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Beyond Judicial Veto: Public Trust Doctrine, Administrative Decision Making and Implementation of Mining Related Laws

A CASE STUDY OF IRON ORE MINING IN INDIA

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Thesis submitted for the degree of PhD/MPhil

2021

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Abstract

This research examines the application of the Public Trust Doctrine in decision making and resource allocation by the mining bureaucracy in India. It seeks to provide a normative account of the public trust doctrine and argues that modern day public trust doctrine must incorporate elements of the principles of equity, establish strong community participation in decision making, along with robust environmental accountability. It interrogates whether the doctrine has relevance beyond being a judicial veto of administrative action to also be a guiding tool that outlines the limits of administrative power in everyday decision making.

Public Trust Doctrine reconceptualises the state as a trustee of natural resources owing a fiduciary obligation to the community and ecology. Its extensive uptake and application in various jurisdictions across the world demonstrate its enduring relevance but poses a puzzle for natural resource governance. The conceptualisation of the state as a caring and accountable trustee of resources diverges vastly from the reality of state being more of an enterprising economic entity. As the crisis of governance around iron ore mining in India demonstrates, the counterfactual is true, and administrators operate within a complex web of drivers and pressures. Although the doctrine of public trust is invoked by the courts regularly, it is yet to be fully examined and understood as a normative concept in Indian jurisprudence. The limited scholarship on the doctrine thus far, focused primarily on the judicial interpretation, but sheds no light on how the doctrine operates in administrative practice. By examining the guidance, it provides for decision making in the context of iron ore mining, this research argues for a better understanding of the power of democratisation of the doctrine in reality. In arguing for a richer understanding of the doctrine, I suggest that the core content of the public trust doctrine is not a static idea and its iterative reinterpretation is possible only through a process of engagement with the realities of decision making and a sustained consultation with the beneficiaries of the trust resources i.e. the community of people belonging to any nation.

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Acknowledgements

In completing this work, I have accumulated a great number of debts and I may be unable to acknowledge all those to whom I owe a heartfelt thank you.

I am most indebted to my guide Dr. Philippe Cullet who in his unobtrusive manner has been a pillar of strength – providing timely feedback, a warm meal and a much-needed kind word to see me through the difficult patches. And my co-guide Dr. Karen Hudson-Edwards who meticulously read through my initial drafts, providing insights, that sometimes a head completely immersed in the legal nuances missed seeing the bigger picture of the mining sector.

I am deeply indebted to the many retired officers of DMG, Karnataka and IBM Bangalore for their generosity both in terms of time and in sharing contacts which made the field work possible. I am grateful for their understanding and extensive insights into the functioning of the mining sector.

For their support throughout this research, I thank SOAS, Prof Fareda Banda for her timely support in arranging methodology lectures, Bob Burns for his quick turnaround on library related requests, the Doctoral School for the research training and the large number of support staff that made the years at SOAS an extremely pleasant experience.

I am indebted for the financial support provided by the Bloomsbury Scholarship that enabled the study, the field work fund, and my bank for extending financial support at critical times during the study.

Finally, I am most grateful to my family and friends who provided unfailing support and faith in all my endeavours, over the years. Without you folks, many a dream would not have been possible!

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AHTF -	Alberta Heritage Trust Fund
APA –	Administrative Procedure Act
APF –	Alaska Permanent Fund
ATL –	Atmospheric Trust Litigation
BJP –	Bharatiya Janata Party
CAG –	Comptroller and Auditor General of India
CEC –	Central Empowered Committee
CSOs –	Civil Society Organisations
CSR –	Corporate Social Responsibility
DMF –	District Mineral Fund
EC –	Environmental Clearance
EIA –	Environment Impact Assessment
ELS -	Empirical Legal Research
EPA –	Environment Protection Act
FSI –	Forest Survey of India
GoI –	Government of India
IAS -	Indian Administrative Service
IBM –	Indian Bureau of Mines
ICFRE –	Indian Council of Forestry Research and Education
INR –	Indian Rupee
JD (S) –	Janata Dal (Secular)
KMMCR –	Karnataka Minor Mineral Concession Rules
KSPCB –	Karnataka State Pollution Control Board
LDA –	Lucknow Development Authority
MCR –	Mineral Concession Rules
MoEF –	Ministry of Environment and Forests
MMDRA –	Mines and Minerals (Development and Regulation) Act
ML –	Mining Lease
MML –	Mysore Minerals Ltd.

MT – Million Metric Ton

NEERI – National Environmental Engineering Research Institute

NEMA – National Environment Management Act

NGT – National Green Tribunal

NOC – No Objection Certificate

NMET – National Mineral Exploration Trust

NMP – National Mineral Policy

NPM – New Public Management

NRSC – National Remote Sensing Centre

PL – Prospecting License

PTD – Public Trust Doctrine

RP – Reconnaissance Permit

SA – South Africa

SIT – Special Investigation Team

SPCB – State Pollution Control Board

SWF - Sovereign Wealth Fund

TMC – Thousand Million Cubic Metre

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INTRODUCTION

Mineral resources are inherited and inheritable wealth of a nation and its people. Commercial extraction of mineral resources can further enhance this wealth but also contribute to long lasting adverse impacts on the ecology, economy, politics and communities.[1] Over the decades the mining sector transformed itself to be responsive to the negative externalities caused by mining activities, ensuring that it evolves sustainable and scientific mining methods, responding to the needs of local communities and striving to reduce its overall negative footprint.

The cyclical nature of the mining sector creates periods of boom that drive prices to new heights, sparking off ripple effects in the form of increased production, overextraction, illegal mining and rampant corruption. Such critical times requires good governance, with the state taking on the role of the key arbiter that balances the interest of markets, people, and ecology, keeping in mind the long-term interests of sustainability and inter-generational equity.

A weak state with poorly developed institutional capacity leads to the widely studied phenomenon of the 'resource curse,'[2] the paradox of resource rich countries that continue to remain poor even as the benefits from resource extraction eludes its citizens, increased conflicts over resources, rampant corruption and rent seeking behaviour leading to overall poor economic growth.

Acknowledging this reality, efforts have been initiated to adopt practices that make the extractive industry more transparent, equitable and responsible.[3] Also, a spate of national government efforts in recent years, sometimes termed 'resource nationalism,[4] seek to maximise economic returns through increased taxation, enhanced royalty charges, while also adding local protection measures such as limiting the rate of extraction and mandating local employment of

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[1] *See generally* for the literature review on the Resource Curse debate, Jeffery A Frankel, 'The natural resource curse: a survey'. National Bureau of Economic Research, (Working Paper No. 15836), March 2010. And for a review of more recent literature, Ramez Abubakr Badeeb & Lean, Hooi Hooi & Clark, Jeremy, 'The evolution of the natural resource curse thesis: A critical literature survey', *Resources Policy*, Elsevier, 2017, Vol. 51(C), pp 123-134. *Also see*, R. M Auty, *Sustaining Development in Mineral Economies: The Resource Curse Thesis* (London: Routledge, 1993).

[2]For more see, Michael L Ross, 'What have we learned from the Resource Curse' (2015) 18 *Annual Review of. Political Science* 239–59.

[3] "New initiatives to stop the resource curse have been launched by the World Bank, the G20, and the United Nations Development Program. Two multi stakeholder agreements—the Kimberley Process Certification Scheme and the Extractive Industries Transparency Initiative—have been forged." *Ibid* 240.

[4] David Humphreys, *The Remaking of the Mining Industry* (New York: Palgrave Macmillan 2015).

labour. Governance, therefore, is critical to natural resource management, to avoid the adverse effects of resource extraction. The role of the state and the robustness of its institutions is critical to good governance in resource rich states. The state as a trustee of natural resources under the public trust doctrine plays a pivotal role in the future of the country.

Natural resource governance frameworks are informed and shaped by the perception of resource as worthy of exploitation or conservation. In India, during the colonial era (between 1800s-1947) natural resources such as land, forests and minerals were appropriated and declared to be owned by the state to varying degrees.[5] The principle of eminent domain informed early colonial legislation in appropriating and reimagining property ownership.[6] However, this conception of state ownership sat somewhat uneasily with two alternative conceptions – the community ownership model of land in several parts of the country (eg, the plains of India dominated by tribes and the North Eastern part of India) and a deeply feudal understanding of land and resource ownership in other parts of the country. The dominant conception of state ownership of natural resources is currently being reconceptualised, primarily by the judiciary, with the adoption of the public trust doctrine. Natural resources are now understood as held in trust by the State.[7]

Public Trust Doctrine (hereinafter referred as PTD or the doctrine) reconceptualises the state as a trustee of natural resources. Its extensive uptake and application in various jurisdictions across the world in recent years, point to a rethink on both natural resources and the role of the state.[8] The normative content of the doctrine is unclear, particularly in India, where the doctrine is applied to a wide range of natural resources. It is this gap in understanding that the research seeks to fill, firstly, by examining the contours of the public trust doctrine and secondly, interrogating whether the doctrine is merely a 'judicial veto' when the legislature or executive transgress their fiduciary obligation, or does it provide guidance for crafting the administrative and governance framework. It is this interesting intersection of administrative law, environmental law and constitutional law which informs natural resource governance, that remains an understudied area, that this research explores in the context of extractive industries.

[5] Gadgil and Guha, *This Fissured Land: An Ecological History of India* Second Edition, (Delhi: Oxford University Press, 2013).
[6] Usha Ramanathan, 'A Word on Eminent Domain' in Lyla Mehta (ed) *Displaced by Development – Confronting Marginalisation and Gender Injustice* (New Delhi: Sage 2009) 133.
[7] For more see, *M.C. Mehta v. Kamal Nath*, (1997) 1 SCC 388; *M.I. Builders Private Limited v. Radhey Shayam Sahu* (1999) 6 SCC 464; *Reliance Natural Resources Ltd v. Reliance Industries Ltd*., (2010) 7 SCC 1.
[8] Michael C. Blumm & Rachel D. Guthrie, 'Internationalizing the Public Trust Doctrine: Natural Law and Constitutional and Statutory Approaches to Fulfilling the Saxion Vision' (2012) 45 *UC Davis Law Review* 74.

Both mining regulation and administrative decision making[9] are the subject of very few rigorous studies in India. In this study, I examine the normative content of the public trust doctrine against the backdrop of the extractive industries, particularly iron ore mining in Karnataka, where a crisis of governance arose following the surge in market demand for iron ore during the Beijing Olympics. It led to largescale over extraction of mineral resources calling to question the legitimacy of regulatory institutions. The crisis demonstrates that the counterfactual may be true; administrative agencies do not necessarily function as trustees of natural resources.

The dissonance between legislative mandates and executive functioning are at the core of most studies on implementation of laws. In this study, however, the effort is to examine an abstract judicial conception of trusteeship of natural resources and its import on executive action. I use the iron ore governance crisis as a springboard to ask if there is a dissonance in the judicial conception of the state as a trustee and the prisms from which the legislative and executive bodies view their role vis-a vis natural resources. A core idea of trusteeship is to give agency to the beneficiaries or citizens on behalf of whom the state holds the natural resource in trust. It is therefore useful to interrogate whether citizens or the public, through the mechanism of accountability, have a role in constituting and deliberating the content of what forms a public trust resource such as iron ore, and how it is used.

I. Background

The Public Trust Doctrine reconceptualises the state as a trustee of natural resources. Historically the doctrine emerged as a principle to protect public interest in navigation and water ways. The best narrative of the journey this doctrine took is outlined in the seminal work of *Joseph L Sax*. He provides the backdrop against which the doctrine evolved and found a resurgence in the US jurisprudence. In trying to define the doctrine, *Sax* reviews jurisprudence at the time and outlines its core content. He notes that there is no general prohibition against the disposition of trust properties. The State may as a trustee divest lawfully on behalf of private parties but subject to limitations. What exactly these limitations are on the grants made is not entirely clear. Summing up the judicial interpretations at the time, he concludes, rather ambiguously, that "no grant may be made to a private party if that grant is of such amplitude

[9] Administrative decision making is the broad arena of everyday functioning of institutions where wide discretionary powers exist to make key strategic decisions (for instance, grant of licenses; signing of contracts; monitoring grant conditions of a contract) that can impact both institutions and the wider public.

that the state will effectively have given up its authority to govern, but a grant is not illegal solely because it diminishes in some degree the quantum of traditional public uses."[10]

Much has changed since this analytical piece appeared in 1970. In summing up the developments in the American context, *Frank* notes that the public trust doctrine has been applied to water resources but also marginally extended to be applicable to fish, wildlife resources, air quality and air resources.[11] A niggling problem around the jurisprudence in the American context is the applicability to natural resources owned and managed by the federal government, and courts have not mandated an obligation upon federal agencies and their administration of natural resources.[12] The developments, therefore, pertaining to the doctrine have not been entirely dynamic in the US in the last three decades. Having said that, it is pertinent to note here that in the last few years a batch of petitions called the atmospheric trust cases seek to expand the scope of the doctrine.[13]

It is also pertinent to note here that in some jurisdictions, particularly South Africa, the public trust doctrine has moved from a judicial conception to the statute books. Several provisions in the South African environmental legislative schema incorporate the concept of public trust doctrine.[14] However, even here the statutory provisions do not explicate the normative content that informs the doctrine. As *Blackmore* observes, even though the statues have embraced the principles of the doctrine, the policing role of the public and the interventions of the court on behalf of the public remain paramount in protecting the sustainable use of the natural resources.[15] Thus, even the statutory adoption provides only a sketchy guidance to the doctrine.

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[10] Joseph L. Sax, 'The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention' 68 *Michigan Law Review* 477, 486 (1970).

[11] Richard M. Frank, 'The Public Trust Doctrine: Assessing Its Recent Past and Charting Its Future' 45 *U.C. Davis Law Review* 665 (2012).

[12] *Ibid* at 680-681. Also cited in Frank, *Ibid*, see *Sierra Club v. Andrus*, 487 F Supp 443, 449 (D.D.C 1980) where the doctrine was expressly rejected as the basis for protecting federal reserved water rights, in favour of statutory provisions; *Citizens Legal Enforcement & Restoration v. Connor*, 762 F. Supp. 2d 1214, 1231-32 (S.D. Cal. 2011).

[13] The *Atmospheric Trust Litigation*, spearheaded by Our Children's Trust, builds upon the constitutional expression of public trust. In 2011, the organisation filed cases against the U.S. government in all 50 states and internationally as well. The basis of these claims are: (a) that the government is a trustee; (b) resources held in the public trust include air and atmosphere; (c) these resources must be maintained beneficially; and (d) the government has a duty to avoid causing a substantial impairment of the environmental system. A more detailed discussion of this is presented in the next chapter.

[14] Section 2 of the National Environmental Management Act, 1998, Section 3 of both the National Environmental Management Biodiversity Act, 2004 and the National Environmental Management: Protected Areas Act 2003.

[15] Andrew C. Blackmore, 'Getting to grips with the public trust doctrine in biodiversity conservation: A brief overview', 48 *Bothalia -African Biodiversity & Conservation* 1(2018) accessed at http://www.scielo.org.za/scielo.php?script=sci_arttext&pid=S0006-82412018000100020. Also see: Andrew C Blackmore, 'Rediscovering the Origins and Inclusion of the Public Trust Doctrine in South African

In the Indian context, reference is made to, and reliance placed on the doctrine quite extensively to a range of natural resources. The courts, however, do not explicate at any great length the contours of the doctrine and its limits. Courts in India find support for the doctrine both in common law and in Articles 21 and 39 of the Indian Constitution.[16] The first adoption of the doctrine was in 1995 by the Supreme Court in the *M.C Mehta case*[17] which pertained to dredging and diverting of the river Beas by the family of Kamal Nath, then a Member of Parliament, who owned Span Motel. In this case, the court reviewed the public trust doctrine in England and United States, noting that the common law doctrine which traditionally extended to uses such as navigation, commerce, and fishing, is now being extended to all ecologically important lands, including freshwater, wetlands, and riparian forests. It concluded that the government committed a patent breach of public trust by leasing ecologically fragile land to Span Motels whose purpose was purely commercial. The judgement, thus, for the very first time invoked the doctrine of public trust as a common law doctrine that is applicable to Indian jurisprudence.

Three other noteworthy cases that rely on the public trust doctrine in India are: *M.I Builders Ltd v. Radhey Shyam*[18] where the Supreme Court ruled that the doctrine can be read into the right to life protection found in Article 21 of the Constitution, the *Fomento Resorts and Hotels Ltd. v. Minguel Martins*[19] where the Supreme Court read into the doctrine the element of trusteeship on behalf of future generations and the most recent case of *Reliance Natural Resources Ltd*.,[20] where the Supreme Court, in interpreting Article 297 of the Indian Constitution, held that the citizens of the country are the true owners of the natural gas deposits in the country and for the first time extended the doctrine to a wider set of natural resources. The court also relied on Article 39 to call for a more equitable distribution of resources of the country for the benefit of present and future generations. This wider application of the doctrine, however, does not find a detailed legal argumentation or explication by the judiciary. In this study, I examine the normative content of the public trust doctrine against the backdrop of the

Environmental Law: A Speculative Analysis', 27 *Review of European, Comparative & International Environmental Law* 187 (2018).

[16] Paromita Goswami, 'Public Trust Doctrine: Implications for Democratisation of Water Governance' 9 *NUJS L. Rev*. 67 (2016).

[17] *M.C. Mehta v. Kamal Nath*, (1997) 1 SCC 388.

[18] *M.I. Builders (P) Ltd. v. Radhey Shyam Sahu*, (1999) 6 SCC 464.

[19] *Fomento Resorts & Hotels Ltd. v. Minguel Martins*, (2009) 3 SCC 571.

[20] *Reliance Natural Resources Ltd. v. Reliance Industries Ltd*., (2010) 7 SCC 1.

extractive industries, particularly iron ore mining in India, and its uptake by the administrators of mineral resources.

Extractive industries[21] contribute to economic development but have associated social and ecological costs. Negative externalities emanating from mining are wide ranging: from degradation of water sources, loss of land and livelihoods, occupational health and safety, public health impacts, to loss of biodiversity. Profits from extractive industries do result in positive spinoffs but these profits rarely reach communities that are directly impacted by mining. In the Indian context, another important concern is that of rampant illegal mining which challenges the very legitimacy of environmental regulatory institutions, exacerbates conflicts around mining and the resultant environmental damage that remains unaddressed even when illegal mining is halted.[22]

On balance, the iniquitous benefit sharing of revenues and resources foregrounds the question of rights over mineral resources, which traditionally is understood as belonging to the state. However, this conception of state ownership of mineral resources (and other natural resources) is currently being reconceptualised; natural resources are now understood as held in trust by the State.[23] What are the implications of such a formulation? What obligations and rights does such a formulation create? How does the state apparatus understand such a formulation and incorporate it into their everyday decision making? Do citizens or the public have a role in constituting and deliberating the content of what forms a public trust resource and how it is used? Or is the public trust doctrine a mere legal fiction with no application on the ground?

Although the public trust doctrine is invoked by courts regularly, it is yet to be fully examined and developed as a normative concept in Indian jurisprudence. In attempting to build a strong normative account of the public trust doctrine, I review its historical origins, its transformations and manifestations in the modern era and its potential for uptake as a credible redefinition of the state's role as 'public trustee' of natural resources, not just water resources.

[21] Mining in India has a long history. Mining is the process of extracting a naturally occurring material from the earth to derive a profit." Mining can be of different kinds of materials – (i) metallic ores such as gold, iron or copper; (ii) non-metallic ores such as sand, granite or gravel; (iii) fossil fuels such as coal; (iv) naturally occurring liquids such as petroleum and natural gas.

[22] Government of India, ISID Study for Planning Commission, *Sustainable Development: Emerging Issues in India's Mineral Sector, Sponsored by the Planning Commission* (May 2012) http://planningcommission.nic.in/reports/sereport/ser/isid_mining%20_report1206.pdf accessed on 15th Feb 2018.

[23] Indian cases on PTD, *Supra* note 7.

The thesis argues that modern day public trust doctrine must incorporate elements of principles of intergenerational equity, establish strong community participation in decision making, rethink the accountability framework, alongside building a strong sustainability (corpus protection) agenda. It also argues that the doctrine has relevance beyond being a judicial veto of administrative action to be a powerful guiding tool that outline the limits of administrative power in everyday decision making. In making this claim, I shift the focus of the doctrine from being a state centric obligation of 'trusteeship', to that of role of the beneficiary i.e., the public, to invite participation in crafting and giving meaning to the doctrine through an effective accountability mechanism. I argue that for the doctrine to be effective it requires to be understood by the administrators of the trust resources. Additionally, that understanding needs to move from a 'public management of resources' framework where the focal point (and perhaps the repository of all expertise) is the state to a more broad-based understanding that involves all stakeholders, particularly the beneficiary citizens, in both decision making and resetting the accountability mechanisms to flow downwards to citizens equally.

II. Situating the Research.

This thesis examines the crisis in governance – a crisis that threatens to undermine the very legitimacy of governance and environmental institutions in India – and highlights the need to examine the role of the state against the backdrop of privatisation of natural resources, including mineral resources. I juxtapose this crisis against the larger crisis of the modern state, its hollowing out and current redefinition within a neo-liberal globalised context. It provides an opportunity to explore the intersections between a rapidly deregulating state being urged by global economic and political forces to take on the role of a facilitator of growth, and the judiciary stepping in to remind the state of its role as a custodian or trustee of natural resources for present and future generations. The crisis in mining regulation requires that we revisit the public trust doctrine to both broaden its scope and application in the Indian context.

In applying the doctrine to a range of natural resources, the Indian Supreme Court has effectively moved the discourse around the public trust doctrine beyond its original moorings in water jurisprudence. Although the normative content of the doctrine remains unclear, it offers a powerful tool in reconceptualising state obligations about natural resource governance. In attempting to build a strong normative account of the public trust doctrine, I review the modern day understanding of the doctrine but also identify the need for a sharper engagement and reconceptualization of the doctrine so as to understand its potential for uptake as a credible redefinition of the state's role as 'public trustee' of natural resources, not just water resources.

The potential of the doctrine in *democratisation of resource protection and resource allocation* is at the core of this research. By looking at the case study of extractive industries, I examine if the doctrine plays out differently in the context of non-renewable resources and what guidance it offers to the question of responsible and equitable use of resources. I also examine, albeit in a limited way, the adoption of the doctrine by the legislature (if any) in the primary legislations that govern mining.

Other than siting the research within mineral resources, the public trust doctrine is examined within a site other than the judicial space and forays into the critical domain of administrative decision making, where most of the trust related decision-making is undertaken. Evaluating the public trust doctrine's value to natural resource law, *Erin Ryan* examines the importance of siting the doctrine in the US context within the judiciary and the administrative arena and states:

> "If the judiciary is seen as the least dangerous branch (and the one most shielded from short-term majoritarian interests), then the public trust offers an ideal means of guaranteeing judicial oversight whenever public trust values are threatened. But, if the expertise of the· administrative state and the public-accountability required of agency action under the Administrative Procedure Act (APA) are exalted, then channelling natural resource decisions through an executive agency seems more likely to yield the most informed, comprehensively analyzed results. However, as the last fifteen years have shown, even agencies staffed with experts are vulnerable to capture, and the APA provides little means of public oversight of informal adjudication, which comprises the vast majority of agency action"[24]

The objectives of the study are three-fold. First, the study examines the judicial interpretation of the doctrine in select jurisdictions to understand its expanding scope and the diversity of interpretations. The study then examines the interpretation of the doctrine in the Indian context to explicate its normative content, to better understand its scope and limitations. Second, through an empirical survey, it examines the application of the doctrine in practice, in the context of iron ore mining in India, to determine both the limits to administrative power and the guidance the doctrine provides for decision making. A primary survey of secondary rules and regulations has been undertaken to look for evidence of the doctrine in practice. Third, based on an understanding of the doctrine from both the judicial and administrative arena, it

[24] Erin Ryan 'Public Trust & Distrust: Theoretical Implications of the Public Trust Doctrine for Natural Resource Management', Faculty Publications, 252 (2001) accessed at https://scholarship.law.wm.edu/facpubs/252 at pp 492-493.

theorises the potential of the doctrine in natural resource governance, accountability, and democratisation of resource allocations. While the study is specific to the state of Karnataka and one mineral resource i.e., iron ore, the findings could be useful for study of other natural resource governance frameworks.

The novelty that this research offers is to provide a thick normative account of public trust doctrine in India, which remains a gap in existing literature. Additionally, there is a novelty in carrying out an empirical study on how the doctrine works in the administrative arena of extractive industries, where complex decisions are made on an everyday basis. Thus, this study also contributes to providing insights into how meaning can be infused into a judicial doctrine that is currently understood in the abstract. The doctrine has been extended to include minerals in several jurisdictions but the implications of the doctrine to a non-renewable resource is qualitatively different from extending it to a renewable resource. It is this gap in literature and the need to evolve the public trust normative framework for natural resources that is at the core of this study.

Locating itself firmly within the normative discourse around public trust doctrine, this research asks the central question: Why is judicial guidance on the public trust doctrine difficult to translate into institutional practice? It asks four specific questions in relation to extractive industries (iron ore mining in India) – (a) What is the normative content, scope and limitations of the public trust doctrine and its potential for regulation of non-renewable mineral resources in India? (b) Which provisions in mining law embody the idea of the public trust? (c) What guidance does it provide for administrators of iron ore mining in India and what are its limits in administrative decision making? (d) What is the potential of the doctrine for accountability and democratisation of resource governance?

The research has the potential for guiding legislators and policy makers in incorporating the doctrine more extensively but it also has the potential for providing the judiciary an understanding of what challenges exist in governing a public trust resource. In expanding the understanding of the public trust doctrine, I argue on three specific themes – (a) it is well established that the doctrine has its roots in property jurisprudence and over the years has been co-opted into the environmental jurisprudence. Insufficient attention has been paid to it as an administrative principle that imposes fetters on executive power while also providing guidance to administrators tasked with being trustees of natural resources and this gap in judicial understanding needs to be remedied, (b) the core normative content of the public trust doctrine

leads to a reimagination of the role of the state vis-à-vis nature. It reconstitutes the state as trustee with obligations and duties to the beneficiaries namely the citizens. But, more importantly, it links up to a core constitutional value i.e., the welfare of not just citizens but nature, for both present and future generations. (c) To be effective, the accountability framework for the doctrine has to be tailored to the core idea of the doctrine, i.e, the beneficiary citizens are the ultimate decision makers and hence direct accountability downwards is critical.

III. Field Work, Methodology and Ethics

Complex decisions are made every day by administrative agencies; the arena of bureaucratic discretion being vast and at times, unguided. This research examines the application of the public trust doctrine in practice by environmental regulators, in this instance, the mining administrators.

The research is divided into two parts – the first part is both expository and evaluative in nature. Expository scholarship is "viewed essentially as answering descriptive questions about the way the legal world is"[25] and evaluative research "subjects the law to appraisal either from the point of view of coherence with the earlier law, other areas of law, or from an external viewpoint, and where shortfalls are identified, suggesting how things might be improved."[26] However, it must be clarified that descriptive work should not be mistaken for being simplistic and in fact may involve highly complex expositions.[27] The question of what the scope, content and limitations of the public trust doctrine in India engages in expository scholarship. The comparative secondary research seeks to find similarities and differences with the understanding of the doctrine in other jurisdictions, thus attempting an evaluative exercise.

The second part of the research is primarily concerned with the 'law in action' and attempts to test the hypotheses that the doctrine is not merely a judicial veto but provides clear guidance to both the legislature and executive in carrying out their responsibilities. As *Webley* notes, both epistemology (the way we know things) and ontology (what things are) influence the way in which a researcher evolves and designs the research, interprets, and reports findings based on the evidence gathered.[28] This study adopts a mixed method approach – a combination of

[25] Roberty Cryer et.al., *Research Methodologies in EU and International Law* (Oxford: Hart Publishing 2011) at 9.
[26] *Ibid* 9.
[27] *Ibid* 9.
[28] Lisa Webley, 'Qualitative Approaches to Empirical Legal Research' *in* Peter Cane and Herbert Kritzer (eds) *Oxford Handbook of Empirical Legal Research* (New York: Oxford University Press 2010) at 3.

theoretical, doctrinal, and empirical approaches. The empirical approach adopts a qualitative research method, deriving from the bureaucratic (elite) interviews the themes or patterns of influence on their decision-making process, including the influence of the concept of state as a trustee of the resources.

Doctrinal research methods[29] continue to dominate legal scholarship, but not without criticism. Amongst the most potent criticisms levelled against it is that it is primarily dogmatic research that does not sufficiently consider the social, economic, and political implications of the legal process.[30] As *Chynoweth* notes, the function of doctrinal research is not about the law. "In asking 'what is the law?' it takes an internal, participant-orientated epistemological approach to its object of study and, for this reason, is sometimes described as research *in* law."[31] He further notes the "normative character of the law also means that the validity of doctrinal research must inevitably rest upon developing a consensus within the scholastic community, rather than on an appeal to any external reality."[32]

The doctrinal component of the research is divided into two parts. In the first part, it seeks to review secondary literature to understand the evolution of the doctrine in select jurisdictions internationally. In selecting the jurisdictions for study, I focus on those that provide guidance in understanding the historical origins, explicating the normative content, application of the doctrine to a range of natural resources and those jurisdictions that take the doctrine in new directions. In doing the comparative legal survey, I am cognizant of the need to distinguish developments in the different legal traditions of common law, civil law, or mixed legal systems. Although, I look at a range of jurisdictions, some that need highlighting here are the common law jurisdictions of USA, Sri Lanka, and two mixed legal systems (South Africa, Philippines).

In the second component of the doctrinal survey, I examine the interpretation of the doctrine within the Indian jurisdiction. It primarily focusses on Supreme Court rulings, a few National Green Tribunal rulings, to provide an account of the scope, content, and limitations of the

[29] Historically, the doctrinal process has been described within a problem framework with a number of linear steps including assembling the facts, identifying the legal issues, analysing the issues with a view to searching for the law, undertaking background reading and then locating primary material, synthesising all the issues in context, and coming to a tentative conclusion. *See* generally, Terry Hutchinson, 'The Doctrinal Method: Incorporating Interdisciplinary Methods in Reforming the Law', *Erasmus Law Review*, Vol 8. No.3, (2015).
[30] *Ibid.*
[31] Paul Chynoweth, 'Legal Research' in A. Knight & L. Ruddock (eds) *Advanced Research Methods in the Built Environment* (Chicester: Wiley- Blackwell, 2008) 28–38, at 30.
[32] *Ibid*,

doctrine. As on 2019, there were fifty Supreme Court cases[33] on the public trust doctrine and these were examined in depth to understand their implications for Indian jurisprudence. It also traces the incorporation of the doctrine within statutes, administrative orders pertaining to the case study on iron ore mining.

While the doctrinal research provides insights into the conceptual framework, it is unclear how the concept applies in practice, guiding decision making by the mining administrators. Is the doctrine applied in decision making and does it provide guidance in balancing conflicting interests and demands? Such an enquiry requires insights from the field and the study takes on a socio-legal empirical component to enhance this understanding. In attempting this, it limits the study to iron ore mining in India, where the counterfactual in recent years is evidenced to be true. The three states of Goa, Odisha and Karnataka witnessed widespread breach of the idea of state trusteeship of natural resources and the aftershocks of this continue to reverberate. In this study, I focus on the state of Karnataka, supplemented by interviews with the officers from the Indian Bureau of Mines (IBM), which is at the Central Government level.

Empirical legal research (ELS) has evidenced rapid growth in the last two decades. Its origins, although not entirely organic and linear, is traced to three major independent academic associations involved in law-related empirical work.[34] The growing popularity of the ELS movement, *Einsberg* attributes to the belief that "it is better to have more systematic knowledge of how the legal system works rather than less, regardless of the normative implications of that knowledge."[35] Further estimating the impact of the ELS scholarship, *Einsberg* notes that it broadens the intellectual environment through interdisciplinary work.[36]

3.1 Selection of case studies

The research site for empirical data gathering was select states in India where iron ore mining, following a global surge in demand resulted in rampant illegal mining. The mineral map of India is at **Annexure A**. Although the coal sector in India also evidenced illegalities, coal was in the public sector until recently and hence, is not selected for study. In trying to lay bare its

[33] This figure is from a word search for "public trust doctrine" on the SCC Online Web Resource. (Some of the cases overlap in content or just use the term without any application of the doctrine and these have been excluded from the detailed survey).
[34] The Law and Society association, the American Law and Economics Association (ALEA) and Society for Empirical Legal Studies. Eisenberg T, 'The Origins, Nature and Promise of Empirical Legal Studies and a Response to Concerns' (5) *U of Illinois Law Review* 1713 (2011).
[35] *Ibid* 1720.
[36] *Ibid* 1737.

normative content, the study gathered empirical data around the crisis of governance within iron ore mining in the state of Karnataka to examine how the doctrine guides (or fails to guide) state agencies in carrying out their tasks.

3.2 Evaluative criteria

The unit of analysis is guidance available to administrative decision making in iron ore mining. The evaluative criteria for examining the use of the doctrine in decision making is evolved *a priori* from secondary literature and the guidance provided by case law and legislation. A brief listing of the framework that informed the semi-structured interviews is provided below based on the literature survey carried out. (For a more detailed listing of the evaluative criteria, see **Annexure – B**)

a) Are the trustees conceived of as mineral trust resource managers? If yes, what skills should they possess?
b) What barriers exist in implementation of the mineral trust resource? Political, Financial, Internal Capacity, External Pressures.
c) What role is envisaged for citizens in protecting the mineral trust resource?

Three areas where the failures are most evident – (a) grant of licences; (b) environmental protection (EIA, pollution) and closure of mines; (c) citizens participation – are carved out as specific arenas for study.

3.3. Qualitative Research and Data gathering

The empirical research adopts a semi-structured interview of experts (administrators) through the process of purposive sampling of elite[37] interviewees. The interview questionnaire is at **Annexure C**. In discussing elite (or intensive) interviews, *Hochschild* [38]notes that the central purpose of "elite interviews is to acquire information and context that only that person can provide about some event or process: What did that person do and why? How does he or she explain and justify his/her own behaviour? What does the person remember of how others

[37] The word 'elite' refers to persons chosen for their particular position, professionals such as administrators, senior management or board members and does not mean someone of high social, economic, or political standing.
[38] J.LHochschild, 'Conducting Intensive Interviews and Elite Interviews', Workshop on Interdisciplinary Standards for Systematic Qualitative Research (2009) accessed on 28 March 2018. <https://scholar.harvard.edu/jlhochschild/publications/conducting-intensive-interviews-and-elite-interviews>

behaved, and why? How does the person understand and explain the trajectory of the event or process? What succeeded or failed, from that person's vantage point?"[39]

Triangulation of data is possible when the questions are posed to various levels of the administration to glean data validity, coherence, and consistency. It was also be built into the design of questionnaires where the same question is posed in multiple ways. Wherever appropriate, data has been triangulated with interviews of related administrative bodies such as the Pollution Control Board, industry experts and NGOs to gather insights into the governance of mining, provide technical insights into sustainability practices (or the lack thereof) being adopted by mining companies and their interpretation of the role of the state as a balancer of interests and a trustee of resources. The sample size is thus pre-determined by the number of experts in the state and central government departments.

3.4 Purposive Sampling and Snowball Technique

A combination of purposive and snowball techniques is adopted. Purposive Sampling refers to the technique of selective sampling of interviewees based on the researcher's knowledge of the subject area. Based on purposive sampling, the identification of stakeholders for elite interviews is listed below.

Mining and Environment Administrators: Current and retired officials in the key institutions include Indian Bureau of Mines (Regional Offices), State Department of Mines and Geology, District Mineral Fund, State Pollution Control Board.

Mining Industry: Federation of Indian Mineral Industries.

Others: NGOs and Civil Society Organisations, environmentalists and academics.

The purposive sampling is combined with the snowball technique where the initial set of interviewees were relied on to help identify other potential subjects for the elite interviews.

3.5. Ethical Considerations

Research ethics requires that the participants identity is anonymised and protected at all times for their security. As noted above, the semi structured questionnaire and the consent form is at **Annexure C.**

[39] *Ibid.*

3.6 Research Methods

As a first step, I seek to explicate in some detail the judicial understanding of the public trust doctrine by the Indian judiciary. In doing so, I adopt a purely doctrinal approach, analysing the core content of the identified case law dealing with the public trust doctrine. I narrow my interpretative circle to only those rulings by the Supreme Court of India, although the National Green Tribunal in recent years has attempted to work with the doctrine in deciding several issues of resource governance. With regard to the application of the doctrine to mining and the mineral sector, I do a tangential search and analysis for a brief examination to determine if the courts look at the doctrine with regard to non-renewable resource in a distinct manner.

In the second half of my research, I relied heavily on semi-structured interviews and observation to develop arguments of the perception of the mining administrators and their understanding of the role of the state departments. I drew up a semi-structured questionnaire that allowed the retired officers to engage in some critical analysis of the conflicting demands on their work, balancing of interests, and the guidance provided by either the statute or their political bosses. I carried out a sample survey interview but realised that the experience of each officer may be unique to the time they served at the department, the level at which they served and also the exposure to demanding situations. The interview schedule thus had to be administered in carefully calibrated sections as some sections elicited little or no response from the respondent/s. A more detailed account of the research process is captured in Chapter 4.

3.7. Gaps and Limitations of the Study

This thesis is focused on understanding of the public trust doctrine in practice, its normative content and an accountability framing that takes note of the trusteeship model of natural resource governance. There are several limitations to the study which is worth noting here. First, the research is limited to a very small geographical area of work, i.e., one state of India. This geographical scope and the number of expert participants interviewed limits the scope and application of the findings of the study. The original proposal was to study a large group of administrators spread over three states. This was too ambitious, and it did not take into account that permissions to interview serving officers would be difficult to obtain. Second, the research is limited by the fact that the interviewees or experts chosen required to be officers at the level of decision making. This cadre of senior officers is a small cohort, difficult to access and build contacts through the snowballing method.

Third, the research was constrained by first, the general elections that took place in India and then followed by the pandemic related lockdowns that made accessing people and resource

materials more cumbersome. Fourth the participants are all retired officers which has both a strength and weakness for the data gathered. On the plus side, the participants were more open and willing to express their views, had a good hindsight of their work post retirement and were able to look at issues raised more critically. They also had plenty of time to give to the interviews. On the negative side, the knowledge was not current, and their memory may have been erroneous on past events which makes the data skewed towards a more outdated understanding of the functioning of the mining department. However, it must be noted that given all the limitations, the study still manages to capture the essence of the decision-making approach that mining administrators carry into their everyday functioning.

Finally, this study although limited in scope and application to one jurisdiction, is within the small but growing body of literature examining the role of the state and administrators in environmental governance. It is also an attempt at establishing a normative content through a process of distilling from the theoretical judicial interpretation and an empirical understanding that the administrators provide of their work.

IV. Chapter Outlines

This thesis contains three key components – a conceptual framework, case study and analysis and the final component that theorises the public trust doctrine. It is useful to provide a quick overview of the three components below:

Part A: Conceptual Framework

2. Understanding the Public Trust Doctrine – A brief overview of the Normative Content of the Doctrine in Select Jurisdictions

   In examining the role of the state, the research picks one specific prism, the trusteeship role of the state in resource management for examination. In this chapter, I examine the normative content of the doctrine as adopted and practiced in a few select jurisdictions around the world.

3. The Public Trust Doctrine in India – A judicial conception of the State and Natural Resources

   In this chapter, I examine the judicial adoption and subsequent interpretation of it in the Indian context. It examines the Supreme Court rulings (fifty cases) in some depth, along with a few National Green Tribunal rulings. This enquiry seeks to uncover the normative description of the public trust doctrine in the Indian context.

Part B: Case Study and Empirical Research

4. Iron Ore Mining in India – The Crisis of Governance

This chapter sets up the context within which the crisis of governance in Iron Ore mining arises in India. It outlines the violations that led up to an intervention by the Supreme Court in the states of Odisha, Goa and Karnataka and the subsequent events that led to the banning of iron ore mining in the three states for a few years. In laying out the case study, this chapter lays bare the administrative (in)action in the run up to the crisis. The examination also sheds light on the arena of discretionary power in bureaucratic decision making critical to resource management, particularly the spaces where trusteeship functions could be upheld. This chapter also examines the legal provisions, both primary and secondary legislation, that have the trusteeship idea embedded in them.

5. Trusteeship in Mining Governance – Karnataka
   This chapter presents the field data on perceptions of the mining bureaucracy on their role as trustees of mineral resources. The analysis is set against the evaluative criteria, providing insights into the application and relevance of the doctrine in practice.

Part C – Accountability and Theorising the Public Trust Doctrine in India

6. Beyond Judicial Veto – Thinking through Accountability Mechanisms

   This chapter draws from Part A and B to demonstrate the application of the doctrine in practice is not informed by the normative content of the doctrine (as understood in the judicial and legislative framework). Administrators, particularly of a renewable resource require clear guidance so as to be able incorporate the doctrine in their decision making. In this chapter, I pick on the single aspect of accountability within the framework of the doctrine and carry out a thought experiment on how the accountability mechanisms need to be reworked to suit the needs of the public trust doctrine.

7. Theorising the Normative Content of the Doctrine in India

   Building on the doctrinal and empirical work, I offer a theoretical understanding of the interaction between a judicial doctrine and its uptake in institutional culture (both legislative and executive). This chapter also seeks to examine the tensions that exist between the conceptual framework of the doctrine and the complex web of other concepts within which is it struggles to survive to be a robust doctrine.

8. Conclusion

   In conclusion, the chapter summarises the findings, theoretical insights and the broader implications of the study. It also identifies the key recommendations for reconceptualising the doctrine. It also reflects on the areas of further research and point towards any extension of the work into policy studies or legal reform.

CHAPTER ONE: UNDERSTANDING THE PUBLIC TRUST DOCTRINE IN SELECT JURISDICTIONS

***Abstract**: In this chapter, I provide a broad overview of the Public Trust Doctrine, its historical evolution, definitional diversity, and normative approaches. I examine the normative content of the doctrine as adopted and understood by two distinct approaches to the doctrine – the trusteeship approach and the property law approach. In carrying out this exercise, I keep the focus on the utility of the doctrine is ensuring agency accountability. This chapter argues that the historical underpinnings of the doctrine are ambiguous, and the modern application of the doctrine has evolved into a fluid idea to prevent governance missteps. The doctrine emerges as protection of public easement over resources that are to be held in common and provides a public accountability framework for resource management by the state.*

"The "public trust" has no life of its own and no intrinsic content. It is no more-and no less-than a name courts give to their concerns about the insufficiencies of the democratic process."[40] – Joseph Sax

I. Introduction

The difficulty in defining the scope and limits of public trust doctrine is best captured by the above quote by Prof Sax. The statement also captures the broad range of circumstances in which the doctrine has been identified by the judiciary as necessary to correct governance missteps. Sax's intuitive vision that the doctrine is a fluid idea, the contents of which morph with challenges that emerge from modern day natural resource administration, making it difficult to be defined with precision remains valid even today. As a result, the doctrine continues to generate much controversy and academic debate.

The judiciary, in several countries, relied on the doctrine to protect a wide range of natural resources modifying and stretching the scope as they went along. Indeed, so widely used is the doctrine that it has long transcended its original historical conception to become a truly living modern judicial and legislative innovation. Is the doctrine then a new metaphor for agency accountability in natural resource management? Does it create sovereign obligations and is it a part of the constitutional foundations? More specifically, I ask, in this rapidly changing jurisprudence, what is the core content of the doctrine which provides guidance to all actors involved in resource management? I explore these questions from a global perspective in this chapter and in the next few chapters, I examine this with a specific focus on mineral resources and mining administrators in India.

[40] Joseph Sax, *Supra* note 10 at 521.

Two specific approaches or strands of thought pertaining to the Public Trust Doctrine can be discerned in the literature. One that views the doctrine as imposing obligations on the state as a trustee of natural resources on behalf of the people, equating these obligations to those in private trust law[41] and the second, an approach that views the doctrine as a public easementary right over resources; a right that does not extinguish even on transfer of property to private parties.[42] Some even go so far as to state that the doctrine predates the private property regime, thus creating rights and claims that are prior in time.[43] Although, there is case law to indicate the use of the doctrine by government agencies to enhance their police powers, this strand of judicial pronouncements has been rejected as an aberration.[44] Additionally, in a careful examination of the doctrine, *Byrne*[45] finds two distinctive aspects to the doctrine - the one where the doctrine protects the public right of use or access to trust resources and the second, which requires public officials to take into account the public interest in natural resources before alienating private rights in public trust resources.

Before we proceed with the discussion on the doctrine, two caveats are in order. One, although the literature on the doctrine is large, very few scholars focus on the core normative content of the doctrine and its applicability in practice. Hence, with the narrow focus on the normative core, this chapter revolves around a tiny sliver of the public trust doctrine literature. Second, this chapter does not directly deal with the case law from various jurisdictions, that may outline the normative core of the doctrine in specific instances of conflict before the courts. It only derives from secondary literature the interpretations of case law and their contribution to our understanding of the normative components of the doctrine. This second limitation is adopted keeping in mind the need to retain the focus of the study and not to widen the scope to other jurisdictions.

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[41] *See generally* M.C.Wood, *Nature's Trust: Environmental Law for a New Environmental Age*, (New York: Cambridge University Press 2014).

[42] *See generally*, Peter Byrne, 'The Public Trust Doctrine, Legislation, and Green Property: A Future Convergence?', 45 *U.C. Davis Law Review*. 915, 918 (2012).

[43] *See generally*, Hope M. Babcock, 'Should Lucas v. South Carolina Coastal Council Protect Where the Wild Things Are? Of Beavers, Bob-o-Links, and Other Things that Go Bump in the Night', 85 *Iowa Law Review*.849, 889–98 (2000).

[44] See Huffman, JL, 'A Fish out of Water: The Public trust doctrine in a constitutional democracy', 19 *Environmental Law*, 527-572 (1989) at 558 as cited in E Van Der Schyff, 'Unpacking the Public Trust Doctrine: a Journey into Foreign Territory' 13 (5) *Potchefstroom Electronic Law Journal* 1(2010). "The problem with the equation of public trust and police power is that the public trust doctrine purports to be the basis of a rights claim rather than a source of governmental power. Because public trust rights are understood to predate other property rights, their status in relation to those rights claims is always prior in time, and therefore, superior in right. There can be no claim that enforcement of public trust right results in a taking because individual property rights are by definition subject to the prior public rights."

[45] Byrne, *Supra* note 42 at 916.

The discourse around public trust evolved largely around American judicial pronouncements. This is surprising indeed, as the judicial evolution of the doctrine in the United States is not as dynamic as its counterparts elsewhere in the world. Summing up the developments in the American context, *Frank* notes that the public trust doctrine has been found to be applicable to water resources but also marginally extended to be applicable to fish, wildlife resources, air quality and air resources.[46] The jurisprudence is largely developed by the individual states with the Federal Courts remaining consistently against the expansion of the application and scope of the doctrine.

