

Dr. Bhimrao Ambedkar's Water Resources and Electricity Policy for Nation-Building as Labour Member (1942–1946)

Ritu Chander

Dr. B.R. Ambedkar University Delhi

Abstract:

We know Dr. Bhimrao Ambedkar mainly as the architect of India's Constitution. But the work he did as Labour Member between 1942 and 1946 was just as important. In those years, he looked at India's rivers in a new way. He did not see them only as a flood problem. He saw them as a source of the country's prosperity. He believed that river water could do many jobs at once — irrigate farms, generate electricity, support river transport, and control floods. This thinking became the foundation for major projects like the Damodar Valley, Hirakud, and Bhakra-Nangal. He also set up two national bodies. Today we know them as the Central Water Commission and the Central Electricity Authority. This article tries to answer a simple question: Nehru called these dams "the temples of modern India." But who actually laid their real foundation?

Keyword: TVS, Bhakra Nangal Dam, Hirakud Dam, CWINC, CTPB

Introduction:

In India's collective memory, Dr. Bhimrao Ramji Ambedkar (14 April 1891 – 6 December 1956) is remembered mainly as the chief architect of the Constitution. But there is another side to this many-sided man — a side that people rarely talk about. That side is his historic contribution to national water policy and electric power. Most of us read about the Bhakra-Nangal Dam and the Hirakud Dam in our school textbooks. But those textbooks never told us whose vision actually shaped these projects. From 20 July 1942 to 29 June 1946 — almost five years — Dr. Ambedkar served as a member of the Viceroy's Executive Council. This council ran British India's government before independence, and Ambedkar held charge of Labour, Irrigation, and Power in it. On 14 April 2016, at the Maritime Investment Summit in Mumbai, Prime Minister Narendra Modi himself admitted something important. He said that most people do not know that Babasaheb laid the foundation of two key institutions connected to water resources, water transport, and electricity. These were the Central Waterways, Irrigation and Navigation Commission, and the Central Technical Power Board. Modi added that Dr. Ambedkar was also the architect of India's water resources and river transport policy. It is unfortunate that a certain lobby has worked continuously to keep Dr. Ambedkar's major role in India's water policy and water resources development away from public view. This has happened even though detailed government records on this role are freely available. The most

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trusted and detailed book on this subject is *Ambedkar's Contribution to Water Resources Development*, written by Dr. Sukhadeo Thorat. The Central Water Commission first published this 307-page tribute in 1993, and republished it again in 2016. This article is based mainly on that book, along with documents from the National Archives and collections of Ambedkar's speeches.

Historical Background: The Situation Before 1942

Under the Government of India Act of 1935, both irrigation and electric power fell under the control of provinces and princely states. The central government's only role was to step in as a mediator when disputes arose between states. The Act's Section 135 created an Inter-Provincial Council. But this council could only give advice. It had no real power to act. As a result, India had no coordinated water policy. There was no national vision for developing entire river valleys as a whole. Irrigation, river transport, flood control, and electricity generation were always treated as separate, unrelated problems. The Damodar River was known as the "Sorrow of Bengal" because it brought destructive floods every year. The flood of 17 July 1943 was especially severe. Water kept leaking through a breach for five days straight, until the gap widened to 1,000 feet. More than 70 villages were hit, and 18,000 homes were destroyed. When Dr. Ambedkar took charge of this department in the 1940s, India's economic policy was still being shaped. Plans for post-war rebuilding were underway. India's situation was different from Europe's. Europe needed to rebuild industries that the war had destroyed. India needed to build new industries and new infrastructure from scratch. Dr. Ambedkar stepped into this historic gap.

Dr. Ambedkar's Vision of Water: A Question of Social Justice

For Dr. Ambedkar, water was never just an engineering matter. It was a question of social justice. He put it plainly: "It is wrong to think that abundance of water is a problem. Man suffers more from the scarcity of water than from its abundance. The difficulty is that nature is not only stingy in giving water, it sometimes punishes us with drought and sometimes floods us with storms. But this does not change the fact that water is wealth. Its distribution is uncertain. For this, we should not complain against nature — instead, we should conserve water." From the Mahad Satyagraha (20 March 1927) to the water-related provisions he helped shape in the Constitution, Ambedkar always saw water as a major cause of social discrimination. He held firmly to one belief: a society that stops Dalits from touching the water of a village pond can never achieve fair distribution of water resources either. According to Thorat's analysis, Ambedkar's economic thinking was clear on one point. There is a basic contradiction between capitalism and parliamentary democracy — politics gives us equality, but the economic system does not. To fix this contradiction, the state must control resources like water and electricity, and use them for the public good. In 1943, he said: "Each one of us must rethink our approach. We cannot be satisfied with simply aiming for India's industrial growth. We must also make sure that the benefits of that growth reach everyone."

