hold regular sessions at least once a week at Indira Sagar to receive, consider, and resolve complaints and grievances of the PAFs, ensuring that by the end of the year, all R&R benefits were fully extended to Project Affected Families/oustees.
- e) The NCA R&R Sub-Group was directed to actively monitor NHDC's implementation of R&R measures.

In the case of *Narmada Bachao Andolan v. State of Madhya Pradesh* (2008), the petitioner, an

⁸⁴ *Narmada Bachao Andolan v. Narmada Hydro-electric Development Corporation & others*, Madhya Pradesh High Court at Jabalpur, Writ Petition (No. 3022 of 2005), Order dated August 17, 2005.

organization advocating for the rights of families displaced by the Indira Sagar and Omkareshwar Projects, filed a Public Interest Litigation (PIL) before the Madhya Pradesh High Court.⁸⁵ The PIL sought proper R&R measures for the affected families, challenging the incomplete implementation of the State Government's R&R Policy of 1993 (as amended in 2002) and the failure to fulfill commitments made under environmental and forest clearances granted by the Ministry of Environment and Forests. The petitioner argued that the displaced families, including encroachers and major sons, were entitled to agricultural land and that no further submergence should occur until rehabilitation was completed. The Court highlighted that in *B.D. Sharma v. Union of India & Ors.*, it was observed that rehabilitation should be completed at least six months before the area is allowed to be submerged. Thereafter, in the first *Narmada Bachao Andolan* case,⁸⁶ Justice Kirpal observed: "While issuing directions and disposing of this case, two conditions have to be kept in mind: (i) the completion of the project at the earliest, and (ii) ensuring compliance with the conditions on which clearance of the project was given, including completion of relief and rehabilitation work and taking of ameliorative and compensatory measures for environmental protection, thereby protecting the rights under Article 21 of the Constitution." Additionally, in *N.D. Jayal v. Union of India*⁸⁷, the Court had observed that: "The overarching projected benefits from the dam should not be counted as an alibi to deprive the fundamental rights of oustees. They should be rehabilitated as soon as they are uprooted, and none of them should be allowed to wait for rehabilitation. Rehabilitation should take place at least six months before submergence. Such a time limit was fixed by this Court in *B.D. Sharma v. Union of India*⁸⁸ and reiterated in *Narmada*. This prior rehabilitation will create a sense of confidence among the oustees and they will be in a better position to start their life by acclimatizing themselves with the new environment."

In light of the settled law that submergence cannot take place until rehabilitation of the oustees is complete. The Court issued these directions:

- 1) The displaced families and encroachers are entitled to allotment of agricultural land as far as possible in terms of paragraphs 3 and 5 of the R&R Policy of 1993 as amended in 2002. The State Government is directed to locate government or private land and allot such land as far as possible to displaced families and encroachers who opt for such land

⁸⁵ *Narmada Bachao Andolan v. State of Madhya Pradesh*, Order dated 21 February, 2008

⁸⁶ *Narmada Bachao Andolan v. Union of India and Others*, Judgement dated 18 October, 2000

⁸⁷ *N.D. Jayal v. Union of India*, Writ Petition (civil) 295 of 1992, Judgement dated 1 September 2003.

⁸⁸ *B.D. Sharma v. Union of India*, Writ Petition (civil) 1201 of 1990, Judgement dated 9 August 1991.

and refund 50% of the compensation amount received by them, to be retained towards the installments of the price of land, provided they also agree to the other terms stipulated in paragraph 5 of the R&R Policy of 1993.