The developments, therefore, pertaining to the doctrine have not been entirely dynamic in the last three decades in the American jurisprudence, despite the vast body of academic literature and several state constitutions adopting the doctrine as an important legal principle. A significant issue with the jurisprudence is its applicability to natural resources owned and managed by the federal government; courts have not mandated an obligation upon federal agencies and their administration of natural resources.[47] In the more recent *Juliana* case[48] (popularly known as the Atmospheric Trust Case), this view of PTD application to federal agencies was sought to be reviewed and a federal public trust claim within the Fifth Amendment, due process right was sought to be recognised.[49] However, this challenge failed on technical grounds of the plaintiffs lacking standing under Article III.[50].The court however did not decide the more substantive question of whether the plaintiffs have a constitutional right to a climate system capable of sustaining human life. Countries such as South Africa, India, Sri Lanka and the Philippines expanded the scope and application of the doctrine, amplifying its utility beyond environmental jurisprudence.[51]

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[46] Richard M. Frank, 'The Public Trust Doctrine: Assessing Its Recent Past and Charting Its Future', *45 U.C. Davis Law Rev* 665 (2012).
[47] *Ibid* at 680-681. Also see *Sierra Club v. Andrus*, 487 F Supp 443, 449 (D.D.C 1980) where the doctrine was expressly rejected as the basis for protecting federal reserved water rights, in favour of statutory provisions; *Citizens Legal Enforcement & Restoration v. Connor*, 762 F. Supp. 2d 1214, 1231-32 (S.D. Cal. 2011).
[48] *Juliana v. United States*, 947 F. 3d 1159, 1159 (9th Cir 2020). For a more detailed discussion see generally, Kacie Couch, 'After Juliana: A Proposal for the Next Atmospheric Trust Litigation Strategy', 45 *Wm. & Mary Envtl. Law. & Policy Review*. 219 (2020), https://scholarship.law.wm.edu/wmelpr/vol45/iss1/8 .
[49] *See* Michael C Blumm and Mary Christina Wood, 'No Ordinary Lawsuit: Climate Change, Due Process, and the Public Trust Doctrine' 67 *American University Law Review* 1 (2017).
[50] Article III, Section 1 of the US Constitution provides the authority for the creation of the US Supreme Court and subordinate courts as Congress may identify. https://thebusinessprofessor.com/en_US/criminal-civil-law/article-iii-courts
[51] See Michael C. Blumm & R.D. Guthrie, 'Internationalizing the Public Trust Doctrine: Natural Law and Constitutional and Statutory Approaches to Fulfilling the Saxian Vision', 45 *U. C Davis Law Review*. 741, 746 (2012)

In this chapter, I examine the literature in different jurisdictions to understand the core content of the doctrine and its implications for agency accountability. I divide the enquiry into three parts. In the first part, I examine the historical underpinnings of the doctrine in ancient times, followed by a brief summation of modern interpretations of the doctrine in different jurisdictions. In the second and third part, I focus exclusively on the definitions and the normative content from two different approaches – the trusteeship approach and the property rights approach. In the final section, I examine the agency accountability as read into the public trust doctrine to understand its scope and limitations. The final section also outlines the more current developments and new meanings being attributed to the doctrine.

II. History of the Public Trust Doctrine

The traditional rights of the public over resources that are held in common such as air, rivers, lakes, the sea and the seashore are protected since antiquity. Although the concept of public trust is traced back to Civil Law, the idea of both a 'trust' and the 'public' is an ambiguous notion in early Roman law.[52] Based on historical evidence, it may be argued that both the idea of "trusteeship" and the amorphous idea of "public" is essentially a common law understanding evolved through judicial interpretation. The lack of a similar development of the doctrine in the civil law tradition further supports this assertion. The sheer malleability of the doctrine is attributed more to its common law moorings than its origins in Roman Law.

2.1 Roman and Civil Law Origins

The origins of the doctrine have been traced to Roman law and the Justinian Code. The focus of early civil law centred on protecting access and use rights of the public over the seashore. The early Roman law system comprised of a hierarchical structure of property ownership where property was said to vest with the gods, the state or the individuals and each type of property had a special status. The Romans also recognized common property (*res communis*) which could not be privately owned, and this included wildlife (*ferae naturae*) and nature as a whole (*res nullius*).[53]

In the only detailed academic exposition on the civil law origins of the doctrine, *Deveney* makes an important observation that throws to relief the myth surrounding the historical origins of the doctrine in civil law. He notes that "there were no restraints whatever imposed by law on the

[52] Patrick Deveney, 'Title, Jus Publicum, and the Public Trust: An Historical Analysis', 1 *Sea Grant Law Journal* 13 (1976).
[53] *Ibid*.

power of the sovereign to convey public land, including the sea and seashore."[54] Further he notes that the land was not held by the Emperor in trust of the people. "In fact, Roman law was innocent of the idea of trusts, had no idea at all of a 'public' (in the sense we use the term) as the beneficiary of such a trust, allowed no legal remedies whatever against state allotment of land, exploited by private monopolies everything (including the sea and the seashore) that was worth exploiting, and had a general idea of public rights that is quite alien to our own."[55] Thus, *Deveney* lays bare the misconceptions that inform the historical tracing back to Roman law as devoid of any conceptual moorings in either the contemporary understanding of 'trust' or that of the 'public', the latter being an ambiguous concept in itself.

More pertinently, *Deveney* notes the misreading of the Roman law when he states that "… to concentrate on this aspect of Roman law to the exclusion of its complements—state grants of exclusive rights and individual acquisition of ownership by occupation—is to misunderstand the Roman law and to ignore the economic realities of the time."[56] *Deveney* concludes that while Roman law contributed significantly to the regulation of coastal areas, it has been largely misunderstood, "first in the time of Bracton, when the Roman law of the sea and seashore was introduced almost verbatim into his *Concerning the Laws and Customs of England*, and thereafter when Roman law served as the foil against which courts have played in defining the common law applicable to the seashore."[57]

As *Deveney* demonstrates, the constant harking back to the Roman law origins of the doctrine thus does not hold up to historical scrutiny. In fact, it is argued that the idea of public trust or *jus publicum* arises in Roman law with the distinction being drawn between the public and the personal status of the ruler. This is evident in the later civil law developments.

> "The notion found in French jurisprudence in which a clear distinction is made between le domain public and propriété (private ownership), and the concept applicable in German jurisprudence in which a "certain category of property can be removed from the sphere of private property altogether: or in which "a certain category of property rights can be transformed into public law rights for the sake of more effective control. All of these are examples of legal constructs founded on a variation of the same

[54] Deveney, *Supra* note 52, at 17.
[55] Deveney, *Supra* note 52, at 21.
[56] Deveney, *Supra* note 52, at 21–22.
[57] Deveney, *Supra* note 52.

philosophy – that in some defined instances, governments act solely as guardians or custodians on behalf of the people they represent."[58]

In reviewing Dursi's monograph[59] on *res communes omnium*, *Frier* explores the Roman origins of the doctrine and notes that there is no evidence to indicate that the Roman state imposed a positive duty to protect the *res communes* from private appropriation. However, he goes on to conclude that the state cannot permanently transfer a *res communes* to private individuals and it retains a revisionary right over the same. Thus, the more contemporary developments in civil law do not also support the conclusion that the idea of 'public' or 'trust' pre-existed in Civil Law.

2.2 Common Law Developments

The earliest common law reference to the idea of PTD is captured in the concept of common property or the doctrine of *res communes*. Paragraph 5 of the Magna Carta, 1215 made explicit reference to the guardianship of land extending it to houses, parks, fishponds, tanks, mills and other things pertaining to land.[60]. English law borrowed from Roman Civil Law in drafting the Magna Carta and infused it with its own perspectives. "English common law disliked the notion of "things" without owners, so the king was given vested ownership of public resources. As a result, under the English legal code, wildlife and nature were legally owned by the king, although not for his private use. The king was a trustee of natural resources, a custodian with special responsibilities to hold properties in trust for the public."[61]

In *Gann v. Free Fishers of Whitstable*,[62] the English Courts held that navigable rivers vest in the crown for the benefit of the subject and cannot be used in a way that would derogate from or interfere with the right to navigation.[63] In this 1865 ruling, the House of Lords defined the concept as "the bed of all navigable rivers where the tide flows, and all estuaries of arms of the sea, is by law vested in the crown. But this ownership is in the capacity of a fiduciary relationship and thus the Crown may not enjoy the rights to derogate these rights."[64] While the

[58] Deveney, *Supra* note 52.
[59] Bruce W Frier, The Roman Origins of Public Trust Doctrine - Domenico Dursi, *Res Communes Omnium: Dalle Neccessita Economiche Alla Disciplina Giuridica, (*Jovene, Naples 2017) Book Review, Cambridge University Press, 11 Oct 2019 at 176.
[60] As cited in Patricia Kameri-Mbote, 'Water Conflict and Cooperation: Lessons from the Nile River Basin', *Woodrow Wilson International Centre for Scholars*, No. 4, 2007.
[61] Ved P Nanda and William R Jr. Ris. 'The Public Trust Doctrine: A Viable Approach to International Environmental Protection', 5 *Ecology LQ* 291 (1976).
[62] (1865) 11 E.R. 1305.
[63] Loretta Feris, 'The Public Trust Doctrine and Liability for Historic Water Pollution in South Africa' 8 *Law Env't & Dev J* 1. (2012) at 5.
[64] As cited in Nanda and Ris *Supra* note 61, at 298.

crown still subsists in the United Kingdom, modern democracies equate the state with the people, more precisely as the agent accountable to the people directly. It is useful to ask whether the public trust doctrine operates differently when the sovereign is not the crown but the people of a nation.

English law was predominant in the United States of America until independence but on gaining independence, the king's role as trustee of communal property was removed. From England, the public trust principle became part of American common law. As early as 1821, the New Jersey Supreme Court, in *Arnold v. Mundy*[65] used the term "public trust" in the course of stating a rule limiting a private party's capacity to own water-related resources. In 1842, the Supreme Court ruled in *Martin v. Waddell*[66] ruled those individual states are trustees governing natural resources. This was followed up with the Supreme Court (in *Geer v. Connecticut 161 U.S. 519 (1896),*) articulating the theory of state ownership of wildlife with an explicit reference to wildlife as a public trust resource.[67]

However, it is popularly understood that the unquestionable fountainhead of the American public trust doctrine was the Supreme Court's 1892 decision in *Illinois Central Railroad Co. v. Illinois*. This case pertains to a grant by the Illinois legislature to a railroad company a large parcel of land on the Chicago waterfront. The Court ruled in favour of the state, concluding that the original grant was void because the state did not have the power to alienate property in which the public had a trust interest for purposes such as navigation and fishing. The doctrinal basis for this conclusion is unclear, as the Court's opinion cited no authority for its conclusion."[68] The developments of the doctrine emerge from this judgement, but the common law basis and understanding of the doctrine are not clearly explicated.

Illionis Central case is not the primary source of PTD in American jurisprudence. Tracing the history, *Wilkinson* notes that the ruling relied on four other US Supreme Court rulings which meant that this was settled law. In a brilliant analysis of the Illinois Central ruling, *Richard Hurlburt* sheds light on unexplored arenas of legal history to arrive at two important conclusions – (a) that the case is based on Federal Common Law and hence can conclusively be said to be applicable precedent as a federal law applicable to all states; (b) that the nature of

[65] 6 N.J.L 1, 10 (1821).
[66] 41 U.S. 367 (1842).
[67] 161 U.S. 519 (1896).
[68] William D. Araiza, Democracy, 'Distrust, and the Public Trust: Process-Based Constitutional Theory, the Public Trust Doctrine, and the Search for a Substantive Environmental Value', 45 *UCLA Law Review* 385 (1997).

the trusteeship accorded by the equal footing law is different from the trusteeship idea of a permanent obligation on states to protect the interests of the public.[69] *Hulburt* concludes thus –

> "Illinois Central announced a general rule - a federal common law floor - concerning the responsibilities and constraints the public trust doctrine places on all states with respect to submerged lands. So long as states do not offend this general restraint on alienation, they are free to fill out the content of their own public trust doctrines by defining protected public trust uses and developing their own analytical approaches to analysis of conveyances alleged to offend the public trust."[70]

The turning point in the PTD developments is arguably the academic article written by Joseph Sax in 1970. Sax wrote a powerful piece that continues to reverberate even today, arguing for the extension of the doctrine beyond water resources and navigation to be applicable to natural resources more generally.[71] The evolution of the Public Trust Doctrine as a modern-day doctrine coincides with the emergence and growth of the environmental jurisprudence. However, as *Cohen* notes, the old historical understanding may have little resemblance to what is emerging in modern day case law and academic literature.[72]

The doctrine also indicates the 'ecological orientation'[73] to property law that has gradually emerged in response to industrialisation, globalisation and the environmental crisis over the decades. The narrative of the rise of the doctrine is also firmly tied in with the rise of the doctrine in American jurisprudence, however, its more far-reaching developments are in other common law jurisdictions across the world. Before examining the normative content of the doctrine, it is useful to take a detour to outline the various definitions of PTD currently in use in select jurisdictions across the world.

III. Defining the Public Trust Doctrine

Beginning with the seminal work of Joseph Sax, several scholars dedicate reams of paper in analysing the evolution of the doctrine in the United States. Over the years, the doctrine has

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[69] Richard Hurlburt 'The Public Trust Doctrine - A Twenty-First Century Concept' 16 *Hastings West Northwest Journal of Environmental. Law & Policy* 105 (2018).
[70] *Ibid* at 150.
[71] Joseph Sax, *Supra* note 10.
[72] Lloyd R Cohen, 'The Public Trust Doctrine: An Economic Perspective' 29 *California Law Review* 239 (1992) at 240.
[73] Harrison C Dunning, 'The Public Trust: A Fundamental Doctrine of American Property Law', 19 *Environmental Law*, 515, (1989) at 515.

been stretched to accommodate a range of new concerns in newer jurisdictions. The durability of the doctrine is a source of wonder, as its original scope was extremely narrow, and emerged at a time when environmental jurisprudence, as we know it today, was not in the statute books. Despite four decades of active and consistent growth in environmental jurisprudence – both statutory and judicial - the perceived gaps in the law continue to be filled through this common law principle. Given its continuing relevance, it is useful to gauge the commonalities and similarities that emerge from the definitions adopted by different jurisdictions and within the international realm.

3.1 Historical Definition

One of the oldest texts to contain a definition is the Justinian Code which states –

> "By the law of nature these things are common to mankind – the air, running water, the sea, and consequently the shores of the sea. No one, therefore, is forbidden to approach the seashore, provided that he respects habitations, monuments, and buildings which are not, like the sea, subject only to the law of nations."
>
> "The public use of the seashore, too, is part of the law of nations, as is that of the sea itself; and, therefore, any person is at liberty to place on it a cottage, to which he may retreat, or to dry his nets there, and haul them from the sea; for the shores may be said to be the property of no man, but are subject to the same law as the sea itself, and the sand or ground beneath it. "[74]

The Code thus outlines the origins as distinctly linked to rights over the seashore and provides for common access rights of the public to the seashore.

3.2 Judicial Definitions

The judicial pronouncements that define the doctrine are innumerable. The attempt here is only to provide a sampling from select jurisdictions where the judicial pronouncements have significant bearing on the development of the doctrine, so as to highlight consistencies but primarily to emphasize the significant departures in the interpretation.

[74] *Justinian Code 530 AD,* The Institutes of Justinian bk. 2, tit. 1, pts. 1-6, at 65 (J. Thomas trans., 1975) as cited in Deveney, *Supra* note 52.

(a) United States

While the *Illinois Central* case does not offer up a clear definition, *Justice Field* outlined the boundaries around state power and property rights when he declared: "The State can no more abdicate its trust over property in which the whole people are interested, like navigable waters and soils under them, so as to leave them entirely under the use and control of private parties, … than it can abdicate its police powers in the administration of government and the preservation of the peace."[75]

He also added "(T)he state holds the title to the lands under the navigable waters ….in trust for the people of the State that they may enjoy the navigation of the waters, carry on commerce over them, and have liberty of fishing therein freed from the obstruction or interference of private parties."[76]

The next clear attempt at crafting a definition is the California Supreme Court ruling in the *National Audubon Society v. Superior Court*,[77] more popularly known as the *Mono Lake Case*, introduces the idea of "public trust values", when the court stated: "approval of such diversion without considering public trust values…may result in needless destruction of those values."[78] To quote the judges, who state: "the core of the public trust doctrine is the state's authority as sovereign to exercise a continuous supervision and control over the navigable waters of the state and the lands underlying those water" Thus, apart from placing a public trust value, the judges imposed an obligation of continuous supervisory duty on the states to take such uses into account in allocating water resources.[79] As *Blumm* and *Guthrie* note, the biggest developments in Public Trust Doctrine after the Mono Lake Case, is outside the United States as they survey the developments in ten jurisdictions across the world.[80] Taking from this survey, it is useful to reproduce definitions adopted by the courts in expanding the scope and application of the doctrine.

(b) Philippines

The two significant definitions in the Philippines are contained in jurisprudence of recent years. In the *Metro Manila* case[81], the Filipino Supreme Court relying on the public trust doctrine

[75] *Illinois Central*, 146 U.S. 387 (1892).
[76] *Ibid*. at 452.
[77] 658 P.2d 709 (Cal.1983)
[78] *Ibid* at 712.
[79] Loretta Feris, *Supra* note 63 at 7.
[80] Blumm and Guthrie, *Supra* note 51.
[81] *Metropolitan Manila Development Authority v Concerned Residents of Manila Bay* G.R. Nos. 171947-48 December 18, 2008.

opined that its origins lay in natural law.[82] In making this claim it relied on the earlier judgement in *Oposa v. Factora* case[83] as being a part of constitutional right to ecology. In Oposa the Court stated that the right to a balanced and healthy ecology is implicit in the Constitution and need not be written. It notes that "it is assumed, like other civil and political rights guaranteed in the Bill of Rights, to exist from the inception of mankind and it is an issue of transcendental importance with intergenerational implications. Even assuming the absence of a categorical legal provision specifically prodding petitioners to clean up the bay, they and the men and women representing them cannot escape their obligation to future generations of Filipinos to keep the waters of the Manila Bay clean and clear as humanly possible. Anything less would be a betrayal of the trust reposed in them." [84] Thus, although recognised as a constitutional right to a balanced and healthy ecology, the origins of the doctrine is said to be located in the natural law rights to "self-preservation and self-perpetuation that have existed from time immemorial."[85]

The scope of the Filipino public trust doctrine is expansive. In *Oposa*, the Supreme Court applied the trust to forests and opined that it burdens all natural resources, including minerals, lands, waters, fisheries, wildlife, off-shore areas, and other natural resources, in addition to forests.

(c) South Africa

The South African law is an interesting mix of customary law, Roman Dutch law and the British Common Law. Environmental human rights are embedded in the 1996, South African Constitution, where Section 24 (a) guarantees a right to an environment that is not harmful to human health or well-being and to environmental protection for the benefit of present and future generations.[86] The Public Trust Doctrine is thus read into the South African Constitution and also expressly stated in the statutory law.

The concept of PTD in South Africa is embedded in the National Water Act, unlike in other jurisdictions where it is a part of the common law jurisprudence. It is to be found both in the National Water Act and also in a more expansive form in the 1998 National Environmental Management Act. However, as Tackas notes, "the Public Trust Doctrine conveys a very

[82] Blumm and Guthrie, *Supra* note 51.
[83] *Oposa v. Factoran* 1993 224 SCRA July 30 792.
[84] *Metro Manila Dev. Authority v. Concerned Residents of Manila Bay* 574 S.C.R.A 661 (S.C. Dec 18 2008) as cited in Blumm and Guthrie, *Supra* note 51, at 773.
[85] Blumm and Guthrie, *Supra* note 51 at 773-774.
[86] Feris, *Supra* note 63 at 12.

powerful potential that has not yet been realized by jurists in South Africa"[87], thus offering us little in terms of a judicial interpretation of far-reaching incorporation of PTD into the body of environmental jurisprudence od South Africa.

(d) India

As I deal with India in greater depth in chapter 2, for our purposes here, I provide a quick overview of some of the major rulings that embed the PTD into the Indian jurisprudence. The first use of the doctrine in the Indian context is the Supreme Court relying on the PTD in the *M.C Mehta v. Kamal Nath*[88]

Three other noteworthy cases that rely on the public trust doctrine in India expanded the scope of the doctrine and held that it can be read into the right to life protection found in Article 21 of the Constitution (*M.I Builders Ltd v. Radhey Shyam*), the reading into the doctrine the principle of inter-generational equity (*Fomento Resorts and Hotels Ltd. v. Minguel Martins*) where the Supreme Court read into the doctrine the element of trusteeship on behalf of future generations and the most recent case of *Reliance Natural Resources Ltd*., where the Supreme Court, held that the citizens of the country are the true owners of the natural gas deposits in the country, thus extending the doctrine to a wider set of natural resources. The difficulty with the Indian court interpretations, although widening the application of the doctrine, do not have a sound legal argumentation or explication by the judiciary supporting such an expansion.

3.3 Constitutional Foundations

While a large part of the academic debate around PTD centered around the common law developments through judicial interpretations, the doctrine has also been incorporated into constitutional law of some countries and state constitutions within the United States. More recently, in the US case of *Juliana* (popularly also called the Atmospheric Trust Case), Justice Aiken provided a more contemporary constitutional interpretation by reading PTD as being implicit in the constitutional due process.[89] He opined that the doctrine "although antedating the Constitution – was secured by and enforceable through the due process clause of the Fifth Amendment of the Constitution, which protects against the deprivation of life, liberty, and property from arbitrary federal or state governmental action."[90]

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[87] David Takacs, 'South Africa and the Human Right to Water: Equity, Ecology, and the Public Trust Doctrine' 34 *Berkeley J Int'L* 55, (2016) at 79.
[88] *M.C. Mehta, Supra* note 17.
[89] Michael C. Blumm and Mary Christina Wood, 'No Ordinary Lawsuit: Climate Change, Due Process, and the Public Trust Doctrine' 67 *American University Law Review* 1 (2017) at 42.
[90] *Ibid*, at 42.

The United States has nearly 51 different clauses in 51 different state constitutions. Worthy of note is the definition is the Pennsylvania State Constitution in which the Article 1, Section 27 reads thus:

> "The people have a right to clean air, pure water, and to the preservation of the natural scenic, historic and aesthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people."

The scope and application have been vastly broadened by Art XI of the Hawaiian Constitution, which states:

> "For the benefit of present and future generations, the State and its political subdivisions shall conserve and protect Hawaii's natural beauty and all natural resources, including land, water, air, minerals and energy sources, and shall promote the development and utilization of these resources in a manner consistent with their conservation and in furtherance of the self-sufficiency of the state. All public natural resources are held in trust by the State for the benefit of the people."

The Constitution of the Republic of South Africa, adopted in 1996, clearly outlines in Section 24 the fundamental environmental rights. It states:

> "Everyone has the right: a) to an environment that is not harmful to their health or well-being; and b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that: i) prevent pollution and ecological degradation; ii) promote conservation; and iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development."

Apart from this explicit fundamental right to environment, the South African Constitution guarantees the right to sufficient food and water, the right to access information, a right to just administrative action and access to justice. The rule of standing (or locus standi) provides a broad set of protections to those that are directly impacted by violations of rights, to acting on

behalf of another person who cannot act in their own name, to anyone acting in public interest or an association acting in the interest of its members.[91]

Beyond South Africa, Uganda and Kenya in the African continent have incorporated the doctrine into their Constitution. Article 237 of the Ugandan Constitution states that both the federal and local governments "shall hold in trust for the people and protect natural lakes, rivers, wetlands, forest reserves, game reserves, national parks and any land to be reserved for ecological and touristic purposes for the common good of all citizens…." [92]

Article 61and 62 of the Kenyan Constitution of 2010 incorporates the idea of PTD. Article 61 declares that "All land in Kenya belongs to the people of Kenya collectively as a nation, as communities and as individuals." Article 69 also requires the State to eliminate activities that are likely to endanger the environment, protect genetic resources and biological diversity, and work to maintain tree cover on at least 10 per cent of the land.

The Latin American region has pioneered many an innovation in environmental jurisprudence. The courts largely function within the civil law tradition and hence the adoption of the public trust doctrine in legal interpretation is not yet evident. However, Article 225 of the Constitution of Brazil states that: "all persons are entitled to an ecologically balanced environment, which is an asset for the people's common use and is essential to healthy life, it being the duty of the Government and of the community to defend and preserve it for the present and future generations."

Although the Sri Lankan Constitution does not incorporate the doctrine explicitly, the Supreme Court has read into the provisions as a critical element of the jurisprudence.[93] Similarly, the Constitution of India has been interpreted to impose public trust obligations on the State.[94] This will be dealt with in some detail in the next chapter, devoted exclusively to the developments in India.

3.4 Statutory Incorporations

The most extensive statutory adoption of the concept of 'trusteeship' can be found in South African legislations. It was first introduced by Section 3 of the *National Water Act* in 1998,

[91] David Tackas, 'The Public Trust Doctrine, Environmental Human Rights, and the Future of Private Property', 16 *New York University Environmental Law Journal* 711 (2008).
[92] As cited in Blumm and Guthrie, *Supra* note 51 at 778.
[93] *See generally*, GJHK Siriwardana, The Application of Public Trust Doctrine as a Mechanism to Ensure Environmental Protection by Means of Law: A Comparative Analysis between Sri Lankan and Indian Legal Context, Proceedings of 8th International Research Conference, KDU, Published November 2015.
[94] *Ibid.*

followed in quick succession by the *National Environmental Management Act*, 1998, the *Mineral and Petroleum Resources Development Act*, 2002 and the *National Environmental Management: Biodiversity Act*, 2004.[95] *Tackas* discusses the history and origins of the doctrine in South Africa. Relying on the White Paper that led to the National Water Law he notes that the South African law which is based on Roman Law where rivers were seen as resources belonging to the nation as a whole and available for common use by all citizens, but which were controlled by the state in the public interest. African customary law also carried similar principles which viewed water as a common good to be used in the interest of the community.[96] The White Paper also effectively outlines the meaning of Public Trust for South Africa, where it notes the core idea of public trust as being a duty imposed on government to regulate the use of water "for the benefit of all South Africans, in a way which takes into account the public nature of water resources and the need to make sure that there is fair access to these resources. The central part of this is to make sure that these scarce resources are beneficially used in the public interest."[97]

The Land Act of Uganda authorizes the government "from time to time (to) review any land held in trust by the Government or any local government whenever the community in the area or district where the reserved land is situated so demands. The Land Act's requirement of local consent for the alienation of trust resources, which the court attributed to the public trust doctrine, appeared to be a decisive factor in the ACODE decision".[98]

3.5 International Conventions

A close survey of International Environmental Agreements reveals the public trust doctrine being implicitly embedded in several provisions. Several key principles of the Stockholm declaration and the recommendations in the Action Plan carry within them the idea of the Public Trust Doctrine.[99] As *Nanda and Ris* note that there is no explicit acknowledgement of the doctrine and such acceptance would the a wider acceptance of the notion that states are responsible not only to their own nationals, but also to broader humanity for the maintenance, preservation, and conservation of selected uses and resources that fall into two categories. "The

[95] E.Van der Schyff, *Supra* note 44 at 122-160.
[96] Tackas, *Supra* note 91 at 744.
[97] Department of Water Affairs & Forestry, S. Africa, White Paper on a National Water Policy for South Africa (1997) available at http://www.dwa.gov.za/Documents/Policies/nwpwp.pdf, accessed on 8th March 2018.
[98] Blumm and Guthrie, *Supra* note 51 at 778.
[99] Principle 2, 3, 4, 5, 6 and 7. For more *see* VP Nanda and Ris, *Supra* note 61 at 312- 313.

first category consists of uses and resources of the commons, while the second consists of uses and resources of global importance lying within exclusive jurisdiction of nation states."[100]

3.6 Normative Content of PTD – Judicial, statutory and academic interpretations in select jurisdictions.

Pulling together the multiple strands from the four key jurisdictions, where there is a mix of judicial, constitutional, statutory and academic interpretations to provide a robust engagement with the doctrine, I attempt to put together a core normative content for the doctrine, as outlined in secondary literature.

The core normative principles underpinning the public trust doctrine as understood in South Africa and outlined more clearly than in most other jurisdictions – (a) it constitutes a revival of Roman, Roman-Dutch and indigenous customary law; (b) the doctrine has a dual purpose of being a custodian of a the country's water resources and the use of the resources is carried out keeping in mind the public interest, the sustainability, equity and efficiency of use; (c) regulate allocation and use so as to fulfil the public trust obligations; (d) it identifies democratic accountability as underpinning the public trust obligations. The failure to fulfil the SA PTD obligations would result in the decision being subject to administrative review by the Tribunals or Courts. (e) And finally the SA PTD provides for participatory democracy in the country. In particular, the National Water Act provides extensively for public comment and public consultation, along with access to critical information. Thus transparency, accountability and participation are at the core of the SA PTD interpretation of the doctrine.[101]

In the US context, the interpretation of the doctrine in academic literature provides an insight into its normative content. *Cohen* argues that while the old public trust doctrine was a constraint on the government's power to alienate and to acknowledge the existence of communal property rights.[102] But the new doctrine he argues does exactly the opposite – "the modern public trust doctrine, becomes then, within its ever expanding realm, the undoing of the Takings Clause, rather than a correlative constraint."[103] A more detailed understanding of the normative content in the US context is explored in Section 5 of this chapter. Suffice it to say that the normative content alludes to (a) a prohibition on the alienation of state-owned property or alienation only subject to protection of existing public rights; (b) a restraint in the nature of an easement or

[100] *Ibid* Nanda and Ris at 314.
[101] See White Paper, *Supra* note 97 above.
[102] Cohen, *Supra* note 72.
[103] Cohen, *Supra* note 72 at 258.

change of use of certain specific lands designated as were alienated by the states subject to the existing public rights. (c) All beneficiaries are equal and future generations should be considered in long term decision making, (d) Trustees owe a fiduciary obligation and are accountable to the public [104] This synthesis of the core principles is effective in providing a broad overview for easy uptake. However, a deeper analysis is called for.

The preceding section provides a sampling of the diversity of definitions across the world to demonstrate that each jurisdiction views the doctrine in its historical light but also actively engages with the doctrine within the present context of environmental and governance challenges. But there are many unanswered questions which must be raised in the context of every jurisdiction. What is the scope and application of the doctrine? What resources does it apply to? Who can bring an action or who has standing to seek redress using the doctrine? Is it merely a judicial veto of executive action or is it subject to the power of the legislative? An understanding of the normative content is however, also influenced by the theoretical slant from which the doctrine is viewed or approached. In the next section, we view two such theoretical approaches in some detail.

IV. Two Distinct Approaches to the Normative Content

As noted above, two identifiable schools of thought on the interpretation of the doctrine emerge from the literature, primarily focussed on the developments in the United States. First, a significant set of literature interpret the doctrine to be similar to the idea of a private trust and therefore work with the binary of the state as trustee and the citizen as a beneficiary.[105] Second, a small set of scholars focus on the doctrine as emerging out of the property rights framework and as an easementary right of the citizens over natural resources.[106] In this section, I explicate the normative content of both these approaches and outline my arguments for picking the second line of thought as more convincing and durable as an interpretation.

4.1 Public Trust Doctrine and the Concept of Trusteeship

In a bid to understand the core concepts underpinning the doctrine, *Scanlan* examines the jurisprudence in detail in the context of Wisconsin state to find seven core ideas. Broadly stated these are - 1. Like a financial trust, the public trust in water involves *identifiable trustees*,

[104] James L Huffman, 'Protecting the Great Lakes: The Allure and Limitations of the Public Trust Doctrine'. 93 *University of Detroit Mercy Law Rev*iew 239 (2016) at 252.
[105] *See* Michael C. Blumm and Mary C. Wood., *The Public Trust Doctrine in Environmental and Natural Resources Law*, Second Edition, (Durham: Carolina Academic Press 2015). Also see, D. Hare and B. Bossley, *Principles of Public Trust Thinking*, 19 Human Dimensions of Wildlife, 397-406 (2014).
[106] *See* generally R A Epstein, 'The Public Trust Doctrine' 7 *Cato J*. 411 (1987), Huffman *Supra* note 104.

beneficiaries, and trust property; 2. Wisconsin law imposes a *duty on trustees* to protect public rights in Wisconsin's navigable water; 3. Trustees have a supervisory duty that requires *adaptive management*; 4. The public trust is *a fluid doctrine* that expands, as needed, to protect the water commons and public rights; 5. The legislature may grant lakebed title to entities other than the state, but only under certain *limited conditions*; 6. Private riparian property must be used in a way that *does not encroach on public rights* in navigable waters; and, 7. A healthy public trust requires *active enforcement* by the trustees and the beneficiaries.[107]

Thus, the broad understanding from the trusteeship approach is an emphasis on the relationship of trustee and beneficiary with regard to a trust property, it envisages duties on the state to ensure adaptive management, active supervision and enforcement with regard to the trust property and the duty to provide grants to private parties with conditionalities that prevent encroachment on public rights.

In the following sections, I examine the core content of the Public Trust Doctrine as a concept of trusteeship imposing obligations on the state, contesting many of the ideas as I proceed.

4.2 Identifiable Trustees, Beneficiaries and Trust Resources

The underlying assumption that the doctrine is parallel to a private trust arrangement is disputable. For one, there is no constitutional or contractual arrangement that appoints the state as a trustee and outlines the obligations towards the beneficiaries. Indeed, if we foray more deeply into political science literature for an understanding of the state as a trustee, the literature is slim.[108] The question is who is the trustee – the State or is it the people on whose behalf the state functions, if we argue that state is not distinct from its people? Would it be more appropriate to classify the state as an agency of the owners i.e the people than as an ambiguous formulation of trusteeship?

It is also unclear who the beneficiaries are – is it limited to the citizens of a nation or are the citizens the owners of the resources? Are beneficiaries of the resources only within a nation or do obligations extend to all those who are current and future inheritors of the resources of the planet? Is the idea of trusteeship confined to state boundaries? Or can there be an obligation to beneficiaries downstream of a transboundary watercourse? In the context of climate change,

[107] Melissa K Scanlan, 'Implementing the Public Trust Doctrine: A Lakeside View into the Trustees World' 39 *Ecology LQ* 123 (2012).
[108] Perhaps, Gandhi's idea of trusteeship emerges as the strongest exposition, but this is written in the context of corporate wealth and the role that corporates play in society.

beneficiaries extend well beyond national boundaries requiring public trust obligations to be set not only for beneficiaries within a national boundary but well beyond.

Another concern with the public trust doctrine is the question of what natural resources are trust resources? In the United States, the expansion of the resources from navigation, fishing and use rights in waterways considered traditional resources protected by the doctrine to recreational, environmental and aesthetic needs by a few states through judicial pronouncements.[109] In other jurisdictions such as India and Sri Lanka all-natural resources are covered by the doctrine.[110]

The core ideas underpinning this approach of trustee, beneficiary and trust resources remain ambiguous with no clearly stated definitions or boundaries.

4.3 Duty/ Obligation on Trustees to protect public rights

The imposition of obligations or duties on the Trustee State is at the core of this approach. In effect, the focus is on state duty and obligations (at times, rather ill-defined and contradictory to the legal and policy obligations mandated by the legislature) as opposed to rights of citizens. This formulation does not create a rights framework but adopts a more benign framework of the state owing certain duties to the citizen as result of the doctrine.

In the most recent case of the *Atmospheric Trust* case, the court outlined the affirmative duties that are integral to the protection of a trust resource: Judge Aiken opined, "The government, as trustee, has a fiduciary duty to protect the trust assets from damage so that current and future trust beneficiaries will be able to enjoy the benefits of the trust."[111] It is useful to ask if this fiduciary duty creates a correlative rights claim that is enforceable or does it merely point to a duty/obligation of care without a correlative enforceable claim being created.

4.4 Prudent Management and Adaptive Management of Trust Resources

One of the core normative duties identified by this formulation is prudent management norms. This duty requires the trustee to act prudently, wherever appropriate adopt the 'precautionary approach' and also anticipate actions to avoid environmental harm before it occurs.[112] This approach is backed by the ruling of the Hawaii Supreme Court which in the *Waiahole Ditch*

[109] *See generally*, Douglas Quirke, *The Public Trust Doctrine: A Primer*, A White Paper of the University of Oregon School of Law, Environmental and Natural Resources Law Center, February 2016.
[110] Siriwardana, *Supra* note 93.
[111] Blumm and Wood, *Supra* note 49 at 46.
[112] M.C.Wood, *Supra* note 41 at 201.

case[113] The Hawaii Supreme Court relying on the precautionary approach in managing public trust water assets, stated in its landmark Waiahole Ditch case:

> "Where scientific evidence is preliminary and not yet conclusive regarding the management of freshwater resources which are part of the public trust, it is prudent to adopt "precautionary principles" in protecting the resource. That is, where there are present or potential threats of serious damage, lack of full scientific certainty should not be a basis for postponing effective measures to prevent environmental degradation ….(W)here uncertainty exists, a trustee's duty to protect the resource mitigates in favour of choosing presumptions that also protect the resource."[114]

Drawing from this, *Wood* states that this "fiduciary duty of prudence and caution must bind all government trustees."[115]

4.5 Transparency, Public Participation and Accountability

Taking forth the principles, *Wood* outlines the core idea of trusteeship to include transparency, accountability and public participation. She notes that the doctrine embodies within it the ideas of transparency, openness and accountability in decision making by the trustee. Following from this, citizens have a right to participate in the decision-making process through public consultation and also have a right to access information. Second, she notes is the threat of regulatory capture by interest groups. This is a real danger and to guard against this the public trust resources and agency accountability is critical to protect trust assets. While reporting by the agency to the legislature is a vital mode of agency accountability, a more direct accountability to citizens through public consultation and information sharing is also necessary for good decision making.

Thirdly, she identifies the ethical duty of trustee administrators to report transgressions of public loyalty and be fully protected from retribution when they do so. Administrators or agency staff have a rich source of information on trust performance, but many work "amid a culture of cover-up, not disclosure. Some agencies even subject their scientists and technical staff to gag orders, requiring them to gain preapproval to speak or write on matters pertaining to their job functions. Moreover, when agency staffers blow the whistle on government breaches, they often face serious personal retribution (in the form of job loss or forced

[113] *In re Water Use Permit Applications*, 94 Hawaii 97; 9 P.3d 409 (2000).
[114] As cited in MC Wood, *Supra* note 41, 201.
[115] *Ibid* at 203.

transfer)."[116] A fourth, a critical idea of transparency is audits and Trust Resources Accounting. These key elements, which in many ways are already embedded in the broader environmental discourse, have now been read into the public trust doctrine.

In concluding this section, it is useful that we outline what implications the trusteeship model has for governance frameworks. This is best illustrated by the *Wood'*s tabular representation of the changes required for bureaucrats to function as trustees of natural resources. What this tabular representation emphasizes is that under the current framework of governance, natural resource administrators do not function as trustees of natural resources which is also an argument that this thesis takes forward and suggests an accountability framework that can outline the role of trustees of resources.

Wood argues for a shift in the institutional framing to incorporate the public trust model. In arguing for this shift from being bureaucrats to trustees, she notes that there is a need to reconceptualise the political model that currently informs the administrative framework to a trust model. This transformation is outlined (reproduced below) in a succinct table by *Wood*[117].

Components	**Political Model**	**Trust Model**
1. Congress/State legislatures	Politicians	Trustees
2. Agency Staffers	Politicized bureaucrats	Agents of the Trustees
3. Citizens	Political Constituents	Trust beneficiaries
4. Natural Resources	Diffused, intangible parts of the environment	Quantifiable, valuable assets
5. Government decision-making	Political discretion	Fiduciary Obligation
6. Polluting industries	Stakeholders	Trust despoilers

4.6 Public Trust Doctrine as Easementary Right

In viewing the doctrine as emerging primarily from the property law discourse, a few commentators, led by *Huffman*,[118] view it as an easementary right over natural resources. This interpretation views citizens as primary owners of the trust resources, thus creating rights and obligations. The key ideas pursued within a property rights/easementary right focus is to examine the limitations it places on state power and the limit it imposes on trust resources. This approach is thus more focussed on the legal boundaries on state action and on citizens

[116] M.C. Wood, *Supra* note 41 at 196.
[117] *Ibid* at 207.
[118] James L Huffman, 'Why Liberating the Public Trust Doctrine Is Bad for the Public'45 *Environmental Law* 337 (2015), James L Huffman, 'Speaking of Inconvenient Truths – A History of the Public Trust Doctrine' 18 *Duke Environmental Law & Policy F* 1 (2007).

group rights over trust resources. More importantly, this interpretation views the public property or public easementary rights as predating the creation of private property rights, thus providing a more robust and firmer anchor to the continuation of public rights over trust resources. While the trust/trusteeship framework is well developed, the approach from a property law perspective is less articulated. The next few sections attempt to provide such a coherent approach from a property/easmentary rights approach.

4.7 Public Rights on Property

The most recent ruling to deal with the Public Trust Doctrine, the *Atmospheric Trust* case engages with the idea of PTD as an inherent part of the property regime. In this ruling Judge Aiken framed the scope of the PTD by noting that public trust assets have long been part of a "'taxonomy of property' recognising the division of natural wealth into private and public property. The sovereign cannot abdicate control over public trust property, as made clear in Illinois Central Railroad v. Illinois, when the Supreme Court said the Illinois legislature could not grant the shoreline of Lake Michigan to a private railroad company."[119] Thus, trust properties are regarded as important enough to warrant a different treatment and special protection.

Cohen perhaps provides the most articulate reading of the property law discourse and the impact of the doctrine on it, albeit from an economic perspective. He notes that the modern doctrine is a "..bold assertion that a communal property right always lies dormant inside some erstwhile private property right, only waiting for a court to discover and vindicate it."[120] However, he notes that such a flexible reading of property law might be its greatest shortcoming as "it causes the public trust doctrine to fail miserably the single most important economic test of any doctrine of property law; it undercuts rather than supports secure and predictable rights in property."[121]

4.8 Limits on State Power

What does the doctrine do in terms of imposing obligations on the state? *Joseph Sax* in his seminal work explored this question in some depth. Does the trusteeship principle impose such a strict obligation that the land in question is inalienable and unchangeable in use? Or does it impose the same obligations as that of any judicial review of state action i.e., whether the action

[119] Blumm and Wood, *Supra* note 49.
[120] Cohen, *Supra* note 72 at 275.
[121] *Ibid.*

is valid in law and for a public purpose and not merely a private purpose. In responding to this question, Sax notes that the answer lies somewhere in between and identifies three types of restrictions specific to public trust doctrine: that trust property must not only be used for a public purpose, but it must be held available for use by the general public; second, the trust property may not be sold, even for a fair cash equivalent; and third, the property must be maintained for particular types of uses.[122] The restriction on use claims is expressed in two ways. "Either it is urged that the resource must be held available for certain traditional uses, such as navigation, recreation, or fishery, or it is said that the uses which are made of the property must be in some sense related to the natural uses peculiar to that resource."[123] Thus the obligation or the limits on state power with regard to public trust resources is seen as a more "demanding obligation which it has a trustee and is not a general obligation to act for the public benefit."[124]

The property law implications for South African water law is quite significant as Tackas observes in his analysis. He notes that the "Public Trust Doctrine's "uniquely South African" twist comes close to marrying Joseph Sax's vision of intertwined substantive and procedural rights while curtailing certain property "rights' in water."[125] The property law foundations, thus, impose limits on the power of the state to act with regard to trust resources, placing a particularly higher obligation on the state in protecting and conserving them.

4.9 Limits on grant of public trust resources

The government-trustee is said to have a fiduciary responsibility to preserve and protect the trust corpus. The doctrine can therefore be deployed either against the government for a breach of its duties, or by the government to protect the trust property. Even when the property is transferred to a private party, the trust aspect remains attached and enforceable. The transfer of trust property must be shown to be necessary in the interest of the public, in other words, the beneficiaries of the trust.

The ultimate test of alienability is one of reasonableness, and a balance between competing interest. The public trust doctrine is not seen to be a rigid imposition on any alienation of trust resources. On the other hand, it is seen as a necessary tool in encouraging a balanced

[122] See generally Sax, *Supra* note 10.
[123] Joseph Sax, *Supra* note 10 at 477.
[124] *Ibid* at 478.
[125] Tackas, *Supra* note 91 at 745.

development where any compromises take into account the needs of the environment or that of development.

In attempting to review the approach, it is useful to work with the broad grid put together by Wood in the context of trusteeship to see if the same elements appear differently when placed within the property law matrix. The results although not dramatically, still point to a more robust approach when anchored within the property law approach. The table below illustrates this.

Components	**Political Model**	**Property Model**
1. Congress/State legislatures	Politicians	Representatives of the community of owners.
2. Agency Staffers/ Administrators	Politicized bureaucrats	Administrators of public property, enabling access and facilitating public inputs into decision making.
3. Citizens	Political Constituents	Owners of Trust Resources replacing the state as the sovereign as regards trust resources.
4. Natural Resources	Diffused, intangible parts of the environment	Quantifiable, valuable assets belonging to the community.
5. Government decision-making	Political discretion	Administrative Guidance specific to the trust resource
6. Polluting industries	Stakeholders	Infringement of easementary rights

While the original efforts where to accord the trust role to state sovereignty, this must now evolve to replace sovereignty with the more democratic idea of community ownership. The state functions as a repository of trust imposed by the people and the property law approach brings into the property law taxonomy another class of property i.e the trust property and it sits in between the continuum of common property resources and communal property resources.

V. Public Trust Doctrine and Agency Accountability

Under the doctrine, the state is a trustee of natural resources on behalf of the beneficiary citizens both present and future. In its role as trustee, the state is mandated to protect the resource, even

when it allows private actors to use or obtain property rights in the resource, the state must ensure the underlying public trust purposes are recognised and protected.[126]

Examining the impact of Mono Lake case on the California water administrators (California State Water Resources Control Board), it was found that the Board did cite the doctrine in nearly half its decisions and in "approximately eight percent of its orders, the Board cites the public trust doctrine as a basis for environmentally protective restrictions on water use."[127] More importantly, however, this study notes that the doctrine is used in conjunction with other environmental laws and statutory protections and exerts less influence than the statutory protections, thus having no transformative role to play.[128]

In 2011, a global campaign called the Atmospheric Trust Litigation (ATL hereafter) was launched to reduce emissions around the world by persuading domestic courts to act decisively on the impending climate crisis.[129] In the United States alone, fifty cases in all the states and at the federal level were filed by Our Children's Trust and all these cases used the public trust doctrine. The approach adopted through this legal strategy was to focus on the atmosphere as a single public trust asset in its entirety. "The approach characterizes all nations on Earth as sovereign co-trustees of the atmosphere, bound together in a property-based framework of corollary and mutual responsibilities. As trustees, all nations owe a primary fiduciary obligation toward their citizen beneficiaries to restore the atmospheric energy balance and climate system."[130] While many of these cases have been dismissed on procedural grounds, there are several ongoing cases in the states of Colorado, North Carolina, Pennsylvania and Oregon.[131]

The Atmospheric Trust Cases make the argument that the government holds the atmosphere in trust for the people, much in the same way that it does navigable waterways. The governments would fail in their trust obligations if they permit polluters to use the atmosphere as a carbon sink, using it as a private dumping ground at the expense of the public interest of present and future generations.

