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DEVELOPMENT VERSUS DISASTER RISK: THE ROLE OF THE NATIONAL DISASTER MANAGEMENT AUTHORITY IN ENVIRONMENTAL CLEARANCE FOR ECOLOGICALLY FRAGILE ZONES IN INDIA

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ABSTRACT

This paper examines whether the National Disaster Management Authority (NDMA) has the legal authority to make disaster risk a binding consideration when development is cleared in ecologically fragile regions such as the Himalayas and the coast. It argues that the Disaster Management Act, 2005 gives the NDMA a wide policy-making and coordinating mandate, including the power to lay down guidelines on integrating disaster prevention into development projects, but that this mandate has no operational connection to the environmental clearance process administered by the Ministry of Environment, Forest and Climate Change under the Environment (Protection) Act, 1986. Indian courts have partly filled the gap through the precautionary principle, sustainable development and Article 21, yet their interventions remain project-specific, uneven and often deferential where national security is invoked. A comparison with the United States and Japan shows how hazard mapping and funding conditions can be tied to land-use and development decisions. The paper concludes that a statutory fix is needed and proposes amendments to the EIA framework and the Disaster Management Act.

Keywords: NDMA; Disaster Management Act, 2005; environmental clearance; EIA; precautionary principle; Himalayas.

I. INTRODUCTION

Few regions show the tension between development and disaster risk as sharply as the Indian Himalaya. In June 2013, floods and debris flows in Uttarakhand killed thousands of people and destroyed settlements, roads and hydroelectric infrastructure along the Alaknanda and Bhagirathi valleys.[1] A decade later, the pilgrim town of Joshimath made national headlines for land subsidence that cracked homes and forced families to evacuate, even though an official committee had cautioned in 1976 that the town rested on unconsolidated debris and should not bear heavy construction.[2] In both episodes, the question after the event was the same: who was responsible for asking, before the projects were cleared, whether the land could safely carry them?

India's apex disaster management body is the National Disaster Management Authority, but the decision to permit a project in a fragile zone is taken within a different statutory system, namely environmental clearance. This paper asks a doctrinal question: does the NDMA have enough legal authority to make disaster risk a binding factor in environmental clearances for ecologically fragile zones, or is its role limited to advisory guidelines? The hypothesis is that the NDMA's guidelines, which do not feed into the clearance process, leave a regulatory gap that courts have partly filled through the precautionary principle, but that only a statutory reform can close it.

The study is doctrinal. It relies on primary sources, namely statutes, notifications and judgments of the Supreme Court of India, and on secondary material such as expert committee reports and NDMA guidelines. The scope is limited to ecologically fragile zones, with a focus on the Himalayan states and, in passing, coastal regulation. Part II sets out the two legal regimes. Part III identifies the gap between them. Part IV reviews the judicial response. Part V offers a short comparative perspective, and Part VI proposes reforms.

II. THE LEGAL AND INSTITUTIONAL FRAMEWORK

A. THE DISASTER MANAGEMENT ACT, 2005 AND THE NDMA

The Disaster Management Act, 2005 (DM Act) was enacted in the aftermath of the 2004 Indian Ocean tsunami to replace a relief-centred approach with an institutional framework for prevention, mitigation and preparedness.[3] The Act creates a three-tier structure: the NDMA at the national level, State Disaster Management Authorities (SDMAs), and District Disaster Management Authorities (DDMAs). The NDMA is chaired by the Prime Minister.[4] Section 6 gives the NDMA the duty to lay down policies, approve the National Plan and issue guidelines

[1] *See Alaknanda Hydro Power Co. Ltd. v. Anuj Joshi*, (2014) 1 S.C.C. 769 (India).

[2] M.C. Mishra Comm., Report on the Landslide and Subsidence Problem at Joshimath (1976) (India).

[3] Disaster Management Act, 2005, No. 53 of 2005 (India) [hereinafter DM Act].

