

Legislative Brief

The Dam Safety Bill, 2019

The Dam Safety Bill, 2019 was introduced in Lok Sabha on July 29, 2019. It was passed by Lok Sabha on August 2, 2019. It is currently pending in Rajya Sabha.

Highlights of the Bill

- ◆ The Bill provides for the surveillance, inspection, operation, and maintenance of all specified dams across the country. These are dams with height more than 15 metres, or height between 10 metres to 15 metres with certain design and structural conditions.
- ◆ It constitutes two national bodies: the National Committee on Dam Safety, whose functions include evolving policies and recommending regulations regarding dam safety standards; and the National Dam Safety Authority, whose functions include implementing policies of the National Committee, providing technical assistance to State Dam Safety Organisations (SDSOs), and resolving matters between SDSOs of states or between a SDSO and any dam owner in that state.
- ◆ It also constitutes two state bodies: State Committee on Dam Safety, and State Dam Safety Organisation. These bodies will be responsible for the surveillance, inspection, and monitoring the operation and maintenance of dams within their jurisdiction.
- ◆ Functions of the national bodies and the State Committees on Dam Safety have been provided in Schedules to the Bill. These Schedules can be amended by a government notification.
- ◆ An offence under the Bill can lead to imprisonment of up to two years, or a fine, or both.

Key Issues and Analysis

- ◆ The Bill applies to all specified dams in the country. This includes dams built on both inter and intra state rivers. As per the Constitution, states can make laws on water including water storage and water power. However, Parliament may regulate and develop inter-state river valleys if it deems it necessary in public interest. The question is whether Parliament has the jurisdiction to regulate dams on rivers flowing entirely within a state.
- ◆ The functions of the National Committee on Dam Safety, the National Dam Safety Authority, and the State Committee on Dam Safety are listed in Schedules to the Bill. These Schedules can be amended by the government through a notification. The question is whether core functions of authorities should be amended through a notification or whether such amendments should be passed by Parliament.

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November 13, 2019

PART A: HIGHLIGHTS OF THE BILL

Context

Dams are artificial barriers on rivers which store water and help in irrigation, power generation, flood moderation, and water supply.¹ In India, dams higher than 15 m or between 10 m and 15 m height that fulfil certain additional design conditions are called large dams. As on June 2019, India has 5,745 large dams (includes dams under construction).² Of these, 5,675 large dams are operated by states, 40 by central public sector undertakings, and five by private agencies.² Over 75% of these dams are more than 20 years old and about 220 dams are more than 100 years old.^{2,3} Most of these large dams are in Maharashtra (2394), Madhya Pradesh (906), and Gujarat (632).²

As a large amount of water may be stored in a dam's reservoir, its failure can cause large scale damage to life and property. Therefore, monitoring dam safety is essential. The Central Dam Safety Organisation, under the Central Water Commission (CWC), provides technical assistance to dam owners, and maintains data on dams. The National Committee on Dam Safety devises dam safety policies and regulations.⁴ Currently, 18 states and four dam owning organisations have their own Dam Safety Organisations.⁵ CWC provides that each dam owner should carry out pre and post monsoon inspections (covering site conditions, dam operations) every year.⁶ However, as per a CAG report on flood forecasting, from 2008 to 2016, of the 17 states studied, only two had carried out such inspections.⁷

A CWC Committee on Dam Safety (1986) had recommended unified safety procedures for all dams and suggested a legislative framework for dam safety.⁸ In 2007, Andhra Pradesh and West Bengal passed resolutions requesting Parliament to make a law on dam safety. Consequently, the Dam Safety Bill, 2010 was introduced in Lok Sabha under Article 252 (which allows Parliament to make laws on state subjects which will apply to those states that pass a resolution requiring such law).⁹ The 2010 Bill lapsed with the dissolution of the 15th Lok Sabha. The Dam Safety Bill, 2019 was introduced in Lok Sabha on July 29, 2019, and passed by Lok Sabha on August 2, 2019.

Key Features

- The Bill applies to all specified dams in the country. These are dams with: (i) height more than 15 metres, or (ii) height between 10 metres to 15 metres and satisfying certain additional design conditions such as, reservoir capacity of at least one million cubic meter, and length of top of the dam at least 500 metres.

Obligation of dam owners

- Dam owners will be responsible for the safe construction, operation, maintenance and supervision of a dam. They must provide a dam safety unit in each dam. This unit will inspect the dams: (i) before and after monsoon season, and (ii) during and after every earthquake, flood, calamity, or any sign of distress. Functions of dam owners include: (i) preparing an emergency action plan, (ii) carrying out risk assessment studies at specified regular intervals, and (iii) preparing a comprehensive dam safety evaluation through a panel of experts.