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[126] Dave Owen, The Mono Lake Case, The Public Trust Doctrine, and the Administrative State, 45 *U.C. Davis L. Rev.* 1099 (2012) at 1107.
[127] *Ibid* at pg 1105.
[128] *Ibid.*
[129] M.C Wood, *Supra* note 41.
[130] *Ibid* Wood, at 12.
[131] *Ibid*.

Administrators are therefore responsible for the maintenance of trust resources – be it navigable waters or the atmosphere – for present and future generations. Such an expectation from the administrators requires clear guidance on duties, obligations, rights and more importantly the accountability mechanisms that the trust doctrine builds into the guidance framework.

VI. Conclusion

At its core, the doctrine propounds that the sovereign holds certain common properties in trust, thus protecting these properties from alienation or otherwise adversely impacting the the public rights over the trust resources. Summing up, the literature provides a wide range of interpretations as constituting the key elements of the PTD.

a) Governments are not only prohibited from conveying trust resources into private hands or allowing their destruction, they have an affirmative, ongoing duty to safeguard the long term preservation of those resources for the benefit of the general public.
b) It is thus a fundamental limitation on governmental power and the beneficiaries are present and future generations of citizens.
c) The essence of the doctrine requires trust management and a continuing supervisory role for the government so as to protect and conserve the trust resource. The management role requires active engagement and administrative choices so as not to intrude on public rights,
d) Public access to public trust resources is also at the core of the doctrine. Because granting absolute private dominion over property impressed with the public trust interferes with public access, it can never be granted unless the public interest is served in doing so.
e) Government agencies have the non-rescindable power to revoke uses of trust resources that are inconsistent with the doctrine. This power is equivalent to an easement that permanently burdens trust resources with an overriding public interest in their preservation.
f) Courts balance the competing claims over trust resources, in particular to see if the grant for private use in any impacts adversely the public trust purpose.
g) Prof William Araiza looks at the non-traditional use of the doctrine and argues: “The principle underlying the public trust doctrine – that “social” uses of natural resources generate benefits that merit protection – is so important that it warrants consideration when courts construe laws or review government actions that affect those uses. As such,

the public trust principle constitutes a background principle, or canon, against which those law should be construed."[132]

It is only appropriate to conclude this chapter with the more broader potential identified for the doctrine by Prof. Sax. Prof Sax notes that the doctrine is capable of contributing to intelligent resource management and also touted the doctrine's democratization of the decision making process by forcing legislators and agency officials to publicize their decisions compromising the doctrine's protective capacity. He noted that while the doctrine has "no life on its own and no intrinsic content,"[133] it is "a name courts give to their concerns about the insufficiencies of the democratic process."[134] I take forward the discussion on the intrinsic content of the doctrine by exploring in detail the judicial pronouncements in India on PTD.

This thesis moves forward with this working definition by Hanning: "The public trust doctrine is premised on the concept that the public's interest in certain natural resources is a property right, which both restricts the sovereign's power as trustee, and subrogates private ownership rights in favor of public use rights."[135]

[132] William D. Araiza, Democracy, 'Distrust, and the Public Trust: Process-Based Constitutional Theory, the Public Trust Doctrine, and the Search for a Substantive Environmental Value', 45 *UCLA Law Review* 385 (1997).
[133] Sax, *Supra* note 10.
[134] *Ibid*
[135] TJ Hanning, (Comment)'The Public Trust Doctrine Expansion and Integration: A Proposed Balancing Test' 23 *Santa Clara L. Rev*. 211 (1983).

CHAPTER TWO: PUBLIC TRUST DOCTRINE IN INDIA: SCOPE, APPLICATION AND NORMATIVE CONTENT

***Abstract**: This chapter provides a broad overview of the developments around the public trust doctrine in India, its origin, growth, and the current expansion beyond its traditional moorings. Relying primarily on Supreme Court rulings in the past two decades, it explicates the normative content of the doctrine as interpreted in India, with a specific focus on the administrative accountability envisaged therein. The chapter also examines the specific application of the doctrine to mineral resources and the contours of the same. Drawing from this wide-ranging analysis, the chapter provides the scaffolding for the evaluative criteria that informs the empirical research on public trust doctrine, agency accountability and administrative decision making.*

I. Introduction

The Public Trust Doctrine is an integral part of Indian jurisprudence for the past two decades. Adopted in the context of environmental jurisprudence, it rapidly expanded in scope to be applicable to both natural and significant national resources such as spectrum in recent times.[136] In applying the doctrine to a range of natural resources, the Indian Supreme Court has effectively moved the discourse around the public trust doctrine beyond its original moorings in water jurisprudence to widen its scope to other resources. In doing so, however, it has not offered a cogent rationale for the expansion of the doctrine, to provide us with a clear picture of the evolution of the doctrine, nor does it engage with the doctrine with analytical rigor. Used primarily as a check on administrative power, the judicial pronouncements remain vague and uncertain. I examine the uptake of this doctrine against the backdrop of the steady shift from public management of resources to either wholly private ownership or public-private partnerships, bringing to fore the new set of challenges to resource management that need recalibration.

Although the normative content of the doctrine remains unclear, it still offers a powerful tool in reconceptualizing state obligations regarding natural resource governance. It is one thing to incorporate the doctrine from the American jurisprudence into Indian jurisprudence, but what guidance does the doctrine provide administrators of natural resources? To understand this, I examine the case law to explicate the normative content of the doctrine in the Indian context. Having outlined the normative content of the doctrine in the Indian context, in the next few chapters I examine the application of the doctrine by the mining administrators in India. I

[136] For a general outline of the PTD developments *see* Shibani Ghosh, 'Public Trust Doctrine in Indian Environmental Law. *in* Shibani Ghosh (ed) *Indian Environmental Law: Key Concepts and Principles*, (Hyderabad: Orient Blackswan, 2019).

look to see if it provides clear guidance or does it conflict with other equally important guidance provided by legislative and policy mandates to carry forward executive or legislative goals often contrary to the judicially prescribed public trust ideas. If so, how are these conflicting ideals resolved by the administrators in their everyday functioning.

While attempting to build a strong normative account of the public trust doctrine, I reviewed in the last chapter its historical origins, its transformations and manifestations in the modern era and its potential for uptake as a credible redefinition of the state's role as 'public trustee' of all natural resources, not just water resources. The potential of the doctrine to ensure agency accountability and democratize to include citizens in critical resource related decisions is at the core of this research. By looking at the case study of extractive industries, I examine if the doctrine plays out differently in the context of non-renewable resources and the guidance it offers, if any, to the question of responsible and equitable use of resources. I also examine, albeit in a limited way, in the next chapter the adoption of the doctrine by the legislature in the primary legislations that govern mining and mineral resources. A deeper analysis of the normative content of the public trust doctrine is contained in Chapter 7 of the thesis and it builds on the arguments presented below.

II. Scope and Application of the Doctrine in India

Before examining the normative content of the doctrine, it is useful to provide an overview of the various circumstances in which the public trust doctrine is invoked in India. Analyzing the Supreme Court rulings, it is evident that the doctrine was introduced and applied initially with regard to water resources[137] but expanded very rapidly to a wide range of instances beyond water resources to forest resources[138], land use planning[139] and now telecommunications spectrum.[140] The cases that reached the Supreme Court can broadly be categorised thus (a) those against grant of public largesse to private actors in violation of the doctrine, (b) those that alienate trust resources without proper due process; (c) alienation of trust property below the market prices; and finally, (d) seeking compliance with the limits imposed by the doctrine on government agencies and their administrators on behalf of all the people and particularly future generations. For a detailed analysis of cases see **Annexure E.**

[137] *M.C. Mehta*, *Supra* note 17.
[138] Forest resources, *T.N. Godavarman Thirumalpad v. Union of India* (2006) 1 SCC 1.
[139] Land use planning, *Municipal Corporation of Greater Mumbai v. Hiraman Sitaram Deorukhar* 2017 SCC Online SC 1739.

[140] *Centre for Public Interest Litigation and Ors v. Union of India* (2012) 3 SCC 1. (2 G Spectrum case).

As noted earlier, although the application of the doctrine finds itself being stretched to a range of circumstances beyond natural resources, the jurisprudential understanding and conceptual underpinnings that inform the judicial uptake is rather limited. Although there is no universally accepted understanding of the doctrine, the Indian judiciary relies on and draws heavily on the conceptual understanding in American journal interpretations and American case law.[141] It can be safely said that there is no attempt at providing an indigenous understanding of the doctrine even after two decades of application and steady expansion of the doctrine to meet a wide range of resource governance challenges. The lack of rigorous analysis implies that the true potential of the doctrine is yet to be fully understood and realized. A deeper analysis, in the next few sections, also reveals that the doctrine has been consistently invoked in the Indian context to restrain private actors from committing excesses with regard to resources or to prevent state actors from giving away the largesse of resources without regard to public rights over them. The doctrine fills a critical gap in environmental jurisprudence and therefore requires a deeper analysis and engagement.

III. Normative Content of the Public Trust Doctrine

Interpretation of law by judges is primarily a normative enterprise. As *Singer* notes when faced with unavoidable conflicts, we seek to interpret those values, as far as possible, to be "consistent with each other in particular cases through a process of contextualisation, which may involve situational framing, restrained interpretation of values, and social and historical accommodation."[142] A robust discussion on the normative content of the doctrine is critical not only for our understanding of the deeper value sets informing resource management but more critically for administrators who are expected to base their decisions on resource use and management on a good understanding of the doctrine. The failure to explicate it in a consistent and cogent manner can be fatal to decision making by administrators in the long term.

The Public Trust Doctrine emerges within Indian jurisprudence at a time in history when resources are being opened for commercial exploitation by private actors. In the early nineties, the era of the nationalised command economy is on the wane and the process of liberalisation is opening up all sectors for private participation including critical sectors such as health and education. The neo-liberal discourse introduces a range of private actors into the realm of economic activity including the use and management of natural resources for

[141] M C Mehta relies on Sax and so do several cases in recent years.
[142] Joseph William Singer, 'Normative Methods for Lawyers', 56 *UCLA Law Review*, 899 (2009) at 912.

commercial gains. Even as the role of the state in resource management is rolled back, resources like water and mineral resources are being opened up for private actors to invest in. The entry of private actors requires a necessary recalibration of law and policy to suit the new regulatory demands.

The doctrine is adopted for the very first time in the latter half of the nineties in response to a challenge of diversion of the course of a river by private actors.[143] The clash in values of privatisation and its impact on what is traditionally understood as public or common pool resource – the river waters - provides the impetus for the introduction of the public trust doctrine in India. The calibrated evaluation of competing values is captured in the first judicial ruling on PTD as a necessary tool to fill the gaps, if any, in legislative intent in resource management.

Although the doctrine has been prevalent for two decades now, very few studies examine the implications of the doctrine within Indian jurisprudence.[144] This gap is telling as the doctrine is vital to how we view the state's role in resource management. PTD continues to be on the fringes of environmental jurisprudence. I rely primarily on the judgements of the Supreme Court of India to understand the scope and application of the doctrine. Several High Courts have also relied on the doctrine in deciding cases but Article 141 of the Indian Constitution states that rulings by the Supreme Court are binding on all the other courts. Thus, the Supreme Court being the final arbiter also lays down the law of the country as a binding precedent. In the sections below, I examine nearly fifty (there are several overlaps and the final number of judgements reviewed are at **Annexure E**) Supreme Court rulings from 1998 to 2018 to outline the core elements of the doctrine in India and its application in the Indian context.[145]

3.1 Origin of Public Trust Doctrine in India

The normative content of the doctrine must consider the historical moorings, as the origins shape the contours of the idea at the first instance and may also influence its future evolution. The application of the doctrine in the Indian context is justified as rooted in English jurisprudence and the Common law. It has also been subsequently traced to the Indian Constitution. As noted above, in the first case relying on PTD, *M.C.Mehta v. Kamal Nath,*[146]

[143] M.C. Mehta, *Supra* note 17.
[144] Shibani Gosh, *Supra* note 136.
[145] Annexure E contains the list of cases and a brief overview.
[146] M.C Mehta, *Supra* note 17.

the court linked the historical origins as emanating from the common law principles. This case pertains to flood management measures adopted by a private motel without requisite permissions. Noting the common law history of the doctrine, the ruling concluded that the English history also applies to the Indian context because of a shared legal history. To quote para 34 of the ruling -

> "Our legal system — based on English common law — includes the public trust doctrine as part of its jurisprudence. The State is the trustee of all natural resources which are by nature meant for public use and enjoyment. Public at large is the beneficiary of the sea-shore, running waters, airs, forests and ecologically fragile lands. The State as a trustee is under a legal duty to protect the natural resources. These resources meant for public use cannot be converted into private ownership."[147]

Further, in tracing the origins of the doctrine and adapting the same to the Indian context, the judges state thus -

> **"24.** The ancient Roman Empire developed a legal theory known as the "Doctrine of the Public Trust". It was founded on the ideas that certain common properties such as rivers, seashore, forests and the air were held by Government in trusteeship for the free and unimpeded use of the general public. Our contemporary concern about "the environment" bear a very close conceptual relationship to this legal doctrine. Under the Roman law these resources were either owned by no one (*res nullious*) or by every one in common (*res communious*). Under the English common law, however, the Sovereign could own these resources but the ownership was limited in nature, the Crown could not grant these properties to private owners if the effect was to interfere with the public interests in navigation or fishing. Resources that were suitable for these uses were deemed to be held in trust by the Crown for the benefit of the public."[148]

The ruling then goes on to rely on the historical background provided by the seminal article[149] by *Joseph Sax*, Professor of Law, University of Michigan and provides extracts in support of its arguments. Tracing the history of modern trust law to Roman and English law, Sax identifies two key features of the nature of property rights in water resources.

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[147] *Ibid* para 34.
[148] *Ibid* para 24.
[149] Joseph Sax, *Supra* note 10.

> "First, certain interests, such as navigation and fishing, were sought to be preserved for the benefit of the public; accordingly, property used for those purposes was distinguished from general public property which the sovereign could routinely grant to private owners. Second, while it was understood that in certain common properties — such as the seashore, highways, and running water — 'perpetual use was dedicated to the public', it has never been clear whether the public had an enforceable right to prevent infringement of those interests. Although the State apparently did protect public uses, no evidence is available that public rights could be legally asserted against a recalcitrant government."[150]

Thus, while a perpetual use was dedicated to the public by the doctrine, it is unclear if the same could be asserted as an enforceable right by the public. In other words, according to Sax, the nature and scope of the doctrine remained open to legal tests in future cases. The judges in the *M.C Mehta* case adopt the historical reading of the doctrine by Sax, with all its uncertainties and ambiguities without fully engaging with the text of the article. Referencing journal articles, without taking on board the subsequent conversations within the academic community results in significant gaps in understanding the full nature of the evolution of the legal discourse.

The root of the public trust doctrine is also traced to Article 21 of the Indian Constitution which protects the right to life. In the next important ruling on PTD, *M.I Builders Pvt. Ltd. v. Radhey Shyam Sahu & Ors*[151] , the petitioners brought a challenge to the construction of an underground air-conditioned shopping complex in Jhandewala Park, an important historical site in the city of Lucknow in the State of Uttar Pradesh. At a meeting of the High-Powered Committee of Municipal Corporation of Lucknow, M.I. Builders was awarded the contract to construct a shopping complex. The terms of the contract were generous: the builder could earn profits up to 10 per cent of the cost of the construction, rent or lease the shops by entering into agreements in the name of the Municipal Corporation. This contract was challenged, and the High Court held that the Corporation's decision was illegal, arbitrary, and unconstitutional. Aggrieved by this order M.I. Builders approached the Supreme Court.

What was not disputed was the historical importance of the park and its maintenance from the point of view of the environment. It was the only green space in a crowded commercial and

[150] Sax as quoted in the MC Mehta Case, *Supra* note 17.
[151] M. I Builders, *Supra* note 18.

residential area of the city. The action of the Municipal Corporation was primarily contested on the grounds that it was against the public purpose to construct an underground market in the garb of decongesting the area. It was also argued that it would destroy the historical importance of the park and that it violated the protections in Articles 21[152], 49[153], 51-A (*g*)[154] of the Constitution.

Other violations of statutory provisions contained in the Corporation Act (U.P. Nagar Mahapalika Adhiniyam, 1959) and the Planning Laws (the Uttar Pradesh Urban Planning and Development Act, 1973 and also the Uttar Pradesh Parks, Playgrounds and Open Spaces (Preservation and Regulation) Act, 1975 and the violation of the basic tenets of procedural fairness in not inviting tenders were also challenged. The terms of the agreement were also demonstrated to be unfair giving undue advantage to the builder in making profits from a property of immense value. Corrupt motives were also attributed to senior officials, particularly the CEO and Mayor, of the Municipal Corporation. Besides, the Lucknow Development Authority (LDA) which was primarily responsible for such building projects were side lined. In all, it was argued that the actions of the Corporation were against public interest.

In settling this dispute, the court dwells very briefly on the public trust doctrine in two short paragraphs. In a poorly crafted judgement, quoting verbatim from statutory provisions, and reproducing large parts of the agreement between the builder and the Corporation, the Supreme court ruled on the two primary contentions in the appeal i,e, whether the Corporation is estopped from going back on the agreement and whether the building has been constructed in public interest to relieve the congestion in the area. The important aspect to note is the bald statement made by judge in arriving at the decision without assigning any reasoning for his conclusion.

After citing from law commentaries and the *Illinois Central* ruling[155], the judge concludes the paragraph with a very important observation – "This public trust doctrine in our country, it would appear, has grown from Article 21 of the Constitution." This conclusion has no

[152] Article 21: No person shall be deprived of his life or personal liberty except according to procedure established by law.
[153] Article 49: It shall be the obligation of the State to protect every monument or place or object of artistic or historic interest, 1[declared by or under law made by Parliament] to be of national importance, from spoliation, disfigurement, destruction, removal, disposal or export, as the case may be.
[154] Article 51-A (g): It shall be duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wildlife and to have compassion for living creatures.
[155] Illinois Central, *Supra* note 75.

supportive reasoning either preceding it or succeeding it, making this a leap of faith in judicial law making, without according to it sufficient support with a robust legal reasoning. I provide a quote from the judgement to demonstrate the absence of legal reasoning -

> **"50.** Jhandewala Park, the park in question, has been in existence for a great number of years. ….. The park is of historical importance. …. ……Under Section 114 of the Act it is the obligatory duty of the Mahapalika to maintain public places, parks and plant trees. By allowing underground construction the Mahapalika has deprived itself of its obligatory duties to maintain the park which cannot be permitted. But then one of the obligatory functions of the Mahapalika under Section 114 is also to construct and maintain parking lots. To that extent some area of the park could be used for the purpose of constructing an underground parking lot. But that can only be done after proper study has been made of the locality, including density of the population living in the area, the floating population and other certain relevant considerations. This study was never done. The Mahapalika is the trustee for the proper management of the park. When the true nature of the park, as it existed, is destroyed it would be violative of the doctrine of public trust as expounded by this Court in *Span Resort case* [(1997) 1 SCC 388] . Public trust doctrine is part of Indian law. …."
>
> **51.** In the treatise *Environmental Law and Policy: Nature, Law, and Society* by Plater Abrams Goldfarb (American Casebook Series, 1992) under the Chapter on Fundamental Environmental Rights, in Section 1 (*The Modern Rediscovery of the Public Trust Doctrine*) it has been noticed that "long ago there developed in the law of the Roman Empire a legal theory known as the 'doctrine of the public trust' ". In America public trust doctrine was applied to public properties, such as shore lands and parks. As to how that doctrine works it was stated:
>
> "The scattered evidence, taken together, suggests that the idea of a public trusteeship rests upon three related principles. First, that certain interests 'like the air and the sea' have such importance to the citizenry as a whole that it would be unwise to make them the subject of private ownership. Second, that they partake so much of the bounty of nature, rather than of individual enterprise, that they should be made freely available to the entire citizenry without regard to economic status. And, finally, that it is the principal purpose of a Government to promote the interests of the general public

rather than to redistribute public goods from broad public uses to restricted private benefit…."

With reference to a decision in *Illinois Central Railroad Co.* v. *Illinois* [146 US 387 : 36 L Ed 1018 (1892)] it was stated that

"the Court articulated in that case the principle that has become the central substantive thought in public trust litigation. When a State holds a resource which is available for the free use of the general public, a court will look with considerable scepticism upon any governmental conduct which is calculated either to reallocate the resource to more restricted uses or to subject public uses to the self-interest of private parties".

This public trust doctrine in our country, it would appear, has grown from Article 21 of the Constitution."[156] [emphasis added by me]

In deciding the case, the court held that the agreement was wholly arbitrary and favoured the builder thus enabling the builder to make huge profits. In its final order, the Court allowed for a partial dismantling of the buildings, restoration of the park in the area and the remaining building to be handed over to the municipality to run it as a parking lot. The more lasting ratio is the reading into Article 21 the doctrine of public trust, although it is unclear from a plain reading of the ruling how the *Illinois Central* ruling leads to such a conclusion.

In *T.N. Godavarman Thirumulpad v. Union of India* [157] the Court reiterated the ratio in *M.C.Mehta, s*tating that it is the duty of the State to preserve the natural resources in their pristine purity. The doctrine was reiterated as applicable in the Indian context as the legal systems in based on English Common Law. It was also emphasized that the Doctrine of Public Trust is founded on the idea that certain common properties such as "rivers, seashore, forest and air are held by the Government trusteeship for the free and unimpeded use of the general public.. The State is the trustee of all natural resources which are by nature meant for public use and enjoyment."[158]

Thus, courts in India while tracing the history of the doctrine to English law and the common law traditions, rely on the American interpretations of the doctrine, reiterate the early scholarly writings that point to the Roman law roots and the modern interpretation of its

[156] MI Builders, *Supra* note 18.
[157] Godavarman, *Supra* note 140.
[158] *Ibid* at para 16.

continuing relevance. There is also the linking of the doctrine to the right to life in Article 21 and the right to environment, although this link is not backed by a robust legal reasoning.

3.2 Public Trust Doctrine – Filling a legislative gap.

In the Indian context, the judges locate the doctrine as a useful tool in the absence of a clear legislative intent, to fill the gap with a duty imposed on the state to act as a trustee of the natural resources and enjoining it to act primarily in public interest. The *MC Mehta* ruling adopted the doctrine to an instance where there is a legislative gap in protecting natural resources. The ruling implies that if legislative intent is clearly stated, then perhaps the public trust doctrine need not be invoked. At para 35 the judges note thus -

> "We are fully aware that the issues presented in this case illustrate the classic struggle between those members of the public who would preserve our rivers, forests, parks and open lands in their pristine purity and those charged with administrative responsibilities who, under the pressures of the changing needs of an increasingly complex society, find it necessary to encroach to some extent upon open lands heretofore considered inviolate to change. The resolution of this conflict in any given case is for the legislature and not the courts. If there is a law made by Parliament or the State Legislatures the courts can serve as an instrument of determining legislative intent in the exercise of its powers of judicial review under the Constitution. But in the absence of any legislation, the executive acting under the doctrine of public trust cannot abdicate the natural resources and convert them into private ownership, or for commercial use. The aesthetic use and the pristine glory of the natural resources, the environment and the ecosystems of our country cannot be permitted to be eroded for private, commercial or any other use unless the courts find it necessary, in good faith, for the public good and in public interest to encroach upon the said resources."[159]

It is a moot point whether the gap in the statutory mandates can be effectively filled by the doctrine. But it clear that the judges would like the administrators to carry with them the intent of trusteeship over natural resource management. This broad expectation from the executive requires a more robust engagement with the doctrine from the judiciary. At present, the interpretation of the doctrine is not supported through a rigorous reading of the principles that inform the doctrine, nor is there an effort to indigenise and provide a uniquely Indian interpretation of the doctrine. If the expectation is that the administrators will, at all times,

[159] M.C Mehta, *Supra* note 17, para 35.

carry the doctrine as a guiding principle in their decisions pertaining to the resource, then such a broad expectation must be backed by a normative framework that clearly outlines the boundaries and duties of the administrators.

3.3 Public Trust Doctrine as Public Easementary Right

At its core, the idea of the Public Trust Doctrine flows from the idea of an easementary right of the public over resources. The doctrine emerged at the historical juncture when claims of the sovereign (the monarchy) over the commons required to be balanced with the rights of the public over shared resources such as navigation waters. Such a claim of the public was couched within the idea of a public easementary right over resources. It must be understood here that the right emerged over water resources, historically a powerful natural resource in times when navigation was the primary mode of transport, connecting trade to various parts of the world.

A deeper reading thus illustrates that the easementary right is not a right as understood within property law but a broader right that emerges over natural resources that is held in common by the public. The Public Trust Doctrine, as established in the previous chapter, has no parallels to be drawn with the trust law or easementary right in property law as is traditionally understood. The public right is sought to be protected in modern law, the sovereign now replaced by private actors against whom protection is sought, with the state being both a facilitator of resource allocation but also the trustee. In this duality lies much contradiction and conflict, that the state and its administrators find difficult to navigate with certainty.

Within the Indian jurisprudence, in applying the public trust doctrine, an important distinction is sought to be made with an easementary right of necessity (in this instance, one of access) that overrides and survives even a land acquisition process which in the normal course extinguishes all claims of easementary rights. In the *Fomento case*[160], the judge attempts to articulate this distinction but with limited success. However, the seed of an idea, the important distinction in the easementary claim is identified for a critical ruling in favour of the public, in the second decade of court's application and interpretation of the public trust doctrine. In the next few paragraphs, I outline the *Fomento* case and its important contribution to an easementary understanding of the doctrine.

[160] Fomento Case, *Supra* note 19.

The *Fomento* case[161] deals with the right of access to the beach in the state of Goa. A private hotel sought to construct a building that blocked traditional access of the public to the beach which was a popular tourist spot. The private hotel however sought to provide an alternate route for the public and built a road, parking facility and a footpath. The court notes at para 53 that the –

> "doctrine puts an implicit embargo on the right of the State to transfer public properties to private party if such transfer affects public interest, mandates affirmative State action for effective management of natural resources and empowers the citizens to question ineffective management thereof."[162]

Importantly, this case raised a question around the easementary right being extinguished on the acquisition of land. The court drew a distinction between easementary rights of necessity from those that are ordinary easements to conclude that the former survives even an acquisition by the state. The court ordered the demolition of the portion of the hotel building so that the public access to the beach is restored. Relying on the earlier High Court judgement in *NR Mistri's* case[163], the court drew an important conclusion on easementary rights. To quote -

> " The High Court drew a distinction between easement of an ordinary nature in respect of which compensation could have been claimed in the land acquisition proceedings and an easement of necessity like a right of passage and held that such right was not extinguished by reason of acquisition. For this purpose, the High Court relied on the observations made in Nusserwanji Rattanji Mistri's case."[164]

Distinguishing it from another judgement cited by the counsel, the court concluded thus -

> "The view taken in Collector of Bombay therefore, appears to hold the field, particularly where the nature of easementary right claimed is not capable of being evaluated in terms of compensation and arises out of sheer necessity."[165]

Further the judges held:

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[161] *Fomento Resorts and Hotels Limited v. Minguel Martins and Ors*, *Supra* note 19.
[162] *Ibid*, pg 614.
[163] *The Collector of Bombay v. Nusserwanji Rattanji. Mistri & others* [1955] 1 S.C.R. 1311.
[164] Fomento *Supra* note 19.
[165] *Ibid*.

> "48. By applying the ratio of the judgments in Nusserwanji Rattanji Mistri's case and H.P. State Electricity Board's case to the facts of this case, we hold that when the State volunteered to take possession of the land subject to the right of the members of public to access the beach through the acquired land and a specific provision to that effect was incorporated in the agreement executed under Section 41 (5), Section 16 of the 1894 Act cannot be invoked for nullifying the right of the public to access the beach through survey No.803 (new No.246/2)."[166]

This ruling thus contains the seed of an argument for a public easementary right that may be lost entirely if it is not rescued and robustly discussed. In making this fine distinction between ordinary easements and those that survive in public interest, the judgement provides a foothold in property law/easementary law discourse for the public trust doctrine to also survive and thrive in. This promise of the PTD located within property law debates is yet to be fully taken forth and its potential realised for PTD to go beyond environmental law.

3.4. Allocation and Use of Trust Resources

Allocating use and access rights of trust resources is a critical task of resource administrators. While the broad injunction based on the public interest is useful, it does not necessarily provide a detailed set of guidelines to implement the mandate. Some broad directions can be gleaned from the Supreme Court rulings, although they fall short of details.

The use rights under the doctrine was explained by the Supreme Court in *Karnataka Industrial Areas Development Board v. C. Kenchappa* [167] Primarily, it imposes restrictions on use of the resources to the detriment of the general public, acknowledges that natural resources are gift to humanity and thus should be accessible to all irrespective of their status in society. Based on the ratio in the *M.C.Mehta* case, the court observed in paragraph 83 thus -

> "The concept of public trusteeship may be accepted as a basic principle for the protection of natural resources of the land and sea. The public trust doctrine (which found its way in the ancient Roman Empire) primarily rests on the principle that certain resources like air, sea, water and the forests have such a great importance to the people as a whole that it would be wholly unjustified to make them a subject of private ownership. The said resources being a gift of

[166] *Ibid.*
[167] *Karnataka Industrial Areas Development Board v. C. Kenchappa* (2006) 6 SCC 371.

> nature should be made freely available to everyone irrespective of their status in life. The doctrine enjoins upon the Government and its instrumentalities to protect the resources for the enjoyment of the general public."[168]

In the *Centre for Public Interest Litigation v. Union of India*,[169] the court concluded that people are the owners of natural resources. Relying on a host of PTD case law, it concluded that spectrum is a natural resource that needs to be allocated keeping the public interest in mind. In applying the doctrine, it also derived that state action particularly in awarding contracts must look to enhancing competition and fairness (doctrine of equality) in allocation of the resources. Thus, the court extended the doctrine beyond environmental jurisprudence and brought in the important principle of auctions for fair allocation of resources. This judgement reflects the shifting view and the use of the doctrine to build in fairness and transparency into the allocation of a range of natural resources. For now, despite growing criticism, the process of tendering through auction is considered the most ideal solution to enable a level playing field in the allocation of resources.

This case subsequently led to a Presidential Reference being made *In Re Natural Resources Allocation*[170] where the meaning of the doctrine in the Indian context was explored at some length. It clearly imposes limits on the private ownership of certain resources of public importance.

In *State of NCT of Delhi v. Sanjay*[171] the Supreme Court highlights the responsibility of the state to conserve and protect natural resources. It also alludes to the link between the doctrine and the other constitutional duties contained in Articles 48-A and 51-A. It held thus:

> "Para 55. There cannot be any two opinions that natural resources are the assets of the nation and its citizens. It is the obligation of all concerned, including the Central and the State Governments, to conserve and not waste such valuable resources. Article 48-A of the Constitution requires that the State shall endeavour to protect and improve the environment and safeguard the forests and wildlife of the country.
> Similarly, Article 51-A enjoins a duty upon every citizen to protect and improve the natural environment including forests, lakes, rivers and wildlife, and to have compassion for all the living creatures. In view of the constitutional provisions,

[168] *Ibid* para 83.
[169] (2012) 3 SCC 1.
[170] *In re Natural Resource Allocation, Special Reference* No 1 of 2012, (2012) 10 SCC 735.
[171] *State of NCT of Delhi v. Sanjay* (2014) 9 SCC 772.

> the Doctrine of Public Trust has become the law of the land. The said doctrine rests on the principle that certain resources like air, sea, waters and forests are of such great importance to the people as a whole that it would be highly unjustifiable to make them a subject of private ownership."[172]

The carving out of certain resources as trust resources that need to be allocated with care, keeping in mind both citizens' rights, both present and future, along with a more nationalist ideal of protecting national assets, inform judges propensity to lean towards the public trust doctrine. Locating an additional anchor within the Constitutional framing has also strengthened the reading of the doctrine as being supported within the constitutional framework.

3.5 Imposing restrictions on Administrative Powers.

The doctrine imposes restrictions on governmental authority. Understanding the kinds of restrictions imposed by the doctrine is critical to this project as it views it from the lens of guidance to administrators. In the *MC Mehta* case, the judges held that the Public Trust Doctrine primarily rests on the principle that certain resources like air, sea, waters and the forests have such a great importance to the people as a whole that it would be wholly unjustified to make them a subject of private ownership. Relying on Prof Sax's interpretation, the court acknowledged that the doctrine imposes restrictions on governmental authority.

Thus, there are three clear restrictions placed on trust resources – trust resources must be used for public purpose and be also available for public use, sale of public trust resources is restricted even for fair price and most importantly, the maintenance of the trust resource for particular types of use by the general public.[173]

In the *Fomento* case, the court went on to note that the doctrine places limits on the state and its administrators with regard to trust resources. At para 54, the court notes -

> "The heart of the public trust doctrine is that it imposes limits and obligations upon government agencies and their administrators on behalf of all the people and especially future generations. For example, renewable and non-renewable resources, associated uses, ecological values or objects in which the public has a special interest

[172] *Ibid* at Para 55.
[173] MC Mehta case, *Supra* note 17.

> (i.e. public lands, waters, etc.) are held subject to the duty of the State not to impair such resources, uses or values, even if private interests are involved. The same obligations apply to managers of forests, monuments, parks, the public domain and other public assets….."[174]

In another paragraph the court emphasizes that the doctrine is a protection against short term private gains that erode long term public interest, in particular, the interest of the future generations.

> "The Public Trust Doctrine is a tool for exerting long-established public rights over short-term public rights and private gain. Today, every person exercising his or her right to use the air, water, or land and associated natural ecosystems has the obligation to secure for the rest of us the right to live or otherwise use that same resource or property for the long term and enjoyment by future generations. To say it another way, a landowner or lessee and a water right holder has an obligation to use such resources in a manner as not to impair or diminish the people's rights and the people's long term interest in that property or resource, including down-slope lands, waters and resources."[175]

In effect, this judgement lays down clearly the scope of the doctrine – (a) it places limits on the state and its administrators (b) it protects long term public interest thus enabling intergenerational equity (c) it is a public right protection against short term private gains. It therefore imposes an obligation on the private parties to protect long term public interest in the resource so as to not impair or diminish these long-term interests. And finally, the court notes that the interests of the future generations also need to be accounted for by administrators in decision making.

3.6 Imposing duties on the State

In *Intellectuals Forum, Tirupathi vs. State of A.P. and others*[176], the Supreme Court again invoked the public trust doctrine in a matter involving the systematic destruction of percolation, irrigation and drinking water tanks in Tirupati town in the State of Andhra Pradesh. Relying on rulings in *M.C. Mehta*, *M.I. Builders Pvt. Ltd.*, and the US court ruling in

[174] Fomento, *Supra* note 19, at para 54.
[175] Fomento, *Supra* note 19 at para 55.
[176] *Intellectuals Forum, Tirupathi vs. State of A.P. and others* (2006) 3 SCC 549.

National Audubon Society[177] (Mono Lake case), the judges observed that the doctrine imposes affirmative duties on the administrators of the trust resources:

> "This is an articulation of the doctrine from the angle of the affirmative duties of the State with regard to public trust. Formulated from a negatory angle, the doctrine does not exactly prohibit the alienation of the property held as a public trust. However, when the State holds a resource that is freely available for the use of the public, it provides for a high degree of judicial scrutiny on any action of the Government, no matter how consistent with the existing legislations, that attempts to restrict such free use. To properly scrutinise such actions of the Government, the courts must make a distinction between the Government's general obligation to act for the public benefit, and the special, more demanding obligation which it may have as a trustee of certain public resources [Joseph L. Sax ….]. According to Prof. Sax, whose article on this subject is considered to be an authority, three types of restrictions on governmental authority are often thought to be imposed by the public trust doctrine [ibid]:
>
> 1. the property subject to the trust must not only be used for a public purpose, but it must be held available for use by the general public;
>
> 2. the property may not be sold, even for fair cash equivalent;
>
> 3. the property must be maintained for particular types of use (i) either traditional uses, or (ii) some uses particular to that form of resources."[178]

Thus, the Court then held that the government orders are violative of principle Nos.1 to 3, mentioned in the article of Professor Joseph Sax and directed that no further construction be made in Peruru and Avilala tanks and corrective measures be taken for recharging them. The restrictions on government powers have been reiterated in several other cases but not necessarily elaborated upon so as to provide clear guidance to administrators.

Reading together the restrictions on government powers and the positive duties and obligations imposed on the administrators, it may be concluded that administrators of public trust need to keep in mind three key mandates – the use of trust resources for public purpose only, alienation of trust resources even for a fair price is not permissible and crucially the

[177] Mono Lake Case, *Supra* note 76.
[178] Intellectuals, *Supra* note 176.

protection and maintenance of the resource for certain kinds of use depending on the nature of the resource.

3.7 Protection of Ecology, Intergenerational Equity and PTD

In *Assn. for Environment Protection v. State of Kerala*,[179] the Supreme Court was called on to examine the grant of permission to build a hotel without carrying out the requisite Environment Impact Assessment (EIA). The question before the court was the construction of a hotel/restaurant on the banks of the River Periyar in the absence of an EIA. The ruling carried out a detailed analysis of the doctrine and the evolving jurisprudence in India. It relies on the foregoing judgements and held that the construction of the hotel/restaurant is violative of the government order and directed the demolition of the structure. In the *Fomento* case referred to earlier, the Court linked the doctrine to the principle of Intergenerational Equity thus expanding the scope of the doctrine.

The Government Order dated 13-1-1978, the Court held, is illustrative of the State Government's commitment to protect and improve the environment as envisaged under Article 48-A. According to the Government Order no project costing more than ten lakhs (INR) should be executed without a comprehensive environment impact assessment by the Environmental Planning and Coordination Committee. Such a review and assessment of environmental implications would have assessed the

> "desirability and feasibility of constructing a restaurant, the possible impact of such construction on the riverbed and the nearby bridge as also its impact on the people of the area. By omitting to refer the project to the Committee, the District Tourism Promotion Council and the Department of Tourism conveniently avoided scrutiny of the project in the light of the parameters required to be kept in view for protection of environment of the area and the river. The subterfuge employed by the District Promotion Council and the Department of Tourism has certainly resulted in violation of the fundamental right to life guaranteed to the people of the area under Article 21 of the Constitution and we do not find any justification to condone violation of the mandate of the Order dated 13-1-1978."[180]

[179] *Assn. for Environment Protection v. State of Kerala* (2013) 7 SCC 226.
[180] *Ibid*, Para 20

In *Goa Foundation v. Union of India*[181], the Supreme Court the public trust doctrine was invoked to ban illegal mining in the State of Goa and also create the Goan Iron Ore Permanent Fund, which provide for 10 per cent of the sale proceeds of iron ore excavated in the State of Goa and sold by the lessees to be appropriated, for the purpose of sustainable development and inter-generational equity.[182]

In this section, the attempt is to distill the normative content of the doctrine as interpreted by the judicial rulings over a period of two decades. This normative content provides the basis for further exploration into understanding of the doctrine by environmental administrators in particular the mining administrators in India, in an effort to glean its impact on decision making. It also provides the scaffolding for building an accountability framework that informs the public trust doctrine. In the next section, I examine the application of the doctrine to Mineral Resources in India.

IV. PTD in the context of Mineral Resources in India

Mineral Resources being non-renewable resources requires a nuancing of the public trust doctrine to accommodate the peculiarities of the resource. It is non-renewable and hence the understanding of corpus protection is in the nature of the trust funds created to benefit current and future generations. With mineral resources, there is no use rights or the protection of base flows to keep the resource alive. In fact, the only use rights permissible is through the trust funds and when an ore is mined, it must be mined completely with the principles of sustainability and zero waste in mind. With this in mind, we explore how PTD has been extended to mineral resources in India. This brief section is devoted to the court rulings that invoke the public trust doctrine vis-à-vis the mineral resources. It goes beyond the Supreme Court rulings to look at judgements delivered by the High Courts and the National Green Tribunals.

At the level of the Supreme Court, in one significant judgement the court examines the broad nature of natural resources and the need to protect it as a trust resource. The court in *Centre for Public Interest Litigation and Ors v. Union of India*,[183] observed that

> "even though there is no universally accepted definition of natural resources, they are generally understood as elements having intrinsic utility to mankind. They may be

[181] *Goa Foundation v. Union of India* WP 435/2012.
[182] *See generally* Rahul Basu, Implementing Intergenerational Equity in Goa, *Economic & Political Weekly*, Vol. XLIX, No. 51 (2014) 33-37.
[183] 2 G Spectrum Case, *Supra* note 140.

renewable or non-renewable. They are thought of as the individual elements of the natural human society and are considered valuable in their relatively unmodified, natural form. A natural resource's value rests in the amount of the material available and the demand for it. The latter is determined by its usefulness to production. Natural resources belong to the people but the state legally owns them on behalf of its people and from that point of view natural resources are considered as national assets, more so because the State benefits immensely from their value." (para 74).

The Supreme Court in the *Goa Foundation* case[184] in discussing the rampant illegal mining in the state of Goa, read into Article 21 (the right to life) the principle of inter-generational equity. The court went on to impose a cap on new mining in the state, while also setting up the Permanent Fund that would operationalise the principle of intergenerational equity. This judgement also reiterated the principle that the state holds natural resources in trust, thus invoking the public trust doctrine to mineral resources.

The Kerala High Court[185] in a "postscript" (an unusual choice of words in a judicial ruling) while deciding a case on the impact of granite quarrying on rubber plantations stated that trust resources cannot be converted into private ownership. To quote:

> "Post Script: Before parting with these cases, and taking note of the findings of the study done at the instance of the Kerala Forest Research Institute, the salient points of which have been adverted to in the introductory paragraph of this judgment, this court is of the opinion that the time has probably come for the State Government to reconsider its policy with regard to grant of mining/quarrying leases and permits. The State Government has to remind itself of its role as a guardian of the natural resources within the State and introduce measures to check the indiscriminate grant of mining/quarrying leases and permits. While the present system of grant of mining/quarrying leases relies, to a large extent, on the mining plan and other documents submitted by the project proponent, with the State Government's role being limited to approving the said plan and granting mining leases/permits, the increasing instances of environmental degradation, and pollution related issues, that are voiced by the citizens of the State ought, in my opinion, to spur

[184] *Supra* note 181.
[185] *V.K.Velu v. Anil Kumar*, WP(C).No. 20532 of 2010.

> the State Government into adopting a pro-active role while granting mining leases and permits. It must keep in mind the doctrine of Public Trust, which was developed as a legal theory by the ancient Roman Empire, and was founded on the idea that certain common properties such as rivers, seashore, forests and the air were held by the Government in trusteeship for the free and unimpeded use of the general public. These resources were deemed to be of such great importance to the people as a whole that it was seen as wholly unjustified to make them the subject of private ownership. The said resources being a gift of nature, it was felt that they should be made freely available to everyone irrespective of the status in life. The doctrine therefore enjoins upon the Government to protect the resources for enjoyment of the general public rather than to permit their use for private ownership or commercial purposes. …."[186]

The court went on to draw a very important link between the other environmental principles and the public trust doctrine.

> "The public trust doctrine has been used, over the years, to forge a number of allied principles through which courts have, to a significant extent, checked environmental degradation, as also large- scale depletion of precious natural resources, while at the same time ensuring that developmental activities are not completely curtailed or prohibited. Some of these principles are;
>
> (i) The principle of sustainable development, which advocates the striking of a balance between the need for protection of environment and the competing need to engage in developmental activities;
>
> (ii) The precautionary principle, that requires the State to take environmental measures to anticipate, prevent and attack the causes of environment degradation, and further clarifies that lack of scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. The principle also lays the onus of proof on the actor to establish that its actions are environmentally benign;
>
> (iii) The polluter pays principle, that penalizes a person who has caused

[186] V. K Velu, *Ibid.*

pollution and;

(iv) The principle of inter-generational equity, that holds that the present generation has no right to deplete all the existing resources and leave nothing to the next and future generations.

The aforesaid principles are not, in my opinion, to be treated as entries in a one-time checklist maintained by the State Government, prior to the grant of permission to exploit mineral resources, or undertake any activity that has serious environmental implications, but are to be applied periodically, during the implementation stages of the permitted activity as well, so that any act, that has the potential to cause damage to the environment or destruction/depletion of the natural resource, is arrested at the earliest stage after its detection. Only through such constant supervision, of permitted activities in relation to natural resources, will the State be able to discharge its duty as a trustee of the natural resources for the benefit its people. Ideally, therefore, the State Government should examine, on a case-to- case basis, whether there is a need to grant a quarrying lease/permit in the area or to renew such leases/permits, taking into account the availability of natural resources, the report of the Bio-Diversity Boards, the impact that such activity would have on the ecological balance of the region and other environmental factors. The data required for such a scrutiny should also be collected and analysed by the Government itself, rather than depending on a report submitted by the project proponent, which could well be a self-serving one."[187]

The court therefore imposes an obligation on the administrators to take into account a range of issues that impact the environment and the ecological balance before granting a mining lease.

V. National Green Tribunal, High Courts and PTD Cases

The National Green Tribunal is another important judicial arena where the public trust doctrine has been interpreted and applied. Established in 2010 by the National Green Tribunal Act, 2010 (NGT Act), the Tribunal has original and appellate jurisdiction over the

[187] V, K. Velu *Supra* note 185.

implementation of seven important environmental legislations.[188] A large number of illegal mining activities, particularly relating to sand mining are being challenged before the NGT.[189]

In a case before the NGT pertaining to protecting the water bodies in the Gurugram in the state of Haryana, the Tribunal held that protection of water bodies is essential for the protection of water bodies.[190] According to the Tribunal, water bodies not only provide aesthetic appeal but also ensures water for human use, supports aquatic life, maintains the microclimate and e-flows of rivers while also recharging groundwater. The Tribunal also observed that under the Public Trust Doctrine, the State has to act as trustee of the water bodies to protect them for the public use and enjoyment for current and future generations.

Perhaps, the most detailed discussion with the public trust doctrine was in the single judge ruling of the Kerala High in the *Plachimada case*[191] related to over extraction of groundwater by Coca Cola Pvt Ltd., in the panchayat limits of a Perumatty, a small village in the State of Kerala. The judgement is not a binding precedent as it was over ruled by the higher bench of the Kerala High Court and subsequently by the Supreme Court. The court in this case relied on the public trust doctrine to rule that the state is trustee of natural resources and hence it is the duty of the state to protect groundwater resources against over exploitation.[192]

VI. Conclusion

The normative content of the PTD is not clearly defined by the courts. Unlike in the United States where the jurisprudence has a more fraught history with multiple interpretations, the jurisprudence in India has seen a steady interpretation , with an ever-widening scope of application. However, the jurisprudence in India relies on the US interpretations and academic writing without fully gauging the implications of it within the US context. Citations and precedents produced by counsel during arguments are cited and adopted without

[188] These include the Water (Prevention and Control of Pollution) Act, 1974, the Water (Prevention and Control of Pollution) Cess Act, 1977, the Forest (Conservation) Act, 1980, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Public Liability Insurance Act, 1991, and the Biological Diversity Act, 2002. The Wildlife (Protection) Act, 1972 is notably excluded from the NGT purview as a significant number of the cases under this enactment are criminal cases.

[189] See generally, Interview with Shibani Ghosh, Understanding the National Green Tribunal, 27 July 2016, CPR online accessed at : https://cprindia.org/news/5400 on 21 August 2021.