- 2) Landless laborers are not entitled to allotment of agricultural land under the R&R Policy of 1993 or the conditions of the forest and environment clearances given by the Ministry of Environment and Forests. However, they are free to apply under any law, rule, or government policy for land allotment as landless persons.
- 3) A son who became a major on or before the date of notification under Section 4 of the Land Acquisition Act will be treated as a separate displaced family if he was part of a bigger family from whom land was acquired. He would be entitled to allotment of agricultural land as far as possible under paragraphs 3 and 5 of the R&R Policy of 1993, as amended in 2002. The State Government is directed to locate government or private land and allot such land as far as possible to these major sons if they opt for land and agree to the terms stipulated in paragraph 5 of the R&R Policy of 1993. The extent of land allotted will be determined based on their share in the land before acquisition.
- 4) Any oustee who has a grievance that he has not been given his entitlement as per the R&R Policy of 1993, as amended from time to time and as per the observations in this judgment, may lodge a grievance directly with the GRA by 31st March, 2008. The GRA will look into all pending grievances and such new grievances which may be filed by 31st March, 2008, and will ensure that all grievances are redressed by 14th June, 2008. The GRA shall submit a report to this Court by 14th June, 2008, and the matter will be listed before the Court on 17th June, 2008.

A Writ Petition (No. 2900 of 2020) was filed in the Madhya Pradesh High Court by Kashiram, an agriculturist residing in village Indhawadi, Khandwa district.⁸⁹ The petition challenged the GRA's decision dated 12 November 2009, which rejected Kashiram's claim for rehabilitation grants under the Indira Sagar and Omkareshwar Project. The GRA had denied the claim on the ground that the petitioner had not provided documentary proof of residence in the submergence-affected area at the time of the notification issued under Section 4 of the Land Acquisition Act. Upon reviewing the petition, the Court observed that the petitioner provided a voter list from 2003, which had not been considered by the GRA initially. Recognising this

⁸⁹ *Kashiram v. State of Madhya Pradesh and Narmada Hydro-Electric Development Corporation*, High Court of Madhya Pradesh at Jabalpur, Writ Petition (No. 2900 of 2020), Order 18 April 2024.

omission, the High Court quashed the previous order and remanded the matter back to the Grievance Redressal Authority. Kashiram was given the liberty to submit additional evidence to prove his residency in the submerged area at the relevant time. The High Court directed the petitioner to appear before the Grievance Redressal Authority with the necessary documents by 28 May 2024. The Court also stated that if that if the petitioner failed to appear within the stipulated time, the previous order of 12 November 2009, rejecting the claim, would automatically be reinstated.

These cases highlight the controversies relating to different developmental projects in the Narmada basin. Several of these controversies reach the high courts and the Supreme Court of India final resolution. They also demonstrate, at least to some extent, the faith of all the stakeholders in law and legal mechanisms for delivering justice.

Legal and Institutional Framework pertaining to the Narmada Basin: A Critical Assessment

Key Issues with ISRWD Act 1956

The ISWD Act, though an essential legislative mechanism to address conflicts related to river water sharing among Indian states, has exhibited critical shortcomings both procedurally and fundamentally.

Procedurally, extensive delays are a critical problem. These delays occur during multiple phases, starting from the initiation of Tribunal establishment to the eventual notification and implementation of the Tribunal awards. A major cause of the delay is the government's prolonged exploration of negotiation possibilities before establishing a Tribunal, which often extends unnecessarily. Tribunal proceedings themselves tend to be protracted, sometimes extending years beyond expected timelines. Even after awards are issued, further procedural complications arise due to requests for clarifications or additional references to Tribunals, with no stringent time limits governing these supplementary processes. Additionally, delays in official notification by the central government further impede timely conflict resolution.

Fundamentally, several criticisms are raised against the ISWD Act. The adjudication process, by its nature, is often contentious and divisive, potentially worsening inter-state relations by encouraging exaggerated adversarial claims rather than fostering cooperative solutions. Negotiated settlements are universally preferred, yet the Act inadequately integrates

negotiation, mediation, or conciliation as structured and mandatory intermediate steps before resorting to adjudication.

Another core issue is enforcement. The Act characterises the Tribunal awards as 'final and binding', yet provides insufficient mechanisms for enforcement and compliance, leaving awards susceptible to non-implementation by states without effective sanctions. If a state government fails to implement an Inter-State Water Disputes Tribunal's award, the central government, after unsuccessful attempts at persuasion, has the authority to issue a directive to the non-compliant state. In extreme cases, it may even invoke Article 356. However, this measure is drastic, and there remains the risk that once an elected government is reinstated, it may again refuse to enforce the award.