[4] DM Act, *supra* note 3, § 3.

for State Plans.[5] Importantly for present purposes, the NDMA is also empowered to lay down guidelines to be followed by Central ministries and departments for integrating the prevention of disaster and the mitigation of its effects into their development plans and projects.[6] Section 36 reinforces this by requiring ministries to take measures for prevention and mitigation in accordance with the guidelines laid down by the National Authority.[7]

The NDMA has exercised this mandate largely through hazard-specific guidelines and plans. Its 2009 guidelines on landslides and snow avalanches, for example, call for hazard zonation, land-use regulation and restrictions on construction in vulnerable areas.[8] The National Disaster Management Plan of 2019 aligns domestic policy with the Sendai Framework for Disaster Risk Reduction 2015–2030, which treats the integration of disaster risk into development planning as a central priority.[9] Thus, on paper, the NDMA's remit is not confined to responding to disasters. It extends to shaping development so that disaster risk is not created in the first place.

B. THE ENVIRONMENTAL CLEARANCE REGIME

Environmental clearance rests on the Environment (Protection) Act, 1986, under which the Central Government may take measures to protect and improve the environment, including by restricting areas in which industries or operations may be carried out.[10] The operative instrument is the Environment Impact Assessment (EIA) Notification of 2006, which requires prior clearance for listed categories of projects. Projects are sorted into categories, and the process runs through screening, scoping, public consultation and appraisal by Expert Appraisal Committees (EACs) at the Centre or State-level equivalents.[11] Coastal projects are separately governed by the Coastal Regulation Zone Notification of 2019.[12] A Draft EIA Notification was circulated in 2020 and drew widespread criticism, but it has not displaced the 2006 framework.[13]

The clearance process is administered by the Ministry of Environment, Forest and Climate Change (MoEFCC) and its expert bodies. The NDMA is not part of it. That institutional separation is the starting point of the problem discussed next.

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[5] *Id.* § 6(2).

[6] *Id.* § 6(2)(e).

[7] *Id.* § 36(a).

[8] Nat'l Disaster Mgmt. Auth., National Disaster Management Guidelines: Management of Landslides and Snow Avalanches (2009) (India).

[9] Nat'l Disaster Mgmt. Auth., National Disaster Management Plan (2019) (India); Sendai Framework for Disaster Risk Reduction 2015–2030, G.A. Res. 69/283, U.N. Doc. A/RES/69/283 (June 3, 2015).

[10] Environment (Protection) Act, 1986, No. 29 of 1986, § 3(1), (2)(v) (India).

[11] Ministry of Env't & Forests, Notification S.O. 1533(E) (Sept. 14, 2006) (India) [hereinafter EIA Notification].

[12] Ministry of Env't, Forest & Climate Change, Notification S.O. 5334(E) (Dec. 18, 2019) (India).

[13] Ministry of Env't, Forest & Climate Change, Draft Notification S.O. 1199(E) (Mar. 23, 2020) (India).

III. THE REGULATORY GAP

Four features of the current framework explain why disaster risk does not reliably shape clearance decisions.

First, the EIA Notification does not name disaster risk as a distinct, mandatory criterion for appraisal. Disaster-related material enters the process indirectly, for instance through project-specific terms of reference that may require a disaster management plan or a dam-break analysis for particular sectors, but the content and rigour of such studies are set case by case.[14] Cumulative impact and the carrying capacity of a valley or town, which are precisely the questions raised by Joshimath, receive limited systematic treatment.

Second, the NDMA has no formal role in appraisal. The Notification vests appraisal in expert committees constituted under it and does not provide for NDMA or SDMA participation, concurrence or even mandatory consultation.[15] Hazard maps and zonation advice prepared under the DM Act therefore have no assured entry point into the decision.

Third, the two statutes pull in different directions on overriding effect. The DM Act declares that its provisions prevail over inconsistent provisions in other laws,[16] while the Environment (Protection) Act makes a similar claim in favour of itself and the rules made under it.[17] Because the DM Act is the later enactment and sections 6(2)(e) and 36(a) speak directly to development projects, there is an argument that NDMA guidelines bind Central ministries, including the MoEFCC, when they plan and approve projects. Courts, however, ordinarily try to reconcile competing non obstante clauses through harmonious construction rather than declare one supreme, and no authoritative ruling has addressed this specific interaction. The argument remains plausible but untested, and in practice the guidelines have not been operationalised within the EIA process.

Fourth, the consequences of this gap are documented. The expert body headed by Ravi Chopra, constituted after the 2013 floods to examine the role of hydroelectric projects, found that such projects had aggravated the impact of the disaster in several locations.[18] The Mishra Committee's earlier warning about Joshimath shows that the knowledge existed decades before the damage, but no legal mechanism converted it into a binding limit on construction.[19]

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[14] *See generally* EIA Notification, *supra* note 11.