[190] *Lt. Col. Sarvadaman Singh Oberoi v. Union of India,* 2020 SCC OnLine NGT 862, decided on 18-11-2020

[191] See *Hindustan Coca Cola Beverages Private Limited v. Perumatty Grama Panchayat and Anr*. Original Petition No. 13513 of 2003, Judgement of 16 May 2003.

[192] For a detailed discussion of the case see Sujith Koonan, Groundwater: Legal Aspects of the Plachimada Dispute, *in* P.Cullet et al., eds., *Water Governance in Motion: Towards Socially and Environmentally Sustainable Water Laws* (New Delhi: Cambridge University Press, 2010) p 159-98.

independent application of mind by the judges through a thorough research and analysis of the doctrine. Additionally, the doctrine has been expanded to apply beyond environmental jurisprudence but the corresponding rigour in analysis for the expansion in scope of the doctrine is missing from the rulings of the judiciary.

To sum up, the normative content of the Public Trust Doctrine in the Indian context contains the following key aspects –

a) It is primarily a review of executive discretion and an oversight over administrative decision making.
b) It imposes specific limits on the administrative powers with regard to trust resources. It imposes limits on alienation, on the determination of a fair price and the use of certain trust resources.
c) It restricts the use and allocation of trust resources.
d) It imposes fiduciary obligations on the state and the administrator is a trustee of the natural resource.
e) The principle of inter-generational equity and sustainability are key aspects of the public trust doctrine.
f) Courts have also linked it to other key environmental principles such as polluter pays and precautionary principle.

In the next chapter, I examine select mining legislations and policy statements to examine the embedding of the public trust doctrine within mining jurisprudence. It must be noted that PTD emerges only in 1998 through interpretation of case law. In the next chapter I examine the mining legislations enacted after 1998 for uptake of the doctrine and contradictions with the doctrine that have a bearing on administrative understanding of the doctrine. Additionally, a more in-depth analysis of the values that the normative content of PTD is to be found in Chapter 7.

CHAPTER THREE: PUBLIC TRUSTEESHIP AND IRON ORE MINING IN INDIA – THE CRISIS OF GOVERNANCE

Abstract: *This chapter provides the context within which the crisis of governance in iron ore mining arises in India. It outlines the violations that led to an intervention by the Supreme Court to ban iron ore and manganese mining in the states of Odisha, Goa and Karnataka for a few years. In laying out the case study, this chapter attempts to analyse the administrative complicity and (in)action in the run up to the crisis, bringing to fore violations of trusteeship obligations. This chapter provides an overview of mining regulation in India, explicating the legal provisions that embed trusteeship obligations either implicitly or explicitly. It also attempts an examination of the contractual provisions that embody the idea of trusteeship. In sum, the examination sheds light on the arena of discretionary power in administrative decision making critical to resource management, particularly the spaces where trusteeship functions need to be upheld, to protect trust resources.*

I. Introduction

An important backbone of modern civilisation, iron ore, is plentiful in the Indian sub-continent. India is among the top ten iron ore producing countries in the world.[193] Evidence suggests crude ore beyond the commercial deposits is widely available across the entire continent.[194] Both haematite (considered superior) and magnetite ore deposits are spread across the country. Nearly 59 per cent of haematite ore deposits are found in the eastern part of the country and about 92 per cent of magnetite ore deposits occur in the southern states, especially in Karnataka.[195]

Archaeological evidence indicates that iron ore mining is a longstanding tradition in India dating as far back as 1000 BCE. Although the incidence of iron ore is found in several parts of the country the high-quality reserves are concentrated in a few areas. Only six states i.e., Jharkhand, Orissa, Madhya Pradesh, Chhattisgarh, Karnataka and Goa account for over 95 per cent of the total reserves of India. It is estimated that the total in situ reserves of iron ore in the country are about 12,317.3 million tonnes of haematite and 5395.2 million tonnes of magnetite.[196] The high-grade iron ore is limited and is available mainly in Bailadila sector of

[194] Dilip K. Chakrabarti, 'Distribution of Iron Ores and the Archaeological Evidence of Early Iron in India' 20 (2) *Journal of the Economic and Social History of the Orient* 166-184 (1977).
[195] Government of India, Indian Bureau of Mines Yearbook, 2015, 54th Edition, accessed at http://www.ibm.nic.in/writereaddata/files/05042017150605IMYB2015_Iron%20Ore_04052017_Adv.pdf
[196] See generally, Smriti Chand, 'Production and Distribution of Iron Ore in India', accessed at https://www.yourarticlelibrary.com/india-2/production-and-distribution-of-iron-ore-in-india/19750.

Chhattisgarh and to a lesser extent in Bellary-Hospet area of Karnataka. To a lesser degree it is also available in Jharkhand and Orissa.[197]

Mining operations, post-independence, was dominated by the public sector until 1993. After the nineties, deregulation of the mining sector saw a steady increase in demand for exports. In India production of iron ore hovered below 50 million tonnes till 1990 due to limited domestic demand and export capacity. However, production of iron ore has increased to 120.7 million tonnes in 2003 and further to 281 million tonnes in 2009. This surge in production to meet global demand coincided with widely documented illegalities in iron ore mining in three specific states – Goa, Karnataka and Odisha.

Being the fifth largest exporter of iron ore, nearly 60 per cent of the total iron ore production is exported to countries such as Japan, Korea and China. The ore is shipped out of major ports such as Vishakapatnam, Paradip, Marmagao and Mangalore, all located within the southern coast of India.[198] While the initial impetus after deregulation was to earn vital foreign exchange, the rampant illegal mining resulted in a rethink. The demand from local market for expansion of infrastructure, particularly the steel industry required that local resources be protected with long term goals in mind. The shift in policy was also triggered by the intervention of the courts to put a halt to the illegal mining.

The Supreme Court of India deciding a batch of writ petitions on illegal iron mining relied on the public trust doctrine to bolster its rationale for protecting the resources from further plunder.[199] Interestingly, the idea of trusteeship of resources finds hazy mention in both the policy and legislative framework around major minerals in India. The first clear mention of the doctrine finds a mention in the recent 2019 National Mineral Policy.[200] It is however implicit in several provisions of the mining legislation, and I explore this in greater detail in the sections below. In the previous two chapters, PTD as explicated in court rulings was explored in great

[197] *Ibid.*

[198] Smriti Chand, *Supra* note 196.

[199] Illegal Mining cases, *Samaj Parivartan Samudaya v. State of Karnataka*, (2012) 7 SCC 407, . *Goa Foundation v. Union of India*, (2014) 6 SCC 590, *Common Cause v. Union of India*, (1996) 2 SCC 752..

[200] National Mineral Policy 1.Vision, Para 2 "Natural resources, including minerals, are a shared inheritance where the State is a trustee on behalf of the people and therefore it is imperative that allocation of mineral resources is done in a fair and transparent manner to ensure equitable distribution of mineral wealth to sub-serve the common good. Mining needs to be carried out in an environmentally sustainable manner keeping stakeholders' participation, and devolution of benefits to the mining affected persons with the overall objective of maintaining high level of trust between all stakeholders.

detail and this chapter attempts a detailed examination of the doctrine within the legislative and executive understanding.

The first section provides an overview of the legislative and policy framework for mining in India. The second section provides an overview of the governance crisis that arose in the three states of Karnataka, Goa and Odisha leading up to a legal intervention. that outlines the governance crisis leading to rampant illegal mining. The third section teases out the provisions both in law and policy that embed the idea of trusteeship. It must be borne in mind here that the public trust doctrine takes shape concretely in Indian jurisprudence during the 1990s and hence it is appropriate to look at law and policy documents after 1995. The last section sheds light on the arena of discretionary power in administrative decision making critical to resource management, particularly the spaces where trusteeship functions need to be upheld to protect trust resources.

II. Legal Framework for Mining Regulation

Mining Regulation in India is a complex arena of shared powers between the Central, State Governments and the local governments. The shared nature of powers between the different levels of governance is an interesting study in itself. The changing role of the Central government from having significant powers to handing over those powers to the state governments and the local governments is a chequered history. Mining has five important stages - prospection, exploration, development, exploitation and reclamation - and the legal framework enables this complex process by putting in a place a regulatory framework.

2.1 Broad Framework

The Government of India had promulgated National Mineral Policy in 1993 which was further revised in 2008 and 2019. The policy encourages scientific methods in mining sector, waste minimization, achieving ecological balance, value addition, research and development activities, and intergenerational equity. It however suggests that the minerals shall continue to be exported to earn foreign exchange. The Government of Karnataka has also formulated its mineral policy in 2000 which was also revised in 2008 mainly to bring state of the art technology in mining, preserve its biodiversity and safeguard forest wealth, promote indigenous utilisation of iron ore fines and beneficiation of low grade ores. Thus, it focuses on systematic and scientific mining and protection of the environment.

Minerals in India are classified into various categories and the regulation differs according to this classification. The Central Government regulates major minerals while minor minerals are

exclusively within the domain of the state governments. Keeping in mind their distinct national importance, separate regulations exist for Coal and Lignite, Atomic minerals and minerals in the seabed. While major minerals can be prospected and extracted only with the permission of the Central Government, the land on or under which the minerals exist are within the jurisdiction of the State Governments. The dual jurisdiction while providing a necessary check and balance, also leads to much confusion and complexity.

The ownership of mineral resources is complex within the federal structure. The state governments are the owners of the minerals within their respective boundaries. The Central Government is the owner of the minerals lying deep in the ocean bed within the territorial waters or the exclusive economic zone of India. Entries 23 List II and Entry 54 of List I deal with powers relating to mineral resources.[201] As owners of minerals, within their jurisdiction, the state governments grant mineral concessions, collect royalty, dead rent and fees as per the provisions of existing laws. However, the Central Government retains the power of revision, fixation of royalty etc, in respect of Coal and Lignite under the Act.

There are three primary enactments dealing with major minerals. First, in pursuance of the powers vested by item 54 of List I, the Central Government framed the Mines and Minerals (Development and Regulation) MMDRA, 1957 as a Central Act for governing the mineral sector (other than Coal, Lignite, Petroleum and Natural Gas). Two critical subordinate regulations that give teeth to the MMDRA are the Mineral Concession Rules, 1960 and the Mineral Conservation and Development Rules, 1988. Mines and Minerals (Development and Regulation) Act, 1957 (MMDR Act) Mineral Concession Rules, 1960 (MCR) and Mineral Conservation and Development Rules, 1988 (MCDR) have been enacted by the Government of India for conservation and systematic development of minerals. Rulemaking powers in respect of minor minerals have been delegated to the states under Section 15 of the MMDR Act. In exercise of these powers, Karnataka Minor Mineral Concession Rules (KMMCR), 1994 have been framed. Section 23(c) of MMDR Act 1957 empowers the states to frame rules for preventing illegal mining, transportation and storage of minerals. The mineral concession holders are also required to comply with the relevant provisions of Forest (Conservation) Act,

[201] Entry 23 of List II (State list) 'Regulation of mines and mineral development subject to the provisions of List I with respect to regulation and development under the control of the Union'; Entry 54 of List I (Union List) states that 'Regulation of mines and mineral development to the extent to which such regulation and development under the control of the Union is declared by Parliament by law to be expedient in the public interest'. I argue in a journal article, a more detailed and in depth engagement with the issues of rights and ownership of mineral resources, see Roopa Madhav, Rights over Mineral Resources: Mapping recent judicial trends, LEAD Journal (forthcoming).

1980, Environmental (Protection) Act, 1986, Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981 and the rules made there under.

Secondly, the legal regime for Coal is separately laid out by enactments that seek to treat this major mineral as a national asset. The private coal mines were nationalised in two phases during 1971-73 – the first phase being coking coal mines and the second phase focussed on non-coking coal mines. Four key enactments, enacted over this period led to the gradual take over – the Coking Coal Mines (Emergency Provisions Act, 1971, the Coking Coal Mines (Nationalisation) Act of 1972, the Coal Mines (Taking Over of Management) Act of 1973 and finally the enactment of the Coal Mines (Nationalisation) Act of 1973. Reportedly, in the last bout of takeover, the government nationalised 937 mines: 226 coking coal mines and 711 non-coking coal mines.[202]

Third, the Department of Atomic Energy exercises all powers over Atomic Minerals and the 'Offshore Areas Minerals (Development and Regulation) Act, 2002' empowers the Central Government to grant mineral concessions for offshore areas and collect royalty for the same.

The scattering of control over the resource between the Centre and the State is not without its challenges. Some of these have been litigated with varying degrees of success in resolving the tensions so as to aid smooth implementation of the legal framework.

2.2 Iron Ore and the Legal Framework

This thesis is set against the backdrop of a crisis in governance that led to illegal mining of iron ore causing a huge loss to the exchequer, the environment and the resources of the country. Iron ore is classified as a major mineral by the Mines and Minerals (Development and Regulation) Act, 1957. In the context of this case study, I focus in some depth on the MMDR Act and its two major rules that provide detailed regulations. The Mineral Concession Rules (MCR) 1960 "defines the process of grant of mineral concessions as per the provisions of Section 13 of the MMDR Act, 1957. The rules lay down the process and timelines for grant of concessions, disposal and refusal of applications and the basic conduct of accounts, registers and information reports. The Mineral Conservation and Development Rules (MCDR) 1988 prescribes guidelines for conservation and development of minerals as per the provisions of Section 18 of the MMDR Act, 1957. The rules prescribe procedures for carrying and

[202] Gautam Chikermane, 70 policies – Nationalisation of Coal Mines, 1971, *Observer Research Foundation*, 2018, accessed at: https://www.orfonline.org/expert-speak/43036-70-policies-nationalisation-of-coal-mines-1971/.

prospecting and mining operations and the general requirements relating to preparation of mining and prospecting plans and filing of notices and returns.

2.2.1 Mines and Mineral (Development and Regulation) Amendment Act

The Mines and Mineral (Development and Regulation) Act, 1957 has seen significant amendments, the latest being in 2015. This Central enactment is the primary legislation that regulates the mining industry by granting mining leases for carrying out mining operations. Three major reasons provided the impetus for these major amendments. First, the National Mineral Policy (NMP) 2008 provides for a change in the role of the Central Government and the State Governments to incentivize private sector investment in exploration and mining, ensure level playing field and transparency in the grant of concessions, and promotion of scientific mining within a sustainable development framework.

Second, based on the recommendations of the Shah Committee and the Supreme Court ruling (*Manoharlal Sharma v. Principal Secy*[203]) that cancelled coal block allocations, substantial amendments were effected to the MMDR Act with the primary purpose of enabling greater transparency through the means of an auction process for allotting mining leases. It also seeks to remove delays and simplify the process of grant of mineral concessions.[204] The latest amendment made significant changes to the original enactment – the key highlights of which are captured in the table[205] below.

Third, there was a substantial decrease in the grant of fresh mining leases in the years after the mining scams. The clutch of litigation pending before various courts also mean that renewals of existing licences were suspended resulting in a dip in export earnings and overall production of mineral resources in the country.

These amendments were seen as providing the necessary impetus to revive the struggling mining industry.

Table A

Features of the Act	**Old Enactment**	**Amendments introducing Changes**

[203] *Manoharlal Sharma v. Principal Secy* (2014) 9 SCC 516.
[204] Swaniti Initiative, Mines and Minerals Development and Regulation (MMDR) Amendment Act, (undated) http://www.swaniti.com/wp-content/uploads/2015/06/Analysis-of-MMDR-Amendment-Act-.pdf
[205] Information contained in the table is sourced from - http://www.swaniti.com/wp-content/uploads/2015/06/Analysis-of-MMDR-Amendment-Act-.pdf ; http://www.business-standard.com/article/economy--policy/mineral--auction--rules--states--asked--to--decide--on--exploration--permits--within--a--month--115041700015_1.htm

1. Title	Mines and Minerals (Regulation and Development) Act	Mines and Minerals (Development and Regulation) Act
2. Notified Minerals in Fourth Schedule	Nil	Adds a new schedule to the MMDR Act, 1957, which includes Bauxite, Iron Ore, Limestone and Manganese Ore.
3. Mineral Concessions	Discretion vested in State Governments in the grant of Concessions	Grant of Concessions only through auctions
4. Kinds of Licence	Three kinds of Licences provided for – Reconnaissance Permit (RP), Prospecting Licence (PL) and Mining Lease (ML).	Composite Licence - the Amendment creates a new category of mining licence i.e. the prospecting licence-cum-mining lease(PL-cum-ML)referred to as the Composite Licence, which is a two stage-concession for the purpose of undertaking prospecting operations (exploring or proving mineral deposits), followed by mining operations.
5. Mining Lease	PL holder had the first right for ML. Decision was taken as per the discretion of the state government.	ML would be given directly to old PL holders only. Now, ML would be awarded through auction only.
6. District Mineral Fund	Nil	The Amendment introduces a mandatory provision to establish a trust, a non-profit body known as the District Mineral Foundation (DMF)in all districts where mining related operations take place.
7. NMET	Nil	The Amendment has defined a provision to setup a National Mineral Exploration Trust (NMET)with the objective of using funds contributed by the holders of a ML or a PL-cum-ML for carrying out extensive exploration exercises. The contribution shall not exceed a sum

		equivalent to two per cent of the royalty rate.
8. Illegal Mining		Penalties for illegal mining increased

(Table modified from Swaniti Initiative Report)

It is worthwhile to look at some of the key amendments in some detail : (i) grant of mineral concessions through auction by competitive bidding; (ii) extension of validity of lease period of existing leases; (iii) establishment of District Mineral Foundation for the benefit of persons and areas affected by mining operations; (iv) establishment of National Mineral Exploration Trust for the purposes of regional and detailed exploration; (v) simplification and removal of delays in the method of grant of mineral concessions; and (vi) stronger provisions for checking illegal mining.

(a) Removal of discretion; auction to be sole method of allotment

All mineral concessions are granted by the respective State Governments. They will continue to do so but all grant of mineral concessions would be through auctions, thereby bringing in greater transparency and removing of discretion. Unlike in the 1957 Act, there would be no renewal of any mining concession. The tenure of the mineral concession has been increased from the existing 30 years to 50 years. Thereafter, the Mining Lease would be put up for auction (and not for renewal as in the earlier system).

(b) Impetus to the mining sector through extending lease periods

The enactment provides a blanket extension to pending mine owners so that operations can be continued. The said amendment act provides that the Mining Leases would be deemed to be extended from the date of their last renewal to 31st March, 2030 (in the captive miners) and till 31st March, 2020 (for the merchant miners) or till the completion of the renewal already granted, if any, whichever is later. It is expected that this would immediately permit such closed mines to start their operations.

(c) Safeguarding communities impacted by mining.

The amending act seeks to establish District Mineral Foundation (DMF) in the districts where mining takes place. This is designed to address the long-time grievance of the civil society with people affected by mining needing to be cared for. There is separate provision for contribution to the DMF not exceeding 1/3rd of the royalty rate in the respective minerals.

(d) Encouraging exploration by setting up the National Mineral Exploration Trust

Indian mining industry has not seen the type of exploration as in other countries. To address this, the said act proposes to setup a National Mineral Exploration Trust created out of contribution from the mining lease holders. This would allow the Government to have a dedicated fund for undertaking exploration. In addition, the transferability provision (in respect of Mining Leases to be granted through auction) would permit flow of greater investment to the sector and increasing the efficiency in mining.

(e) Simplification of procedure and removal of delay

In respect of ten minerals in Part C of First Schedule to MMDR Act 1957, State Government needed to obtain the prior approval of the Central Government before grant of mineral concession. The amendment removes the need for such 'prior approval' from the Central Government, thereby making the process quicker and simpler. Similarly, approval of mining plan by the Government would no longer be mandatory as a provision has been added permitting the State Governments to devise a system for filing of a mining plan without the need for approval by the Government. The amendments also provide that the tenure of any Mining Lease would now be 50 years in place of 30 years in the existing Act.

(f) Stronger provisions for checking illegal mining

In order to bring a check on illegal mining, the penal provisions have been made further stringent. Higher penalties and jail terms have been provided in the amendment act. It also provides for constitution of special courts by the state govt. for fast-track trial of cases related to illegal mining.

2.2.2 The Rules - MCR 1960 and MCDR 1988

a) MCR 1960 - There are three kinds of mineral concessions, viz Reconnaissance Permit (RP), Prospecting License (PL) and Mining Lease (ML) under the rules and these are now being merged into a single concession.[206]

The State Governments grant the mineral concessions for all the minerals located within the boundary of the State, under the provisions of the Mines and Minerals (Development and Regulation) Act,1957 (MMDR) and Mineral Concession Rules, 1960 (MCR) framed

[206] A reconnaissance permit is granted for preliminary prospecting through regional, aerial, geophysical or geochemical surveys and geological mapping. A prospecting licence is granted for exploration and proving mineral deposits. A mining licence is granted for extracting of minerals.

thereunder. Under the provisions of the MMDR Act, 1957 and MCR, 1960, prior approval of the Central Government is required in the following cases:

• Granting mineral concessions in respect of minerals specified in the First Schedule to the Mines and Minerals (Development and Regulation) Act, 1957 and granting areas under prospecting licence and mining lease to a person in excess of limits prescribed under Section 6(1)(a) and Section6(1)(b) of the Act.

• Imposing special condition(s) in mining lease under Rule 27(3), in prospecting licence under Rule 14(3) and in reconnaissance permit under Rule 7(3) of Mineral Concession Rules, 1960 over and above the conditions prescribed in MCR,1960.

• Granting mineral concession in an area previously reserved by the Government, or previously held under a mineral concession, without first notifying the same by relaxing the provisions of Rule 59(1)under Rule 59(2) of MCR, 1960.

• Revision of any order made by State Government with respect to any mineral except a minor mineral. (Section 30 of MMDR Act.)

• Relaxation of Rules in special cases under Section31 of the Act, keeping in view the interest of mineral development.[207]

The Ministry of Mines can in consultation with the State Governments, issue detailed guidelines in order to bring more clarity in processing of the mineral concession proposals under the Mines and Minerals (Development& Regulation) Act, 1957 and Mineral Concession Rules,1960. The guidelines also seek to ensure application of uniform criteria by the State Governments while examining and recommending proposals to the Central Government. It also constituted a Central Coordination-cum-Empowered Committee (CEC) in 2009, for better co-ordination between the different departments under the chairpersonship of Secretary (Mines) to monitor and minimize delays at various levels in grant of approvals for mineral concession applications. Besides senior officers of the Ministry of Mines, the CEC comprises representatives of the Ministry of Environment and Forests (separate representations), Ministry of Defence, Ministry of Home Affairs, Ministry of Steel, Directorate General of Civil Aviation, Geological Survey of India and Indian Bureau of Mines. Representatives of Departments of the State Government dealing with Mining.

[207] Government of India, Ministry of Mines, Annual Report 2009-2010, available on the Ministry of Mines website.

In exercise of powers under section 3 (e) of the MMDR Act, 1957, the Ministry notified 'minor minerals'. In 2015 the Ministry notified 31 minerals as 'minor minerals'. The notification has been published in the Gazette of India vide S.O. 423(E) dated 10.2.2015. The total number of minerals notified as 'minor minerals' so far is 55 whose regulatory and administrative jurisdiction fall under the purview of State Governments. These include the power to frame rules, prescribe the rate of royalty, contribution to DMF, the procedure for grant of mineral concession etc. In the case of major minerals, States substantially regulate and develop minerals subject to provisions of the Act. Several rules and guidelines also complete the broad mineral regulation framework.[208]

III. Iron Ore Mining – The Crisis in Governance

The demand for Indian iron ore increased during the Beijing Olympics. The Chinese import of iron ore for infrastructure building added to the growing demand which began in 2002. In 2003, China overtook Japan to become the world's largest iron ore importer and by 2010, China accounted for almost 59 % of total wor1d imports.[209] This spike in demand coupled with an increase in price is the context within which emerged the governance crisis.

3.1 Background

In November 2010, the Central Government (Ministry of Mines) set up a Commission of Inquiry headed by Justice Shah to examine illegal mining of iron ore and manganese in the state of Goa. The commission documented a range of issues - mining without a licence; mining outside the lease area; undertaking mining in a lease area without taking; raising of minerals

[208] Other important rules and guidelines notified by the Central Government under the MMDR Amendment Act, 2015 are as below:
Minerals (Evidence of Mineral Contents) Rules, 2015: Rules that prescribe procedures to be followed for conducting the exploration to determine mineral content so that the mineral blocks could be taken up for auction of mineral concessions.
Mineral (Auction) Rules, 2015: Rules that detail the process to be followed for auction with respect to grant of minerals concessions.
Mineral (Non-exclusive Reconnaissance Permits) Rules, 2015: Rules that detail the process to be followed for grant of Non-exclusive Reconnaissance Permit.
National Mineral Exploration Trust Rules, 2015: Rules that detail the objectives, functions, operations of the National Mineral Exploration Trust.
Mineral Conservation and Development (Amendment) Rules, 2015: Rule that amend rule 3(c) of MCDR 1988.
Other guidelines or model are also published as mentioned below-
- Model District Mineral Foundation Trust Deed
- Guidelines for support Mining Research
- Model Tender document containing the Mines development and Production Agreement.

[209] OECD Report, The Iron Ore Market in 2011, available at: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwibr8mHlPzyAhVz73MBHVL2DDUQFnoECAIQAQ&url=http%3A%2F%2Fwww.oecd.org%2Fsti%2Find%2FOECD%2520May12%2520Summary%2520%2520Iron%2520ore%2520doc%2520%25283%2529.pdf&usg=AOvVaw1mwK_QU1hFkUhH9XJdiZ5A, accessed on 15th May 2019.

without lawful authority; non-payment of royalty in accordance with the quantities and grade; mining in contravention of a mining plan; mining and conducting of multiple trade transactions to obfuscate the origin and source of minerals; tampering with land records and obliteration of inter–state boundaries with a view to conceal mining outside lease areas; using forged transport permits and other documents to raise, transport, trade and export minerals.[210]

Based on the Shah Commission Report, three separate petitions before the Supreme Court challenged the iron ore mining activities in the states of Goa, Odisha and Karnataka. Between 2012 and 2016, the Supreme Court in a series of orders banned iron ore mining in the States of Goa, Karnataka and Odisha, to correct several illegalities carried out in the wake of the mining boom that saw international demand and prices soar. It is this crisis in governance and the need for a court intervention to halt mining activities that is the trigger for the study. While the Supreme Court had, as outlined in the previous chapters, held all-natural resources to be a public trust, evidently the administrators of mineral resources did not act in accordance with the doctrine.

The gross violations are documented by several investigative agencies that looked into the matter. A Central Empowered Committee (CEC) was set up to carry out field investigations and provide a report to the court.[211] The Central Empowered Committees submitted detailed reports of illegalities, documenting a range of violations in the three states - listed below are a few examples -

a) Indian Bureau of Mines (IBM) failed to ensure that licenses are regulated and not sub leased to third parties;

b) Non-payment of royalty in accordance with the quantities and grade;

c) Mining in contravention of a mining plan;

d) Conducting of multiple trade transactions to obfuscate the origin and source of minerals in order to facilitate their disposal;

[210] Government of India, *First Interim Report of Shri Justice M.B. Shah Commission of Inquiry for Illegal Mining of Iron Ore and Manganese* (2011) available at: http://mines.nic.in/index.aspx?level=1&lid=673&lang=1 accessed on 15th July 2018.

[211] Central Empowered Committee Report, in W.P (Civil) No. 435 of 2012 (Goa); Central Empowered Committee Report, in W.P (Civil) No. 562 of 2009 (Karnataka); Central Empowered Committee Report, in W.P (Civil) No. 114/2014, W.P. (C) No. 194/2014 and W.P (C) No. 202/1995 (Odisha).

e) Tampering with land records and obliteration of inter–state boundaries with a view to conceal mining outside lease areas;

f) Forging or misusing valid transportation permits and using forged transport permits and other documents to raise, transport, trade and export minerals.

g) EIA and pollution norms violated as overburden from mining pollutes water, forests and air. The deposit of overburden in unleased areas, ore recovery from tailings deposits are clear violations of the EIA norms.

h) Forest laws violated as mining areas are located within and near National Parks and protected sanctuaries.

This thesis sheds light on the crisis in governance in one state i.e. Karnataka and draws on empirical data collected in the State of Karnataka. Although efforts were made to obtain data from the State of Goa, the researcher was unable to establish contact with the local mining administrators for comment. The difficulties were compounded by the announcement of a protracted general election in 2019. The focus of this work thus remained entirely on one state with in-depth interviews of retired officers providing insights into the understanding of trusteeship in the State of Karnataka and a few interviews with Central administrators. But the lessons learnt from the single state can be extrapolated to apply to most other regions in the country. A short sampling of interviews with retired officers of the Indian Bureau of Mines also sheds light on the larger governance challenges at the central level.

3.2 Iron Ore Mining in Karnataka

There are 266 iron ore mines in Karnataka, out of which 134 are in forest areas while the balance 132 are in non-forest areas. In Bellary District, which saw rampant illegal mining, there are 148 mines, out of which 98 are in forest area and the balance 50 are in non forest area. The production of iron ore during the year 2009-10 was about 50 million tonnes. The total iron ore mineral reserves (hematite) is about 1148 million tonnes as assessed in 2005 by the IBM. The lokayukta estimated that at the present rate of mining the mineral reserves of the State will be exhausted in about 20 years. However, if the figure of illegal mining is added, which is substantial, the resources would be exhausted in a much shorter period impacting the question of inter- generational equity.[212]

[212] *See generally*, Karnataka Lokayukta, The Lokayukta Report: Report on the Reference made by the Government of Karnataka under Section 7(2-A) of the Karnataka Lokayukta Act, 1984, (Part I), 2008,

Iron ore mining in Bellary took off in 1999, paved by the 1993 National Mineral Policy that began encouraging private players to participate in iron ore mining. It received a further push when the Karnataka State Mining Policy in the year 2000 outlined a policy of 'Export Oriented Development'. Finally, in March 2003, the state government de-reserved 11,620 square km for private mining that was formerly marked for mining by state entities alone. The changes in mining policy went hand in hand with increasing demand from China due to the Beijing Olympics that caused iron ore prices to soar. From around Rs. 1,300 per tonne in 2000 it crossed Rs. 4,500 per tonne in 2005-06.[213] This increase in demand and soaring prices resulted in several mining companies over extracting beyond permissible limits, several major lapses in governance by the state at multiple levels – from the mining, police, customs and forest departments. Following an outcry from both locals and activists, several enquiry committees were set up. A brief overview of the findings from the various investigating agencies is listed below.

3.2.1 Lokayukta Findings

In March 2007, the Karnataka government, then a coalition between the BJP and the JD(S) asked the Lokayukta, Justice Santhosh Hegde (a retired Supreme Court judge), to probe allegations of illegal mining in Bellary. It was asked to investigate, fix responsibility and initiate action against all public servants, including ministers, whether in office or otherwise, involved in the illegalities.

In December 2008, Hegde submitted his first report, which stated that at the present rate of extraction iron ore reserves in Bellary would last no more than 20 years. It also commented on the minimal rates of royalty paid to the State at the time (between Rs. 16 and Rs. 27 per tonne) compared to the high profits being made by the private mining companies (around Rs.1000 per tonne).

The report also pointed out a number of failures in adhering to the due process of law, including irregularities in process followed for de-reservation of land, grant of lease, encroachments into forest areas, benami transactions and grant of temporary transport permits not permitted by law. Also documented were improper orders passed by the Department of Mines and Geology,

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Bangalore; Karnataka Lokayukta. The Lokayukta Report: Report on the Reference made by the Government of Karnataka under Section 7(2-A) of the Karnataka Lokayukta Act, 1984, (Part II), July 2011, Bangalore.

[213] Anon, Mining in Bellary – A Policy Analysis, available at: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwifvqaop_PyAhXClEsFHUNcCioQFnoECAIQAQ&url=https%3A%2F%2Fadrindia.org%2Fsites%2Fdefault%2Ffiles%2FEPW_Mining_Article.pdf&usg=AOvVaw2B1WXqARej1kl4pspwjwA- accessed on 2nd September 2020.

irregularities in grant of stock yard licence and transportation of ore as well as the damage caused to environment. Certain actions taken by the then Chief Minister, who held the portfolio of the Department of Mines, also came to light in the report. It was estimated that at a conservative rate of Rs.5000 per metric tonnes, the nominal value of the illegally exported iron ore from Karnataka would be Rs.15,245 crores, highlighting the scale of loss to the exchequer that the illegal mining caused in Karnataka.

Following the submission of the first Lokayukta report, the state government-initiated reforms to curb illegal mining, such as the transfer of key officials in-charge of mining and forests in the state. However, these efforts did not yield results as indicated by the Belekeri port theft in 2010. In Belekeri, forest officials seized eight lakh metric tonne of iron ore being illegally transported, of which 6 lakh metric tonnes disappeared after seizure, demonstrating that the illegalities continued despite the efforts to curb them.[214] There were also other reports of the mining leases being transferred to other companies by way of raising contracts in clear violation of the law. The lokayukta report highlighted these many failures at the government level.[215]

Similarly, before the intervention of the Supreme Court, in the 2 years since the first Lokayukta report was released, only 7 of the 99 Bellary iron ore leases had been surveyed by the Government, and violations of the borders of the mining leases had been recorded in 6.[216]

3.2.2 Central Empowered Committee Report

In 2009, the Supreme Court took up the issue of illegal mining in Bellary through a PIL filed by an NGO called the Samaj Parivartana Samudaya. A Central Empowered Committee (CEC) was appointed to look into the matter. The CEC after several site visits concluded that the state government had not acted on the recommendations of the Lokayukta.

Putting the massive scale of illegal mining in context, it is useful to quote the CEC report to highlight the magnitude of the violations. “The CEC would like to place on record that during the last nearly nine years of the existence of the CEC, it has dealt with a number of cases involving illegal mining such as in Haryana, Rajasthan, Uttar Pradesh, Madhya Pradesh, Chhattisgarh and Orissa. In many of these cases, the extent of illegal mining was found to be quite extensive. However all these cases pale into insignificance when compared to the illegal

[214] *See generally*, Steffi Elizabeth Thomas, The Horrors of Bellary, 18th December 2014, available at: https://www.ritimo.org/The-Horrors-of-Bellary accessed on 10th September 2020.
[215] *Ibid.*
[216] *Ibid.*

mining on colossal scale that took place in the State of Karnataka particularly in District Bellary and that too with the active connivance of the officials of the concerned Departments and also the public representatives."

It also highlighted the issues identified by the Lokayuta of illegal mining and encroachments in forest areas by the leaseholders, illegal grant of temporary transport permits, illegality in transportation of iron ore, ineffective transport permit system, harm to the environment and pollution of water bodies, lack of follow up in court cases and improper orders passed by the State Government, The forest cover in these areas, as seen from the satellite imageries, have been wiped out. Illegal mining on massive scale took place particularly during 2009 and 2010 in the forest area, even after cases were registered and reports from the IBM, DGMS and joint inspection by the IBM and the State of Karnataka. The satellite imageries vividly bring out the extent of illegal mining which perhaps runs into thousands of crores of rupees.[217]

3.2.3 ICFRE Report

The Supreme Court of India while hearing the cases in 2010 cited rampant and unscientific mining leading to environmental degradation in Bellary district, Karnataka, ordered the Indian Council of Forestry Research and Education (ICFRE) on 5 August 2011 to carry out a macro level EIA study of Bellary district in collaboration with the Forest Survey of India (FSI) and Wildlife Institute of India (WII) and incorporating other domain specialists as needed in consultation with the Ministry of Environment and Forests (MoEF). Among others, the National Environmental Engineering Research Institute (NEERI), Nagpur, and National Remote Sensing Centre (NRSC), Hyderabad, were engaged in the study.

The report concluded that mining has affected the rainfall pattern of Bellary and has rendered its land unfit for cultivation – declaring the land a no-green zone. The rainwater that flows down hillocks to replenish water aquifers, now carries so much dust that it heavily contaminates water reservoirs, which has also led to soil degradation. The report revealed a fast rate of siltation in the Tungabhadra reservoir due to mining, which has declined the capacity of the reservoir from 133 TMC to 99 TMC (thousand million cubic meters).

A study by the NEERI found that suspended air particles at many locations in the district were far above the national health standards. According to the report, the dust hanging in the air of

[217] Interim Report of the CEC in Writ Petition (Civil) no. 562 of 2009 filed by Samaj Parivartana Samudaya and others regarding illegal mining and other related activities in forest areas of Karnataka. Also cited in note 214 above.

Bellary due to rampant mining is a serious health hazard. It also noted that the area has high incidence of lung infections, heart ailments and cancer. Rainwater that used to earlier flow down hillocks and replenish underground aquifers now took dust along the way, contaminating water and degrading soil, making farming difficult. Studies point towards a fast rate of siltation in the Tungabhadra reservoir due to the deposition of waste material generated from mining. However, the Karnataka State Pollution Control Board (KSPCB) has been tardy in issuing notices to mine-owners under existing laws (including the Air Act, 1981 and the Water Act, 1974).[218]

Mining has had adversely impacted the forest areas, including the 'reserved' forest areas, in Bellary and Vyasankere. Dumping of waste material has caused erosion of the topsoil of the region. Species of wildlife such as the as the Egyptian vulture, yellow throated bulbul, white backed vulture and four-horned antelopes have vanished due to depletion in the forest cover on account of mining.

3.2.4 CAG Findings

The Comptroller Auditor General (CAG) of India's in the performance audit report of the mining sector highlighted the mass loss of wealth to the nation due to the illegal mining. The report was tabled in the Karnataka's Legislative Assembly[219] The CAG audit report also points at the extravagant revision of mines' production capacity by the Indian Bureau of Mines. This has resulted in excessive extraction of minerals, it points out. The production of iron ore in the Bellary region alone has ranged between 33.26 to 49.81 million tonnes in violation of the study by the National Environmental Engineering Research Institute, carried out in Bellary-Hospet region in April 2004, which recommended 16 million tonnes of iron ore mining in the area, The Central Empowered Committee (CEC) had also permitted to mine only 25 million tonnes of iron ore per annum.

The audit found discrepancy in the quantity of iron ore permitted for transport by the state mines department and forest department. A differential quantity of 3.75 million tonnes of iron ore valued Rs 296.02 crore has been permitted by the forest department for transport. Several vehicles were found transporting minerals despite expired permits. The state failed to take any action even after being informed by RTOs about seizure of lorries plying with extra load of

[218] S E Thomas, *Supra* note 214.
[219] *Ibid.*

ores.[220] The range of violations demonstrate the oversight being inadequate as the scale far outmatched the ability of the various departments to monitor the activities of the various operations.

3.2.5 CBI proceedings

So far there are 63 cases against Janardhan Reddy in Karnataka and Andhra Pradesh. Out of these, 10 cases with Special Investigation Team (SIT) Lokayukta concerning Belekeri port, the chargesheet had not been filed yet. These cases are still under investigation. Around 28 of these cases are with the CBI in which chargesheet has been filed in almost all but the progress is slow. Cases related to illegal transportation of iron ore from ports in Mangalore, Karwar, Krishnapatnam and Goa have been disposed of due to lack of evidence to investigate.

IV. Public Trust Doctrine and the Mineral Regulation Framework

Having laid out the context for the case study and the broad legal framework for the mining sector in India in the sections above, I explore here the uptake of the public trust doctrine – either implicitly or explicitly – within the provisions of policy, law (both primary and secondary) for a deeper understanding of how PTD is adopted and translated by the bureaucracy. This section begins with the policy statements made by the Central Government and the State of Karnataka where the case study is primarily based. The primary and secondary legislation exploration is primarily Central legislations.

4.1 National Mineral Policy and Trusteeship

Policy documents in India, particularly those related to natural resources such as water and minerals emerge in the 1990s to take forward the liberalisation agenda. Prior to 1990s, the policy framework adopted by the state can be gleaned from the five-year plans and the planning commission reports.

The first National Mineral Policy 1993 focussed primarily on encouraging private investment and participation in the mining sector. This approach was further strengthened by the National Mineral Policy 2008 but it also sought to balance the interests of the local population and the environment. It provides for a change in the role of the Central Government and the State Governments "to incentivize private sector investment in exploration and mining, for ensuring

[220] Soundaraman Ramanthan, Karnataka lost Rs 3,000 crore due to illegal mining: CAG, *Down to Earth* Report, 10 January 2013.

a level playing field, to provide transparency in the grant of concessions and promotion of scientific mining within a sustainable development framework so as to protect the interest of local population in mining areas."[221]

In 2019, a new policy was introduced to recalibrate the sector and address the many gaps in the policy framework. The policy statement begins by acknowledging that the mineral resources are valuable resource the extraction of which is to be done in a scientific manner with the national goal being zero waste mining. (Clause 2.1)

The first explicit mention of the public trust doctrine is made in the National Mineral Policy 2019. Both the policy documents of 2008 and 2019 contain a few select statements that can be interpreted to implicitly take forward the idea of trusteeship. Some of these provisions are highlighted below but extracts of the provisions are at **Annexure – F**

The focus on protection of the environment and corpus protection of mineral resources through an active process of scientific and zero waste mining is noted in the policy. The policy acknowledges that a major part of the mining in India occurs in areas rich in bio-diversity and mining activities result in wide spread damage to the environment particularly the forest and water resources. Consequently, zero waste mining is identified as the national goal. Sustainable development is also identified by the policy as key. "A framework of sustainable development will be designed which takes care of biodiversity issues and to ensure that mining activity takes place along with suitable measures for restoration of the ecological balance." (Clause 2.3)

Access to mineral wealth is ensured through a system of royalties and cess imposed on the extraction of mineral resources. The revenues from minerals will be rationalised to ensure that the mineral bearing States get a fair share of the value of the minerals extracted from their grounds. New sources of revenue will be developed for the States and State agencies involved in mineral sector development and regulation will be encouraged to modernise in the areas of prospecting as well as regulation. The States will be assisted to overcome the problem of illegal mining through operational and financial linkages with the Indian Bureau of Mines. (Clause 2.6)

The difficulty in balancing the two conflicting mandates of public trust doctrine and that of the mineral production for the advancement of economy is best captured in this clause of the policy statement – it is reproduced in full below -

[221] National Mineral Policy 2008.

> "7.2. Conservation and Mineral Development Conservation of minerals shall be construed not in the restrictive sense of abstinence from consumption or preservation for use in the distant future but as a positive concept leading to augmentation of reserve base through improvement in mining methods, beneficiation and utilisation of low grade ore and rejects and recovery of associated minerals. There shall be an adequate and effective legal and institutional framework mandating zero-waste mining as the ultimate goal and a commitment to prevent sub-optimal and unscientific mining. Non-adherence to the Mining Plan based on these parameters will carry repercussions. Mineral sectoral value addition through latest techniques of beneficiation, calibration, blending, sizing, concentration, pelletisation, purification and general customisation of product will be encouraged. This is particularly important in iron ore mining as about 80% of the iron ore produced in the country is in the form of Fines and to promote such value addition fiscal and non fiscal incentives will be considered. A thrust will be given to exploitation of mineral resources in which the country is well endowed so that the needs of domestic industry are fully met keeping in mind both present and future needs, while at the same time exploiting the external markets for such minerals."

Clause 7.9 identifies the problem of doing scientific mining with small deposits and notes that there is a need to attempt a more viable cluster approach. It states thus: "Where small deposits are not susceptible to viable mining a cluster approach will be adopted by granting the deposits together as a single lease within a geographically defined boundary. Efforts would be made to grant such mineral concessions to consortia of small-scale miners so that such clusters of small deposits will enable them to reap the benefits of economies of scale. In the grant of mineral concessions for small deposits in Scheduled Areas, preference shall be given to Scheduled Tribes singly or as cooperatives." This identification of tribes and artisanal miners was a welcome innovation in the policy statement.

The Mineral Policy of 2019 highlights some key ideas of trusteeship of resources. Clause 3 outlines the role of the state in "mineral development". It states that "the core functions of state in mining will be facilitation and regulation of exploration and mining activities by investors and entrepreneurs, making provision for development of infrastructure and tax collection. There shall be transparency and fair play while reserving areas for state agencies unless security considerations or specific public interests are involved. Grant of clearances for commencement of mining operations shall be streamlined with simpler and time bound procedures facilitated through an on-line public portal with provisions for generating triggers at higher level in the

event of delay." Clearly, the role of the state is defined as facilitator and a regulator with a focus on resource and infrastructure development and tax collection. No mention is made of the state as a trustee or the protection and use of the resource for the benefit of the citizens.

The focus of the policy is to provide incentives to private sector investments, facilitating the ease of doing business. Clause 6.2 notes thus on Conservation and Mineral Development. "Conservation of minerals shall be construed not in the restrictive sense of abstinence from consumption or preservation for use in the distant future but as a positive concept leading to augmentation of reserve/resource base. There shall be an adequate and effective legal and institutional framework mandating zero-waste mining as the ultimate goal and a commitment to prevent sub-optimal and unscientific mining. Value addition and general customisation of product will be encouraged by providing fiscal and/or non-fiscal incentives." The policy statement thus makes certain concessions to the protection of the environment and against the excessive extraction of mineral resources. Conservation is thus interpreted not as abstinence from the use of the resources but as a commitment to zero waste.

4.2 Karnataka State Mineral Policy and Trusteeship

Karnataka State has 1150 million tonnes of iron ore reserves. Out of this, nearly 400 million tonnes of crude iron ore has been identified and is presently being exploited.[222] In 2008, Karnataka introduced the revised mineral policy and it notes that the changes instituted by the National Mineral Policy 2008 has necessitated changes at the state level. The objectives of the 2008 policy statement were to encourage the adoption of scientific mining and state of the art technology into the sector.

Identifying the changing trends in the state policy, in *Sri Sathyamoorthy S/o. Perumal v. The Secretary to the Government of India, Ministry of Mines, Department of Mines and Ors*, the court noted thus -

> "Iron ore mining in Bellary took off in 1999, paved by the 1993 National Mineral Policy that began encouraging private players to participate in iron ore mining. It received a further push when the Karnataka State Mining Policy in the year 2000 outlined a policy of "Export Oriented Development". Finally, in March 2003, the state government de-reserved 11,620 square km for private mining that was formerly marked for mining by

[222] *Sri Sathyamoorthy S/o. Perumal v. The Secretary to the Government of India, Ministry of Mines, Department of Mines and Ors* Judgement dated 11-06 2009. https://www.legitquest.com/case/sri-sathyamoorthy-so-perumal-v-the-secretary-to-the-government-of-india-ministry-of-mines-department/D8ED2

state entities alone. The changes in mining policy went hand in hand with increasing demand from China due to the Beijing Olympics that caused iron ore prices to soar. From around Rs. 1,300 per tonne in 2000 it crossed Rs. 4,500 per tonne in 2005-06."

The new policy does not identify a strong trusteeship element to the policy objectives. On the contrary, the focus remained on liberalising and deregulating the sector to allow for greater private participation.