Overall, the Act suffers from systemic inadequacies in procedural efficiency, clarity in adjudicative criteria, and robust enforceability mechanisms, highlighting critical areas requiring comprehensive reforms.

The Inter-State River Water Disputes (Amendment) Bill, 2019

The Inter-State River Water Disputes (Amendment) Bill, 2019, introduced by the Central Government, aimed to substantially modify the existing tribunal system under the ISRWD Act, 1956. The principal goal was to enhance the responsiveness and efficiency of the legal and institutional mechanisms addressing inter-state river water disputes.

A notable innovation proposed by the Bill involved formalising the negotiation process through the establishment of a Disputes Resolution Committee (DRC) by the Central Government within a prescribed time period. The process of adjudication will begin only when the negotiation fails. This explicit incorporation of negotiation into the dispute resolution framework represents a significant procedural improvement intended to promote timely resolution. Probably a party led and party focused political process makes sense as the first stage of the dispute resolution process in the case of inter-state river water disputes.

Additionally, the 2019 Bill addressed inefficiencies arising from the existing ad hoc tribunal model. Initially envisaged as rare occurrences, increasing inter-state disputes highlighted the impracticality and financial burdens associated with the creation of multiple specialized tribunals. The Bill proposed creating a single, permanent 'Inter-State River Water Disputes Tribunal', with multiple Benches to handle various cases simultaneously. Consequently, this structural shift may streamline administrative processes and may reduce delays and expenses

associated with tribunal establishment.

The amendment further imposed definitive timelines, mandating tribunals to deliver decisions within two years, with a potential one-year extension, thereby reducing protracted litigation. Additionally, Section 6 of the 2019 Bill proposes to re-cast the existing section 6 in the ISRWD Act 1956. It reads, “The decision of the Bench of the Tribunal shall be final and binding on the parties to the dispute and shall have the same force as an order or decree of the Supreme Court.” Thus, the Bill seeks to do away with the publication requirement, which, as seen earlier leads to prolonged procedural contestations.

Despite these improvements, a significant criticism of the 2019 Bill is its lack of clarity regarding the legal ambiguity created by the Supreme Court in the *State of Karnataka v. State of Tamil Nadu*,⁹⁰ which ruled that the Supreme Court has jurisdiction over interstate river water disputes while the legislature says it doesn't. The party states can appeal against the decisions of a Tribunal in the Supreme Court. It is important to reiterate the nature of the SLP process under Article 136. Before opening its gates to the litigant, the Supreme Court first decides in its discretion whether it should grant or deny the requested special leave. However, the issue of uncertainty and finality still persists, the ambiguity under Article 136 in context of interstate river water disputes incentivizes States to approach the Court. Thus, while offering procedural enhancements, the Bill fell short of fully clarifying critical jurisdictional issues arising from prior judicial interpretations.

Multiple Institutions and Legal Challenges

A significant issue with India's existing water governance framework arises from its fragmented statutes and multiple statutory institutions. This fragmentation has resulted in a complex governance landscape marked by jurisdictional overlaps and conflicting institutional priorities. The multiplicity of central and state-level authorities, each functioning under distinct legislative mandates, complicates the management of water resources. Consequently, coherent policy formulation and effective implementation may become a challenging tasks due to potential inter-agency conflicts, lack of clear coordination mechanisms, and overlapping responsibilities.

The complexity escalates further when considering institutions at state and local levels, particularly Urban Local Bodies (ULBs) and agencies responsible for groundwater (GW)

⁹⁰ *State of Karnataka v. State of Tamil Nadu*, (2017) 3 SCC 362.

management. ULBs often operate independently from state-level water governance frameworks, leading to disjointed planning and resource allocation. Groundwater institutions further compound this complexity since their mandates often overlap with surface water management entities. This intersection creates legal ambiguities, resource management conflicts, and operational inefficiencies, ultimately undermining sustainable and integrated water management efforts at both local and broader state levels. It is not sure how far the GW scenario is a determining factors in water allocation decision making process in the context of rivers. Additionally, as highlighted earlier, the Supreme Court's tendency to direct that Central-level institutions plan and coordinate matters relating to water may further complicates this issue.