[15] *Id.*

[16] DM Act, *supra* note 3, § 72.

[17] Environment (Protection) Act, 1986, *supra* note 10, § 24(1).

[18] Expert Body, Ministry of Env't & Forests, Assessment of Environmental Degradation and Impact of Hydroelectric Projects During the June 2013 Disaster in Uttarakhand (2014) (India).

[19] Mishra Comm., *supra* note 2.

IV. THE JUDICIAL RESPONSE

A. DOCTRINAL FOUNDATIONS

In the absence of a statutory link, Indian courts have drawn on constitutional and common-law principles. In *Vellore Citizens' Welfare Forum v. Union of India*, the Supreme Court held that the precautionary principle and the polluter pays principle are part of the environmental law of the country.[20] The principle was elaborated in *A.P. Pollution Control Board v. M.V. Nayudu*, where the Court emphasised that, where scientific uncertainty exists, the burden of showing that an activity is environmentally benign rests on the developer.[21] The Court has also recognised the right to a healthy environment as part of the right to life under Article 21,[22] read with the directive principle on environmental protection and the fundamental duty to protect the natural environment.[23] Internationally, the same idea appears in Principle 15 of the Rio Declaration.[24]

The Court has further insisted that development and the environment be balanced through sustainable development, and that environmental clearance be a substantive safeguard rather than a formality.[25] It has refused to treat clearances granted after a project has begun as a routine matter,[26] and in the *Doon Valley* litigation it restricted mining in an ecologically fragile area precisely because of the damage to the hill ecosystem.[27] These authorities supply the doctrine that a precautionary approach should extend to disaster risk, although none of them was decided as a disaster-risk case in the strict sense.

B. HIMALAYAN PROJECTS AND THE LIMITS OF JUDICIAL REVIEW

The post-2013 litigation is the closest the Court has come to addressing the problem directly. While hearing proceedings connected with hydroelectric projects in Uttarakhand, the Supreme Court directed the Ministry to constitute an expert body to examine whether such projects had contributed to the disaster and restrained further clearances pending that exercise.[28] The Court thereby used its supervisory jurisdiction to force a disaster-focused assessment that the clearance process itself did not require.

The Char Dham road-widening litigation shows the limits of this approach. The dispute concerned whether road widening in the fragile Himalayan terrain should follow a narrower

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[20] *Vellore Citizens' Welfare Forum v. Union of India*, (1996) 5 S.C.C. 647, ¶ 11 (India).

[21] *A.P. Pollution Control Bd. v. M.V. Nayudu*, (1999) 2 S.C.C. 718 (India).

[22] *Subhash Kumar v. State of Bihar*, (1991) 1 S.C.C. 598 (India); India Const. art. 21.

[23] India Const. arts. 48A, 51A(g).

[24] Rio Declaration on Environment and Development princ. 15, U.N. Doc. A/CONF.151/26 (Vol. I) (Aug. 12, 1992).

[25] *Lafarge Umiam Mining Pvt. Ltd. v. Union of India*, (2011) 7 S.C.C. 338 (India).

[26] *Alembic Pharmaceuticals Ltd. v. Rohit Prajapati*, (2020) 17 S.C.C. 157 (India).

[27] *Rural Litig. & Entitlement Kendra v. State of U.P.*, (1985) 2 S.C.C. 431 (India).

[28] *Alaknanda Hydro Power Co. Ltd. v. Anuj Joshi*, Civil Appeal No. 6736 of 2013 (India Aug. 13, 2013) (order); *see also* Expert Body, *supra* note 18.

carriageway width, favoured by the expert committee's environmental findings, or a wider one demanded by the defence establishment. The Court ultimately accepted the defence need and permitted the wider specification, observing that it could not second-guess the armed forces' assessment of strategic requirements.[29] Whatever its merits on the question of security, the case illustrates that where disaster risk competes with a national-security justification, there is no statutory standard for the Court to apply, and the risk assessment becomes one input among many rather than a binding constraint.