4.3 Trusteeship in Mining Legislations

In this section, I look specifically at the main enactment governing the major minerals. As a central enactment, it has seen several revisions over the years, and I examine the specific Provisions in the MMDRA 1957 (as amended)[223] that embody the idea of trusteeship. A few select provisions provide an explicit statement embedding the idea of trusteeship in the legislation while the majority of the provisions require an implicit understanding of the intent of the legislature. The extracts of the legal provisions is at **ANNEXURE- G.**

A. Explicit Provisions

Four explicit categories of provisions in the MMDRA 1957 point to a clear understanding of the principles of public trust –

(a) Power to take control in Public Interest: The power of the Union Government to take control of a mine in public interest, after following due process, and to terminate the mining lease in the interest of regulation of mines and mineral development, preservation of natural environment, control floods, prevention of pollutions or to avoid danger to public health or communications or to ensure safety of buildings, monuments or other structures or for conservation of mineral resources or for maintaining safety in the mines or for such other purposes as the Government may deem fit. (Section 2 and 4A (1) (2) and (3)).

(b) Provisions relating to collection of royalties, cess and dead rent from mining activities: Lease holders pay either royalty on extracted minerals or dead rent for leased areas. Key

[223] It has been amended several times –
1. The Mines and Minerals (Regulation and Development) Amendment Act, 1958 (15 of 1958)
2. The Repealing and Amending Act, 1960 (58 of 1960)
3. The Mines and Minerals (Regulation and Development) Amendment Act, 1972 (56 of 1972)
4. The Repealing and Amending Act, 1978 (38 of 1978)
5. The Mines and Minerals (Regulation and Development) Amendment Act, 1986 (37 of 1986)
6. The Mines and Minerals (Regulation and Development) Amendment Act, 1994 (25 of 1994)
7. The Mines and Minerals (Regulation and Development) Amendment Act, 1999 (38 of 1999) .
8. The Mines and Minerals (Regulation and Development) Amendment Act, 2010 (34 of 2010).

provisions that provide for a payment to the Government outline the royalty[224] and dead rent to be paid as prescribed by the second schedule. Section 9 of the Act states that the holder of the mining leases shall pay the royalty in respect of any mineral removed or consumed by the lease holder or his agents. The royalty rates and dead rent are subject to change by the Central Government at regular intervals – such revision can be done not more than once in every three years. The Second Schedule lists about 50 major minerals and provides a separate category for other minerals. In 2013, a study group set up to look at revision of rates and the recommendations were accepted by the Government.[225] Section 9 A and the Third Schedule provides for payment of dead rent by the lessee.

(i) Dead rent - a mining rights holder is liable to pay either royalty or dead rent in respect of a mining area, whichever is higher. Dead rent is, therefore, meant to be paid when the mine is closed or is being under exploited. Dead rent is fixed by the federal government and is collected by the state. Any enhancement to the dead rent can only be done once in three years.

(ii) NMET/DMF contributions - a rights holder has to pay a sum equal to 2 per cent of the royalty as a contribution to NMET. DMF contributions are to be fixed by the federal government but cannot exceed one-third of the royalty specified. Specifically, in relation to mining, the amended MMDR Act provides for setting up of the DMF in all districts affected by mining related operations. A rights holder is required to contribute to the DMF at rates specified by the federal government that cannot exceed one-third of the royalty. The state governments have administrative jurisdiction over the DMFs in their region. Recently, a scheme was also launched meant to provide for the welfare of areas and people affected by mining related operations, using the funds generated by DMFs.

The rights holder may also have to pay, where applicable, surface rent to the surface rights owners or application fees for the licence or lease that are fixed by the federal government and collected by the state.

The taxes or levies differ in quantum and nature depending on the states. Principal taxes and duties applicable to mining industry are: (i) direct taxes, such as corporate tax or minimum alternative tax; (ii) indirect taxes, such as custom duty, service tax, value added tax; (iii) stamp duty; (iv) water tax; and (v) forest-related taxes, such as forest tax (levied on forest produce

[224] "Royalty - the federal government specifies the royalty payments for each mineral and the state government collects the royalty on mining. Royalty in most cases is charged on ad valorem basis as percentage of the price notified by the government. Any enhancement to the royalty can only be done once in three years.
[225] Government of India, Indian Bureau of Mines, Indian Minerals Yearbook 2013.

removed from forest areas), compensatory afforestation charges (levied to promote afforestation and compensate for deforestation), net present value payments of forest land diverted for mining. Cess is also levied on mineral ores under various legislations."

(c) Introduction of auction – Clearly the crisis led to a rethink on the fairness of the allocation of resources. By an amendment in 2010, the Central Government introduced auction as mode for grant of mining lease thus ensuring transparency. In recent years, there has been a push to increase transparency and stop discretionary grant of concessions, which was the primary mode under the old procedure of first come first basis. The Supreme Court has held that allocation of material resources is the most effective method for alienation of natural resources, as it results in the true cost discovery and it is not alienated free of cost or at a consideration lower than their actual worth. To increase transparency and accountability, the central government has also introduced the Transparency, Auction Monitoring and Resource Augmentation Portal and Mobile Application in February 2017, which allows users to track the status of the statutory clearances associated with mining blocks. This introduction of transparency allows citizens a say in the allocation of resources and the ability to track the resource grants.

Several amendments have been carried out to the MMRDA to introduce and streamline the auction process. With regard to Coal and lignite, Section 11 A states thus :

> Granting of reconnaissance permit, prospecting licence or mining lease in respect of coal or lignite. (Inserted by an amendment in 2010)
>
> 11A. The Central Government may, for the purpose of granting reconnaissance permit, prospecting licence or mining lease in respect of an area containing coal or lignite, select through auction by competitive bidding on such terms and conditions as may be prescribed, a company engaged in - (i) production of iron and steel; (ii) generation of power (iii) washing of coal obtained from a mine; or (iv) such other end-use as the Central Government may, by notification in the Official Gazette, specify, and the State Government shall grant such reconnaissance permit, prospecting licence or mining lease in respect of coal or lignite to such company as selected through auction by competitive bidding under this section:
>
> Provided that the auction by competitive bidding shall not be applicable to an area containing coal or lignite – (a) where such area is considered for allocation to a Government company or corporation for mining or such other specified end-use; (b) where such area is considered for allocation to a company or corporation that has been

awarded a power project on the basis of competitive bids for tariff (including Ultra Mega Power Projects). Explanation- For the purposes of this section, "company" means a company as defined in Section 3 of the Companies Act, 1956 and includes a foreign company within the meaning of Section 591 of that Act]

Section 15 provides for grant of lease for minor minerals by the State Governments.

d) Conservation – The provisions pertaining to conservation explicitly provide for protections as envisaged by the Public Trust Doctrine. Section 17 A (1) provides that the Central Government, after due consultation with the State Government, may reserve any area not already held under any prospecting licence or mining lease as reserved. This reservation of areas does not entirely satisfy the public trust doctrine principle of conservation for future generations as the governing principles seem to be driven more from a national interest and not necessarily from that of an equitable sharing between generations. Be that as it may, it does seek to provide a semblance of protection to the mineral resources being reserved for future use and not being extracted purely at present market rates.

(e) Mine Closure - Closure of mines in the past meant simply boarding up the place and dismantling machinery. This practice is still very common in most developing countries. New technology and awareness around the need for proper mine closure has contributed to change in regulations around the world.[226] "Mine closure is an increasingly complex process, and given the concerns of all stakeholders regarding environmental, social, and economic impacts, best practice has long gone beyond technical solutions. Nowadays, a trilateral process of consultation and problem solving, involving mining companies, governments, and communities, is required for a mine to be closed successfully. In fact, to be fully effective, the process of planning for mine closure should start at the mine design stage." [227]

Mineral Conservation and Development Rules 2003 provides for two types of mine closures. A Progressive Mine Closure Plan (Clause 23 B, MCDR 2003) which is to submitted in the event of a fresh grant or renewal of a mining licence. A Final Mine Closure Plan is a component of the mining plan to be submitted one year prior to closure of the mines.

[226] World Bank Report, *It's Not Over When It's Over: Mine Closure around the World*, (International Finance Corporation, 2002).
[227] *Ibid*, Foreword.

B. Implicit Provisions

Although this is not an exhaustive listing of all the provisions in the Act, I list below some of the important provisions that implicitly acknowledge the trusteeship concept.

(i) Restrictions on extension of grant of mineral concessions: By restricting the periods for which mining leases are granted or renewed, the state retains control in public interest, The periodic renewal mechanism also ensures that there is oversight and renewal is subject to compliance with the terms of the lease agreement and in particular, the environmental safeguards. Section 8 of MMDRA provides for grant and renewal of mining leases.

(ii) There are also provisions that provide for the State Governments to make rules for preventing illegal mining, transportation and storage of minerals. This takes the core idea of public trust doctrine seriously i.e that the resources are held in trust by the state and needs to ensure that the resources are not misutilised. Section 23 C gives the states the rule making powers to prevent illegal mining by establishing check-posts, weigh-bridges, inspection, checking and search of minerals at the place of excavation or storage or during transit.

Apart from the explicit and implicit provisions in the MMDRA, the recent amendments also introduce the idea of District Mineral Funds.

(iii) District Mineral Funds: The mining industry is concentrated in underdeveloped parts of the country. There has been growing emphasis on the fact that local communities also benefit from the mining activities in their region. The government introduced the DMF and other schemes under it to provide for the welfare and development of local communities."

The 2015 amendment to the Mines and Minerals (Development and Regulation) Act introduced District Mineral Funds to be set up in Districts that support mining activities. The fund supports socio-economic development of the region but expressly excludes spending on environmental damage caused by mining companies that fall within the 'polluter pays' principle.[228] The priority areas for spending under the fund include drinking water supply, watershed, education, health care, sanitation and developing physical infrastructure. The guidelines also provide for a certain percentage of the fund to be set aside as an endowment fund.

"In the minerals sector, endowment funds involve saving and investing all or part of the resource revenue collected and using returns from investments to fund projects. They have varying saving, investment and expenditure rules, but typically allow for a continued source of

[228] Pradhan Mantri Khanij Kshetra Kalyan Yojana Guidelines 2015.

revenue even after mineral resources are exhausted. The governments of Goa, Karnataka, and Andhra Pradesh have established endowment funds in which they invest 50 per cent, 20 per cent, and 0.5 per cent of DMF revenues, respectively."[229]

For 'major minerals companies must deposit an amount equal to 10 per cent of the royalty paid by them if their mining lease was granted after January 12, 2015. If the lease was granted prior to this date, they need to deposit an amount equal to 30 per cent of the royalty paid by them. For 'minor minerals' such as stone and sandstone, state governments can determine the amount to be deposited by companies.

It is reported that the "fund collection has been the highest in Odisha, Chhattisgarh, Jharkhand, Rajasthan and Madhya Pradesh. The utilization of funds has been low in the 13 key mineral producing states - only 17 per cent of the amount collected. Apart from these states, DMFs have been established in Assam, Bihar, Himachal Pradesh, Jammu & Kashmir, Kerala, Uttarakhand, and West Bengal."[230]

In Scheduled Areas, "the approval of gram sabhas must be obtained for: (a) projects funded by DMFs, and (b) the identification of beneficiaries [ix]. In addition, in these areas, a report should be presented to the gram sabha every year with details of projects undertaken in the village."[231]

(iv) Other Related Laws – While there are specific ideas embedded in the Mining specific laws, there are several related enactments that require the state to play the trusteeship role to a larger degree. These laws are to be read with the Mining legislations to complete the regulatory framework applicable to the mineral industry. Again, this is not an exhaustive listing but a snapshot of the more important legislations.

(a) Environmental Laws

The idea of trusteeship is embedded in the principal environmental laws and those applicable to mining industry include:

- the Environment (Protection) Act 1986 (EPA);
- the Forest (Conservation) Act 1980;

[229] Joyita Ghose, 'District Mineral Foundations: Sharing Mining Revenues with Communities' <http://www.teriin.org/article/district-mineral-foundations-sharing-mining-revenues-communities> accessed on 3rd May 2018.
[230] *Ibid.*
[231] *Ibid.*

- the Water (Prevention and Control of Pollution) Act 1974; and
- the Air (Prevention and Control of Pollution) Act 1981.

Further, the MMDR Act empowers the federal government to frame rules for conservation and sustainable development of minerals and for the protection of environment by preventing or controlling pollution which may be caused by prospecting or mining operations. The MCDR regulates environmental aspects of mining and provides for sustainable mining.

The principal environmental regulatory bodies are Ministry of Environment Forest and Climate Change (MoEF) and the Central and State Pollution Control Board, along with the Indian Bureau of Mines and the state government also regulate mining. The EIA process takes more than a year and if forest land is involved, forest clearances are required along with the environmental clearances. The mining plan is required to also contain a closure plan, including a progressive closure plan that takes into account reclamation and rehabilitation. To ensure that closure is effectively carried out the lease holder is required to submit a bank guarantee.

(b) The Right to Fair Compensation and Transparency in Land Acquisition, PESA and FRA: The acquisition of land for mining purposes contributes to conflict. The Land Acquisition Act 1894 of colonial vintage was replaced in 2014 by the new enactment titled the Right to Fair Compensation and Transparency in Land Acquisition. With regard to Fifth Schedule Areas or tribal dominated regions, state legislations prevent the alienation of the land or transfer of land to non-tribals. The alienation of land requires prior consent to be obtained before a project is approved.

A landmark judgement pertaining to the Fifth Schedule Areas is worth noting here. This legal challenge arose against the backdrop of bauxite mining and the Vedanta Aluminia Ltd sought to construct an alumina refinery in Orissa. The proposed site for the project was the Nyamgiri hills which has spiritual and cultural significance for the Dongria Kondh tribes. On behalf of the tribes it was argued that the proposed mining project would impact the environment adversely but also the tribes cultural and customary rights.

Under the Forest Rights Act, significant changes have been made to ensure protection of both individual and community rights of traditional forest dwellers. The Act acknowledges the need to ensure local governance systems are strengthened through statutory recognition. The Act along with the provision in the PESA also enshrines within it the principle of free prior informed consent of communities with regard to projects being set up in their region. The Gram

Sabhas in the Nyamgiri region had not been consulted and MoEF in its order in 2010 rejected the clearance application filed by the Company. This rejection was appealed against and the matter finally reached the Supreme Court.

In 2013, the Supreme Court in *the Orissa Mining Corporation Ltd. v. Ministry of Environment & Forest & Others* taking note of the special status of Dongria Kondh (classified as a primitive tribal group) and their rights under the Forest Rights Act, 2006 held thus on the critical role played by Gram Sabha's in determining their rights: It noted that the gram Sabha has a role to play in safeguarding the customary and religious rights of the Scheduled Tribes and other Traditional Forest Dwellers under the Forest Rights Act. Further it stated that Section 6 of the Act confers powers on the Gram Sabha to determine the nature and extent of "individual" or "community rights".Therefore, Grama Sabha functioning under the Forest Rights Act read with Section 4(d) of PESA Act has an obligation to safeguard and preserve the traditions and customs of the STs and other forest dwellers, their cultural identity, community resources.

Invoking international conventions, the Supreme Court highlighted the need to preserve social, political and cultural rights of the indigenous people. The Supreme Court thus upheld the cultural and religious rights of tribals over tribal areas. This case highlights the need for a more careful understanding of the mineral sector from the perspective of rights over other related resources such as forests, land and water resources. The inter-linkages between the resource is a critical element in also understanding the rights of citizens and the careful treading that administrators need to undertake to navigate the complex terrain of rights over resources.

The other related enactments pertaining to mining regulation include the Mines Act provides for mining, health and safety of labour, employment terms, inspection of mines, etc. The primary regulatory body in charge of mines safety is Directorate General of Mines Safety. The Companies Act and the Corporate Social Responsibility Regulations contained therein also has a bearing on how mining companies fulfil their social obligations towards communities impacted by mining. The Forest Conservation Act regulates the use of forests, forest produce and forest land.

(c) International Obligations

India is party to many international treaties, conventions or protocols that relate to CSR issues in a general manner. However, there is no mandatory application of these in India in relation to CSR issues. Various global guidelines such as the UN Global Compact, the UN Guiding

Principles on Business and Human Rights, ILO's Tripartite Declaration of Principles on Multinational Enterprises and Social Policy can be voluntarily applied in India.

Mineral concessions are granted to Indian nationals or entities incorporated in India only. However, 100 per cent FDI is allowed in exploration and mining of all metallic minerals as well as diamonds and precious stones through the automatic route, by way of equity participation in a company incorporated in India. Full FDI with federal government approval is allowed in connection with titanium-bearing minerals.

While there is no comprehensive international law on mining, a number of treaties, conventions and declarations have provisions for protecting the environment and sustainable development that are relevant to the mining industry in India. These include:

- the Stockholm Declaration 1972, which declares that nations have the right to exploit their own resources pursuant to their own environmental policies but they also have the responsibility to ensure that such activities do not cause damage to the environment of other states or of areas beyond the limits of national jurisdiction;
- the United Nations Convention on the Law of the Sea 1982, which regulates deep seabed exploration and mining;
- the Convention on Biological Diversity 1992, which calls on states to promote environmentally sound and sustainable development in areas adjacent to protected areas;
- the United Nations Framework Convention on Climate Change 1992 and Kyoto Protocol 1997 in relation to the decrease of emission of greenhouse gases;
- the Rio Declaration 1992 and Johannesburg Declaration 2002 concerning sustainable development; and
- the Minamata Convention 2013 to protect human beings from harmful mercury emissions.

Non-binding efforts include the Extractive Industries Transparency Initiative (EITI) and the Environmental, Social and Governance metrics (ESG Metrics). The EITI is a global standard requiring disclosures of information along the value chains with a focus on transparency, disseminating information for the benefit of the public, thus enhancing accountability. The

ESG metrics, on the other hand, is an indicator for investors to identify businesses that are not just focussed on financial performance but also benchmarking sustainable business ventures. These soft law instruments enhance the spaces for transparency and accountability.

V. Contractual Provisions

Mines and Mineral (Development and Regulation) Act, 1957 (Central Act 67 of 1957) Act defines a "mining lease" as a lease granted for the purpose of undertaking mining operations, and further defines "mining operations" as any operations undertaken after being granted the lease. Mining lease is essentially an instrument designed for regulation of mining operations and mining rights. It does not fully conform to all the characteristics of a lease of immovable property.

Form K of Rule 31 of the Mineral Concession Rules provides a sample of the Mining Lease to be signed by the parties. The sample lease agreement outlines in great detail the protection accorded to reserve forests, prohibitions on tree felling and protection of public works from mining activities. It requires the payments of rents and royalties by the lessee and also requires that it indemnifies the government against any damage caused. It also requires the lessee to maintain proper records of the quantity and quality mined, while also requiring the lessee to report any discovery of other minerals at the time of mining. Clause 11 C of the sample agreement states that: “The lessee shall take measures for the protection of environment like planting of trees, reclamation of land, use of pollution control devices, and such other measures as may be prescribed by the Central or State Government, from time to time at his own expense”.

The lease agreements provide another potential area where administrators can introduce the trust obligations to bind the lessee into complying with the conditions that would benefit the protection of trust resources. Contractual provisions also provide for greater negotiation between parties to enable a more enhanced trusteeship governance model, while also providing the space for administrators to put in place resource specific clauses that enable a nuanced guidance tailored to the specificities of the resource in question. Breach of contractual provisions also provide quick redress so that administrators can act to prevent further damage.

VI. Conclusion

The mining governance crisis demonstrates the wide-ranging dissonance in how the judiciary views the role of the administrators and the everyday challenges faced by administrators in

working as trustees of the natural resources. It is evident that the crisis was the result of a combination of factors – gaps in the legislative framework, political pressure, corruption at different levels of governance and the constraints on administrators to act due to a lack of resources and legislative support. Following the crisis, the legislative framework regulating mineral resources in India has witnessed a major overhaul. The most significant of these changes is the introduction of the principles of public trust and inter-generational equity into the Mineral Policy 2019.

CHAPTER FOUR – UNDERSTANDING TRUSTEESHIP IN PRACTICE – IRON ORE MINING IN KARNATAKA

Abstract: *This chapter presents the empirical data on perceptions of the mining administrators about their role as trustees of mineral resources. As a perception study it provides a rather subjective understanding of the administrator but provides some insights and clues to how the doctrine is understood, if at all, by the administrators. This chapter demonstrates three specific insights from the field study – (a) for the public trust doctrine to be fully understood it requires a deeper engagement with the doctrine by both the courts and the legislature to outline the specific contours of the doctrinal constraints imposed by it; (b) that the understanding of administrators in the era of public administration of natural resources is deeply embedded in the earlier generation of officers; (c) officers are aware of the complexity of the task before them but are constrained by the myriad pressures, particularly of systemic corruption at multiple levels, that inhibits the work of each single officer within the institutional set up.*

I. Introduction

This chapter is divided into two parts. **Part I** is the empirical study emerging from the qualitative in-depth interviews with retired officers of the state (Karnataka) department of mining located in Bangalore. It must be noted at the time of the start of the study the department had a strength of 100 employees but in the subsequent years it began to recruit more geologists to strengthen the department. These 10 interviews are, hence, a representative sample of the state department. All those interviewed, except two, had served at the department in the last five years and had direct knowledge of the years when the illegality of mineral resources occurred or indirect knowledge from being associated with the department during the years. It must also be noted here that all interviewees from the state department were very forthcoming with their views on a range of issues raised during the interview.

Part II is the empirical study emerging from five interviews with retired officers of the Indian Bureau of Mines. The IBM is a large organization with several regional offices in the country and the overall strength runs into several hundreds. The IBM office at Bangalore at the time of the start of the study had nearly 100 employees but gradually reduced to 80 employees as several retirements and transfers were made. The number of retired officers interviewed is five which is not a representative sample. Efforts to interview retired officers in the other regional parts of the country did not yield results. It must also be noted that almost all, except one officer had been retired for more than 10 years. These officers were in

fact a part of the system when privatization was at its initial stages and the department functioned as a key public enterprise in charge of all mining operations in the country. Their opinions therefore carry within them a strong public management of resources perspective which may be more muted in officers currently serving within the department.

Interviews carried out to triangulate data have been blended into the analysis and not presented separately. The interviews, however, has not been wide ranging as the number of people with experience in the mining administration who are located in Bangalore is limited. Only one person of the many that I reached out to outside the city, responded to the interview via email. Data has also been triangulated with the research studies and secondary literature that point to the difficulties in specific areas such as EIA and Mining Plans.

Analytical Categories

Understanding the role of the state under PTD	**Allocation of Resources**	**Citizen Participation, Transparency and Accountability**	**EIA and Mining Plans**	**Pressures on Trustees**
Ownership of the Resource	Who decides? And what is a fair process?	Participation of citizens in decision making	EIA	Political Pressures
Trusteeship of Mineral Resources	Does PTD impose limits on allocation?	Transparency and access to information	Mining Plans	Financial Pressures
Managing conflicting mandates is PTD a guiding tool	Stakeholder Consultation in allocation	Accountability to citizens as beneficiaries	Closure Plans	Other Pressures
Capacities and skills of Trustees				

(Note: This table is to be read along the vertical columns. There is no horizontal corelation.)

The study focussed on the question of how the Public Trust Doctrine as expounded by the Indian Supreme Court and in part, by law and policy and then focussed on how it was understood and implemented by the administrators of natural resources. More specifically, I asked whether and how the administrators of Mining Resources (both state and federal, with a focus on iron ore) adopted the idea of trusteeship in their management of the resource.

In working with the abstract idea of trusteeship, I worked to a pre-set analytical framework that outlined for my enquiry the ideas constituting the core idea of trusteeship. Notable here,

is that the between 2010 -15, the state of Karnataka (along with other iron ore rich states such as Goa, Andhra Pradesh and Odisha) witnessed extensive illegal mining of iron ore (details of the context and case study is outlined in the previous Chapter Three) drawing into question the role of the administrators of mineral resources in protecting and conserving the resource. The purpose of the field project, therefore, was to critically reflect whether the administrators understand the idea of trusteeship, and if indeed they do, what are some of the challenges they face in implementing the doctrine. I was particularly interested in the understanding that administrators carried about trust resources, their obligations as trustees and how that would inform their decision making. More specifically, I was curious to understand if the abstract idea of trusteeship had any resonance with the administrators so as to justify the continuing adoption of the same by the judiciary as a veto against administrative decision-making.

Although the methodology has been outlined in the introductory chapter, I provide here a quicks synopsis so as to build context for the reader and also to discuss some of the finer details of the methodology adopted in carrying out the research.

II. Methodology

Between November 2018 and September 2019, I conducted in depth qualitative interviews with 15 retired officials of the mining department (both state and central). The initial efforts at obtaining permissions to interview serving officers of the department from the Central Government did not yield results. Consequently, I approached retired mining officers for the interviews. While a small percentage of officers had retired many years ago, my interviews with officers who retired in recent years yielded rich narratives as some of them were witnesses to the impact of illegal mining during their tenure.

In this section, I discuss the selection of the experts, the interview process and the steps taken to analyse the data.

A. Interview Participants

Indian Bureau of Mines – 5 (one respondent submitted a response to the questionnaire via email) (Total number of officers at Bangalore – 100, numbers steadily dropping due to retirement and also the restructuring of the department).

Directorate of Mining and Geology, Karnataka – 10 (Total number of officers at Bangalore - roughly100 with new recruitments being carried out in 2019).

Interviews with an NGO representative (1), Officer in charge of the District Mineral Fund (1), Officer in charge of Environmental Impact Assessments (1), Private Industry Experts (2).

B. Interview Protocol

I used a semi-structured interview schedule for retired officers and open-ended questions for other experts. The semi-structured interviews allowed for a framework to be set out so as to yield data that is comparable for responses between respondents but also allowed enough flexibility for the participant to dwell deeper into areas of expertise or their domain knowledge.

Each interview typically lasted about two hours and was recorded for transcription with requisite permission from the respondent. One interviewee refused to be recorded. All interviews were carried out in person, except one response which was received through email. I began each interview with providing them with the research ethics guidelines and since all my participants were literate, they were able to read and consent to the ethics form. Two participants consented to participate orally but refused to sign the consent form. Except for one interview that slipped into the local language Kannada, all interviews were conducted in English. I then administered the semi-structured interview questions allowing enough flexibility for the participants to expand on answers that they had more information on. Although my questionnaire did not ask specific questions about recent events, without any probing, most participants from the state department expanded quite extensively on the illegal iron ore mining in recent years and the challenges it threw up for administrators.

C. Analysis

After completing each interview, I recorded the key findings according to a pre-determined analytical frame outlined in the table above.

D. Limitations

Before turning to the empirical findings, it is important to note the scope and limitations of the study. Since the expert selection is largely through a process of snow-balling, it is not entirely representative. However, there are only a limited number of officers at the top level who were in an administrative position to be able to make decisions, thus limiting the number of interviewees. Additionally, not all the questions were asked of each respondent and was tailored to the constraints of time and the satisfaction of the interviewer of the answers to not require triangulation by posing the questions differently.

Further, the findings are limited by the subjective perception of the interviewees of their role within the department. In other words, the analysis proceeds on the responses of the interviewees and is not based on an independent assessment of actions and variables impacting them. To the extent feasible, data was triangulated with interviews of other experts and an NGO working in the field, secondary data, other surveys and research publications.

Despite the limitations, the study provides an important insight into the understanding and application of the public trust doctrine by administrators of mining resource in the state of Karnataka.

III. Key Analytical Categories

The semi-structured interview borrowed from the categorisation of the core aspects of Public Trust Doctrine by Woods in Nature's Trust. A quick recap is presented here of the broad categories used in building the analytical framing.

1. Approaches to resource governance.
2. Prudence in Management of Resources.
3. Risk aversion for environment, conservation and economically responsible decision making.
4. Loyalty to the beneficiaries of the trust.
5. Corpus protection of the resource to ensure sustainability
6. Principle of Subsidiarity
7. Transparency and Accountability
8. Capacity of Trust Managers
9. Resilience and Adaptability
10. Public interest or National Interest

While these broad categories were used as guiding tools, there are limitations within this framework. For one, the framework does not explicitly engage with the property rights discourse which is a critical element of our understanding of the public trust doctrine. While the framework does engage effectively with the duties and obligations of the administrator-trustee, it fails to focus more deeply with the rights framework, more specifically that of the citizen-beneficiary. This research tries to fill that gap by adding on those elements into the

questions posed to the administrators. The analytical grid (see annexure B) used for the semi-structured interview is also used here to analyse the data.

PART I – State Department

A. Understanding the role of the state under PTD

(i) Ownership of the Resource

Nearly all the participants viewed the state as the owner of the mineral resources. The question of ownership of mineral resources was always understood by the participants as a legal question that warranted a technical answer on legal ownership of mineral resources – whether it was the state government or the central government.

However, this is not to say that the legal position is not understood as being more complex that just state ownership. One of the respondents noted that ownership over mineral resources was tied to the land rights and in the older legislations of the state ownership of the mineral vested with the landowner. To quote:

> *"The common understanding is that it belongs to the state. The reason being that royalty is being paid. Because of that. But in the old Mysore state and the Madras Presidency the patta*[232] *owner has right over the subsoil. And in one of the recent Supreme Court orders (Kerala case) the ryotwari system also the subsoil is declared to be that of the landowners. So nowhere in the Act (MMDRA) is it clearly defined who owns the minerals. But indirectly it is mentioned that only if it is on govt land (either forest or revenue land) then it can be auctioned. If minerals are on private land then you have to take the consent of the pattedars."* The same participant also observes, somewhat in a contradictory manner, *"Unfortunately, nowhere is it stated who owns minerals. We assume that the state is the custodian. Under the old Land Act (Old Mysore), sub surface minerals where the property of the landowner."* (Expert 2)[233]

The expert in this instance is aware of the complex legal framework laid out both in the legislation and by judicial interpretation. However, most of the administrators viewed the ownership question as being straightforward – the state ownership being the dominant

[232] A Patta is a revenue record of a piece of land. It is issued by the government and is also known as the Record of Rights. A pattedar is a holder of such a revenue record or the owner of the land.
[233] Interview 2 dated 30th Jan 2019.

answer. "*Expert 5* - State owns mineral resources as land belonged to the King*."*[234] Experts 9, 10 and 11 were also of the opinion that the state owns mineral resources.

In fact, this clarification by expert 10 further reinforces the conclusion that the question of ownership is viewed by administrators as a division of powers between the Centre and the State i.e., the different levels of government. Expert 10 stated: "For major minerals they have to take concurrence of the Central Government."[235]

What is also worth noting here is that none of the administrators reflected on the special status granted to indigenous communities in the Fifth and Sixth Schedule areas of Central India and the North-eastern states. Expert 3 came close to noting this important ownership question when he stated that "Minerals are owned by the state government. If they are in the forest, then need Central Government permission."[236] But community ownership of natural resources was not alluded to by any of the administrators.

(ii) Trusteeship of the mineral resource

The word "trustee' was not entirely understood in its legal sense. Some agreed that the state is the trustee of mineral resources but did not venture to elaborate on the implications of it. For instance, Expert 3 stated–

> *"Yes they are trustees. They get the royalties.*
>
> *In the earlier days you needed to be competent to do mining. A geology degree etc. Money was not the sole criteria. There are different grades of ore. .. Whereas .. (quotes a story about the exploration in one area of the Karnataka, subgrade ore 1.2 billion tonnes of iron ore) If you give it some company, both the high grade and the low grade ore be extracted thus optimising the efficiencies. …"*[237]
>
> *"The politicians do not understand this and they think short term. (Tells a story of his personal experience post retirement, unrelated to mining to emphasize his point.)*"

Similar such statements point to a vague understanding of the term 'trustee' of resources.[238] Another expert goes on to elucidate the role of the trustee. "The public can trust the

[234] Interview 5 dated 12th Apr 2019.
[235] Interview 10 dated 24th June 2019.
[236] Interview 3 dated Feb 2019.
[237] *Ibid.*
[238] Expert 9 – State is the trustee of mining resource. Interview dated 13th June 2019.
Expert 11 – The mining administrators are the owners and trustees of the mineral resources. Interview dated 17th July 2019.

government will use the mineral resources in a judicious manner."[239] There is also corruption he notes. All the illegalities, according to him, are a result of this. He provides an example of how the state legislators sought an opinion from the administrators and he provided information that was sought and also the two possible arguments, one that was the correct path and the other that the government wanted to take. The Member of the Legislative Assembly was permitted to pick the line of thought that suited the course of action, but the officer was ethical by providing both sets of arguments and information while also orally telling the legislator which is the wrong decision and the reasons for the same.

He further noted that – "95 per cent of the time the government serve the people. 5 per cent who get caught gets highlighted." (I interject and ask if the boom in price of minerals provide a greater trigger for illegalities). He replies that the corrupt are corrupt throughout and make money at any given time. The incentive of course is more when the demand for the minerals is high but those wanting to make money will make it at any time.[240]

The administrators demonstrate a nuanced understanding of their role and the bright lines that exist between the role the administrators play, and the final choices made by the politicians. Clearly, the administrator is cognisant of the complex choices that are available in any given decision-making process but h/she cannot impose their will on the final arbiter that is the political class. It is critical, therefore, for citizens/beneficiaries to be vigilant and to question political choices either through activism or through legal challenges. The question remains whether administrators can further their influence with the political class in making the right choices for the long term by donning the trusteeship hat.

(iii) Capacities and Skills of a Trustee

A precursor to being effective as a trust administrator is the necessary skills and capacities to be able to function independently and with competence. The capacities and skills that a trustee administrator requires can range from training, knowledge of the policy and legal framework to finances and vehicles to carry out inspections. This question presumes therefore that the administrators are cognizant of their role as trustees and their effectiveness being dependent on their capacities and skills.

> *"The State has to make the correct decisions. On the part of the officers, there is a need for commitment to the work. (when probed further on training needs) The*

[239] Expert 11, Interview dated 17th July 2019.
[240] *Ibid*.

officers need training on laws and rules. Sustainable mining also has to be taught to entrepreneurs; education is critical. The statutory conditions are only on paper. Compliance is not always done." (Expert 2)

"The present status of the department. They don't have the knowledge and the capacity to understand. There are very few people who are competent to understand." (Expert 3)

*"Government has the capacity but who is running the government will ultimately determine the protection of the resource." (*Expert 9)

Technocrats make critical decisions with regard to natural resources. The senior administrators who are from the IAS (Indian Administrative Service) cadre may not have the technical knowledge base to make informed decisions about natural resources. For instance, the senior bureaucrat who makes the final decision may not be familiar with the technical aspects of mining and geology. Given the lack of expertise, he must defer to experts within the department for the best possible advice.

The responses indicate that there is clearly an issue with capacity and skills. This is compounded by the structural issue of IAS officers (who are generalists) being appointed as secretaries of the department with no technical knowledge of the mining industry. Decisions that require technical knowledge are being taken by non-experts leading to much confusion and poor planning of trust resources.

B. Allocation of resources

Although not as easily identifiable, at the core of the public trust doctrine is the choice exercised in the allocation of the resource for exploitation by administrators. Most challenges before the courts bring to fore the lack of transparency in allocation, arbitrariness or the lack of participation of citizens in the decision-making process. While the courts have exercised their veto in such cases, they do not necessarily walk the next step to clarify for the administrators on what amounts to a fair exercise of power in keeping with the values underpinning the public trust doctrine. While with regard to mineral resources, particularly coal blocks, the courts have relied on auction as the best mode of ensuring fairness[241], it does

[241] Supreme Court order dated 2nd February 2012 in the 2G Spectrum Case *Supra* note 142. The Comptroller and Auditor General of India (CAG) dated in its report 17th August 2012, observed that inefficient allocation of coal blocks (without open competitive bidding) during 2004-2009 has resulted in a loss of Rs. 1.86 lakh crores to the exchequer.

not provide role clarity for the various other stakeholders in the process on examining the fairness of the allocation process.

A wide range of actors have been identified as equally invested in the process of allocation of the resource – federation of mining industries, environment, forests, local bodies and people.

> *"The key stakeholders include the state, forests, mines and environment but there is no coordination between all of them. Although there is much talk about single window agency for mining, the same is difficult to do. There are so many enactments that simplification is difficult. The auction process is an in principle clearance. My suggestion is that the government obtains all the clearances and only then transfer the mines to the successful bidder. That would ensure that there is a larger compliance with the laws."* (Expert 2)

Clearly, decision making on allocation of resources remains a centralised task with the administrator-trustee being at the centre of it. The respondents do not question this framework, even as they acknowledge the role of the other stakeholders in allocating the resources. At best, they are seen as stakeholders to be additionally consulted but not necessarily those at the core of decision-making. The spaces for engagement of citizens at this level of decision making is seen as limited.

This approach is also reflected in the response to the question of profits from mineral resources and their benefit sharing with the citizens. Indirect benefit sharing was viewed favorably whereas any claims to direct benefits accruing to citizens was either scoffed at or seen as unnecessary. The long-term issue of inter-generational equity found even less resonance.

> *"Everybody has a share. The state only gets 80 crores as royalty during the peak of the iron ore boom. Revision of royalty occurred after nearly six long years. This is a long gap. There are indirect benefits from the value addition to the people. Minerals that are below the ground are not useful by themselves. The value addition in terms of use in infrastructure, power generation etc are assets of the people indirectly."* (Expert 2)

To ensure consistency in the responses, I asked a more open-ended question about the rights of the citizens and the environment to the resource. A more mixed set of responses emerged capturing the lack of clear guidance on how citizens are viewed vis-à-vis mineral resources.

"Environment rights is above mineral resources. But there is a problem in implementation. Besides in the current atmosphere everyone is playing it safe." (Expert 2)

"The government is the one that is the key stakeholder. The government means that the persons who are running should ensure that it is in the best interest of all." (Expert 9)

C. Does PTD provide a guidance to manage conflicting demands and mandates.

In managing trust resources, administrators are required to weigh conflicting demands and manage differing requirements for the use of the trust resources. This decision-making process is a critical step in effective management of trust resource. The question to administrators on their handling of conflicting demands sought to elicit a slice of how the arena of decision making was being negotiated. A sampling of responses are recorded below:

"When I was the officer of DMG, my personal opinion is that conservation is important. We officers understand the long term need for conservation. We know that a lot of minerals are being imported from abroad, politicians think short term."

Western ghats there is a lot of iron ore but because of the high rainfall and possible pollution, we do not permit the iron ore mining. (Expert 3).

Although Expert 8 did not refer to a personal instance of having to weigh two conflicting demands, he refers to an instance where the state government ensured that all quarrying activities near a catchment area of a water source that supplied water to a big city was prohibited. He talked about the number of instances when raids were carried out on the sites around this catchment where illegal quarrying was being carried out at times.[242]

On the other hand, Expert 9 stated thus –

"I was not in the decision making. Conflict exists from day one. Alternative solutions should be suggested by conservationists. Mining resources is not renewable resources. Conservationists say it is pollution. Even otherwise forests are being destroyed by the public or the department. The mining area is only 3 per cent and has

[242] Expert 8 Interview dated 11th June 2019.

no implication on the conservation. That should not prevent the development. After taking out the mineral, they can certainly make the forest grow there."[243]

He goes not to add *"The forest department is not using 15-20 per cent of the forest area, so what is the question of 3 per cent."*

To a probing question, Expert 9 agreed that he is in favour of development of the mineral resources. He argued that when you want everything where will you go. When it is available in your soil why depend on imports. To quote -

"*Certainly, there is guidance in the policy and the law on how best to develop and how best to replace it with forests on closure. Minerals cannot be replenished but both forests and groundwater can be replenished at a later point.*" (Expert 9)

Others admit to the difficulties in the everyday work. Expert 10 agreed that "*Conflict exists.* (Some particular details of posting and illegal mining were shared. To protect the interviewee the details are redacted). *Mining creates employment but this is forgotten, and conflict arises.*"[244]

The experts also point to the guidance in the law to resolve conflicting demands. Expert 11 notes thus:

"Conservation is a judicious use of minerals. First of all, if it serves the purpose, …

There is MCDR- judicious use. Government will not allow selective mining. So called low grade is also to be used. The guidance is available in the MCDR."[245]

The responses point to the administrators interpreting my question as being specific to a conflict between conservation and development. The question was open ended, but it appears that the issue of conservation is a burning question that requires careful thought and handling by the administrators.

D. Corpus of the Trust Resource

Another important aspect identified by Wood in her work is the need to protect the corpus of the trust resource. It is a challenge to operationalise this with mineral resources. And the effort here is two fold - to glean whether the idea of a corpus is (a) understood as not just the

[243] Expert 9 Interview dated 13th June 2019.
[244] Expert 10 Interview dated 24th June 2019.
[245] Expert 11 Interview dated 17th July 2019.

resource but as a Wealth Fund that accrues wealth for its citizens over a long period of time; (b) whether long term planning is a part of the efforts carried out by the administrators.

> *"There is no effort at corpus protection both at the Centre and the State. Despite the Steel Policy projecting a certain availability of iron ore there are many who contradict this and state that there is enough ore for many more decades*." (Expert 2)
>
> *No such planning is being done. It is necessary but it is not being done*. (Expert 3).
>
> *The Central Government has made some efforts. Reserving an area is not for protection but to indicate probable or possible availability of mineral resources.* (Expert 8)

The final decision lies with the politicians. While the technocrats may have planned more long term the implementation is not in their hands. The democratic process has to be respected.

Expert 9 on a specific question about inter-generational equity and planning for the future generations had this to say: "If you want it now, whatever be the necessity of it, you take it out. But otherwise you leave it there."[246]

Evidently, long term planning is a difficult issue with mineral resources. The lens of a protected corpus of trust resources is yet to be fully understood by the mining administrators. This is surprising since the issue of sustainability, inter-generational equity and the public trust doctrine are now a part of the Indian mining policy circles for more than a decade.

E. Citizen Participation, Transparency and Accountability

The Public Trust Doctrine envisages a greater role for the citizen-beneficiary. This larger role is envisaged not only in the protection of the trust resource but in the management of the resource, access to the resource and a share in the profits from the exploitation of the resource. More importantly however, it establishes a downward accountability of the administrators to the citizens, as opposed to only an upward accountability to the legislature and the judiciary.

Most administrators viewed the role of the citizen as being limited to participation in the environment impact assessment process. Some expanded the domain of the citizens to obtain information under the Right to Information Act. Some assigned a more active role for the

[246] Expert 9 Interview dated 13th June 2019.

affected communities of mining at the district level to how the District Mineral Funds are to be distributed. Some responses hinted at the administrators viewing the citizens (including NGOs) as a hindrance to their work, with even a few voicing their suspicion of the motives of the citizens. One response seemed to indicate that the spaces exist for citizens to take an active role, such as in ensuring workers' rights and occupational health and safety are protected but citizens rarely engage with these critical issues.

A sample of responses highlighted here –

> *Under RTI you can have information. Citizens are asking for information and not just the persons involved in the mining activities. Citizens are informed and active. Both good and not so good motives in asking for the information.* (Expert 7)
>
> *RTI is available but who has to fight all this. The elected representatives should be asking these questions.* (Expert 9)

The responses overall, although not captured completely in words, was one of dismissal. Almost universally the engagement with citizens was seen as a necessary step but not as the most robust part of democratic decision-making. A significant number of the respondents also demonstrated skepticism with citizen engagement which either came from their personal experience with citizens groups with underlying motives or just a healthy awareness that well-meaning citizen groups could also be influenced and motivated.

> *"Only protests against mining. They have the options of filing an RTI or to approach the Courts. The DMF is another area where Grama Sabhas are not being held and the decisions are being made at the District level." (Expert 2).*
> *Apart from RTI and EIA there is very little*. (Expert 3).
> *The general public have elected persons to take care of this and they have to take care of this.* (Expert 9)

The other important area that enables citizens to participate effectively is the sharing of information from the administrators not just to those they are accountable to such as the legislature but also as envisaged by the doctrine more directly to the trustees of the resource. It may not be sufficient under the doctrine to argue that accountability to the legislature achieves the same objective. As trustees, citizens have a higher degree of rights and the administrators a higher degree of obligation towards both the trust resource and the trustees.

From the responses received, it appears that the accountability and transparency remain a challenge. "*The major decisions are not being communicated through annual reports etc on the website. But citizens can file an RTI and obtain information."*[247]

F. Environmental Impact Assessment and Mining Plans

A near unanimous understanding of officers is that the safeguards of environmental impact assessment and mining plans exist only on paper. While the reasons for this differ, the difficulties of effectively executing the environmental plans were outlined.

Some responses specific to EIA are captured below:

Expert 7 did not see the EIAs as particularly effective. In fact, he alluded to instances where the permissions from the pollution control board were delayed or used as a tactic to prevent mining in an area. The process, according to him, was not entirely transparent.

Expert 8 believed local people do protest the mining activities at regular intervals not driven by concerns of conservation but as a result of all the disturbance (noise and movement of people and trucks) arising from the mining. He also opined that while the original protest may be genuine, the same may be used and amplified by vested interests and political parties.

It is clear from the responses that a majority of the officers were skeptical of the conservation activists and all that which is done in the name of conservation. It was suggested that these concerns cannot be focused only on mining as the dust and noise that one would see in a city environment is perhaps as toxic or even more toxic than the environment on a mining site. While there seems to be a respect for core areas such as the bio-diversity hotspots and the catchment areas, the administrators seemed more pragmatic in their approach to weighing the needs of the environment vis a vis the needs of development.

A wide range of challenges present themselves in implementing the mining plans.

> *The provision exists to modify the mining plans. The responsibility is with the mining companies to ensure compliance.* (Expert 2)

> *Those preparing the mining plans are not good at it. … What these guys do is that they themselves do not have expertise. The ones who are part of running of mines need to be the ones who should draw up the plan.* (Expert 3)

[247] Expert 2 Interview dated 30th Jan 2019.

> *There is already a system. Whether they are being complied with, the various departments have to take care of it. The scale is so small that the impact is being represented as being large. It is being misrepresented*. (Expert 9)

On closure plans, the broad understanding was that the progressive closure plan ensured a greater degree of compliance. However, as noted above there is skepticism about the closure plans being of good quality and also the subsequent implementation of the plans in a manner that is effective. On being asked if the closure plans were being adhered to here is a response that is telling -

> *I would say 20 per cent compliance. There is the progressive mining closure plans in the mining plans but these are rarely adhered to. The R&R is inbuilt in the existing laws. The closure plan for xxx mines was not enforced and the mine was abandoned after the mining company was asked to be shut down.* (Expert 2)

G. Conflicts and Pressures on Trustees

Respondents were careful in answering this question and only alluded to the pressures that operated on them. Clearly those that worked at the Central level faced a different set of pressures from those employed at the state level.

While at the state level there was near unanimous acknowledgement of political pressures as a primary hindrance in carrying out the duties of the trusteeship, it was also noted that market pressures can also be the primary cause driving the political pressure as private actors seek to make profits during the boom cycles. This was alluded to not only with regard to iron ore mining but minor minerals such as sand mining which has seen exponential demand due to housing and infrastructure projects.

The difficulties of dealing with conflicting mandates was not lost on the administrators. In their view, the balancing must be done through state policy and legislation. And hence, the guidance must effectively emerge from these documents. In fact, one respondent took me through several provisions in the enactment prior to 2015, pointing out the ambiguities in the legislation that lead to both a lack of clarity on the part of the administrators and the exploitation of the same by miners. Through this reading of the Act, the respondent highlighted the key gaps in the legislation that led to the crisis of illegal mining in the state of Karnataka. Administrators acknowledge that the balancing conflicting interests a clear guidance is critical for their functioning as trustees of resources.