The Foundation of India's National Water Policy: Three Pillars

According to Thorat's book, the Labour Department under Dr. Ambedkar's leadership built a new water policy between 1942 and 1946. This policy stood on three main pillars.

First — multi-purpose river valley development. The idea was to build river projects that could serve many goals at once — flood control, irrigation, hydroelectric power, river transport, drinking water supply, and famine prevention, all together. This idea was completely new to India at the time. Second — The concept of a river valley authority or corporation. The Government of India Act of 1935 had not given the central government any real power over inter-state rivers. To get around this constitutional problem, Dr. Ambedkar proposed something new: an independent corporation or authority. The central government and the provinces would set it up together, and both would hand over some of their own powers to it. Third — Building technical expert bodies at the center. Permanent technical institutions would be set up at the national level to guide water and power development. These bodies would advise the provinces, coordinate their work, and give them practical, hands-on support. To put this policy into action, the Labour Department sent what became known as the "Three Famous Letters" to the provinces. These letters announced the new national water policy. Thorat writes that these letters combined "the power of argument with real diplomatic skill."

The Central Waterways, Irrigation and Navigation Commission (CWINC) & The Central Technical Power Board (CTPB)

On 5 April 1945, Dr. Ambedkar set up the Central Waterways, Irrigation and Navigation Commission, known as CWINC. This was India's first central technical body for water resources development. At the time it was founded, Dr. Ambedkar made a remarkably forward-looking statement: "I imagine that in time, this body will grow into a vast organization. Its work will spread across the whole of India. Every province and princely state will seek its advice with respect, so that the natural resources of any region can be developed together, in an integrated way, for the greatest possible benefit." CWINC was built as a central body for gathering facts, planning, and coordination. It also had the power to carry out construction work itself. A.N. Khosla became its first chairman, and he later came to be counted among India's finest water engineers. CWINC eventually grew into the Central Water Commission (CWC), which today remains the heart of India's national water policy under the Ministry of Jal Shakti. Thorat notes that even the process of setting up this institution showed Ambedkar's determination. The Labour Department and the Finance Department argued at length over whether this body was even needed. In the end, Ambedkar's department gave a firm answer: "It would be a grave mistake to be stingy when it comes to experts — experts are the cornerstone of post-war reconstruction." Around the same time, in November 1944, the Central Technical Power Board, or CTPB, was set up. H.M. Mathews became its first chairman. The CTPB's job was to collect data on electric power across the country, carry out surveys, plan a national grid system, and study the potential for hydroelectric and thermal power stations. This body later grew into the Central Electricity Authority (CEA), which remains a cornerstone of India's electricity policy and energy planning even today.

Multi-Purpose River Valley Development: An Indian Version of the TVA

Dr. Ambedkar looked to America's Tennessee Valley Authority (TVA) as the model for India's projects. In the 1930s, during the Great Depression, the TVA had transformed the Tennessee River valley. It combined flood control, irrigation, power generation, and job creation, all in one integrated effort. At the First Calcutta Conference on 3 January 1945, Ambedkar declared:

"It has not yet been fully understood that our policy for water resources development must be a multi-purpose policy. It must include every possible use of water — irrigation, electrification, and navigation. The government wants to build a policy that puts the country's water resources to use for everyone's benefit, and directs them toward the same purposes for which other countries use their water." He also made it clear that simply hemming in rivers with embankments was the wrong approach: "If conserving water is essential for the public good, then a policy built around embankments is wrong. Embankments do not achieve the real goal of water conservation, and so this approach should be abandoned." His proposal was simple: build dams on rivers, store the water in reservoirs, and use that water for four purposes together — flood control, irrigation, power generation, and navigation.