C. ASSESSMENT

Judicial intervention has three weaknesses as a substitute for institutional design. It is reactive, because the courts act after a controversy or a catastrophe. It is project-specific, so that each order leaves the general framework untouched. And it depends on judicial deference to expert and executive bodies, which in turn depend on the very process that lacks a disaster-risk standard. Courts can say that precaution matters, but they cannot give the NDMA a seat in the appraisal process or compel the MoEFCC to adopt hazard zonation as a clearance criterion.

V. A COMPARATIVE PERSPECTIVE

The comparison with the United States and Japan is instructive because both link disaster risk to development decisions through law, though by different routes.

In the United States, the Federal Emergency Management Agency (FEMA) operates under the Stafford Act, which conditions certain federal mitigation assistance on state and local hazard mitigation planning.[30] Project-level environmental review is handled separately under the National Environmental Policy Act, which requires an environmental impact statement for major federal actions significantly affecting the environment.[31] FEMA does not itself regulate land use. Its leverage comes from funding conditions, so the American model is incentive-based, and it too leaves a degree of separation between disaster agencies and project approvers.

Japan places the Prime Minister-led Central Disaster Management Council at the apex of a system established by the Disaster Countermeasures Basic Act, which requires a Basic Disaster Management Plan to be followed by national and local bodies.[32] More significantly, Japan has hazard-specific legislation that ties mapping to development control. The Sediment Disasters Prevention Act, for instance, provides for designating areas at risk of sediment disasters and for restricting development and requiring permission in the most dangerous zones.[33] The lesson for India is not that the NDMA should be copied from either system, but that

[29] *Citizens for Green Doon v. Union of India*, W.P. (C) No. 1018 of 2020 (India Dec. 14, 2021).

[30] Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. §§ 5121–5207; *see id.* § 5165 (mitigation planning).

[31] National Environmental Policy Act of 1969, 42 U.S.C. § 4332(2)(C).

[32] Saigai Taisaku Kihon Hō [Disaster Countermeasures Basic Act], Act No. 223 of 1961 (Japan).

hazard mapping becomes effective when a statute gives it consequences for permissions and funding.

VI. RECOMMENDATIONS

Five reforms follow from the analysis.

First, the EIA Notification should be amended to make a disaster risk assessment a mandatory component of appraisal for projects in notified hazard-prone and ecologically fragile zones. The assessment should cover hazard, exposure and vulnerability and, crucially, the cumulative load on the valley, slope or coastline.

Second, the NDMA and the relevant SDMA should be given a defined role in the clearance process, either through membership of the expert appraisal committees or through a mandatory consultation whose written advice must be considered and, if rejected, answered with reasons.

Third, hazard zonation maps and carrying-capacity studies prepared by the NDMA and SDMAs should be given statutory force as inputs to clearance and land-use decisions, with a particular priority on Himalayan towns such as Joshimath.

Fourth, the DM Act should be amended to clarify the relationship between sections 6(2)(e), 36 and 72 and the environmental clearance regime, so that the NDMA's guidelines on integrating disaster mitigation into development projects are enforceable and the conflict of non obstante clauses is resolved by legislation rather than litigation.

Fifth, transparency and public participation should be strengthened by requiring that disaster risk findings be published before public hearings, so that affected communities can contest them. Courts can then rely on a documented record when applying the precautionary principle.

VII. CONCLUSION

The NDMA was created to do more than respond to disasters. The DM Act gives it the power to shape how development is planned, yet the environmental clearance regime that actually decides whether a project in a fragile zone goes ahead does not treat that power as binding. The result is a gap that the Supreme Court has partly filled through the precautionary principle, sustainable development and Article 21, but only case by case and with limited ability to resist security-based arguments.

The hypothesis advanced at the outset is therefore largely borne out. The NDMA's guidelines have a respectable statutory basis, but without a link to the clearance process they

[33] Dosha Saigai Keikai Kuiki-tō ni Okeru Dosha Saigai Bōshi Taisaku no Suishin ni Kansuru Hōritsu [Act on Promotion of Sediment Disaster Countermeasures in Sediment Disaster Hazard Areas], Act No. 57 of 2000 (Japan).

operate in practice as advice, and the courts cannot provide a systemic remedy. The comparative experience suggests that hazard knowledge has effect only when the law attaches it to permissions and funding. Embedding disaster risk assessment in the EIA framework and giving the NDMA and SDMAs a defined role in appraisal would turn the lessons of Kedarnath and Joshimath into a legal requirement rather than a recurring post-disaster observation.