PART II – Central Government (Indian Bureau of Mines)

A. Understanding the role of the state under PTD

(i) Ownership of the Resource

The majority of the respondents viewed the state as the owner of the mineral resources. The ownership of mineral resources was always understood as a legal question that warranted a technical answer on legal ownership of mineral resources – whether it was the state government or the central government. For instance, *Expert 13* noted: "It is the State Government. It is the duty of the state government to give mining leases. Mining leases are given by the Government."[248] The experts did not view the question from that of a trustee who understands the ownership as being ultimately vested in the people of the nation or even extended out to belong to nature/planet or the global community. On probing, *Expert 1* did say that when we say the state is the owner it means the people ultimately as the state is a representative of the people.[249]

While the trusteeship doctrine does not vest ownership of the resource in the state, it upends the idea of ownership. Traditionally, the sovereign is seen as the owner of all lands and resources that are terra nullis or "waste lands". However, the public trust doctrine does not grant exclusive rights in certain trust properties – be it state owned or privately owned – but creates an easement on behalf of the public. This is beyond the idea of protection of the general 'public interest' and expands out to creating rights in the public over the trust resources. This fine nuance is perhaps lost on the administrators and directions from the Courts on the doctrine do not necessarily explicate the fine legal distinction to capture the nuance as a guidance tool for administrators to instil and permeate into their understanding. A fairly large extract from the interview with Expert 1 is provided here -

> **"***Under the Mineral Concession Rules, a prospecting license/Lease (after obtaining permissions from the department of Forests, PWD, Environmental clearances are obtained) a license after prospecting, then apply for Mining lease. It is then sent to the State Government (DGMs) for processing. (Expert 1)*
>
> *Under the new law Precise Area lease (Project Report Mining Plan) is approved by IBM as per guidelines. The Prospecting License is issued for 5 years and can be*

[248] Interview 13 dated 6th Aug 2019.
[249] Interview 1 dated 10th Jan 2019.

extended from time to time. Then based on the approval of the Mining Plan, an exploration letter is issued. (Time limit for IBM processing is 90 days)

The IBM Mining Lease letter is sent to the State Government which then recommends to the Central Government ie the Ministry of Mines for approval. The lease is then granted. It is then sent to the State Government to execute the lease. This entire process can take anywhere between one year to five years.

Thus, Minerals are jointly owned by the State and Central Government.

Me: Are people the owners?

When we say Government, it means the people of the country.

Mineral resource unlike water resource is available in limited quantity and quality and is location specific. IBM is required to ensure conservation and development of mineral resources.

Me: What do you mean by Conservation.

Conservation of Minerals – The proper utilisation of the resources. Preference should be given to Mineral based industries of the country. Low grade ore needs to be subject to mineral processing and it needs to be done by the mine owner.

Mine Owner should also ensure that low grade ore is not mixed and not wasted so that it can be used later.

Conservation means the proper development and scientific development of mines so that the mining can be done for a longer period of time at a greater depth. The percentage of recovery needs to be optimum.

In 1975 ½ inch lumpy ore used to be sold. The Tailings of the mining in these regions have now been used and the recovered ore has been exported from the late 1990s."

The officers from the Central Government engaged with the legal question of ownership with a more analytical lens.

***"**It is the state government that owns mineral resources. Every state is the concerned state government is the owner of mineral resources. Whatever the resources in the territory of land, the state is the owner. After that the Central Government order. (I ask him if he is aware of the Thriesamma Jacob case and he says he is not aware of*

this Supreme Court judgement). Our legislation says that whoever is the owner of the land, they have only rights over the surface area of the land, below that whatever the mineral resources is, it belongs to the state." (Expert 14)

"The state owns the mineral resources – the state where the mineral is occurring. In this context, I'll give you an example, even if the land is owned by you, which we call as Patta land. Even in patta land, even in the case of land owned by you and me, the mineral rights is still vested with the state. And the landowner has to take the permission or the lease on the mineral which is existing on his land from the state government." Expert 15.

(ii) Trusteeship of the mineral resource

This takes us to the more important question of whether the administrators understand the idea of the "public trust doctrine". From the varying responses, it is safe to say that the idea of trusteeship is understood, perhaps not with all its legal nuances, but a broad understanding of accountability to citizens and betterment of the resource for the benefit of the people. The term "public trust doctrine" now finds a place in the 2019 Mineral Policy but not many of the officers had read the new policy.

More specifically, a few of the administrators alluded to the 2015 amendments to the MMRDA as having incorporated the idea of trusteeship more clearly. However, they are unclear on how this would actually play out in reality.[250] The idea of trusteeship is also understood as a 'duty to take care of mineral resources'[251] and in another instance as judicious sustainable use of the resource.

"What do you mean by the word 'trustee'? (I explain the public trust doctrine) Yes, I agree. Recent days we are seeing sustainable mining. Sustainable mining not in the sense of conserving the minerals but to judiciously utilize the minerals for the purposes of development and to protect the environment.

(I ask if the primary role of the IBM is development of minerals or conservation of minerals)

You see, we can divide them into atomic minerals, energy minerals, and major minerals….. When it comes to the major minerals, ownership is with the state

[250] Expert 2 Interview dated 30th Jan 2019: "The amended Act has brought in gives an impression that the state is the trustee. But on ground, it raises the question."
[251] Expert 13 Interview dated 6th Aug 2019: "It is the duty of the state to take care of mineral resources."

government but regulation is with the Central Government ie IBM. The IBM role is in three important aspects – one is conservation of the minerals, second is systematic and scientific development of the minerals and third is the protection of environment in the mining area." (Expert 14).

B. Balancing of Conflicting Mandates

As a trustee one of the most difficult tasks is balancing conflicting mandates set out by the legislature and at times, the judiciary. The adoption of the doctrine within the Indian jurisprudence does not necessarily provide a clear guidance for the mandate to be carried out with a great degree of clarity.

> *"It is the responsibility of the state to make decisions about (a) declaring the area; (b) no other development activities being undertaken in the mining area so as to prevent conflicts. The mining departments are sometimes headed by IAS officers who cannot tell a mineral from a rock.*
>
> *The DMF is a good scheme but all kinds of projects are being proposed. There is no guidance available on what kind of projects need to be supported and it is being chaired by the Ministers with their limited understanding of how the fund needs to be utilised."* (Expert 2)

A clear response points to a broader understanding of the need to balance the conflicting interests of different stakeholders keeping the broad principles of justice and rights in mind.

> *"The produce from mineral resources are sold to the consumers on line open bid tenders with maximum transparency. Also a portion of the revenue obtained is earmarked for the development of the area, local population and environment. Regarding the environmental and competition by other stake holders like agriculture, infrastructure use, regular meetings with the stake holders are held so that the justice, rights with responsibility prevail amongst stake holders. This mutual cooperative sustainable mechanism is adopted in balancing the conflicting mandates*." (Expert 12).

Another response indicated that most of these conflicting mandates emerge in the context of the environmental regulations in the form of coastal regulations or forest regulations.

"Suppose it is a coastal area or Forest area, there are demarcations in the law. If there are violations, when the lease period expires, then the Government can extend to another person." (Expert 13).

More specifically on what guidance was available, a wide range of guiding tools were identified.

"The national, state, local mineral, environmental policy aided by the judgements of green bench tribunal of Honourable Supreme Court of India are looked into for guidance. Also opinions of NGO like Green Peace Movement are also looked into if the need arises." Expert 12.

"*As regards balancing of interests, it is the Ministry of Mines that is responsible. A question raised in parliament about the mines is sent to all the IBM and related mining departments for answering the query and we are required to send our answer which is then read out.*

The GSI and the Ministry decide on conservation and whether a resource is critical. The resource related projection studies are carried out by the IBM headquarters in Nagpur and the Geological Survey of India." Expert 1.

A range of rules and regulations provide support and guidance in the regulation of the mineral resources. However, this is not explicit in how they embed certain values and if they indeed prioritise certain values over others. This is an important exercise to be undertaken by the administrators by examining the regulations from the different perspectives, reading the legislative debates to glean the intent behind a legislation. In this, the judiciary must play a more proactive role by crafting well researched judgements that shed light on how value choices are to be evaluated and determined.

C. Capacities and Skills of a Trustee

The adoption of a higher degree of care or obligation as trustee assumes that the administrators-trustees have the capacities and skills to carry out the duties imposed on them. Serious gaps in capacities and skills were identified by the respondents. Clearly, their own commitment was also brought to the fore as a critical issue that may also need to be identified as being important to how they discharge their functions. Expert 13 also raised an interesting point about the need to carry out capacity building of mine owners who may not be aware of the consequences of their action. Thus, he noted that the mine owners owe a larger

responsibility to society and the payment of royalty is not the be all and end all of the transaction.

In a rather interesting way, Expert 15 picks up on this very point and demonstrates with examples how the mining department worked proactively to educate the mine owners on their responsibilities

> *"In the state department – that is a point you have raised very rightly. I'm not very sure whether they have the powers to … do they have any punitive powers if they don't do it. Indian Bureau of Mines had to the extent that closure of mines is the ultimate. In many cases, IBM took the least resistant path, to educate them and to say you will be benefitted, you don't want to close your mines and close your contribution to the nation. We need you. The industry needs you. But what you need to know is that you are a sort of non-educated mining entrepreneur. To the extent that the more education, you get educated better, your contribution to the industry will be much better. You preserve your own minerals, we don't do anything. Take a sample, send it to the people, get its analysis done, keep the mineral above this threshold value. If you don't do it, you are the loser and the cost of redoing the mining later on, even if it is within your own reach, it escalates. So escalation of costs tells that you will not be able to compete in the finished product of the industry, both internally as well as by export.*
>
> (I probe: So did the department educate?)
>
> *The department most of the time educated the mine owners rather than forced them.*
>
> (I probe: Would you say there are gaps in the departments functioning?)
>
> *Oh yes, there are. Between the state and the centre, and within the Centre the geologists and the mining people and even with that, I don't say .. what is to be redefined is clear cut objectives of the trustees. At the same time, what a group of officials on a professional basis – either geologists or mining engineers, or mineral technologists or mineral economists – what are these people to do in their own respective areas. And how all their contributions should end up in the proper educating of the mine owner, the objective of the state department is to be fulfilled and the ultimate objective is utilisation of the mineral to the maximum extent or the optimum. There are problems – both minor and major.*

(I ask for examples). Minor is the number of mines operated, they are too enormous. You will not be able to keep a constant vigil and even if there are some officers at times available, the more vigil you make, you will not be able to make .. you see they go on doing haphazard mining, what you call hit and run cases. So if it is 200 hectares area, one inspector even on a three or four days of camp there, will not be able to visit all the working spots or abandoned spots in three four years. To locate exactly where has he erred, what sort of stuff, he has dumped into the waste, to pinpoint this is very difficult, even in cases where frequent visits are also being done. And number of officers vis-a vis the number of mines operated – manpower mismatch is always there.

Major issues is the law – you see how much of it the state has to transgress. The state says you are transgressing into this area. The state says we are independent and we are the owners. When I am the owner, I have more responsibility to protect my own state you see. So there needs to be a via media where this overlapping do not happen and people …" (Expert 15)

D. Democratic decision making and Allocation of Resources.

A number of stakeholders are identified as equally invested in the process of allocation of the resource – including federation of mining industries, environment, forests, local bodies and communities.

"The state represented by environment, forest, mines geology and commerce-industries units aided by federation of mineral industries, local bodies." (Expert 12)

"The earlier process included an application, a survey for mineral resources and the financial position – these were the basis for the lease allocated for a minimum of 20 years. The minerals were also earlier produced for local market. Now the department auctions the areas." (Expert 13)

***"**Allocation of minerals resources is purely the domain of the state government. As I told you minerals are divided into atomic, energy, major and minor. Major and minor is now state government, in case of energy minerals, the Ministry of Petroleum and Ministry of Coal, atomic minerals is within the atomic department." (Expert 14)*

Decision making on allocation of resources is seen as centralised task with limited space for engagement of citizens. This approach is also reflected in the response to the question of profits from mineral resources and their benefit sharing with the citizens.

> *"Minimum 1/6 of profit from mining belong to the people of the mining district directly as well as under Corporate Social Responsibility the mining companies also are engaged in local social up-liftment of the people from the mining district. Major chunk of the profit is reinvested in building the infrastructure both physical and human-ware development." (Expert 12)*

On the question of the new auction process and the level playing field provided by it there was a mixed response. "Those with good intention and good financial background are coming forward because of the auction process and it is enabling scientific mining. Earlier, only the big miners were able to fully undertake scientific mining." (Expert 13)

Again, on the question of sharing the profits from mining with the citizens, the experts opined that the royalty and the District Mineral Fund were considered sufficient.[252] "The mining companies make money during the boom period but can also incur huge losses when the prices fall. Mining is a high-risk business. Exploration is also highly risky." (Expert 1)

To ensure consistency in the responses, I asked a more open-ended question about the rights of the citizens and the environment to the resource.

> **"***Citizens are interested in protecting their resources. The kudremukh , Kodachadri and now Bababudangiri mining is not being permitted because of citizens agitating. Yes, citizens are now aware of the ill effects of mining on precious flora and fauna."* (Expert 13)

There is also a cautious appreciation of people's efforts in conserving the resources. One officer noted thus:

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[252] "Every mineral company, I'm not sure of the figure but about 3.5 per cent of the profit to the project affected area. (That is specific to the area affected, I clarify. Is there anything else?) This is what the royalty government gets from the mining. Royalty and now a days it is profit sharing." (Expert 14).
"People of the country – general people of the country? Citizens? (laughs) –I don't think. Generally, the royalty comes to the state government and whatever the state spends either on the welfare measure or the social measure of the general upkeep and development of the state, that is the benefit the individual is getting. Not directly, indirectly." (Expert 15)
" Government gets royalty + commercial tax+ forest taxes such as CAMPA + Company Tax (Corporate tax). Royalties vary from mineral to mineral. The taxation works upto about 20 to 30 per cent of the costs. There is also the DMF now. It is set up for those impacted adversely by mining." (Expert 1)

For example, if we take that State of K, as officers, we received many complaints. If a person is taking topsoil from one place to another, from one village limit to another, the villagers protest saying it should not be taken away., you have to pay royalty they say, that awareness is more in some states. In other states, there are a lot of complaints of illegal mining. If people carry out mining without the permissions, the public is aware of that. But unfortunately, most of the complaints has also some local politics. It is not genuine. Sometimes there is a difference of opinion between the mine owners and the local people and so to trouble them, they go and complain. Real awareness is also there. We cannot classify everything is local politics and there are genuine cases." (Expert 14)

It was also observed that the citizen has the right to approach the court in a public interest litigation, the citizen does have a say in an environmental matter.

Another is that in Goa, Bellary, Hospet and certain area, certain pockets, the public is doing a sort of a protest to prevent the mining to happen. That is because of the pollution, that is because of the dust. That is because too much of the road being spoiled. Not government caring to reinvest money earned out of the mining profits. So there are various other what you call harsh methods, crude demonstrations by the local people. It happened on A state, where people were preventing the number of trips by the lorries. You can only make four trips. In this state, the people are very conscious, aware of their .. go there and talk to the people. How do they protect you can ask them and they will be able to say both from the point of view of environment and public utilisation of the roads and they don't allow. The more the people are affected, such people are the ones who react in this country. In any state, if I'm not keeping track of what is going on in mining, because I'm not interested in what is happening, otherwise the whole of xxx (redacted) area should have revolted long back with so much of dump all around the area, nobody bothered. They only said that the waste material of the mineral is flying all around and we are dumping all around. It was all around; when heavy wind blows then we see it. Awareness is critical and people react only when they are impacted." (Expert 15)

E. Corpus of the Trust Resource

As noted earlier, corpus protection of trust resources is an important function of administrators and requires careful long-term planning. However as demonstrated here, this is

largely missing from the resource management framework in India.

> *"There is no effort at corpus protection both at the Centre and the State. Despite the Steel Policy projecting a certain availability of iron ore there are many who contradict this and state that there is enough ore for many more decades." (Expert 2)*

> *The mining administrators are not only facilitators but also custodians of the resource for sustainable development. (Expert 12)*

> *Is there any planning? Yes, that is the main purpose of IBM. There are now several substitutes for mineral resources. For instance, M-Sand has been introduced to substitute for sand. Sand is a good example of the demand outstripping the supply and the over extraction of the resource. Long term planning is required for captive miners as they need to plan the demand and supply based on the capacity of the plant. So planning of 10 -15 years is being drawn up*. (Expert 13)

> *"There is no specific corpus plan. One of the important role of the IBM is conservation. That conservation of minerals increase the life of the mine. Because, you see, for example if you take the case of iron ore, in 1990 the Indian Bureau of Mines has come with the limit of threshold value for several important minerals. For example, the hematite in B region, we fixed at that time as 55 per cent of the … At that time the marketable grade of the iron ore is 62. There is scope for improving the mineral grade from 55 to 62. You should not waste the ore containing 55 per mineral and it should be stacked separately. We even came with the slogan "Today's waste is tomorrow's ore." This was done in 1990. We see that in 2000, whatever the mineral that was not usable in 1990, it was stacked separately, even the mine owner used to tell that this is waste, it occupies too much place. So at that time there was a lot of grievances about this as it occupies huge place, it is difficult for operation etc. To our surprise, in 2002 all the material was used and sold during the China boom. So again, we have reviewed in 2000 and the level has now been brought down to 45. And now people realise because they experienced."* (Expert 14)

F. Citizen Participation, Transparency and Accountability

A majority of the respondents viewed the role of the citizen as being limited to participation in the environment impact assessment process. The rights of citizens to obtain information under the Right to Information Act was also acknowledged as an important step in citizen engagement. Some assigned a more active role for the affected communities of mining at the

district level to how the District Mineral Funds are to be distributed. The responses from some administrators viewed citizen engagement as a hindrance to their work, with even a few voicing their suspicion of the motives of the citizens. One response seemed to indicate that the spaces exist for citizens to take an active role, such as in ensuring workers rights and occupational health and safety are ensured but citizens rarely engage with these critical issues.

A sample of responses highlighted here -

> *"Right from exploration, evaluation, exploitation and marketing the local citizens opinion are sought before exploitation both on environmental, demography changes and effect on heritage - strategically sensitive installations. The aggrieved citizens - NGO are free to approach green tribunals in this regard." (Expert 12)*
>
> ***"****Suppose the mineral is in the forest, the forest department carries out public hearing and that is also public participation. Other than this there is no other spaces." (Expert 14)*
>
> *"Plenty. Particularly in mineral belt areas – I don't think workers are protected even. No glasses or gloves and children of workers. Overall, whether it is being done, people should get involved. Awareness is very critical." (Expert 15)*

A more cautious note on citizens participation was sounded by Expert 1 on the limits to citizens participation.

> *"Citizens can apply under the RTI Act. The quality and quantity of the minerals cannot be revealed if trade secrets are being asked but otherwise the information is available. EIA allows for public participation. At the public hearing, the Mining Plan and the EIA reports are to be shared with the public." (Expert 1).*

From the responses received, it appears that the accountability and transparency remain a challenge. *Expert 13* flags a different challenge when he says: "*All the systems are in place but they do not necessarily work and are dependent on the capacity, diligence and honesty of the officers concerned*." Perhaps the most interesting response demonstrating some serious thought into communicating with the communities that are affected was outlined by Expert 15. I quote: "From the department, we hold a jatha (a fair), by involving the people around and mining. Ever since the IBM got the – 1995. Even mining safety in all areas, wherever the regional offices are there, It is a public function, the public is invited and local officials are

invited." This process of engaging with the local population to share the ill effects and the benefits of the mining is a noteworthy practice.

G. Environmental Impact Assessment and Mining Plans

The safeguards of environmental impact assessment and mining plans do not accrue to the sector if they are not complied with effectively.

Some responses specific to EIA are captured below:

> "*The EIA process will have to site specific following national - international procedures. The compliance should be honouring the best exemplary practices and severely punishing for non -compliance on continuous time-based practice. The standards have to raised slowly but continuously involving the mining company.*
>
> *In what way can it be improved? The compliance should be honouring the best exemplary practices not only from mining fraternity but by other stake holder fraternity, so that it is implanted by the rest using the local resources of material and humanware. The green technology practices should be encouraged with circular economics.*" (Expert 12)
>
> "*There is an IBM Impact assessment carried out by independent (consultant) geologists/mining engineers. There are IBM guidelines for preparing the Mining Plan. The MoEF has different standards for the EIA. The EIA Committee has retired pollution control board experts, profs from the Mining School in Dhanbad, etc*." (Expert 1)
>
> "*After the EIA Process is granted by the MoEF, an NOC is to be issued by the SPCB.*
>
> *On paper all our rules and regulations are adequate and they are of international standard. However we fail in implementation. The Kudremukh Iron Ore was of world class standards but it had to be closed for protecting the sanctuary. The incessant rains in the Western Ghats made it difficult to implement pollution control measures. While there was water pollution in the Western Ghats, the dry areas of Bellary have issues of lack of water to implement some of the basic measures of cleanliness. There is a greater issue of air pollution in this region*." (Expert 1)

Some responses with regard to Mining Plans are captured below:

"*Earlier the mining plan was not there but now comprehensive mining plans take care of everything. So now monitoring is not required. Once in a while we sit and review with the mine owner.*

(I ask about illegal mining). Illegal mining comes within the purview of the state government. Because the state is the owner of the mineral. There is a big confusion with regard to illegal mining. Actually the lessee prepares the plan and then deviates from the plan, it should not be considered as illegal. This is a violation from his proposal. If he is doing one million tonnes of ore between x and y but is actually doing 1 million tonnes of ore between y and z, that is location difference but within the lease. For that there are provisions for him to modify the proposals and get it approved. That point also we cannot say is illegal mining, it is deviation from the proposal. And sometimes, instead of 1 million tonnes, he does 1.5 million tonnes, there also in the system there is a lot of checking points. Once he mines the ore, he has to transport it and for that he needs transport permits. The state government knows what capacity is to be transported and beyond that the system does not permit the transport. (I seek clarification) This is the new system but yes the old system did not have these safeguards. So now the system has total control over all the licensed mine owners. There are instances of theft and robbery but those exist." (Expert 14)

More specifically, the challenges to the implementation of Mining Plans were also identified by them. A wide range of challenges present themselves in implementing the mining plans.

"*The schematic -approved mine plan will be slightly different from actual ground practice plan as the latter is governed by the heterogeneity, site specific nature of the job. However, combining the Geo technical Mapping, Site Map of resource with time, market and size and with a philosophy that there is nothing termed as waste in mineral resource as all the phases are products the degree like main, co and by products differ with time and market. Proper planning with antemortem data of mining plan prepared by the experts as well as by the implementing team will minimise the challenges in implementing them."* (Expert 12)

On closure plans, the broad understanding was that the progressive closure plan ensured a greater degree of compliance.

"*Before entering the mineral exploitation of a resource, a sustainable exit plan with time frame has to be prepared and strictly adhered to." (Expert 12)*

"In 2003, we amended the MCR rules and came up with the concept of final closure and progressive closure. To make the owners feel the seriousness of this, we started taking financial assurance – an amount of x is taken as guarantee. Initially, this was not appreciated but now they understand. "(Expert 14)

"The reclamation and rehabilitation guidelines exist. Only those mines where the ore is exhausted is a closure plan effected. Examples of successful closure of Mines – Sesa Goa where there is now a football training centre. Closure standards are different for Open Cast Mines and deep mines. "(Expert 1)

H. Pressures on Trustees

At the Central level, a more complex set of issues were identified as impacting the work of the trustee-administrator: weak institutions and the workload which indicated a manpower crisis (Expert 14) that prevented the administrators from being effective in their functioning.

A sample of the responses are below:

"There are no financial pressures. There is enough money to be able to get more manpower and also for training, etc. There is definitely political pressures, market pressures in boom time (otherwise when the price is low there is no incentive to even carry out the regular mining as it is not profitable) . Weak institutions add to complexity of the situation. Ecology is a priority." (Expert 2)

"The pressures that operate on trustees are in the following descending order Institutional pressure, Financial - Market pressure, Sustainable - ecological pressure and last but not least political and strategic pressures." (Expert 12)

"Only the workload is the pressure. There are huge number of parliament questions. For that there is no dedicated team, so this is additional work. Otherwise at the Central Government, there is absolutely no political pressure. Financial pressure exists as in any government department but it is not a constraint on the work." (Expert 14)

"*File Movement where the file is stuck due to undue influence or corruption. Resistance from villagers to the setting up of mines; Market pressures may lead to a request for modification of mining plans which may require us to act fast. Additionally, pressure from exporters to cash in on demand. Captive mine owners*

(limestone for cement industries) may also require a quick response to meet production targets. (Expert 1)

Some general responses on sustainability and illegal mining are also captured below:

"*The State has to make the correct decisions. On the part of the officers, there is a need for commitment to the work. (when probed further on training needs) The officers need training on laws and rules. Sustainable mining also has to be taught to entrepreneurs; education is critical. The statutory conditions are only on paper. Compliance is not always done." (Expert 2)*

"The foremost responsibility of trustee that the non-replenishable site specific unique nature of mineral resource need to be considered and the planet we owe to next generation of living beings. The trustee should be aware of alternatives, substitutes and industrial developments followed by market supply- demand forces. The skills required are more and take all the stake holders to form a TEAM where Together Everyone Achieves More. The capacity of trustee is to implement for the sustainable development so that the resource is scientifically extracted and properly used with a happy blend of societal - environmental responsibility." (Expert 12)

"What is the available resource? What is the available market for the resource? If this is not understood, the owner or the lessee will suffer. Now a days there is a lot of goondaism (thuggery). Illegal working during the night time or theft are all too common. The department has the capacity to punish but not necessarily to control. Manpower and funds were lacking during our times. The lessees responsibility is not to only pay royalty but also to the Government which provides the infrastructure for carrying out the mining activities." (Expert 13)

IV. Triangulation of Data

District Mineral Fund is only for the purpose of helping the community affected by mining. It has no inter-generational equity purpose linked to it. The officer in charge pointed to Rule 5 of the DMF Rules which provide for the 12 schemes that are to be implemented. No new schemes are allowed other than those that are stated in the Rules. The DMF was put in place in 2015 but the implementation began only in 2017. Reports of the two years of implementation 2017-18 and 2018-19 are on the website. The District Commissioner is the final authority and s/he is the person who has to take the initiative to hold meetings and

identify the projects for implementation. The projects for implementation is sent to the respective department and the DMF is transferred to the department for implementation. It is too early to make a judgement about the effectiveness of the DMF projects and the gaps if any.[253]

The EIA process is carried out by the Impact Assessment Authority (see EC notification of 2004). The SPCB monitors the environmental clearance (EC – Consent Document) that is granted for water and air pollution. There is a distinction between major and minor minerals. There is the Central and the State Impact Assessment Authority, as per Rules some projects are cleared by the Central and others by the State. The officer also indicated that there is paucity od baseline data and without the necessary data, the credibility of the data gathered at the local level is suspect. In fact, it is just another permission that needs to be granted and the process is not necessarily carried out with adequate knowledge. Several of the guidelines and parameters are borrowed from the developed world and the same is difficult to implement here.[254]

V. Data Analysis – An overview

A. Understanding the role of the state and the rule of law

***Context* :** This section focussed on how the administrators of mineral resources understood the concept of "public trust doctrine". A key component of the doctrine is a deep understanding that the resource is owned by the people and the state merely acts as a trustee of the resource. The first question in this section attempts to understand how administrators understood the question of ownership. The section is a follow on to the first question, asking directly the administrator if he/she saw themselves as trustees of the resource.

The next two questions in the section that are related triangulate the data gathered in the first two questions by posing the questions in a different format. It seeks to understand if in their decision-making process the administrators were called to balance two conflicting interests – of the environment and the development of minerals – and, if in the process of making the decision they were guided by their understanding of trusteeship. The last question in the section on capacities and skills probes more directly the issues of how a trustee requires certain skill sets and capacities to function effectively and protect the trust resources.

[253] Interview on 23rd July 2019.
[254] Interview on 24th July 2014.

Data analysis: All officers interviewed were familiar with the words "trustee" but did not demonstrate any deep knowledge of the legal concept of "public trust doctrine". This is to be expected as the term is used by the courts to protect natural resources for the past two decades with the official documents using the term for the first time in 2019. The National Mineral Policy 2019 uses the term public trust doctrine.

The idea of trusteeship is understood in different ways by the administrators. The role of state as a trustee is also perceived differently.

Ownership of Mineral Resources: At the core of the public trust doctrine is an understanding that citizens are the real owners of the mineral resources (or any other natural resource) and the state holds it in trust on behalf of them. The doctrine goes on to state that even when there is private ownership over natural resources, the public easement or claims over these resources do not cease. The state can intervene to ensure this public easement or claims over the resource is protected even when private ownership is granted over the trust resources. This is a fine and important distinction that has not been clearly articulated by the Indian courts.

A majority of the officers interviewed viewed the state as the owner of mineral resources. Only one officer, when probed, articulated that the state works on behalf of the citizens as they are the ultimate owners of the resource. Almost all the officers of the state cadre were aware of the different kinds of ownership over land and the different claims that exist over forest lands, revenue lands and government lands.

A fairly technical understanding of ownership was also evident. The procedural aspects of who grants permissions, whether it is the Central or State government, the DMG or the IBM was regularly used to explain the question of ownership.

Conflicts over mineral resources and balancing conflicting mandates was a question that did not elicit thoughtful or insightful responses from the administrators. For one, this was not viewed as a conflict by many as the idea that development of mineral resources is a necessary ingredient to meet all the present day needs is deeply ingrained. Second, the idea of conservation – of the environment or the mineral resources for future generations – had not been given adequate thought.

Capacities and Skills of a trustee: For the most part it was thought to be adequate. Some issues of gaps in manpower and finances to inspect the mines were identified but for the most

part, it was believed to be adequate. However, in the section on pressures on trustees, we note that many of the administrators confess to serious gaps that hint at a lack in section of capacities and skills.

B. Allocation of Resources

Context: This section is focussed on understanding the role of the state viz a viz the beneficiary citizen. It asks whether citizens have a role to play in the allocation of the resources or do they have a right to the profits that accrue from the mineral resource. The question (iii) and (iv) in the section probes more directly the spaces that exist for the beneficiary citizen to protect their rights over the trust resources and also protect the environment. The final question in this section is focussed on understanding whether inter-generational equity is understood as a key concept by the administrators.

Data analysis: Decision making was viewed as squarely falling within the domain of the state with limited role for the citizens. The only role for citizens was the space to participate in public hearings during environmental impact assessments.

The question of profits being shared with citizens, either directly or through the mechanism of a permanent fund, also received a muted response from the administrators. In fact, many had not heard of the Norwegian Fund or the Alaska Fund and how it operates. As long as the public management of resources was the primary mode, the question of profits from the resources was not a question that needed to be addressed as all funds and the mineral resources were utilised for the citizens of the country. The privatisation phase around mineral resources has not generated a vigorous debate about the sharing of profits with the citizens of the country.

C) Democratic decision-making: Citizen participation, Transparency and Accountability

Context: This section triangulates the data from the previous two sections by asking direct questions on the downward accountability that the public trust doctrine specifically imposes on the trustees. The right of the citizens to participate, access information and demand accountability as the beneficiaries of the resources and on whose behalf the state acts.

Analysis: For the most part, citizens as the beneficiary or citizens as the owner of the resource is not understood. A large number of the administrators served at the departments between 1975 to 2010. A significant number of them worked during the peak of the era of

public management of resources. A strong understanding of the state (a welfare state model) as the working for the welfare of the citizen is strongly imbued in their responses to the question of the role of the state. However, the state is viewed as all knowing and knowing the best course of action with regard to the resources.

The public trust doctrine views the state as trustee of all natural resources, privileging the role of the citizen as the key decision maker and beneficiary of the state. The accountability of the administrator is therefore viewed as downward and strongly towards the citizen. In a welfare state model, the state is all pervading and almost paternalistic in its relationship with the citizen. This paternalism was evident in almost all the responses pertaining to citizen participation, transparency and accountability.

D) EIA and Mining Plans

Context: This section is focussed on the more specific protections flowing from the public trust doctrine – the protection of the environment, scientific mining and closure of mines after the mining activity is completed. It is also a space, particularly the EIA process, where beneficiary citizens have a right to directly intervene and have a say. These set of questions further explore the role of the citizens in decision making.

Analysis: While most administrators acknowledged that more could be done with regard to effective implementation of EIA, mining and closure plans, but this did not seem to be a matter of concern. For many, the EIA is the concern of a different department not specific to their domain of their functioning.

Public participation through the public hearings in environment matters was acknowledged as an important intervention. However, the emphasis on mining plans and closure plans were seen as routine activities pertaining to entire mining process. The intervention of citizens to protect the long term interests of the environment while seen by the administrators as necessary, was also viewed with some degree of scepticism. Citizens were viewed as either being ill informed or concerned only with the immediate disturbance of noise and air pollution or at worst, being politically motivated to extort from the mine owners. Only in certain regions were citizens believed to be knowledgeable and proactive in their approach.

E) Pressures faced by the officers during the course of their functioning as trustees.

Context: This section tries to understand the challenges faced by the administrators in their everyday functioning. An administrator to be an effective trustee requires an environment

free from external pressures. It presumes that the lack of independence in the functioning of the trustee may be the primary cause for several illegalities in the past. The question also attempts to glean from the interviewees the challenges they faced in carrying out their work and the solutions if any, to handle these pressures that are brought to bear on trustees of a rich natural resource such as minerals.

Analysis: Nearly all the interviewees admitted to pressures being exerted on the administrators. The more obvious pressures of political arm twisting, lack of financial support to carry out effective inspections and pressures of understaffing were clearly identified. The lesser known pressures highlighted were that of the inter-departmental tensions with one department holding up a file or not responding effectively to requests, the pressures of working with poorly trained geologists or environmental engineers were hinted at.

Some general observations:

Apart from the specific findings listed above, the following general observations are useful to record.

a) The officers of DMG were more forthcoming, and off the record even shared a great deal of critical details of the functioning of the department and personal anecdotes that enriched this research. The officers of IBM were more reserved in their responses, careful about revealing too much and one interviewee even revealed that the Government has the powers to act in the event of wrongdoing, even after retirement told a different tale of the fear that administrators function under on a regular basis. Participation even for academic purposes, which in the normal course would be considered an important contribution to learning used to be the hallmark of all government departments in the past. In fact, in the past, I noticed government officers encourage researchers as it gave them a break from their routine tasks to step back and reflect on their own work and their contribution to society.

b) It is widely believed that officers from the mining department are corrupt. This public perception has been widely carried with the media and the focus on the illegal iron ore mining that occurred during 2012. Nearly nine interviews were carried out at the residences of the retired officers of DMG or IBM. All of these residential visits had one thing in common – all of the officers resided in homes that any average retired government officer in India would live in. At no point, even in the interviews carried outside (in a car, an office or a restaurant) did I notice a vast display of wealth beyond the average income of a government

official. Clearly, all the officers interviewed demonstrated great pride in their work and their respective departments and were content with having done a honest day's work.

VI. Conclusion

This chapter provides a deeper insight into the perspectives that mining administrators carry about the role of the state, the protection of the natural resources, decision making, participation, transparency, and the pressures on administrators in carrying out their duties. The administrator plays the role of a trustee within the complex arena of conflicting demands and the constraints that the resource itself poses. From the discussions, it is evident that the guidance that they obtain in carrying out their duties emanate from regulations, legislative mandates, and a broad understanding of state ownership of natural resources that works in the interest of the public. The more nuanced understanding of the state as a trustee of natural resources as outlined by the doctrine is yet to be understood in its complexity. This lack of understanding is also a consequence of the lack of any clear guidance on trusteeship of resources by the legislature or the judiciary. In the next chapter, I pick up on one element – accountability – from the range of issues that the doctrine offers as a set of principles to be thought about in everyday decision making. The framework of accountability is critical from an administrator's perspective as it provides the scaffolding within which s/he can operate in making critical decisions with regard to natural resources.

CHAPTER FIVE: BEYOND JUDICIAL VETO – THINKING THROUGH ACCOUNTABILITY MECHANISMS

Abstract: *The public trust doctrine is an important administrative tool to ensure accountability in natural resource governance. It presents a set of new obligations for the State to comply with, beyond that which is ordinarily conceived of in administrative law. It also brings with it an increased focus on downward accountability to beneficiaries/citizens both present and future. Used widely in India, the doctrine has been successfully employed to question and veto administrative decisions that adversely impact the corpus of trust resources. In this chapter and the next one, I explore the contours of the obligations and duties imposed by the doctrine on administrators of natural resources. I also explore the communitarian values that underpin the doctrine, juxtaposing these against conflicting values that administrators are also required to take forward by legislative or executive mandate.*

The discourse around state obligations primarily relies on a private trust law approach to construct the fiduciary relationship of the state. This chapter attempts a thought experiment, shifting the focus to an administrative law approach with a focus on evolving an accountability framework that administrators can engage with. In the first section, I outline the discourse on accountability and relate the same to the contours of PTD. In the next section, I examine the conflicting values that administrators contend with, and focus specifically on the challenges in operationalising the downward accountability mechanisms towards citizens or trustees of the resources.

I. Introduction

Viewed differently, the public trust doctrine is essentially an administrative tool in ensuring accountability in natural resource governance. The relevance of the doctrine is even more critical in the context of ongoing challenges to the environment and resource governance. On one hand the interpretation of the state as a trustee of natural resources has far-reaching implications for the obligations imposed on the administrators. On the other hand, in my view, this interpretation also acknowledges the need for critical engagement by citizens as an important part of the governance structure thus emphasizing the need for a strong downward accountability framework.

The public trust doctrine emerged in the 1970s, as a response to environmental concerns, to redefine government obligations in protecting natural resources.[255] It has been among the most successful innovations in environmental law, particularly American environmental law, in recent decades. It received a new lease of life in the context of pressures from neoliberal

[255] See Sax, *Supra* note 10.

policies that encouraged privatisation of natural resources and the release of critical resources into the hands of private actors.[256] To sum up from Chapters One and Two, the essence of the public trust doctrine is that (a) certain natural resources—regardless of their allocation to public or private uses—are defined as part of an 'inalienable public trust'; (b) certain public authorities are designated as 'public trustees' to guard the trust resources; and (c) every citizen, as 'beneficiary of the trust', may invoke its terms to hold the trustees accountable and to obtain judicial protection against encroachments or impairments.[257] The doctrine presents a set of new obligations for the State to comply with, beyond that which is ordinarily conceived of in administrative law. In this chapter, I focus on the accountability dimension of the public trust doctrine, drawing lessons from the empirical focus in the previous chapters Three and Four on administrators and their understanding of the doctrine in the context of mineral resources in India.

At the core of the doctrine is the notion of the state as a trustee of natural resources. As *Lazarus* notes, it is an amorphous notion, "that the public possesses inviolable rights in certain natural resources."[258] This new conception cannot effectively be introduced without a rethink of the democratic set up along with the accountability mechanisms. *Klaus Bosselmann* argues for building a culture of democracy that is powerful enough to achieve sustainable societies, thus balancing the tensions between sustainable use and ecological conservation.[259] It also brings with it an increased focus on downward accountability to beneficiaries/citizens both present and future.

As noted earlier, the doctrine has been successfully deployed by the Indian judiciary to question and veto administrative decisions that adversely impact the corpus of trust resources. As outlined in greater detail in Chapter two, the public trust doctrine in India was adopted in the 1990's in the landmark judgement of *MC Mehta v. Kamal Nath*[260], a challenge brought to the

[256] See generally, Manisha Rao, 'Reframing the Environment in Neo-liberal India: Introduction to the Theme', *Sociological Bulletin*, 67(3) 259–274, (2018). Also see, Karen Bakker, 'Neoliberalizing nature? Market environmentalism in water supply in England and Wales'. *Annals of the Association of American Geographers*, 95(3), 542–565 (2005).

[257] See R.D. Sagarin and M. Turnipseed, 'The Public Trust Doctrine: Where Ecology Meets Natural Resources Management' *Annual Review of Environment and Resource*s, Vol. 37:473-496 (November 2012); see also M.C. Blumm and M.C. Wood (eds.), *The Public Trust Doctrine in Environmental and Natural Resources Law* (Durham, NC: Carolina Academic Press, 2013).

[258] Richard J Lazarus, 'Changing Conceptions of Property and Sovereignty in Natural Resources Law: Questioning the Public Trust Doctrine', 71 *Iowa Law. Rev*.631-716 (1986), at 632.

[259] See generally, Klaus Bosselmann, *Earth Governance: Trusteeship of the Global Commons* (Edward Elgar Publishing, 2015)

[260] M.C.Mehta *Supra* note 17.

diversion of a river to enable flood control by a private motel. In the two decades after its adoption, the doctrine has seen an increased application of the doctrine to a range of natural resources including national resources such as telecom spectrum.[261] This wide application of the doctrine begs two pertinent questions – what is the normative content of the doctrine? This has been explored in some depth in the earlier chapter two and I analyse the normative content further in the next chapter. Does it impose limits on agency action? If yes, then what are these limits and how do the administrators deal with the conflicting values that emerge from the legislative guidance and the judicial mandate. In this chapter I explore this latter question in some detail, drawing copiously on the empirical data outlined in Chapter Four.

More specifically, in this chapter, I explore the contours of the obligations and duties imposed by the doctrine on administrators of natural resources. I also explore the communitarian values that underpin the doctrine, juxtaposing these against conflicting values that administrators are also required to take forward by legislative or executive mandate. This chapter examines the evolution within Indian jurisprudence and the limits it places on administrators of resource governance. In the first section, I outline the discourse on accountability and relate the same to the contours of PTD. This section is also a thought experiment in outlining the accountability framework that would best suit the public trust doctrine. In the next section, I examine the conflicting values that administrators contend with, and in the final section, I focus specifically on the challenges in operationalising the downward accountability mechanisms towards citizens or trustees of the resources. From the empirical research, it is evident that mining administrators did not view citizen/beneficiaries as an important aspect of natural resource governance. An indirect obligation was acknowledged but for the most part administrators did not view citizens as being at the centre of their obligations.[262] The state is constructed, in their view as a monolith with public interest being at the heart of its functioning. The administrators also carried with them a technocratic approach which privileged expert knowledge in resource management.[263]

The orthodox understanding of the doctrine is that the state is at the centre of the public trust relationship, mediating the management of the resources, for the benefit of present and future generations. It is argued that under this conventional model that the doctrine imposed only negative responsibilities upon the government, limiting some of its action. An important

[261] 2 G Spectrum case *Supra* note 140.
[262] See Interview nos. 12, 13 and 14.
[263] See Interview no. 3 dated 9th Mar 2019.

limitation on the government power was to ensure that the alienation of the trust resources to private parties is only carried out if there is a public interest involved. *Illinois Central* to *Mono Lake* Case demonstrate the shift and expansion away from the conventional model to a new "stewardship model". The stewardship model adds positive responsibilities on the state to act affirmatively and proactively to protect the collective interest of the citizens in the trust resources.[264]

In the stewardship model, governments are expected to take affirmative steps through a select set of procedural and substantive values that protect the public trust resources. "First, with regard to the substantive responsibilities, the government is required to act to protect resources from being damaged. Meeting this positive responsibility depends on whether the government acts diligently, prudently, and in good faith."[265] Second, the procedural responsibilities require governments to follow due process, disclose relevant information to the public and to also provide a consultative process whereby the public can respond to both legislative and administrative choices. This is critical as the information disclosure requirement encourages greater trust and public engagement in the process of decision-making process concerning public resources.[266]

To the above expanded reading of the public trust doctrine, I add another dimension, that of the accountability framework. In this chapter, I argue this in greater detail, punctuating my arguments with lessons learnt from the empirical research in the previous chapter.

II. Public Trust Doctrine and Agency Accountability – Expanding conceptual boundaries

The doctrine places limits on administrators of resource governance. It has rarely been viewed from an administrative law lens, despite its strong emphasis on judicial review of administrative action. In essence, the doctrine is about accountability in decision making, judicial review of administrative discretion and direct accountability to the beneficiary citizens. The challenge, however, is to determine if an administrative action pertaining to natural resource governance is in effect an action taken in furtherance of the protection of or sustainable use of the natural resource or does the exercise of discretion favour interest groups that are profiteering, thus leading to corruption. There is also a wide spectrum in between that

[264] Haochen Sun, 'Toward a new social-political theory of the Public Trust Doctrine', 35, *Vermont Law Review* 563 (2010) at 605.
[265] *Ibid.*
[266] *Ibid.*

is a grey area of administrative discretionary power but essentially public trusteeship responsibilities vested in the authorities by the doctrine. All actions within this broad spectrum are subject to the broader framing of accountability.

The concept of fiduciary obligations places a mandate on the trustees to act primarily on behalf of public beneficiaries.[267] As noted earlier, *Wood* breaks this down to workable components and notes that procedurally, trustees have five main duties: (1) maintain uncompromised loyalty to the beneficiaries; (2) adequately supervise agents; (3) exercise good faith and reasonable skill in managing the assets; (4) use caution in managing the assets; and (5) furnish information to the beneficiaries regarding trust management and asset health."[268] While this view from a trusteeship perspective provides a clear set of obligations on the state as an agent acting on behalf of the beneficiaries, I attempt to view the obligations imposed on the state actors from an accountability perspective. The principal-agent relationship remains intact in the accountability perspective, but the administrative law perspective widens our understanding of the actions of the state within the broader framework of accountability. But before we proceed, it is useful to understand the accountability framework.

2.1 Understanding the Accountability framework

Although rooted in book-keeping and financial administration, the term 'accountability' has been used extensively in political discourse as a critical component of good governance.[269] As *Bovens* notes the term accountability "does not refer to sovereigns holding their subjects to account, but to the reverse: it is the authorities themselves who are being held accountable by their citizens."[270] It is therefore an active process of account giving, which incorporates within it an obligation to explain and justify decisions taken during the course of everyday work. Thus the process of account giving is the accountability framework and it implies a relationship between a triad – that of the "actor, the accountor, and a forum, the account holder or accountee."[271] Defined as social relationship, accountability is the relationship "between an actor and a forum, in which the actor has an obligation to explain and to justify his or her conduct, the forum can pose questions and pass judgement, and the actor may face consequences."[272]

[267] M C Wood, *Supra* note 41 at 188.
[268] *Ibid* at 189
[269] Mark Bovens, 'Analysing and Assessing Accountability: A Conceptual Framework', (2007) 13 *Eur LJ* 447.
[270] *Ibid* at pp 448-449.
[271] *Ibid*.
[272] *Ibid* at 450.

The various aspects of accountability are complex and nuanced. *Koppell* categorises them into five different dimensions – transparency, liability, controllability, responsibility, responsiveness – each being a concept in themselves. This broad conceptualisation makes it difficult to monitor implementation as each element needs extensive operationalsiation.[273] "Some dimensions, such as transparency, are instrumental for accountability, but not constitutive of accountability; others, such as responsiveness, are more evaluative instead of analytical dimensions."[274]

There are several academic disciplines that are concerned with accountability but at the core similar notions are adopted and they are comparable across disciplines.[275] In giving account, institutions and actors are required to do so in a variety of ways. "These dimensions revolve around essential questions to be asked about accountability: who is accountable to whom, for what, by which standards and why?[276] The traditional or orthodox understanding of the accountability framing is an upward accountability that is towards the legislature and the judiciary. The public trust doctrine is essentially framed within the upward accountability of administrators to judicial review of their actions. In my view, this approach to public trust accountability framework requires a recalibration even as more specific models of direct accountability emerge that are better suited to the conceptual doctrine of public trust.