Moreover, viewing groundwater and surface water management as separate domains exacerbates governance challenges. Given that groundwater and river water are interlinked components of the same hydrological cycle, a compartmentalised approach neglects their interconnected nature. A more effective approach would be to govern water resources comprehensively as a unified ecosystem, acknowledging the interdependence of groundwater, surface water, and related ecological systems. Recognising this holistic interconnection can facilitate more sustainable, integrated, and efficient resource management outcomes.

Overall, the statutory dispersion and institutional multiplicity in India's water governance framework significantly hinder the cohesive management of water resources, thus demanding a re-evaluation of existing legal structures to reduce jurisdictional complexity and streamline institutional responsibilities, adopting an integrated ecosystem-based governance perspective.

Fundamental Right to Water

The Fundamental Right to Water is recognised under Article 21 of the Constitution of India. This further complicates the jurisdictional issues surrounding inter-state river water disputes, as the Supreme Court and high courts, under Article 32 and Article 226 respectively, have the power to issue orders for the enforcement of fundamental rights. This opens the possibility of individuals approaching the Supreme Court or high courts on the ground that their fundamental right to water has been affected by an inter-state water dispute. However, such petitions raise a constitutional conflict—while Article 262 explicitly excludes judicial review in inter-state water disputes, the Supreme Court's intervention under Article 32 could bypass the Tribunal mechanism, undermining the ISRWD Act, 1956. Additionally, water disputes primarily involve states as parties, whereas Article 32 provides remedies for individuals, creating an

enforceability dilemma. If the Supreme Court were to adjudicate water disputes through individual fundamental rights claims, it could fragment the legal process, leading to inconsistent rulings and weakening the comprehensive dispute resolution framework designed for water sharing. Furthermore, any judicial directive requiring a state to release water could lead to political resistance, worsening inter-state tensions. Thus, while the fundamental right to water strengthens claims for equitable access, its application in inter-state disputes risks jurisdictional conflicts, parallel litigation, and challenges to federalism.

Conclusions and Recommendations

The analysis presented in this report highlights that India's existing framework for managing inter-state river water disputes, grounded in constitutional provisions and the Inter-State River Water Disputes Act, 1956, faces significant challenges. While the current tribunal-based system was initially envisioned as an effective alternative to direct judicial adjudication, the practical experiences of disputes like the Narmada, Krishna, and Cauvery rivers illustrate significant inefficiencies. Prolonged adjudication, procedural delays, and escalating political tensions underscore the urgent need for comprehensive reform in India's approach to water federalism and interstate water conflict management.

Over time, India's water federalism has evolved into a complex and fragmented system with its own strength and weakness. Increasing water scarcity and uneven temporal and spatial water availability exacerbated by climate change, coupled with rising economic and population pressures, may further intensify interstate conflicts. This necessitates a reconsideration of both the constitutional framework of water-related responsibilities and the adjudicatory mechanisms governing interstate river water disputes. Beyond that, the overall management of basins may require a reconsideration given the environmental and climate change crises that we are in. Recent legislative efforts such as the Inter-State River Water Disputes (Amendment) Bill, 2019 mark promising steps toward enhancing the existing framework. However, for long-term sustainability and equitable water sharing, it is imperative to strengthen cooperative federalism, improve stakeholder engagement, and clearly delineate responsibilities among Union and State entities. Continued judicial clarity and proactive governance reforms are essential to address ongoing disputes effectively and to safeguard the ecological health and socio-economic well-being of all communities dependent on the Narmada River basin.

The existing institutional mechanism is complex with multiple layers of agencies at different levels with diverse mandates. While this may be unavoidable to some extent, the efficiency of

the system is dependent on the level of coordination and cooperation between these agencies for the purpose of sustainable development in the basin.