The Damodar Valley Project: India's TVA

The Damodar River rises in Bihar and flows through West Bengal before joining the Hooghly. After the devastating flood of 1943, the Governor of Bengal, E.G. Casey, wrote to the Viceroy saying that Bengal needed a comprehensive solution to its water problems. He even suggested bringing in "top experts from America." Bengal's own Flood Enquiry Committee had treated flood control as the main goal, and had pushed power generation and irrigation to the background. On 18 September 1944, Dr. Ambedkar rejected this narrow approach. He ordered that the project be planned within a multi-purpose framework instead. A telling episode unfolded over the question of who would be appointed Chief Engineer. The historian Durga Das describes it in his book *India — From Curzon to Nehru and After* (Collins, London, 1969, p. 236): Wavell wanted a British expert for the post — someone who had worked as a consultant on Egypt's Aswan Dam project. Dr. Ambedkar believed that an American engineer with experience on Tennessee Valley Authority projects should be brought in for this work instead. He argued that since Britain had no major river of its own, British engineers could have no real experience building large dams. His strong arguments left the Viceroy with nothing to say, and Dr. Ambedkar won the point. As a result, W.L. Voorduin, an experienced TVA engineer, was appointed. In August 1944, Voorduin submitted his "Preliminary Memorandum on the Unified Development of the Damodar River," which became the founding document of the entire project.

First Calcutta Conference (3 January 1945): Chaired by Dr. Ambedkar, this conference brought together the central government along with the Bengal and Bihar governments. They agreed on a coordinated, multi-purpose plan to develop the Damodar River. Ambedkar said: "I hope and trust that, with your cooperation, we will succeed in opening a new chapter in the policy for our waterways, and in laying the foundation for the prosperity of the millions of poor people of this country." "Second Calcutta Conference (23 August 1945): Building on Voorduin's memorandum, this conference approved a detailed plan for the project. Working from a design flood of ten lakh cusecs, the plan called for eight dams across the Damodar-Barakar river system — Tilaiya, Deolbari, and Maithon on the Barakar, along with Bermo, Aiyar, and Sanolapur on the Damodar, plus Bokaro and Konar. The expected results were striking: a controlled reservoir capacity of 4.7 million acre-feet, continuous irrigation for 760,000 acres, 300,000 kilowatts of electricity, and direct benefits reaching 5 million people. Third Conference (April 1946): Held in Delhi under Dr. Ambedkar's chairmanship, this conference

reviewed a report from two senior TVA engineers, Ross M. Riegel and Fred C. Schlemmer, who had arrived in India in February 1946. Schlemmer called Voorduin's plan one of the largest projects ever undertaken anywhere in India or the world. The conference recommended building the Tilaiya Dam at a cost of ₹55 crore.

The Mahanadi (Hirakud) and Son River Valley Projects

The Mahanadi: The Cuttack Conference (8 November 1945)

Dr. Ambedkar chaired an important conference in Cuttack to address Odisha's problems of flooding and poverty. He told the participants there: "Odisha should adopt the same approach that America used to tackle its river problems. That approach is this: build dams at several points along a river to hold a permanent store of water. Such dams serve many purposes besides irrigation. Odisha wants freedom from floods, freedom from malaria, and a better standard of living through river transport and cheap electricity. Fortunately, all of these goals can be achieved through a single plan — building reservoirs and storing the river water that would otherwise simply flow away." As a result of this conference, A.N. Khosla, the chairman of CWINC, carried out an initial survey of the Mahanadi and identified three possible dam sites — Hirakud, Tikarapara, and Naraj. On 15 March 1946, Governor Lewis laid the foundation stone of the Hirakud Dam, just three months before Dr. Ambedkar left office. The Hirakud Dam remains one of the longest earthen dams in the world today. An interesting exchange of letters took place between Viceroy Wavell and Dr. Ambedkar over the timing of the Hirakud foundation ceremony. Thorat's book includes this correspondence as an appendix. Wavell wanted the foundation laid before Governor Lewis left office. Ambedkar replied that the foundation should be laid only once there was a firm commitment to actually carry out the project — not as a mere symbolic gesture. This response reflected his practical, forward-looking approach.

The Son River rises in Madhya Pradesh and flows through Uttar Pradesh and Bihar before joining the Ganga. In November 1944, the Uttar Pradesh government drew the Labour Department's attention to the river's potential. Dr. Ambedkar organised the Son Conference in Delhi on 10 March 1945. Thorat writes that this conference holds real importance in the history of India's water policy, because it was here that the concept of a "river valley authority" was first laid out in detail. Ambedkar said that if the Son's full potential was to be realised, a regional approach would be needed — not a merely local one.