The nuancing that an accountability framework provides is different from the *Wood*'s adoption of the trusteeship framework that allows limited scope for engagement with the decision-making process. The accountability framework necessarily requires a wider engagement with the governance processes. As *Thomas* perceptively notes:

> "The underlying assumption of the practice of accountability (as opposed to the emerging theories) remains that identifiable individuals and institutions have independent, reasonably complete and predictable control over actions and outcomes. However, this is now widely recognized not to be an accurate description of the realities of public sector decision making. The external and internal environments in which most public sector organizations operate have become complicated, interdependent, turbulent and unpredictable. Activities undertaken by individual public organisations and governments as a whole have become more collaborative in nature, whether that collaboration occurs across programs,

[273] *Ibid.*
[274] *Ibid* at 450.
[275] Mark Bovens, Robert E. Goodin & Thomas Schillemans (eds.), *Oxford Handbook of Public Accountability*, (Oxford: Oxford University Press, 2014) at 10.
[276] *Ibid* at 10.

departments, governments or with other institutions within society. In an era of joined-up, networked or partnership-based governing, no one individual or institution is completely in charge of decision making and/or in control of outcomes. Under these conditions the traditional, vertical, straight line and individualistic interpretation of accountability fits less and less with the reality of a horizontal, interconnected and collective approach to problem solving."[277]

Given the complexity of governance and the shift away from a vertical governance, with a vertical accountability framework to a more horizontal and increasingly a 360-degree (or circular) governance model, the shift in the accountability framework must also keep pace to reduce gaps in governance. In this, the downward accountability towards citizens is a critical idea, particularly developed within environmental jurisprudence in the form of public participation, and the public trust doctrine lends itself to a rethinking of this model of accountability. Before we explore this aspect of downward accountability, let us briefly examine the models of accountability.

2.2 Models of Accountability

Governments and academics made some headway in developing interpretations and meaningful models of accountability that take account of the new environmental conditions and approaches to governing. In 2001, *Behn* called for the development of a shared "360 degree" approach to accountability based on a "compact of mutual collective responsibility."[278] This approach acknowledges the limits of existing institutional, legal and organisational approaches.[279] However, a shift to more collective, cultural approach to accountability faces the difficulty that ideas of individual fault, blame, liability and punishment remain at the heart of popular understanding of what accountability should mean in practice.[280]

Accountability, based on the direction of the relationship, has been classified into three sub-categories – vertical, horizontal and diagonal.[281] Vertical accountability is the traditional accountability relationship between the government and citizens, while horizontal accountability is a relationship across institutions or the different branches of government.

[277] Paul G Thomas, Accountability, *The Sage Handbook of Public Administration*, Second revised edition (London: Sage, 2012) at 675.
[278] *Ibid* at 676.
[279] *Ibid*.
[280] *Ibid*.
[281] A Lührmann, KL Marquardt, V Mechkova, Constraining governments: New indices of vertical, horizontal, and diagonal accountability, *American Political Science Review* 114 (3), 811-820. (2020).

"Diagonal accountability represents the extent to which actors outside of formal political institutions (e.g., the media and civil society) hold a government accountable."[282]

Another way this has been represented is to state the accountability as being upward, horizontal or downward. Here the accountability is exercised in a particular direction: "it may be upwards (to a higher authority), downwards (to citizens or a community), or horizontally (as part of a contractor partnership that has been agreed for mutual benefit)."[283] Traditional Weberian bureaucracies have relied primarily on upwards accountability, because hierarchical management structures help senior decision-makers to control service delivery–and Parliament, the media and voters can then ultimately hold ministers to account for policy and performance. This transformed under the reforms carried out in the name of New Public Management (NPM) where the outsourcing and privatisation has modified the accountability structures to be more horizontal in nature between contractors and partners as opposed to upward with departments or downwards with citizens.[284] Networked partnerships and relationships are the new mode in which the public sector or state is required to operate and in this new model of governance it is important to examine the role that citizens play.

Romzek and *Dubnick* distinguished four different typologies of accountability, which are not mutually exclusive. For instance in *bureaucratic* accountability, the relationships between officials in the organisation are shaped by bureaucratic hierarchies, with an emphasis on rules and procedures.[285] These could be further classified as those based on legal norms and rules, "such as due process (*lega*l accountability), professional norms and standards (*professional*) accountability or political demands (*political* accountability). …One should also distinguish various outcome-oriented standards, such as democratic controllability, good governance, and effectiveness and efficiency."[286]

In the next section, I look at these models in some detail to better understand and to locate how the public trust doctrine enables a different accountability model. To take forward the arguments of this thesis, I focus on Bureaucratic or Agency Accountability and the downward accountability framework in some depth.

[282] *Ibid* at 812.
[283] Bovens, *Supra* note 269.
[284] *Ibid.*
[285] *Ibid.*
[286] Bovens et al, *Supra* note 275 at 12.

2.3 PTD and Bureaucratic Accountability

The Public Trust Doctrine emerges at a time in history even as private actors take increasing control over natural resources. Privatisation of water resources, minerals, land and forest tracts requires a rethink of old governance models. Governance models driven earlier by a strong welfare state approach is now being transformed and the state is now a facilitator or regulator of critical economic activity. Under the new model, the principles of accountability are being rewritten.

In general, accountability has been conceptualized in the literature in two ways. One – predominantly American interpretation of accountability is that it is a virtue. Governments can "be accountable", essentially by being transparent and responsive. The other – predominantly continental European – interpretation is that it is a mechanism to keep the behavior of public authorities in check.[287] As a mechanism, accountability can be seen as synonymous to the observation of control over the agent, and the effort is to ensure that the behavior of the agent is in line with the preferences of the principal.[288]

PTD requires a rethink of the traditional bureaucratic model. While the legislative intent is to be complied with, the judiciary imposes an additional layer of expectation on behalf of the current and future citizens on protection of resources. This expectation translates into two new layers of oversights – (a) a direct oversight by the judiciary over the actions of the bureaucracy to check compliance with the doctrine; (b) a direct downward responsibility to the citizens which requires transparency in action, reasons for decision making and a demonstration of active protection of the trust resources in the interest of the public. Particularly with regard to mineral resources, the doctrine requires another layer of responsibility to the citizens in the form of downward accountability, as the resource is a non-renewable resource. Given the nature of the resource, the maintenance of the corpus of the resource requires active management of a fund or actual protection of the resource without extraction. Both these efforts require active monitoring by citizens which they can seek to do through the process of central audits and the right to seek information. What is evident from the empirical data is that the downward accountability or direct accountability is under appreciated or actively resisted by the mining administrators.

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[287] *Ibid.*

[288] Brandsma G.J. Adriaensen J. 'The Principal-Agent Model, Accountability and Democratic Legitimacy', *in* Delreux T., Adriaensen J (eds) *The Principal Agent Model and European Union*, Palgrave Studies in European Union Politics (Palgrave Macmillan, 2017).

2.4. Downward accountability through citizens participation

Besides electoral participation of citizens as a critical aspect of public accountability, new models for additional and direct channels of citizen participation is currently being explored. However, as *Damgaard* and *Lewis* note, "without the appropriate structures and processes in place, attempts to increase such participation might simply increase the level of activities that *appear* to make public services more accountable, without altering the fundamental dynamics between the governors and the governed."[289]

Damgarrd and *Lewis* evolved a framework for citizen participation in accountability, by classifying the types of citizen participation. They outlined five broad levels –" from education (least participation) through involvement, advice, collaboration, and finally, joint ownership (most participation) – provide a means for categorizing specific examples of service delivery and the participation of citizens, on a scale which considers the scope of participation of citizens, in accountability." [290] Mineral resources, and particularly the concept of public trusteeship, clearly conceives of the highest level of citizenship engagement as joint or sole owners of the resource.

Thus, accountability is viewed as a dialectical activity which allows for officials to "answer, explain, and justify their actions in open discussion and debate."[291] It has therefore come to be seen as linked to deliberative democracy where officials are forced to engage in some form of dialogue with the public. However, there is a key difference between accountability and deliberative democracy, in that, there is an unequal relationship of superior and subordinate, where the latter takes direction from the former, in the case of accountability. "The dialogue of accountability occurs between parties in an authority relationship and can only be understood in the context of that relationship."[292] Deliberative democracy on the other hand presumes a conversation between equals, each in a position to contribute and deliberate. The process of deliberative democracy contributes to a strong accountability framework, where all stakeholders are fully engaged in the debates surrounding a decision.

The public trusteeship framework thus requires the tweaking of the accountability framework to develop a deliberative democracy model to be robust, interactive, and sustainable. Having thus, laid out the key components of the accountability framework for public trusteeship, I

[289] Bodil Damgaard and Jenny M. Lewis, 'Accountability and Citizen Participation', *in* Bovens et al, *Supra* note 275 at 258.
[290] *Ibid* at 270.
[291] *Ibid.*
[292] *Ibid* at 269.

explore this in some detail in the next section what can constitute a guidance tool for administrators.

III. Beyond Judicial Veto – Structuring the PTD Accountability Framework

In conceptualising the framework within which PTD requires the administrators to give account for their decisions and be accountable in the long term, it is useful to examine it from a multidimensional lens. Some guidance is available in judicial rulings over the past two decades but the more detailed thinking through of the administrative framework is a contribution of this thesis.

First, the judicial interpretation of the PTD does not provide a detailed framework or the contours of the limits placed by the doctrine on the administrators. The doctrine imposes restrictions on governmental authority with regard to trust resources. Understanding the kinds of restrictions imposed by the doctrine is critical to this project, as in the previous chapter I examined if the doctrine provides any empirical guidance to administrators. In *MC Mehta*[293], the judges held that the Public Trust Doctrine primarily rests on the principle that certain resources like air, sea, waters and the forests have such a great importance to the people as a whole that it would be wholly unjustified to make them a subject of private ownership. Relying on Prof Sax's interpretation, the court acknowledged that the doctrine imposes restrictions on governmental authority.[294]

From the case law analysis in Chapter Two, it is evident that the doctrine places a limit on the resource administrators in their everyday governance and management of the resources. It is useful for our analysis here to reiterate the specific limits placed on the administrators. The courts relied on the limits outlined by Sax in his Journal article and have adopted this in toto as being applicable to Indian resource administrators. To quote once again the operative part of the ruling and the wording from the journal article -– "Three types of restrictions on governmental authority are often thought to be imposed by the public trust: first, the property subject to the trust must not only be used for a public purpose, but it must be held available for use by the general public; second, the property may not be sold, even for a fair cash equivalent; and third the property must be maintained for particular types of uses."[295]

[293] MC Mehta, *Supra* note 17.
[294] *Ibid*.
[295] MC Mehta, *Supra* note 17 quoting from Sax's article.

Taking forward this notion of limits on administrative powers, the judges in the *Fomento* case[296] add two more limits in determining the scope of the doctrine as (a) protecting long term public interest including intergenerational equity and (b) it is a public protection against short term private gains. The court expands this further by broadening the accountability framework in *Intellectuals Forum, Tirupathi vs. State of A.P. and others.*[297] Relying on the earlier landmark court judgements in M.C. Mehta vs. Kamal Nath, M.I. Builders Pvt. Ltd. and also the US court ruling in National Audubon Society (Mono Lake case), the court elaborated on the affirmative duties imposed on the administrators of the trust resources. It sought to distinguish between the Government's general duty to act in public interest from the specific duties imposed by the doctrine. It characterised this latter obligation as a "more demanding obligation" and reiterated the restrictions on governmental authority.

From the empirical data it is clear that mining administrators understand the value of the minerals as a resource that needs to be protected and mined with great care. However, the understanding of the resource as a trust resource that requires long term planning to protect intergenerational equity is clearly not evident. While a public management understanding of the resource as a state resource is strongly embedded in the older generation of administrators, the approach to the resource as primarily the wealth of the citizen beneficiaries is a vague concept for the administrators to adopt. It is evident that current demand and market pressures weigh heavily on their mind, in the absence of a long term plan document to provide guidance on protecting the corpus of the trust resource.

Second, the accountability framework for the doctrine requires a 360-degree accountability mechanism, with a specific focus on downward accountability to citizens. As a trustee the doctrine emphasizes state accountability to citizens. This requires both a strong upward accountability to elected representatives, which is the traditional accountability towards citizens but also a more direct participatory downward accountability to ensure corpus protection over the long term, sustainable use and ensuring equitable access. Let's examine the 360-degree accountability framework for PTD.

Upward or Vertical accountability: A good question to ask is whether the administrative law schema allows for a public trust question to be raised by the legislature viz -a- viz it's delegates to question the validity of the decisions taken by the administrative agencies. If yes, does this

[296] Fomento case, *Supra* note 19.
[297] (2006) 3 SCC 549.

figure in standing committee questions by parliamentarians of actions taken by their delegates? In the Indian context, parliamentary questions are not a rarity on the functioning of the departments and the parliamentarians did raise questions on the scale of illegal mining that occurred in the three states with regard to iron ore mining. Examining the range of questions posed by the parliamentarians, it appears that the questions on privatisation of mines, allocation of mines and illegal mining are being raised within the house.[298] The robustness of this process is also confirmed by the mining administrators in their interviews when they outlined the time spent on responding to parliamentary questions as an additional component of their work.[299]

The vertical accountability is within the traditional mode of giving account to citizens through their elected representatives. The focus here is on the electoral process as the key mechanism through which accountability is sought and ultimately monitored. However, this is not necessarily the most efficient mode of building accountability as the representative may lack the expertise in all areas to be able to truly represent the concerns of the citizens, the representative may not have sufficient time to devote to the wide range of issues in the constituency and most importantly, the representative is an elected representative for a short period of time and is therefore unable to follow up on the issues that are critical from an accountability perspective. Thus, the electoral process is both an incentive and a disincentive to representatives to build a robust accountability framework through the vertical accountability channel.

Horizontal accountability: By contrast, the oversight exercised between different institutions in a political system is commonly termed horizontal accountability. The horizontal accountability mechanism thus emphasizes the separation of power in a state and provides the checks and balance between the networked institutions. For instance, the Indian Bureau of Mines is the primary regulator that ensures compliance with mining laws but it is required to co-ordinate its effort with the Forest Department and the Ministry of Environment and Forests (MoEF). There is also horizontal check and balances between the three branches of governance, the executive, legislature and the judiciary.

Downward Accountability: Diagonal or downward accountability engages citizens directly in building a robust accountability framework. By empowering the civil society actors and citizens in the governance, the accountability mechanism builds a more transparent governance

[298] See Ministry of Mines, Parliament Matters Archives, https://mines.gov.in/ViewData/OldArchives?mid=1375 (accessed on 6th Aug 2021).
[299] See Interview No.15 dated 28th Aug 2019.

tool that checks corruption while also enhancing decision making through active participation. A more direct participation in decision making also adds to the legitimacy of the work carried out by the government.

Third, how does the accountability framework playout with regard to a specific natural resource? Here I focus on the mineral resources and the necessary tweaking of our understanding of the doctrine to enable a more nuanced understanding. A resource such as a minerals may not have the concept of use or access rights that is to be protected.

Specifically with mineral resources, the idea of accountability is long term planning with corpus protection in mind and the zero-waste scientific mining that requires an accountability framework that accounts for environmental damage, scientific and progressive closure of mines and responding to citizens or community concerns on the impact of mining. Both from the perspective of the community and environmental concerns and the corpus protection component, the accountability framework for mineral resources requires a strong downward accountability. Unlike renewable resources where use and access are critical aspects, with mineral resources, extraction is a onetime exercise that requires zero-waste standards to be maintained. Given the non-renewable nature of most mineral resources, citizens participation in decision making and protection of the natural wealth is critical.

IV. PTD and Specific Limits on Administrators of Resource Governance

From an accountability perspective three key elements are critical – the trust resources are to be protected not just for the present generation but also the future generations (corpus protection and protection of long term interests); the public or the citizen shall have access to the resources (use rights) in certain instances and this usufructuary right shall be protected by the administrators ; the public can raise questions of the administrators with regard to use of the resources for short term gains or for purposes other than that which benefits the public. Let’s examine this is some detail -

4.1 Corpus Protection of Trust Resources

At the heart of the idea of the doctrine is the trust resource and the beneficiaries on behalf of whom the trustees act. Critical therefore to any administrative action is a good understanding of both the trust resources and the measures necessary to protect the resource keeping in mind the present generation and also the future generation. The measures required for protection of forest resources will defer from that of water resources and mineral resources, however

interlinked they may be. Two specific legal concepts tie into the umbrella idea of corpus protection – sustainable development and inter-generational equity – the latter indeed being a subset with the broader idea of sustainable development but requiring a more detailed engagement separately.

At the core of the normative idea of Sustainable Development, is the principle of inter-generational equity. Brown Weiss[300] enunciates the three key principles that form the basis of inter-generational equity namely conservation of options, conservation of quality and conservation of access. These principles acknowledge the right of each generation to use the resources of the planet for its own benefit, but prescribes certain limits and constraints on these actions, to ensure the long-term robustness of the ecosystem. The sustainability principles apply for all stages of the mine life cycle – exploration, mine planning, construction, mineral extraction, mine closure and post-closure reclamation and rehabilitation.

In an interesting attempt at operationalizing the inter-generational equity, *Basu* argues for the adoption of the Hartwick's rule[301] to examine whether the citizens and communities of Goa are benefitting from the iron ore mining. In building his argument, he classifies the concept of sustainability into two categories – strong and weak sustainability. He notes that strong sustainability requires that the critical capital (ie., natural capital such as biodiversity) does not decrease, whereas weak sustainability assumes that different types of capital (ie, natural, produced, cultural etc) can be substituted for each other and hence requires that only the total stock of capital does not decline. Most mineral rich countries, he argues, have not invested in productive assets, instead using up the finances thus leaving the countries poorer in the aggregate.[302] The counter, therefore to the adverse effects of resource curse is to diversify mineral processing so as to create value and employment opportunities for the local population. The other solution is to ensure the corpus protection of the natural capital which is the true wealth of the country.

The idea of mining sustainability encapsulates several core principles of intra and inter-generational equity, the precautionary principle, scientific mining, management of

[300] *See generally*, Edith Brown Weiss, *In Fairness to Future Generations: International Law, Common patrimony, and Intergenerational Equity* (Transnational/United Nations University, 1989),
E. Brown Weiss, 'Our Rights and Obligations to Future Generations for the Environment', 84 *American Journal of International Law*, 198 (1990).
[301] Hartwick's rule states that as mineral resources are depleted or extracted, investments in productive assets (instead of being consumed simultaneously) need to be made to at least the same extent to leave future generations with as much assets as the present generation.
[302] See Rahul Basu *Supra* note 182. He cites Nigeria, Gabon, Trinidad and Venezuela as examples.

environmental and socio-economic impacts, creation of substitute capital in the form of social and physical infrastructure and stakeholder engagement. Internationally, there have been several best practices to enable and encourage the adoption of these core principles and evolve methods to operationalise them in practise through legislation, institutionalisation, practise and convention.

For example, the mechanisms of Social and Labour Plan in South Africa, Mineral Development Fund in Papua New Guinea and Impact Benefit Agreement in Canada are examples of legally-binding instruments that make it obligatory for mining companies to take up local development works in their respective mining project areas. Norway's Sovereign Wealth Fund (technically the Norway Government Pension Fund) is also a much-cited example for the creation of a corpus of $800-plus billion from North Sea oil revenues. Mineral rich states of the United States and Canada have also created similar funds to protect local interests. The Alaska Permanent Fund (APF) and the Alberta Heritage Trust Fund (AHTF) were mechanisms created to transform mineral assets of oil and natural gas into other forms of capital.

Many international agencies have developed environmental guidelines for mining operations and major mining companies have adopted codes of conduct and are operating community development programmes that go beyond conformity to laws and regulations. Two main pre-conditions needed for achieving sustainable mineral development namely the existence of good governance and self-regulatory mining enterprises which are viable and engage in social, ethical and responsible business practices, are unfortunately not fully available in the Indian conditions.

4.2 The Parameters of Access or Use Rights

The Public Trust Doctrine provides a clear substantive property right in the form of access or use rights. It may seem more relevant when it relates to resources such as water, forest or land where a direct access or use right can be exercised. However, access right to mineral rights is conceptualised differently and requires a more elaborate mechanism such as Trust Fund to ensure continued access. Access rights, in this instance can only be in monetary terms or a Fund that is utilized for the public good. It is understood that the resource is a non-renewable resource, the use of which must contribute to a long-term fund that yields income as a wealth fund. Hence the idea of access is enabled through an indirect access to the wealth that the minerals yield over a period. A more elaborate understanding of access to renewable resources

such as forests and water can be evolved that highlights the ability of traditional users to continued enjoyment of the resource.

4.3 Citizens Participation in Decision Making

From a citizen's perspective, the key aspects can be viewed as local decision makers being answerable and accountable to the people as a mechanism for securing greater equity and justice.[303] The second aspect is to ensure local decision makers are accessible to the citizens and are free from the control of central authority. The presumption here being that local decision makers are more likely to be concerned about the sustainable management of local resources and more responsive to the local needs. Accountability can also be facilitated through an adequate flow of information, through a participatory process and by providing a means for transparency in reporting, independent audit, and evaluation processes.[304]

In the next section, I move from the more conceptual and normative exploration to the more specific analysis with regard to the mineral sector in India. In allocation of resources the challenge is to ensure that the three elements of corpus protection, protection, of use rights, and citizen's voice in allocation of the resources is acknowledged and protected more long term. However, in this process administrators are required to take into account conflicting demands and balance the same.

V. Conflicting Values and Challenges in Operationalising the Accountability Framework.

And finally, how do they reconcile conflicting value demands? As mining administrators reflected on their experiences in Chapter Four, they highlighted the difficulties in dealing with the conflicting demands and value choices that they need to make. For the most part, they were cognisant that the policy choice is largely guided by the law and policy statements that the government of the day adopts. However, in their sharing of experiences they also highlighted the ethical dilemmas that they faced in presenting two possible approaches knowing fully well that one choice was the correct choice and in the interest of the public.

These value choices can be better legitimised and more finely attuned if there is greater participation of the citizens with natural resource governance. The value choices need greater engagement if the decisions are in the domain of public-private partnerships so as to ensure

[303] UNDP Report, Decentralised Governance of Natural Resources, First Edition, Prepared by UNDP Drylands Development Centre, 2006.
[304] *Ibid.*

public interest issues remain at the fore. Hybrid governance institutions need a more robust and nuanced accountability framework to ensure that the different value choices are placed before a forum that encourages open and participatory decision-making. [305] The doctrine imposes on the stakeholders, particularly the citizens, a strong responsibility to protect the trust resources not just for the present but also the future generations while keeping the planetary eco-system as a whole in mind.

While Chapter two describes in great detail the judicial review process, we examine here the accountability framework for upward accountability and downward accountability in the case of mineral resources. The cyclical nature of the market requires resource administrators adopt a different approach. The boom cycle with iron ore mining in India resulted in a governance crisis that required the recalibration of the entire legal framework pertaining to mineral resources. The amendments to the laws instituted in 2015 brought significant changes to the sector. Many of these amendments provide guidance with regard to conflicting values. For instance, a chapter on Sustainable Mining has been inserted in the law.

The public trust doctrine, incorporated by the Courts reiterates that the state holds the rights in resources in trust for and on behalf of the public. Although the doctrine of public trust is yet to fully examined and developed in the context of extractive industries, the principle of subsidiarity and community participation in mining governance is acknowledged through legislative fiat. The Forest (Conservation) Act of 1980, the Wildlife (Protection) Amendment Act of 2006 and the Biodiversity Act of 2002, the Scheduled Tribes and Other Traditional Forest Dwellers Rights Act of 2006 mandate the people's approval through the Gram Sabha to lease forest lands for mining. However this process of local level participation and consultation is not given primacy.[306] Even the mandatory public hearing in the environmental assessment process (EIA) before the grant of permission for mining is rarely used as an opportunity for meaningful dialogue with communities adversely affected by the mining.[307] In the absence of legal mandates in the mining legislations, communities are blocked from obtaining critical information on the pollution, waste management and transport that may have a direct bearing on their life and livelihoods. The challenges of including citizens in the decision-making process is real but a strong political will can translate that into guidance for administrators.

[305] *Ibid.*
[306] See generally, Srestha Banerjee, *Mining and Jurisprudence: Observations for India's mining sector to improve environmental and social performance*, Working Paper, Brookings India, 2020.
[307] See Chapter Four, interviews with mining administrators.

Decentralization contains within it the central elements of democracy – transfer of power to and accountable representation of the people, transparency, accountability, equity and justice.[308] Within this model the idea of downward accountability brings an element of richness to the process of accountability, shifting it from a mere procedural exercise to a more empowering process. To operationalise downward accountability, the more formal structures of accountability mechanisms need to be recrafted to give meaning to a downward accountability process. The lack of formal structures, however, cannot become a barrier to downward accountability being operationalised. The effort to balance the formal with the informal to provide a workable model is at the core of the challenge.

Some of the key parameters to think about in operationalising the downward accountability - (a) Structuring the institutional process in a manner that allows for greater participation of all stakeholders, particularly the marginal sections of society. (b) Ensuring the process is informal but also containing some structure so as create a conducive atmosphere for account giving and also asking of questions, (c) Ensuring the decision-making bodies allow for a multitude of opinions to be incorporated and not just that of expert opinions and finally (d) the ability of these downward accountability spaces to prevent or resist capture by interest groups or dominant voices.

The public trust doctrine to be meaningful must incorporate within it a strong element of downward accountability to its citizen beneficiaries. In other words, citizen beneficiaries stand to gain by insisting on a robust downward accountability mechanism that allows for participation in decision-making, account giving and enforcing trust related decisions in a manner that is aligned with the trust concept. Citizen beneficiaries must use the downward accountability mechanism to strengthen the stewardship ethic envisaged by the doctrine.

VI. Conclusion

Thinking about the accountability framework without taking into account the complex of web of administrative interactions, institutional overlaps, the multitude of rules and regulations and also, the complex web of regulatory account, would be to overlook the realities of accountability frameworks and institutional maps. Within such a complex functioning system, it is only natural that resource administrators face conflicting challenges that need to be resolved on the run. It is for these eventualities that a robust system of checks and balances by both vertical and horizontal institutions ensures a safety net. To this, the public trust

[308] UNDP Report, *Supra* note 303.

doctrine adds another dimension to ensure a more direct citizen accountability framework, thus strengthening existing account giving mechanisms.

To sum up, from the foregoing accountability discussion a few core principles of public trust accountability framing can be highlighted. –

(a) Judicial oversight over administrative discretion and executive action is ensured by the doctrine.

(b) The doctrine emphasizes the downward accountability to citizen beneficiary. The accountability framework for the doctrine requires a 360-degree accountability mechanism, with a specific focus on downward accountability to citizens. As a trustee the doctrine emphasizes state accountability to citizens. This requires both a strong upward accountability to elected representatives, which is the traditional accountability towards citizens but also a more direct participatory downward accountability to ensure corpus protection over the long term, sustainable use and ensuring equitable access.

(c) Accountability framework for mineral resources requires a strong focus on corpus protection. A resource such as a mineral may not have the concept of use or access rights that is to be protected.

CHAPTER SIX – THEORISING THE NORMATIVE CONTENT OF THE DOCTRINE IN INDIA

***Abstract**: Building on the doctrinal and empirical work contained in the previous chapters, I offer a theoretical understanding of the interaction between a judicial doctrine and its uptake in institutional culture (both legislative and executive). I have attempted to do this over two chapters – this is the second part devoted to the values inherent in the doctrine and challenges it faces within the broader matrix of values that inform governance. The first part, in the previous chapter, is a thought experiment devoted to explicating the accountability chains that would need to be strengthened or evolved for the doctrine to be truly effective.*

In this chapter, I look specifically at the values that can be distilled from the jurisprudence of over hundred years in certain countries but over two decades in the case of India. This chapter also seeks to examine the tensions that exist between the conceptual framework and the complex web of other concepts within which it is located and the struggles it endures to survive and grow into a robust doctrine.

I. Introduction

The Public Trust Doctrine is the subject of intense academic debate over four decades. Huffman provides a quick snapshot of the number of review articles appearing in West Law and Hein Online and the statistics is revealing as the engagement with the doctrine is robust within American academia.[309] While there is much debate on the historical moorings, judicial interpretations and scope of the doctrine, there is little engagement with the substantive content of the doctrine, its application and its limits.

The previous chapters examined the doctrine, its uptake in India, its application to the mineral sector in India more broadly and the specific case study of illegal mining in India. In the final two chapters, I pull together the threads from the three arguments that I have fleshed out in understanding the public trust doctrine – as outlined by the judiciary, as understood and implemented by the mining administrators and finally as implicitly and explicitly embedded in the legislative and policy instruments. The complex narrative may not be fully explored in the two chapters for paucity of space but it attempts to pull together the intertwined threads to suggest ways forward in both understanding and implementing the idea of public trust doctrine for mineral resources.

Here it is also useful to pause and ask if the Public Trust Doctrine still have relevance despite the large body of environmental law that has been spawned over the years? The Doctrine seeks to fill a gap that environmental law does not entirely address. While environmental law

[309] James L Huffman, *Supra* note 44.

concerns are clearly addressed by the body of statutory law and legal principles such as precautionary principle and polluter pays, there are gaps in defining the approach that the state adopts in conserving and protecting natural resources. This gap filling takes multiple forms and the public trust doctrine is a useful tool in evolving a coherent approach.

First, it seeks to provide guidance in decision making to administrative authorities in charge of decision making in the absence of a clear law or to fill gaps in the law. Second, it seeks to provides citizens a say in natural resource governance by acknowledging that certain resources that are the gift of nature cannot be subject to destruction through alienation to private actors and even when alienation occurs, the public rights over such resources does not diminish.

Third, the doctrine allows us to view the resource as a natural capital – the resource is a corpus that needs to be protected, it yields revenues for present and future generations and hence must be sustainably managed with long term planning being the core essence of the doctrine. Fourth, the idea of trusteeship reshapes the role of the state from that of a owner of resources to that of a trustees holding the resources on behalf of the citizen. Such a shift in the legal function of the state creates both rights and obligations. It creates rights on behalf of the citizens (as beneficiaries of the trust) but also imposes obligations and duties on the state. However, this conception of trusteeship remains limited to a rather human centric understanding with the citizens and state being at the centre of the relationship. It does not quite account for the rights of the environment within this diad of state and the citizen. It is a useful conception but a limited conception that is ripe for expansion to use the trusteeship model on behalf of the planet and all beings within it.

Drawing from the analysis of the judicial cases in India, the global literature on the doctrine and the empirical data, this chapter attempts to distil the normative content of the doctrine. Specifically, I pull together the analysis by examining the core values underlying the doctrine and the examination of the normative content, with a focus on the understanding it within the Indian context.

Before embarking on an exploration of the normative content, it is useful to make a slight detour to examine the substantive values informing the evolution of the doctrine. *Eric Pearson* attempts to outline the key fundamental features of the doctrine thus – (a) it has been used to protect and conserve land for the use and enjoyment of the public; (b) in its scope it has been extended to protect highly valued public lands, including those submerged under

navigable waters; and (c) it acts as a restriction on governmental power, and declares that the legislative and executive branches of government are without authority to derogate the trust principles.[310]

II. Values inherent in the Doctrine – Outlining the Normative Content

In this section, I look at the core values informing the doctrine. The purpose of this exercise is to draw from literature and judicial rulings the core content of the doctrine. Each section will also attempt to identify the particular nuances in the Indian context.

What are norms? And what is a normative content? Norms govern every area of our life, be it social or political. The formal legal system is usually supplemented with a informal system of norms, shaping and reshaping the nature of formal structures. "Norms often precede laws but are then supported, maintained, and extended by laws."[311]

I outline below some of the key elements that are considered embedded within the doctrine. I explicate five of these – (a) the limits imposed by the doctrine on state power (respect public rights over certain resources); (b) role of the state and fiduciary obligations (redefining the key relationship between resource, state and the people) ; (c) democratic decision-making (public interest, inclusive decision making and direct accountability); (d) natural capital and equity (corpus protection); and (e) common heritage (redefining ownership claims). This is not an exhaustive listing of the core elements, but a discussion of the more important ones required to be implemented for the normative content of the doctrine to be meaningful.

2.1 Limits to State Power - Public v. Private

The public trust doctrine emerges against the background of increased privatisation of land and other natural resources, to protect community or public rights over select trust resources. The tussle between the private and the public is mediated by the state and the power to alienate property held by the state on behalf of the public. Continuing public rights over trust resources has its roots in history, particularly English legal history.

In English law, the sovereign is the owner of navigable rivers, bays, and shores below the low water mark. However, this ownership was not absolute and was subject to certain exceptions. In particular, the use rights over the waterways for transportation, commerce and fishing for the people was protected. This limit on the state power was adopted as a legal principle by the

[310] Eric Pearson, 'The Public Trust Doctrine in Federal Law' 24 J *Land Resources & Envtl L*. 173, (2004).
[311] Robert Axelrod, 'An Evolutionary Approach to Norms', *The American Political Science Review*, Vol. 80, No. 4 (Dec. 1986), pp. 1095-1111 at 1106.

United States by stating that certain natural resources are the shared, common property of all citizens, cannot be subject to private ownership and should be actively protected by the government.

However, the limit on alienation of trust resources is not a blanket one and the core value is one of balancing the public with the private. As *Blumm* notes the *Illinois Central Case* attempts a co-existence of the public and the private. "J. Field in his decision authorised privatisation of trust resources when (1) the conveyance furthered public purposes, and (2) there was no substantial effect on remaining trust resources."[312] Thus, the landmark judgement *Illinois Central* emerges as a restraint on state power, but allows the exercise of the power to alienate, if the conveyance does not harm the core nature of the public trust resources. *Blumm* has an interesting reinterpretation of this limitation on private use when he states thus – "The lesson of the Illinois Central exceptions seems to be that the public trust doctrine does not demand wholesale public ownership of trust resources. So long as the public purposes underlying the trust doctrine are maintained, small privatisation is permissible. In effect, the result is the public trust doctrine prescribes a co-existence of public and private uses."[313] However, such a co-existence is rarely peaceful with the private inevitably cannibalising the public trust resources when citizens fail to safeguard. A constant vigil by civil society is critical to protection of trust resources more long term.

Read another way, this limit on state power also creates a new category of property rights namely the public easement on private property. It may be added that an easement on public property is presumed to exist. In the United States, there are court rulings that impose an easement on fee simple estates, the New Jersey Supreme Court in *Mathews v. Bay Head*[314] ruled that the doctrine burdened private beaches with a public easement. The scope of this easement was not merely access but also recreational rights. *Blumm* notes that "the Mathews beach access factors provide a paradigmatic example of the accommodation principle by allowing the courts to balance public access with private rights to exclude."[315]

Once alienated, there is a duty of the state to continuously monitor the trust resources from damage or harm. Relying on the *Mono Lake* Case, *Blumm,* notes that the accommodation principle imposes on the "state a continuous supervisory duty to attempt to preserve trust

[312] Michael C. Blumm, The Public Trust Doctrine and Private Property: The Accommodation Principle, 27 *Pace Environmental Law Review* 649 (2010) at 661-662.
[313] *Ibid.*
[314] 95 N.J. 306, 471 A.2d 355 (1984).
[315] Blumm *Supra* note 311 at pp 665-666.

assets."[316] In continuation he states that this "accommodation meant that there would be a balancing of public and private rights in fulfilling the trust responsibility, which is hardly an evisceration of private property, unless private property means a kind of private sovereignty immune from state control. "[317]

It is an interesting reading of the limits placed by the doctrine on private property rights but more importantly on the supervisory role required of the state and ultimately the civil society. This affirmative role of protecting the trust property is also termed as a fiduciary obligation placed on the state to protect the resources.

2.2 Role of State and Fiduciary Obligations

The public trusteeship idea imposes a fiduciary obligation on the state to protect public easement or trust resources. Implied here is an affirmative duty of care and protection of the trust resources, with specific safeguards to be kept in mind in the event of alienation of the trust resources. The duty of care also implies that the state has supervisory role over the trust resources. Logically, a converse to this duty of care and protection imposed on the government is the right of the citizen to enforce the duty or a standing to enforce the trust obligations in the event of breach or damage to the trust resources.

Perhaps a better understanding of the normative elements can be obtained from an analysis in the South African context where the doctrine is embedded both in the Constitution and the statutory frameworks. The South African legal framework provides a definition for the use and application of the doctrine in resource management. Section 2 (4) (o) of the National Environmental Management Act 107 of 1998 (NEMA), states thus: "The environment is held in public trust for the people, the beneficial use of environmental resources must serve the public interest and the environment must be protected as the people's common heritage."

Blackmore, in a detailed analysis of the doctrine and its significance to wildlife research and management, outlines the key elements of the public trust doctrine. He notes that the state as a trustee has proactive duty to act as a trustee of the environment and the government has a fiduciary obligation; it emphasizes the application of the 'doctrine of equality' so as to serve the broader public good, it stresses transparency to enable fairness. More importantly, he reads into the normative content a duty of care to not allow the erosion of the integrity of the resources "through negligence, lack of capacity, popular or partisan demand, by vote or by

[316] Blumm *Supra* note 311 at 665-666.
[317] *Ibid.*

the monetary or other desires of a select few. As with all trusts, the government as trustee has a primary obligation to the trust's beneficiaries, the public, and, in particular, to those who are yet to be born."[318]

States are meant to manage their public trust assets in a way that preserves them for future generations. The idea of inter-generational equity is inherent in the public trust guidance to states managing trust resources. As such, utilization of those assets in a way that can benefit the current generation as well as a funding mechanism for future generations seems to be the ultimate fulfillment of that requirement. Governmental entities need information to act in a manner most compliant with the fiduciary duty, which means the government also needs to create a regulatory framework in which necessary information can be acquired or researched.[319] "On the other hand, there are times when the decision makers may need to make decisions that have unfortunate outcomes and strict interpretations of the public trust doctrine may result in even worse judicial outcomes in terms of promoting governmental proactive management of public trust resources."[320]

A forward-thinking strategy for the protection and management of the trust resources is an essential part of the doctrine. Such forward planning however is rarely visible in state legislative and executive action with regard to trust resources. Policy statements and legislations contain proactive statements of intent but rarely translate into specific planning and action. Often, mining administrators emphasized the need to take into account the market cycles in looking at mineral resources. However, some element of forward planning and thinking is evident in the mine closure plans and in setting aside 'waste ore' for possible future use.

The failure to comply with the fiduciary obligations should lead to a remedy in court. It is the role of the judiciary to examine the deficiency in the actions of the state agencies. It is unclear as to what liability can be imposed for breach of a fiduciary duty of protection and supervision without a legislative framework to back such a liability claim. While the legislative framework of pollution laws, negligence or contractual breach is still available, the consequences of poor decision-making from a lack of understanding of trusteeship of certain resources remains a challenge. Administrative decision making in resource governance must be guided by the duty of care and the fiduciary obligation to trust resources and the

[318] Blackmore, *Supra n*ote at 15.
[319] *Ibid.*
[320] *Ibid.*

beneficiaries. More importantly however, this presumes a proactive and informed citizenry that engages with the protection of the trust resources.

2.3 Democratic Decision making – Balancing of Competing Claims and the Mythical Public Interest?

In the case of public trust doctrine, there is always an underlying premise of 'public interest'. However, 'public interest' is vaguely defined, and it is difficult for administrators to weigh competing public interest goals without a clear set of guidelines. Both the legislature and the judiciary must seize opportunities provided to them, at various instances, to clarify the nature of public interest and the priority ordering of different competing goals, so that the guidance is clarified regularly for administrators to act upon.

One such attempt can be found in the Supreme Court of Louisiana's judgement in *Save Ourselves* case[321], where the court provided a set of procedural requirements for state entities to follow in their public trust resource decision-making. Broadly stated, these procedural requirements require that the administrative agency (a) consider the potential and real adverse environmental effects of the proposed project and evaluate how to avoid it to the maximum extent possible; (b) requires the agency to perform a cost benefit analysis of the environmental impact costs balanced against the social and economic benefits of the project; and (c) Whether the agency has explored alternative projects or alternative sites or mitigating measures which would offer more protection to the environment than the proposed project without unduly curtailing non-environmental benefits to the extent applicable? [322] There is some debate on whether the Louisana Court also offered some substantive standards that are useful for guiding the public trust decision making.

While procedural protections can be powerful, they are more malleable that substantive standards. Louisiana courts have described the nature of substantive and procedural laws. *Oliver Houck* sums up the substantive standards as being (a) the agency must act with diligence, fairness and faithfulness to protect this particular public interest in the resource. (b)

[321] *Save Ourselves, Inc., et al. v. The Louisiana Environmental Control Commission and The Louisiana Department of Natural Resources,* 452 So. 2d 1152 (1984).
[322] *See generally*, John Arnold and Andrew Jacoby, 'Examining the Public Trust Doctrine's Role in Conserving Natural Resources on Louisiana's Public Lands', *Tulane Environmental Law Journal* Vol. 29, No. 2 149-241 (2017); Also see, Oliver A. Houck, 'Save Ourselves: The Environmental Case That Changed Louisiana', 72 *LA Law.Review*. 409, 435 (2012).

agency must provide active and affirmative protection to public trust resources and most importantly (c) the responsible exercise of discretion by agencies. To quote *Houck* –

> "It would appear that under either the Illinois Central standard (prohibiting any a "substantial impairment" of a public trust resource) or the state constitutional doctrine as interpreted by Louisiana courts, there exist substantive standards below which the State may not fall. Trust law certainly would not permit complete destruction of the trust res. It is intuitive under traditional trust law that a trustee has a duty to preserve the trust res and protect it from damage and destruction."[323]

2.4 Natural Capital and Equity

The protection of the trust *res* or the corpus is a key value embedded in the Public Trust Doctrine. Within the idea of protection of trust resources, it is now also widely accepted that intergenerational equity is a key component of the doctrine.[324] Future generations do not participate in present day decision making and must necessarily accept the consequences of the decisions taken either with a short-term view or a considered long term view point that may be beneficial for the future.

The access to natural resources that are essential for the well-being of all beings on the planet requires therefore an approach to natural resource governance that enables equity, both intra and intergenerational. Resource managers and administrators need to be cognizant of this key value with regard to corpus protection of all trust resources. From this study it is evident that long term planning is not an institutional culture with mineral resources. The interlinkages with related resources such as forests and water and the need to protect these resources from being degraded to an extent that the trust res is destroyed is another critical element to be noted in the long-term planning. However, this is now set to change as sustainable and scientific mining now includes the principles of progressive closures and mine plans take into account a long range of impacts within their planning process.

Intergenerational equity plays out differently with different natural resources. With a renewable natural resource such a water, base flows must be protected for river systems to he kept alive for the benefit of future generations. Mineral resources, on the other hand, are

[323] *Ibid* at 435.
[324] See R. Basu, *Supra* note 182.

finite exhaustible resources that require intergenerational equity to be met with innovative methods such as resource fund that protects long term interests of society.

Sovereign wealth fund (SWF) is one mechanism that addresses multiple concerns including resource curse consequences, the Dutch disease[325] and the issue of intra and inter-generational equity.

"The main objectives of SWFs include stabilizing government and export revenues, accumulating savings for future generations in resource-rich countries to offset the future lack of natural resources, and/or to managing foreign reserves. " The Norway Government Pension Fund-Global (NGPF-G), as stated in the Government Pension Fund Regulation, is to serve as "an instrument for ensuring that a reasonable portion of the country's petroleum wealth benefits future generations". "The SWFs have as primary objective to maximize financial returnsand minimize risks and losses, while also taking into account the additional objective of long-term development and stability of their own countries."[326]

2.5 Common Heritage

The Constitution of Uganda provides that the government 'shall hold in trust for the people and protect natural lakes, rivers, wetlands, forest reserves, game reserves, national parks and any land to be reserved for ecological and touristic purposes for the common good of all citizens'. Eritrea's Environment Proclamation designates the State as 'custodian for the harmonized and integrated management and protection of the national environment and the sustainable use of natural resources'. In South Africa, implementing section of the Constitution (everyone's right 'to have the environment protected for the benefit of present and future generations'), the National Environmental Management Act (NEMA) stipulates that 'the environment is held in public trust for the people, the beneficial use of environmental resources must serve the public interest, and the environment must be protected as the people's common heritage'.

Although the doctrine has been viewed primarily as being developed within national jurisprudence, there are a number of international policy statements and treaties that

[325] Dutch disease", a scenario in which a sudden increase in wealth (usually due to the discovery of natural resources)triggers rapid inflation of domestic prices and a stronger currency that decreases international competitiveness, resulting in de-industrialization.
[326] Hao Liang and Luc Renneboog, The global sustainability footprint of Sovereign Wealth Funds, Finance Working Paper N° 647/2019.

incorporate the PTD principles. "For instance, the World Heritage Convention and the 2001 FAO International Treaty on Plant Genetic Resources for Food and Agriculture include notions of trusteeship for global beneficiaries, both current and future. Additionally, the UN Convention on the Law of the Sea declares that the international seabed area (i.e., the global seabed beyond national jurisdiction) and its mineral resources are the common heritage of mankind vests all rights in the resources in "mankind as a whole," and requires activities in the high seas seabed to be carried out "for the benefit of mankind."[327] While a general use of the term 'trusteeship' has been adopted in these international documents, the concept of 'common heritage' does not carry within the same conceptual aspects as the public trust doctrine. The idea of trusteeship and stewardship are broad ideas that are being taken forth for present and future generations.

III. PTD, Mineral resources and the Normative Content in India

At the time of conceptualising this research, the "Public Trust Doctrine" was not clearly embedded in the mining law and policy discourse. As discussed in chapter three it could be implied or read into the several provisions in the law and the rules that form the core of the mineral law. However, in 2019 the Mineral Policy of India was renewed and the introductory paragraphs use the term "public trust doctrine" for the very first time, thus explicitly placing the state in the role of a trustee. Again, what can be inferred from the policy as being the role of the state is the emphasis on sustainable mining, protection of environment and ensuring communities that are directly impacted by mining are protected.

The public trust doctrine emerged at a time of exercise of absolute sovereignty by the state over natural resources. It was an exception carved out to protect public interest in submerged land and navigable waters. However, over the years this exception has been expanded to replace the idea of state sovereignty of natural resources to an understanding of the state as a trustee on behalf of its citizens. This shift necessarily marks the shift in understanding of certain natural resources being impressed with a trust for the public's benefit to the natural resources being trust resources in its entirety and the alienation to private actors to be carried out only under stated conditions. This morphing of the understanding also includes within it

[327] UNCLOS Article140: Benefit of mankind
1. Activities in the Area shall, as specifically provided for in this Part, be carried out for the benefit of mankind as a whole, irrespective of the geographical location of States, whether coastal or land-locked, and taking into particular consideration the interests and needs of developing States and of peoples who have not attained full independence or other self-governing status recognized by the United Nations in accordance with General Assembly resolution 1514 (XV) and other relevant General Assembly resolutions.

the change from viewing the doctrine as primarily an exercise of sovereign power over resources that are classified as “public resources” or trust property to implicitly reading the doctrine as vesting rights in the public to protect the trust resources. This expansion of the reading of the doctrine, over decades, poses challenges to not only what the doctrine is said to define but also in identifying the limits to the doctrine.