Dam safety authorities and delegated legislation

- The Bill provides for dam safety regulatory and monitoring authorities at the national and state level. The functions of the national bodies and the State Committees on Dam Safety have been provided in Schedules to the Bill. The central government can amend these Schedules through a notification.
- At the national level, it constitutes (i) the National Committee on Dam Safety, whose functions include evolving policies and recommending regulations regarding dam safety, and (ii) the National Dam Safety Authority, whose functions include implementing policies of the National Committee, and resolving matters between State Dam Safety Organisations (SDSOs), or between a SDSO and any dam owner in that state. The central government may notify the qualifications, and functions of the officers of the National Dam Safety Authority.
- At the state level, it constitutes the (i) State Dam Safety Organisations (SDSOs), whose functions include keeping perpetual surveillance, inspecting, and monitoring dams, and (ii) State Committee on Dam Safety which will supervise state dam rehabilitation programs, review the work of the SDSO, and review the progress on measures recommended in relation to dam safety, among others. State governments may notify the qualifications, and functions of officers of the State Dam Safety Organisations. They may also notify dam safety measures to be undertaken by owners of non-specified dams.

Offences and penalties

- Anyone obstructing a person in the discharge of his functions under the Bill or refusing to comply with directions may be imprisoned for a year. In case of loss of life, the person may be imprisoned for two years.

PART B: KEY ISSUES AND ANALYSIS

Jurisdiction of Parliament to frame a law on intra-state river dams

Bill: The Bill applies to all specified dams in the country. These are dams with: (i) height more than 15 metres, or (ii) height between 10 to 15 metres, subject to certain design and structural conditions. This includes dams on both inter and intra-state rivers. The question is whether Parliament has the jurisdiction to frame a law on *intra-state* dams.

Clauses
1(2), 2,
3

As per Entry 17 of the State List, states can make laws on water supply, irrigation and canals, drainage and embankments, water storage and water power, subject to Entry 56 of the Union List. Entry 56 of the Union List allows Parliament to make laws on the regulation of *inter-state* rivers and river valleys if it declares such regulation to be expedient in public interest. The Bill declares it expedient in public interest for the Union to regulate on a uniform dam safety procedure for all specified dams. However, given Entry 17, it is unclear how Parliament would have the jurisdiction to frame a law for dams on rivers where the river and its valley are entirely within a state.

Note that, the Dam Safety Bill, 2010 was introduced in Lok Sabha under Article 252.⁹ This Article allows Parliament to make laws on subjects in the State List if two or more states pass resolutions requiring such law, and the law applies only to those states. Other states may adopt the law by passing resolutions. Andhra Pradesh and West Bengal had passed resolutions requiring a law on dam safety.⁹ The Preamble of the 2010 Bill stated that Parliament has no powers to make laws for states with respect to providing uniform dam safety procedure.

Functions of authorities may be changed through notification

Bill: The functions of the National Committee on Dam Safety, the National Dam Safety Authority, and the State Committee on Dam Safety are provided in Schedules to the Bill. Their functions include: (i) resolving issues between State Dam Safety Organisations (SDSOs), or between a SDSO and a dam owner, (ii) assessing potential impact of dam failure and coordinating mitigation measures with affected states, and (iii) supervising dam rehabilitation programmes. These Schedules can be amended through notification. This implies that the core functions of these bodies can be changed by the government through notification without prior amendment of the Act by Parliament. The question is whether the Bill should require an amendment by Parliament to change the core functions of such bodies.

Clauses
6(1), 8(1),
12(1),
49(1)

In various laws such as the Aadhaar Act, 2016, and the National Medical Commission Act, 2019, the functions of the regulatory body are specified in the Act with a provision to expand the functions through notification. Note that the functions mentioned in these Acts cannot be curtailed except through an Amendment Act passed by Parliament. In the 2010 Bill, functions of all authorities were specified in the Act.

1. Report no. 7 on the Dam Safety Bill, 2010, Standing Committee on Water Resources, August 17, 2011, https://www.prsindia.org/sites/default/files/bill_files/SCR%20Dam%20Safety.pdf.

2. National Register of Large Dams, 2019, Central Dam Safety Organisation, June, 2019, <http://cwc.gov.in/sites/default/files/nrld06042019.pdf>.

3. Lok Sabha Unstarred Question no. 2218, Ministry of Jal Shakti. July 4, 2019.

4. Presentation on dam safety in India, Dam Rehabilitation and Improvement Project, Central Water Commission, https://www.damsafety.in/ecm-includes/PDFs/DRIP_II_Presentation/Dam%20Safety%20in%20India.pdf.

5. State Dam Safety Organisations, Central Water Commission, last accessed on October 25, 2019, <http://cwc.gov.in/damsafety/sdso>.

6. Guidelines for safety inspections of dams, Central Dam Safety Organisation, Central Water Commission, June 2017, <http://cwc.gov.in/sites/default/files/guidelines-for-safety-inspection-of-dams-june-2017.pdf>.

7. Report no. 10 of Comptroller and Auditor General of India on schemes for flood control and flood forecasting, Ministry of Water resources, River Development and Ganga Rejuvenation, July 21, 2017.