Electricity Policy: Powering Industrial India

Dr. Ambedkar chaired two national conferences on electric power, on 25 October 1943 and 2 February 1945. The key principles of his electricity policy were these:

State or semi-state enterprise. Power generation and distribution, he believed, should be treated as a state or semi-state enterprise. It could not be left to the whims of the private sector. This thinking laid the foundation for the Electricity Supply Act of 1948. A regional grid system. He proposed the idea of a regional grid system covering all of India. The national grid that India depends on today has its roots in these very policies from 1943-45. Training engineers abroad. For the first time, Dr. Ambedkar set a policy of sending Indian engineers abroad to train in

power administration, commercial management, and technical skills. At Dr. Ambedkar's invitation, two senior TVA engineers, Ross M. Riegel and Fred C. Schlemmer, came to India in February 1946. They advised the CTPB on the Maithon, Aiyar, and Panchet Hill projects. The TVA made their services available to the Government of India with the consent of the US State Department — a clear sign of Dr. Ambedkar's skill in international diplomacy.

Water Resources and Constitutional Provisions

Dr. Ambedkar held two roles at once: Labour Member, and Chairman of the Constitution's Drafting Committee. In this dual role, he also built the constitutional foundation for water resources development: **Article 262**. This article gave Parliament the power to make laws for settling disputes over the use, distribution, and control of the waters of inter-state rivers and river valleys. This came directly from his experience between 1942 and 1946, when he saw firsthand how difficult it was to work on inter-state rivers without any central authority. **Entry 56 of the Seventh Schedule**. This entry in the Union List gave Parliament the power to declare, by law, that the control and development of inter-state rivers and river valleys was a matter of national interest. These constitutional provisions later gave rise to two important laws in independent India: the Inter-State River Water Disputes Act of 1956, and the River Boards Act of 1956. Beyond water and power projects, Dr. Ambedkar also brought about major changes in the lives of India's workers through the Labour Department. On 27 November 1942, he cut the working day in factories from 12-14 hours down to 8 hours. He met with workers in the coal mines of Dhanbad and shaped policies to improve their conditions. His argument was this: "The state cannot limit itself to simply providing workers with fair working conditions. It must also take on the responsibility of ensuring fair living conditions." This is why, in his economic vision, water, electricity, and workers' rights were never separate issues — they were all bound together.

Legacy: National Recognition

M.S. Reddy, a former chairman of the Central Water Commission, listed five major contributions of Dr. Ambedkar in 1993: first, the emergence of a clear all-India policy for water and power resources development; second, the creation of CWINC and CTPB; third, the origin of the concept of a river valley authority or corporation; fourth, the first-ever concept in India of multi-purpose river valley basin development, along with an amendment to Entry 74 and the inclusion of Article 262 in the Constitution; and fifth, laying the groundwork for the Damodar, Son, and Mahanadi (Hirakud) valley projects. In 2016, the then Minister for Water Resources, Uma Bharti, announced at a CWC seminar that 14 April — Babasaheb's birthday — would be observed every year as National Water Day.

A Dispute Over Credit, and the Historical Facts

A.K. Biswas wrote in *Forward Press* that a biography of Shyama Prasad Mukherjee gives him credit for the Damodar Valley Project. This claim, Biswas notes, is simply not true. Dr. Mukherjee took oath in Nehru's cabinet on 15 August 1947, while the Damodar Valley plan had already been prepared three years earlier. The facts recorded in Thorat's book, along with documents from the National Archives and Ambedkar's collected speeches, leave no room for doubt on this point.

Conclusion: The Unseen Architect of India's Water Policy

The work Dr. Ambedkar did in those five years, from 1942 to 1946, forms a chapter of India's economic history that has still not been properly written. Thorat writes in his book that independent India's water policy actually emerged in 1942-46, when Dr. Ambedkar took charge of this portfolio. For the first time, the Labour Department built a policy for the planned development of irrigation and power resources for the entire country. The Damodar Valley Corporation, the Hirakud Dam, Bhakra-Nangal, the Central Water Commission, the Central Electricity Authority — all of these stand today as living monuments to his vision. Jawaharlal Nehru called these dams "the temples of modern India." But the architect behind these temples was Dr. Ambedkar. His vision of water remains just as relevant today. Water is wealth, and its distribution is uncertain — so it cannot simply be left to nature. It demands a broad, fair plan for conserving it and putting it to the best possible use. The year 2050 is not far away, and the warning signs of a water crisis are already visible. In such a time, Dr. Ambedkar's model of multi-purpose river valley development — applied to the Ganga, the Brahmaputra, the Yamuna, and the Kosi — is a model India could still put into practice today.

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