8. Report on dam safety procedures, Dam Safety Organisation, Central Water Commission, Ministry of Water Resources, July 10, 1986, <http://cwc.gov.in/sites/default/files/admin/report-on-ds-procedures.pdf>.

9. The Dam Safety Bill, 2010, Ministry of Water Resources, August 30, 2010, [http://164.100.47.4/BillsTexts/LSBillTexts/Asintroduced/dam%20safety%20\(To%20be\).pdf](http://164.100.47.4/BillsTexts/LSBillTexts/Asintroduced/dam%20safety%20(To%20be).pdf).

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Annexure

Table 1 below compares the provisions of the Dam Safety Bill, 2019 with the dam safety laws of other countries.

Table 1: International comparison of dam safety laws

Provision	United States	United Kingdom	Brazil	South Africa	India (proposed Bill 2019)
Division of responsibility between centre and state	<ul style="list-style-type: none"> A national dam safety program which provides a model state program; each state has their own dam safety program, staff and budget. 	<ul style="list-style-type: none"> Federal law and national enforcement authority. 	<ul style="list-style-type: none"> Federal law establishes the national dam safety policy and information system; the state laws provide for details such as supervision and penalties. 	<ul style="list-style-type: none"> Federal law and national dam safety office. 	<ul style="list-style-type: none"> Federal law with regulatory bodies at the central and state level.
Coverage of federal law	<ul style="list-style-type: none"> Reservoirs with height more than 7.6 m, or capacity more than 61,674 m³. 	<ul style="list-style-type: none"> Reservoirs, which have water holding capacity more than 10,000 m³. 	<ul style="list-style-type: none"> Reservoirs with: (i) height more than 15 m, or capacity more than 3 million m³, (ii) hazardous waste or damage potential. 	<ul style="list-style-type: none"> Dams with: (i) capacity more than 50,000 m³, or (ii) a safety risk. 	<ul style="list-style-type: none"> Dams with: (i) height more than 15 m, or (ii) height between 10 m to 15 m with certain design and structural conditions.
Functions of federal public authorities under the federal law	<ul style="list-style-type: none"> Establish goals and target dates for the dam safety program. Provide technical and financial assistance to state agencies. Provide dam safety trainings and conduct research to develop technological tools. 	<ul style="list-style-type: none"> Maintain data about reservoirs and identify high-risk reservoirs. Act as enforcement agency by ensuring that owners conduct regular inspections. 	<ul style="list-style-type: none"> Keep a register of the dams under its jurisdiction. Release annual dam safety reports. Enforce compliance by dam owners towards the inspection recommendations. 	<ul style="list-style-type: none"> Keep records of inspections and compile reports. Evaluate if safety norms of a dam satisfy acceptable dam engineering practices. 	<ul style="list-style-type: none"> Evolve and implement dam safety policies and standards. Resolve issues between state authorities and dam owners. Maintain a database of all dams in the country.
Responsibilities of dam owners	<ul style="list-style-type: none"> Each state has their own dam safety program which defines the obligations on the owners relating to inspections, emergency action plans, and monitoring and review. 	<ul style="list-style-type: none"> Follow regulations related to construction, safety and maintenance. Employ qualified engineers for regular inspections. Prepare flood plan to prevent floods and mitigate its effects. 	<ul style="list-style-type: none"> Guarantee safety of dams through regular inspections, safety reviews and dam safety plans. Prepare emergency action plans when required. Maintain a specialised dam safety service. 	<ul style="list-style-type: none"> Carry out regular dam safety evaluations and monitoring. Submit a report on the dam safety by approved persons. Repair or alter a dam, when required. 	<ul style="list-style-type: none"> Provide a dam safety unit in each dam to undertake regular inspections. Prepare an emergency action plan, and carry out regular risk assessment studies. Conduct a comprehensive dam safety evaluation regularly.
Offences and penalties	<ul style="list-style-type: none"> Vary across individual states, as defined by the individual state dam safety legislation. 	<ul style="list-style-type: none"> Fine up to £400 if the owner fails to: (i) comply with rules and regulations, (ii) incorporate recommendations given by inspecting engineers. Imprisonment up to two years and/or fine up to £400 for failing to prepare flood plans. 	<ul style="list-style-type: none"> Vary across individual states, defined by the relevant state legislation. 	<ul style="list-style-type: none"> Fine or imprisonment of up to five years for contravening or failing to comply with the provisions of the legislation. 	<ul style="list-style-type: none"> Imprisonment of up to one year, and/or a fine for: (i) obstructing a person in the discharge of his functions under the Bill, and (ii) refusing to comply with directions issued. Imprisonment may be extended up to two years if the offence leads to loss of lives.

Sources: **United States:** Water Resources Development Act, 1996; Dam Safety and Security Act, 2002; National Dam Safety Program, FEMA; **United Kingdom:** Reservoirs Act, 1975; **Brazil:** Law No. 12,334, National Policy on Dam Safety law, 2010; **South Africa:** National Water Act, 1998; **India:** Dam Safety Bill, 2019; PRS.