In the previous chapter two, the case law analysis demonstrates a rather uniquely Indian understanding and development of the public trust doctrine. The public trust doctrine has been used, over the years, to forge a number of allied principles through which courts have, to a significant extent, checked environmental degradation, as also large- scale depletion of precious natural resources, while at the same time ensuring that developmental activities are not completely curtailed or prohibited. Some of these principles are;

(i) The principle of sustainable development, which advocates the striking of a balance between the need for protection of environment and the competing need to engage in developmental activities.

(ii) The precautionary principle, that requires the State to take environmental measures to anticipate, prevent and attack the causes of environment degradation, and further clarifies that lack of scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. The principle also lays the onus of proof on the actor to establish that its actions are environmentally benign.

(iii) The polluter pays principle, that penalizes a person who has caused pollution and;

(iv) The principle of inter-generational equity, that holds that the present generation has no right to deplete all the existing resources and leave nothing to the next and future generations.

Thus, PTD in India is much broader than any understanding of the doctrine elsewhere in the world. It is understood as being applicable to natural resources (including spectrum).

Evidently, no justification is offered up for this broadening of the jurisprudence. But reading in between the lines, one can hazard a guess on the need for adoption of the doctrine and its subsequent expansion. Firstly, it emerges at a time that privatisation and liberalisation of the economy leads to privatisation of critical natural resources. Second, the judges look to this doctrine, in spite of extensive protection in the environmental statutes to remind the state of its obligations both to the environment and the citizen. Third, the doctrine is used to cure a range of executive excesses with regard to natural resources, without the accompanying

rationale to back up such an extension of the jurisprudence. Thus, the Indian engagement with the normative content, its vague and imprecise application leaves much to be desired. Vague and imprecise, the guidance it provides for administrators is truly a challenge of interpretation.

As this project is focussed on administrators and the guidance they receive from the public trust doctrine in their everyday functioning, some key ideas that require attention from an administrative perspective are –

(a) Institutional Design – separate natural resource governance from short term political interference

(b) Long term planning including Corpus identification and protection

(c) Capacity building through education and awareness

(d) Strengthening downward accountability towards citizens

(e) Interlinkages with other trust resources such as water and forests.

I explored some of these themes in greater depth in the previous chapter devoted to accountability mechanisms that would necessarily need to be in place or be strengthened to make the doctrine truly robust. It is my argument that the enduring nature of the public trust doctrine lies not so much in its property law origins that limit the powers of the state to alienate against public interest, or in the nature of creating a fiduciary relationship with the state and the citizen with regard to natural resource governance but in the administrative limitation it imposes on the exercise of state power, imposition of accountability in the use or misuse of natural resources and most importantly, to provide guidance to administrators in decision making. This case study demonstrates that in the Indian context, the doctrine and its substantive elements is inadequately outlined either by the judiciary, or the legislature (in the case of mineral resources as examined by this study) for it to have much meaning.

It is my argument, particularly in the context of India, that the public trust doctrine emerges as a strong limitation on state power against the background of an economy shifting away from a nationalised command and control model of functioning to a more privatised, neo-liberal model of the economy that emerged after the 1990s. This shift in balance of power to greater private participation and ownership of natural resources, per force, is met with a response by the judiciary by setting new limits and boundaries on state power.

In the past, due to state control over mineral resources, market pressures did not create havoc on the administrative control over resources as it does in the new governance model. It is also a time when the administrators of mineral resources find the legislative framework as being unclear and lacking in adequate guidance to deal with the situation. It has taken the illegal mining crisis for the legislative framework to be reformed to provide adequate safeguards and provide greater clarity in resource allocation through market based mechanisms such as auctions.

As the views of the retired administrators indicate, the democratic interests of citizen as a key stakeholder in resource allocation is not entirely understood. While the new system of auctions is lauded, the larger philosophy of the accountability to the citizen of the nation is not entirely understood and appreciated by the administrators. The perspective of most retired administrators carried within it a tinge of the old framework of public management of resources, where the state is the predominant actor.

Thus, in adopting a standard of public trusteeship, the judiciary introduces an administrative limitation or test that is not necessarily understood within the administrative circles. While a broad understanding of care and accountability to the citizen by virtue of being a state actor is understood, the higher level of care required as trustee (of present and future generations is not entirely imbibed by the executive.

IV. PTD within the broader rubric of other competing doctrines

The doctrine does not operate within a vacuum. It co-exists within the broader rubric of competing concepts and inter-related doctrines. This section draws primarily from the empirical research to demonstrate the tensions that exist in implementing the doctrine particularly in the context of mineral resources.

4.1 Ownership and Property Rights

Can all natural resources be owned privately? Or are there certain natural resources that must be available freely to all beings? While the case for a public trusteeship is easier to make with regard to resources such as water, air and public lands, mineral resources are viewed differently. Perhaps the one resource where the trusteeship idea is the weakest in its links is the mineral resource.

Evidently, the framework of public easements is not clearly understood by the Indian mining administrators. The binary of state owned resources and private property is strictly

maintained with use of resources in 'public interest' being the primary understanding. The protection of public easements as a separate category requires an analytical framing that is different from that of a public interest lens. It combines usufuctory rights with long term easementary protections of the resource. Does this apply to mineral resources? If yes, how do we articulate this in terms of long term protection? Can a trust fund be a substitute for an public easementary right or does this fail to fit this category in the absence of any physical resource remaining on the ground.

4,2 State Sovereignty and Eminent Domain Claims

At the core of the reconceptualising of the state role, is the recasting of the state from its traditional understanding of the eminent domain principles[328] to thinking of the state as a trustee of natural resources.

The colonial legal system introduced the idea of eminent domain thus casting the state as a owner of natural resources. In the Indian context, this idea was further strengthened through the phase of nationalisation of resources and the evolution of a strong command and control system of governance. The deregulation of state control through a neo-liberal model of governance is being experimented in many parts of the developing world including India. The public trust doctrine essentially provides a new way of looking at the relationship between the state, the citizen and the natural resources.

The transition to a trusteeship model is slow and it will perhaps take a new set of administrators to take charge of resource management and view it primarily from the lens of a trusteeship ethic. For now, the public management and the public interest values of a nationalised command and control economy continues to hold sway.

4.3 Environmental law and PTD

Does the Public Trust Doctrine still have relevance despite the large body of environmental law that has been spawned over the years?

The Doctrine seeks to fill a gap that the environmental law does not entirely address. While environmental law concerns are clearly addressed by the body of statutory law and legal principles such as precautionary principle and polluter pays.

[328] *See generally* Usha Ramanathan, *Supra* note 6.

First, it seeks to provide guidance in decision making to administrative authorities in charge of decision making in the absence of a clear law or to fill gaps in the law.

Second, it seeks to provides citizens a say in natural resource governance by acknowledging that certain resources that are the gift of nature cannot be subject to destruction through alienation to private actors and even an alienation occurs, the public rights over such resources does not diminish.

Third, it allows us to view the resource as a natural capital – the resource is a corpus that needs to be protected, it yields revenues for present and future generations and hence must be sustainably managed with long term planning being the core essence of the doctrine.

Fourth, the idea of trusteeship reshapes the role of the state from that of a owner of resources to that of a trustees holding the resources on behalf of the citizen. Such a shift in the legal function of the state creates both rights and obligations on behalf of the citizen beneficiaries. However, this conception of trusteeship remains limited to a rather Anthropocene understanding with the citizens and state being at the centre of the relationship. It does not quite account for the rights of the environment within this diad of state and the citizen. It is a useful conception but a limited conception.

4.4 The problem of the commons

Commons and the public trust doctrine share many similarities. As legal principles they are both concerned with public resources that are required to be protected for traditional use. The access rights to certain natural resources are protected in the interest of the public. However, where these two concepts differ is the focus on the entity that is vested with the obligation of protection – in the instance of public trust it is the state which the focus of the doctrine, whereas it is the community that is in charge of the commons.

It is conceivable that the two overlap in how the problem of protection and management of natural resources occur and both doctrines can be seen as complementary, offering useful lessons on effective management of natural resources.

4.5 The PTD as Foundational Legal Principle for Intergenerational Equity and Sustainable Development

The notion of intergenerational equity emerges from the understanding that the current generation must protect and preserve natural resources for the use and enjoyment by future generations. This is also reflected in the concept of sustainable development, which notes

that development undertaken must meet the needs of the present without compromising the ability of future generations to meet their own needs. International environmental law has repeatedly invoked these two principles and have emphasized that the governments ensure that in planning for their development they keep the current and future citizens in mind.

Both these principles require a level of accountability from the governments that reviews both short term measures and long-term plans so that they meet the sustainability criteria and also ensure inter-generational equity. Principle 10 of the 1992 Rio Principles noted the importance of accountability in achieving sustainable development by emphasizing the key principles of public participation, information sharing, and access to judicial remedy.[329]

Thus, the requirement of natural resource administrators or trustees to take into account intra and inter-generational equity in their decision-making provides the additional but necessary accountability framework that the long term planning includes within it the needs of future generations.

V. The Normative Content – Lessons from other jurisdictions

Before concluding it is useful to revisit the debates outlined in Chapter One that focused on the international developments around the doctrine.

South Africa incorporates the doctrine into their statutory framework. It states that "The environment is held in public trust for the people, [and] the beneficial use of environmental resources must serve the public interest and the environment must be protected as the people's common heritage."[330] The key concepts incorporated in this statutory definition include public interest, beneficial use of environmental resource and environment being classified as people's common heritage.

[329] Principle 10, Environmental issues are best handled with the participation of all concerned citizens at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided.
[330] S 2(4)(o) of the National Environmental Management Act 107 of 199.

The South African courts have expanded the scope of the statutory definition to include the idea of inter-generational equity.[331] In examining the proposed Thabametsi coal-fired power station and the potential risks associated with climate change the court held that there is a need to examine the impacts on future generations of issues such as climate change. The court rules that there needs to be a comprehensive assessment, before a decision is taken and this is based on the fiduciary obligation of the government to safeguard the interest of future generations.

VI. Conclusion

Courts in India have had multiple opportunities to expand on the normative content of the doctrine in over three decades. The potential has been understood by the judiciary in the widespread citing of the doctrine. However, the courts have lacked in interpretative rigour to give the doctrine a meaning beyond its initial application and the anglo-saxon approach. Even when opportunities present themselves to expand on the nature of fiduciary obligations entrusted in the state with regard to natural resources, this has been vaguely interpreted. This chapter highlights the need to provide a more robust reading of the doctrine so that it provides effective guidance to administrators in their role as trustees of natural resources.

[331] *See Fuel Retailers Association of Southern Africa v Director-General Environmental Management* (2007) as cited by AC Blackmore, 'The Application of and the prospects for the public trust doctrine in South Africa: A brief overview',18 *South African Journal of Law*, 631 (2019). Also see, AC Blackmore 'Rediscovering the origins and inclusion of the public trust doctrine in South African environmental law: A speculative analysis' (2018*), Review of European, Comparative & International Law* 27(3).:1–12.,

CONCLUSION

I. Introduction

The Public Trust doctrine provides the potential for reimagining the role of the state in natural resource governance. This case study demonstrates the huge untapped potential of the doctrine, beyond that of judicial review of administrative action, to being a guiding tool in everyday governance and as a critical bridge between the beneficiary citizens and the everyday 'trustees' of the resources, namely the resource administrators.

The immense power wielded by the administrators, (or the bureaucracy) is a matter of concern. While judicial review is an effective check on this expansive power vested in the administrators, it is still a costly and time consuming one. The sheer explosion of the administrative state requires a rethink on both the nature of the counter balancing power and also the nature of accountability. Max Weber in his essay title "Bureaucracy," argued that "the general will of the governed is necessarily subverted when legislatures react to complexity by delegating their authority to bureaucrats."[332] He reasoned that "every bureaucracy seeks to increase the superiority of the professionally informed by keeping their knowledge and intentions secret."[333] In essence, he argued that an elected legislature's forfeiture of policymaking authority to the bureaucracy, "together with the policy expertise that bureaucrats are alleged to possess, makes the legislative act of delegation equivalent to abdication."[334] This abdication without oversight can result in distortions in governance, including regulatory capture.

Due to the problem of bureaucratic expertise, legislators may not be able to uncover bureaucratic wrongdoing. "They ignore the possibility that a bureaucrat's hidden knowledge, the source of his expertise and potential power over both legislators and citizens, may remain hidden even in the face of a legislator's attempts to uncover it."[335] This is critical as the legislators inability to uncover wrong doing or praise worthy work means that both punishment and reward may not be directed in the correct way. Given these challenges, the public trust doctrine provides a foothold in conceiving of a new model of governance and accountability with citizens playing a proactive role in natural resource governance. It provides the parameters

[332] Max Weber, *Ensaios de sociologia [Sociology essays]*. Organisation and introduction by H. Gerth and C. Wright (1982). Mills. Rio de Janeiro: Editora Guanabara.
[333] *Ibid.*
[334] A. Lupia and M.D. McCubbins, Designing Bureaucratic Accountability, Law and Contemporary Problems, Vol 57, No. 1 (1994) at 91.
[335] *Ibid* at 92.

against which to judge administrative action with regard to natural resources, it allows citizens to set the tone of the trusteeship role, and it requires a model of downward accountability (coupled with the traditional upward accountability to legislators and the judiciary) to engage citizen beneficiaries more proactively in this task.

The objectives of this study were outlined in the first chapter. A quick reiteration is useful to anchor the conclusions. First, the study reviewed the judicial interpretation of the doctrine to understand the normative content, scope and limitations. Second, through an empirical survey, the thesis explored the application of the doctrine in practice by mining administrators in India. And third, based on an understanding of the doctrine, from both the theoretical and empirical understanding, I theorize on the the potential of the doctrine to democratise resource allocation and to reimagine the accountability frameworks. While the study is specific to the state of Karnataka and mining of iron ore, the findings could be useful for study for other natural resource governance frameworks.

The novelty that this research offers is to provide a thick normative account of public trust doctrine in India, which remains a gap in existing literature. Additionally, there is novelty in carrying out an empirical study on how the doctrine works in the administrative arena of extractive industries, where complex decisions are made on an everyday basis. Thus, this study also contributes to providing insights into how meaning can be infused into a judicial doctrine that is currently understood in the abstract and the possible guidance it can provide resource administrators so as to strengthen their functioning as trustees of the resources. The research attempts a novel experiment of rethinking the accountability framework to incorporate a direct accountability to the beneficiaries of natural resources.

II. PTD and Role of State in Natural Resource Management

In the first half of the thesis, I examined the normative content of the public trust doctrine against the backdrop of the extractive industries, particularly iron ore mining, where a crisis of governance arose following the surge in market demand for iron ore during the Beijing Olympics. Public Trust Doctrine (hereinafter referred to as PTD or the doctrine) reconceptualises the state as a trustee of natural resources. Historically the public trust doctrine emerged as a principle to protect public interest in navigation and water ways. The best narrative of the journey of this doctrine is outlined in the seminal work of Joseph L Sax. He provides the backdrop against which the doctrine evolved and found a resurgence in the US jurisprudence. In trying to define the doctrine, Sax reviews the jurisprudence at the time and

outlines its core content. He notes that there is no general prohibition against the disposition of trust properties.

In the Indian context, reference is made to, and reliance placed on the doctrine quite extensively to a range of natural resources, but the courts do not explicate at any great length the contours of the concept and its limits. Interpretations by the courts in India find support for the doctrine in Articles 21 and 39 of the Indian Constitution.[336] The first adoption of the doctrine was in the nineties by the Supreme Court in the *M.C Mehta case*[337] which pertained to the diversion of a river for private purposes. The court in this case reviewed the public trust doctrine in England and United States, noting that the common law doctrine which traditionally extended to uses such as navigation, commerce and fishing, is now being extended to all ecologically important lands, including freshwater, wetlands and riparian forests. It concluded that the government had committed a breach of public trust by leasing ecologically fragile land to Span Motels whose purpose was purely commercial. The judgement, thus, for the very first time invoked the doctrine of public trust as a common law doctrine applicable to Indian jurisprudence.

Following this case, three other important supreme court cases rely on the public trust doctrine in India. In *M.I Builders Ltd v. Radhay Shyam*[338] the Supreme Court ruled that the doctrine can be read into the right to life protection found in Article 21 of the Constitution, the *Fomento Resorts and Hotels Ltd. v. Minguel Martins*[339] where the Supreme Court read into the doctrine the element of trusteeship on behalf of future generations and the most recent case of *Reliance Natural Resources Ltd*.,[340] where the Supreme Court, in interpreting Article 297 of the Indian Constitution, held that the citizens of the country are the true owners of the natural gas deposits in the country, thus extending the doctrine to a wider set of natural resources. The court also relied on Article 39 to call for a more equitable distribution of resources of the country for the benefit of present and future generations. This wider application of the doctrine, however, does not find a detailed legal argumentation or explication by the judiciary. In this study, I examined the normative content of the public trust doctrine against the backdrop of the extractive

[336] Paromita Goswami, 'Public Trust Doctrine: Implications for Democratisation of Water Governance' 9 *NUJS L. Rev*. 67 (2016).

[337] *M.C. Mehta v. Kamal Nath, Supra* note 17.

[338] *M.I. Builders (P) Ltd. Supra* note 18.
[339] *Fomento Resorts & Hotels Ltd. Supra* note 19.
[340] *Reliance Natural Resources Ltd*. Supra note 20.

industries, particularly iron ore mining in India and its uptake by the administrators of mineral resources.

I began with the premise that mining governance crisis demonstrates that administrative agencies do not necessarily function as trustees of natural resources. The study began with the understanding that the administrators had no inkling of the doctrine and the key aspects that constitute the doctrine. My empirical study, however, threw up a more nuanced understanding of the reality. In sum, the empirical study demonstrates (a) that the earlier governance model of public management of resources had embedded within the administrators a strong set of values of state ownership and responsible use of all resources; (b) mineral resources until the late nineties was largely state owned and managed, with limited interference from political or private actors. Disinvestment and the opening up of the resource for private investment was carried out with a concomitant change in law and policy, leaving a gap in interpretation and provided the scope for much political interference; (c) that a large majority of administrators did not fully understand the concept of public trusteeship in its legal sense but still carried with them a responsible governance framework with a strong sense of upward accountability; (d) an understanding of direct accountability to the citizens (in the form of public participation, stakeholder consultation in decision making and making available information regarding resource use and allocation) was nascent and yet to be understood in its robust form for it to be meaningful.

From the empirical study it is evident that there is scope for a new framework to be evolved that can outline the trusteeship relationship, focussing on the stewardship ethic that is critical for both the trustee administrators and the citizen beneficiary.

III. Normative Content of PTD in India

The normative content of the doctrine is unclear, particularly in India, where the doctrine is applied to all natural resources. It is this gap in understanding that the research seeks to fill, firstly, by examining the contours of the public trust doctrine and secondly, interrogating whether the doctrine is merely a 'judicial veto' when the legislature or executive transgress their fiduciary obligation, or if it provides guidance for crafting administrative and governance frameworks.

The Doctrine seeks to fill a gap that the environmental law does not entirely address. While environmental law concerns are clearly addressed by the body of statutory law and legal principles such as precautionary principle and polluter pays.

- First, it seeks to provide guidance in decision making to administrative authorities in charge of natural resources in the absence of a clear law or to fill gaps in the law.

- Second, it seeks to provides citizens a say in natural resource governance by acknowledging that certain resources that are the gift of nature cannot be subject to destruction through alienation to private actors and even when an alienation occurs, the public rights over such resources does not diminish.

- Third, it allows us to view the resource as a natural capital – the resource is a corpus that needs to be protected, it yields revenues for present and future generations and hence must be sustainably managed with long term planning being at the core of the doctrine.

- Fourth, the idea of trusteeship reshapes the role of the state from that of a owner of resources to that of a trustees holding the resources on behalf of the citizen. Such a shift in the legal function of the state creates both rights and obligations. It creates rights on behalf of the citizens (as beneficiaries of the trust) but also imposes obligations and duties on the state. However, this conception of trusteeship remains limited to a rather human focus with the citizens and state being at the centre of the relationship. It does not quite account for the rights of the environment within this diad of state and the citizen. It is a useful conception but a limited conception.

In answering the question of whether the doctrine can be a guiding tool beyond just a judicial veto, I discover that the doctrine has substantial potential to be explicated in a manner that it provides a framework within which the trustee administrators can think about resource management and conservation. In this thesis, I have attempted to explore one single line of thought i.e., the accountability framework and its reconceptualization to be aligned with the values of the public trust doctrine. The other aspects that need reconceptualization are the models of ownership claims that the trusteeship model envisages, the participation model best suited for the stewardship model to work effectively and range of limitations that the doctrine imposes on administrative power with regard to trust resources.

IV. Accountability Framework for PTD governance

The dissonance between legislative mandates and executive functioning are at the core of most studies on implementation of laws. In this study, however, the effort is to examine an abstract judicial conception of trusteeship of natural resources and its impact on executive action. Using the crisis around illegal iron ore mining, this study probed to see if there is a dissonance in the

judicial conception of the state as a trustee and the prisms from which the legislative and executive bodies view their role vis-a vis natural resources.

A core idea of trusteeship is to give agency to the beneficiaries or citizens on behalf of whom the state holds the natural resource in trust. It is therefore useful to interrogate whether citizens or the public have a role in constituting and deliberating the content of what forms a public trust resource, its use, allocation and the profits derived from it. From the study, it is evident that the role of the citizen is yet to be fully appreciated and enabled within the resource governance models. Technocrat administrators value technocratic inputs as more valuable to resource management decisions.

The trusteeship model requires the tweaking of the accountability framework to be robust, interactive, and sustainable. The key components of the accountability framework for public trusteeship, was explored in greater detail in in Chapter 6, and some of those core principles of accountability are reiterated here –

(a) Limits on administrators – Both the courts and academic literature identify three types of restrictions on governmental authority often associated with the public trust: first, the property subject to the trust must not only be used for a public purpose, but it must be held available for use by the general public; second, the property may not be sold, even for a fair cash equivalent; and third the property must be maintained for particular types of uses, so as to ensure access and use rights are protected.

(b) Downward accountability to citizens - The accountability framework for the doctrine requires a 360-degree accountability mechanism, with a specific focus on downward accountability to citizens. As a trustee the doctrine emphasizes state accountability to citizens. This requires both a strong upward accountability to elected representatives, which is the traditional accountability towards citizens but also a more direct participatory downward accountability to ensure corpus protection over the long term, sustainable use and ensure equitable access.

(c) Accountability framework for mineral resources - mineral resources are non-renewable resources and our understanding of the doctrine requires recalibration to enable a more nuanced understanding. A resource such as a mineral may not carry with it the traditional use or access rights that is to be protected. Hence the active protection of use and access rights is enabled through indirect means and through ensuring corpus protection of the mineral resource. In terms of accountability, long term planning and

management of permanent funds set up to take care of the citizen beneficiaries' interests would be the core aspects against which the accountability mechanisms are to be tested.

Rethinking the accountability aspects from a trusteeship framing, thus, brings focus to downward accountability mechanisms, participation, access to information and transparency. In shaping the downward accountability mechanism, the primary focus is to create a robust space for administrators giving account directly to citizens but also enabling the beneficiaries to participate in decisions pertaining to trust resources.

V. Future Research

This is a limited study with the constraint of time and access to administrators; the findings therefore remain tentative. A wider study with administrators of critical other resources such as water, land and forests would yield a more comprehensive understanding of the public trust values underpinning, governance, decision making and accountability.

The research points to the need for greater articulation by the judiciary of the core normative ideas informing the doctrine. It must not only engage, enrich and cross-pollinate the discourse with related discourses on inter-generational equity and sustainability, but also engage with the new and emerging debates on the administrative state and accountability frameworks.

The doctrine is not merely a judicial review of administrative action; it provides guidance for everyday administrative decision making. It is time for natural resource administrators to evaluate the doctrine in all its complexities and incorporate into training and skill building of all officers. A good point of departure for future research is to think about capacity building material that demonstrates to administrators the utility of the doctrine in making clear long-term decisions, while taking on board direct accountability to the beneficiaries. The idea of a trustee requires rethinking and tweaking the public management model of most administrative functioning, particularly in the development and management of natural resources. This new model requires all stakeholders of resource governance to engage in a conversation around the trusteeship model of governance. Some key ideas on the normative content and the accountability framework are offered in this thesis but there is scope to refine these initial ideas into a more robust working model.

VI. Concluding Thoughts

The public trust doctrine strengthens natural resource governance by recasting the prism from which the state action is viewed by administrators. However, as this study indicates, it is

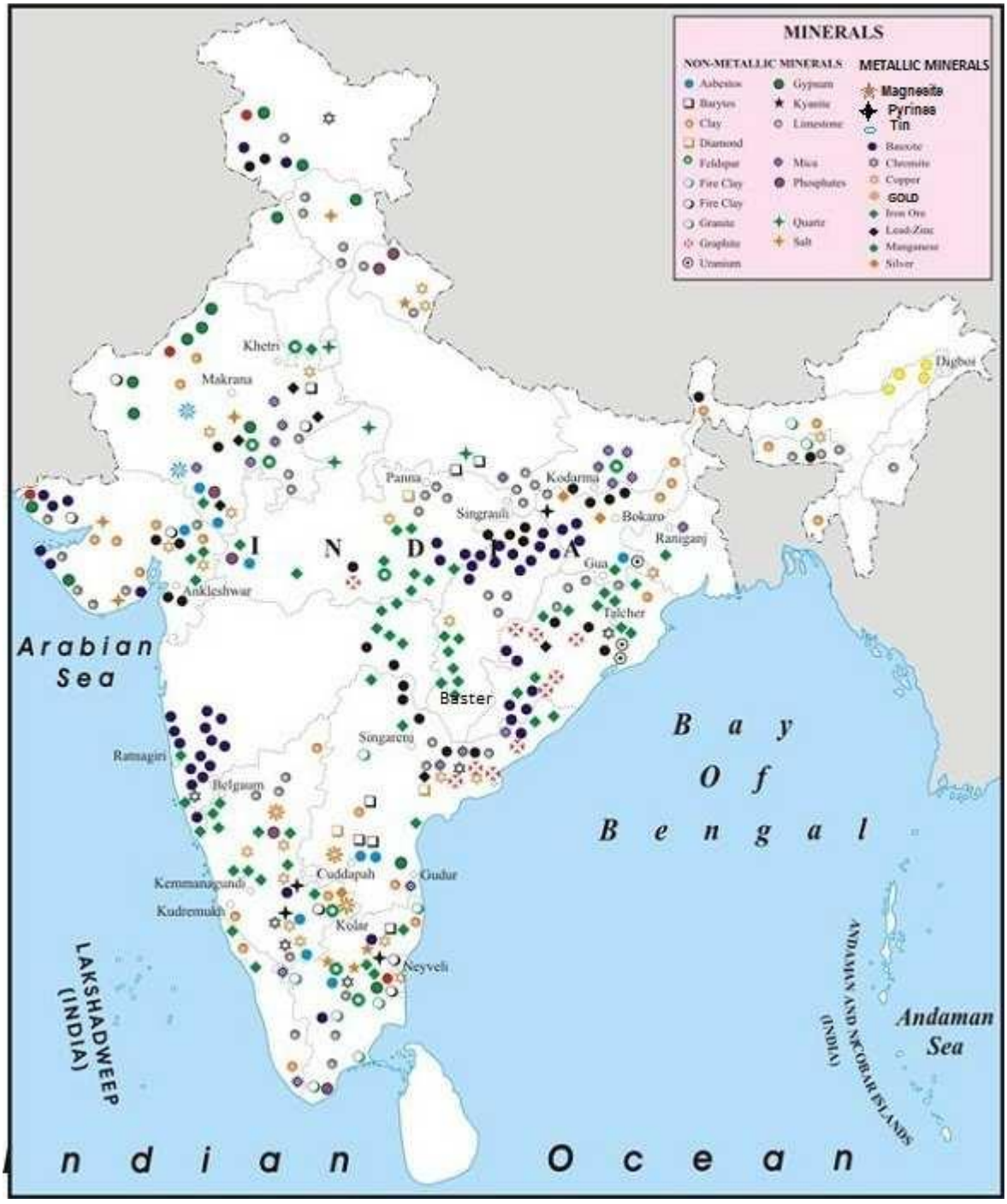
unclear if the core idea of ‘state as trustees of resources’ is institutionalised as a governance guide, particularly by the mining administratiors in India. I began with the hypotheses that administrators work within a complex set of roles outlined by law, policy and socio-political considerations. The redefinition as a public trustee requires more than judicial pronouncements for the concept to be institutionalised and consistently acted upon. The overall aim of this research was to examine the normative content of the doctrine, examine if the doctrine is institutionalised in the practices of the mining administrators and to draw from it theoretical insights into the dissonance or consonance that exists between legal doctrines and practice.

The dissonance between the judicial pronouncements and the executive action is evident in the lack of a robust understanding of trusteeship and its key principles. However, this study demonstrates that the mining administrators carry with them a strong understanding of public management of natural resources as embedded within a framework of command-and-control economy. The state as a trustee requires a re-conception of the state along with a rethinking of the ownership of natural resources, the rights of citizens and the accountability mechanisms. In this thesis, I examined the accountability mechanism is some detail. However, there is scope to examine the ownership question and the citizen/beneficiary rights including that of future generations in greater detail. It is hoped that by building this legal framework and engaging with the doctrine in a robust manner, guidance can be provided to the resource administrators either by the judiciary or the legislature for the future.

The public trust doctrine is not a mere legal fiction but a powerful tool in crafting the engagement of the state with citizens and natural resources.

ANNEXURE – A Mineral Map of India

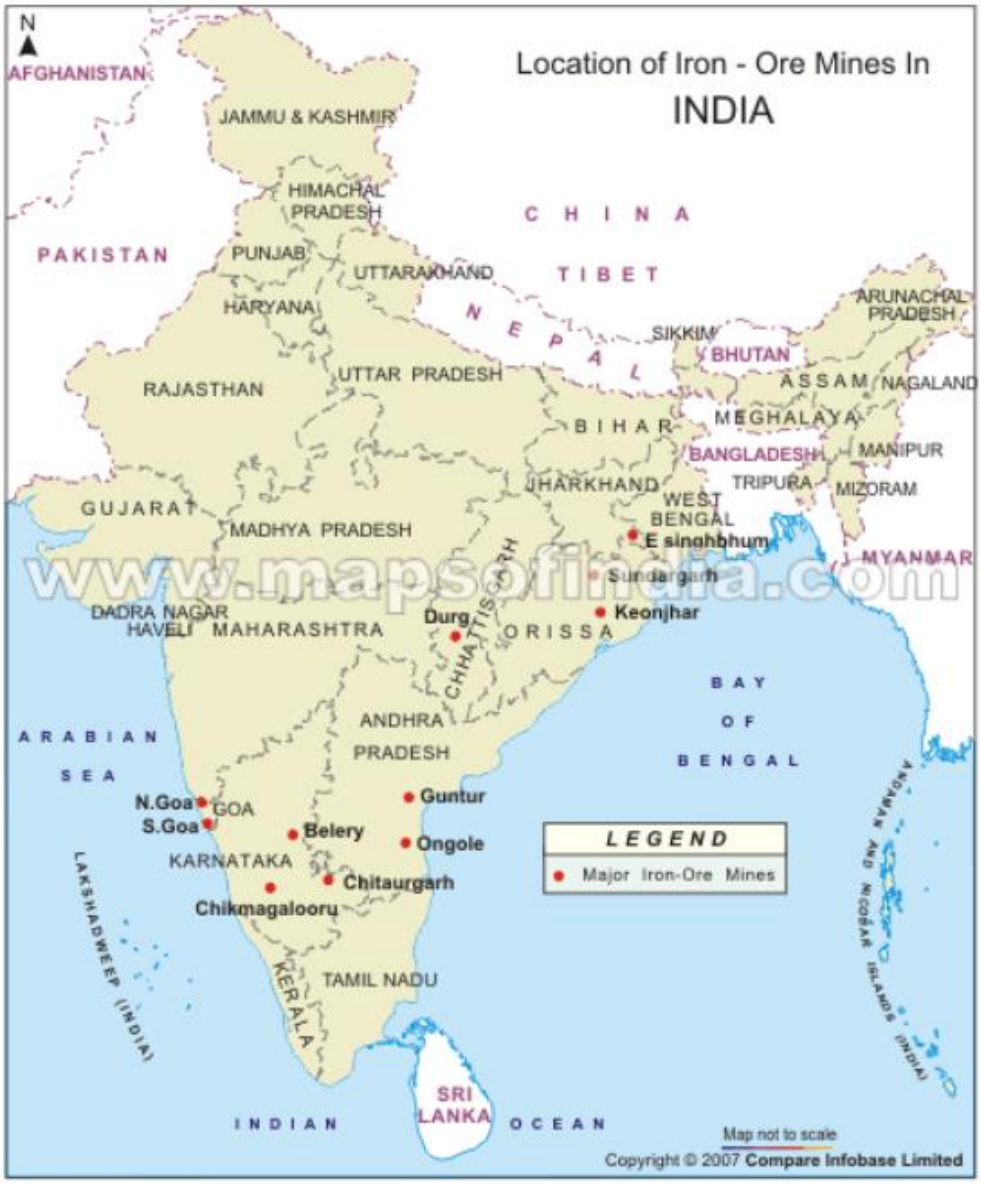
Mineral Map of India



(Source: A Singh and S. Gupta, Geo-medical problems Vis –a-Vis role of multi-level elemental anomalies through geo-genic sources emergence health disorder: A review, 2015, Adv. Appl. Sci. Res 6 (6), 129-152).

ANNEXURE B – Field Site Map

Iron Ore Mines in India



Source: India Mineral Map <https://www.mapsofindia.com/maps/minerals/iron-ore-mines-map.html>

ANNEXURE C – Evaluative Criteria for Interview Schedule

Apriori Evaluative Criteria for Analysis of PTD in administrative decision making

BROAD CATEGORY	SPECIFIC CRITERIA
1. Understanding conflicting approaches to the resource governance	- Understand the transforming role of the state in mineral resource governance; Conception of the state role – owner, an investor, a facilitator, a trustee. - If state is a trustee of natural resources what are its specific functions?
2. Prudence in Management of Resources	-What provisions exist in the legal framework for prudent management? - What are some of the gaps? - How do you measure sustainability of extraction? - How do you plan during times of demand and high pricing? - What are the priorities in critical decision making?
3. Risk aversion for environment conservation and economically responsible decision making?	-Is there a conflict in pursuing these two ideals? -What are some instances where difficult decisions are being made? -How do these tensions get resolved? Is there guidance in the legal framework? -What spaces for administrative discretion exist?
4. Loyalty to beneficiaries of the trust	-What duties are owed to citizens? -What rights do citizens have? -How do resources get allocated to ensure fairness, equity and inclusion?
5. Corpus protection of the resource to ensure sustainability	-How do we ensure sustainability of a non-renewable resource? -Does the creation of a permanent fund ensure sustainability? -What funds exist to ensure restoration of the environment during and after closure of a mine? -What planning is done to protect livelihoods after mine closure?
6. Principle of Subsidiarity	-Which level of government has the ability and capacity to develop and manage the natural resources most efficiently? -In a federal structure, how do we ensure all regions benefit from the resource wealth of a country? -How does the trusteeship role of tribal areas differ from the other regions? If a conflict arises how are they resolved?
7. Transparency and Accountability	-What measures of accountability and transparency is currently available? -Which level of government provides the greatest accountability to the local population with respect to the exploitation of natural resources?

8. Capacity of Trust Managers	-What skills and knowledge sets are important for trust managers? -What gaps in trustees capacity and skills exist in iron ore mining in India?
9. Resilience and Adaptability	-What processes exist for information on trust status and beneficiaries' interests to be regularly updated to allow for adjustments in objectives and actions? -Similarly, what processes exist for information on trust status and environmental impacts to allow for a more resilient institutional response to evolving environmental concerns?
10. Public Interest or National Interest	-How do you assess the short term and long term implications of decisions that have a public interest component to it?

ANNEXURE D – Semi-structured Interview Questionnaire and Consent Form

Semi Structured Interview Questionnaire

a) Understanding the role of the state and the rule of law

(i) Who owns mineral resources?

(ii) Is the mining bureaucracy a trustee of mineral resources in India?

(iii) What conflicts exist in development of mineral resources and in conserving/protecting the mineral resources?

(iv) What mechanisms exist to balance the conflicting mandates of the role of the state? What guidance is available to you in making choices when faced with one?

(v) What capacities and skills are required to effectively function as a trustee of a resource?

b) Allocation of Resources

(i) Who are the key stakeholders responsible for allocation of mineral resources?

(ii) What share of profits from mining belong to the people of the country?

(iii) What rights do citizens and the environment have to the resources? What mechanisms exist to protect these rights?

(iv) In what way are citizens in India invested in protecting their public trust resources such as minerals?

(v) What mechanisms are available to the mining administrators to ensure the corpus of the trust resource is protected for the benefit of present and future generations?

c) Democratic decision making, Citizen Participation, Transparency and Accountability

(i) What spaces exist for citizens to participate in decision making regarding mineral resources?

(ii) Do citizens have a right to represent on behalf of the environment?

(iii) What measures exist to ensure accountability and greater transparency to citizens?

d) Environmental Impact and Mining Plans

(i) What challenges exist in carrying out the EIA process and its compliance? In what way can it be improved?

(ii) What challenges exist in implementing the Mining Plans?

(iii) Are closure plans adhered to?

e) What pressures operate on the trustees in fulfilling their duties as trustees? Financial Pressures; Institutional Pressures; Political Pressures; Market Pressures; Sustainability and ecological pressures

Iron Ore specific questions

a) What were the institutional failures that lead to the illegal mining in iron ore in recent years?
b) What costs have been borne by the citizens (both present and future) as a result?
c) What measures have been adopted to prevent these illegalities in the future?

Research Ethics and Consent Forms

PARTICIPANT CONSENT FORM

Introduction

The purpose of this form is to provide you with information so you can decide whether to participate in this study. Any questions you may have will be answered by the researcher or by the other contact persons provided below. Once you are familiar with the information on the form and have asked any questions you may have, you can decide whether or not to participate. If you agree, please either sign this form or else provide verbal consent

Research title:	Public Trust Doctrine and Regulating Mining in India
Type of Project	PhD Research (Law/Full Time)
Project funders:	Nil
Project partners:	Nil
Research coordinator:	Roopa Madhav, SOAS University ID: 657053, SOAS email: 657053@soas.ac.uk
Purpose of Research:	This research aims to examine how the mining bureaucracy in India view mineral resources, resource allocation, citizens participation and environmental concerns. It examines, in particular, if the concept of trusteeship of natural resources guides administrative decision making.

Reasons for data collection:	The research aims to collect data from bureaucrats, both serving and retired, as a part of the perception study. It also aims to collect data from stakeholders related to the mining bureaucracy such as pollution control boards, mining industry representatives and citizens groups to triangulate the study.
Nature of Participation	This is a semi-structured interview schedule and the estimated duration of the interview is roughly 1.5 hours. No part of the interview will be recorded, unless specific permission has been granted by the participant. Handwritten notes will be transcribed and shared with the participant where ever feasible. All data of sensitive nature will be anonymized so as to protect the identity of participants.
Risks and Benefits of participation	By participating in the study, the participant contributes to the building of knowledge on the process of decision making. The self-reflexivity of the participants will shed light on a rather opaque area of bureaucratic guidance in decision making. The possible risks from participation is any inadvertent sharing of specific instances that may reveal the identity of the participant. In order to protect the participant, the researcher will ensure anonymity and the researcher will ensure all details shared are further anonymised. Participation also means setting aside 1.5 hours to answer the interview schedule.
Data Sharing:	Nil
Countries to which the data may be a transferred:	The data will be collected in India and transferred to UK. Data about you gathered in the course of your participation in this project may be transferred to countries or territories outside the European Economic Area, particularly India, for purposes connected with this project and similar future projects, subject to appropriate safeguards to protect the security and confidentiality of your data.
Security measures:	Data gathered will be anonymised and stored securely in password protected files. All files will be stored securely on the SOAS cloud drive during travel between countries. The data will also be stored (with password protection) and transferred securely into hard drives for the period of ten years as per UK Data Protection Laws.

Methods of anonymisation:	All names, places, official designations and names of mining regions or sites will be anonymised.
Methods of publication:	The data results will be anonymised and published in the PhD theses which will be available freely online after the permissible lock in period of three years. Additionally, the data may also be published in the form of journal articles or books.

Withdrawal of Consent

Please note your participation is voluntary and you may decide to leave the study at any time. You may also refuse to answer specific questions you are uncomfortable with. You may withdraw permission for your data to be used, at any time up to the publication of the research as either the final theses or as a journal article. If consent is withdrawn, the note, transcriptions and recordings will be destroyed.

Data Protection Statement

Information about you which is gathered in the course of this research project, once held in the United Kingdom, will be protected by the UK Data Protection Act and will be subject to SOAS's Data Protection Policy. You have the right to request access under the Data Protection Act to the information which SOAS holds about you. Further information about your rights under the Act and how SOAS handles personal data is available on the Data Protection pages of the SOAS website (http://www.soas.ac.uk/infocomp/dpa/index.html), and by contacting the Information Compliance Manager at the following address: Information Compliance Manager, SOAS, Thornhaugh Street, Russell Square, London WC1H 0XG, United Kingdom (e-mail to: dataprotection@soas.ac.uk).

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Contact Information

Telephone No:

Email Address:

Postal Address:

Alternative contact: [Include your supervisor's name and contact details or other colleagues on your research project]

Research Participant Declaration

I confirm that I have read the above information relating to the research project. I freely consent to my information being used in the manner and for the purposes described, and I waive my copyright and other intellectual property rights as indicated. I understand that I may withdraw my consent to participate in the project, and that I should contact the project coordinator if I wish to do so.

Participant Name:

Signature: **Date:**

Researcher Name:

Signature: **Date:**

PLEASE KEEP THIS FORM FOR FUTURE REFERENCE

ANNEXURE E – Case Law Analysis (Excel Sheet)

Sl. No.	Jurisdiction + Citation	Bench	Parties to the Dispute	Brief Facts	Finding	PTD Observation	Other comments
1990-2000	Supreme Court (1997) 1 SCC 388	Kuldip Singh & S. Saghir Ahmad. Written by K.Singh	**M.C. Mehta v. Kamal Nath**	Diversion of the course of a River to enable to construction of a club.	Held that the change in the course of the river is illegal and the Motel is required to pay compensation to correct the pollution.	Introduced the idea of public trust doctrine in the Indian context. Relied on US Supreme Court cases in formulating the idea of PTD/	Case brought by public against the grant of trust resources
2	(1999) 6 SCC 464	S.B. Majmudar and D.P. Wadhwa	**M.I Builders Pvt. Ltd v. Radhey Shyam Sahu & Ors**	Municipal Corporation passes an illegal resolution to award a contract to build an underground shopping complex.	Agreement held to be arbitrary and hence a portion of the building was ordered to be dismantled and the park restored.	Relied on M.C. Mehta and reads the doctrine into Article 21 of the Constitution.	Case brought by the public against alienation of trust property by Municipal Corporation without due pro
3	(1999) 6 SCC 667	SS Ahmad, Venkataswami and S. Rajendra babu	**Common Cause v. Union of India**				
	(2000) 6 SCC 213	Saghir Ahmed and Doraiswamy Raju	**M.C. Mehta v. Kamal Nath**	Determination of quntum of pollution fine	Issued notice to show caus why exemplary damages should not be aawarded in the case	Reiterated the PTD holding in the main ruling in 1997	
2000-2010	(2002) 3 SCC 653	Shah and D Raju	**M.C. Mehta v. Kamal Nath**	Polluter pays - quantification of damages	Payment of Exemplary Damages under polluter pays principle upheld	Reiterated the PTD holding in the main ruling in 1997	
	(2004) 9 SCC 362	Rajendra Babu, Dharmadhikari and G.P Mathur	**ND Jayal and Anr v UOI**	Legal action for safety related to safety and environmental aspects of Tehri Dam	Environmental principles such as sustainable development, precautionary principle addressed.	MC Mehta reiterated	
	(2007) 2 SCC 588	Sinha and Bhandari	**RM Bhattad & Ors v. State of Maharashtra**	Cancellation of a bid on a Government project	Held PTD inapplicable		
	(2007) 9 SCC 255	Thakker and Balasubramanyam	**T.N Housing Board v. Keeravani Ammal & Othrs**	Reconvery lands acquired through land acquisition.	PTD prevents the return of land at anything less than the market value	PTD seen as an exception	Interesting new approach to admininstrative law?
	(2010) 7 SCC 1	KG Balakrishnan, BS Reddy and P.Sathasivam	**Reliance Natural Resources Ltc v. Reliance Industries**	Oil and Natural Gas, ownership and sale price	Article 297 COI - the word `vest' needs to be understood in the context of the public trust doctrine.	Widen the context of the PTD.	Extends to mineral resources
	(2010) 4 SCC 240	Balakrishnan, Lodha and Chauhan	**M. Nizamudeen v. Chemplast Sanmar Ltd.,**	PIL challenging the environmental clearance for Chemplast in violation of CRZ norms.	Is there a PTD specific observation?		
2011- 2015	(2011) 6 SCC 508	GS Singhvi and BS Chauhan	**Noida Entrepreneurs Assn v. Noida & Ors**	Public Accountability and Vigilance - the Public Trust Doctrine	PTD and administrative law explored	Administrative law, accountability and PTD explored.	
	(2011) 8 SCC 161	D. Bhandari and HL Dattu	**Indian Council for Enviro Legal Action v. Union of India & Ors**	PIL against pollution from Chemical factories			
	(2011) 14 SCC 608	Kapadia, Aftab Alam and Swatanter Kumar	**Government of AP v. Obulapuram Mines**	Illegal Iron Ore Mining	PTD refered to in the short order	A brief one page order with no precedentiary value.	
	(2012) 3 SCC 1	G.S. Singhvi and AK Ganguly. Judgement written by Singhvi	**Centre for Public Interest Litigation and Others v. Union of India**	Unpricing of 2G Spectrum and the use of first-cum-first served basis to allocate the resources.	Held that the state is deemed to have a proprietary interest in natural resources and must act as guardian and trustee in relation to the same. Constitutions across the world focus on establishing natural resources as owned by, and for the benefit of, the country. In most instances where the constitutions specifically address ownership of natural resources, the soverign state, or, as it is more commonly expressed "the People", is designated as the owner of the natural resources.	Introduces and examines the idea of equality in the allocation of natural resources	PIL against irregular grant of spectrum resources. Imposes administrative obligations on the resource mar
	(2012) 4 SCC 362	Radhakrishnan and CK Prasad	**TN Godavarman v. Union of India**	Inclusion of sandalwood into the Wildlife Protection Act		Relieson MC Mehta.	
	(2012) 10 SCC 1	Kapadia, Jain, Khehar, Mishra and Gogoi	**Natural Resources Allocation, In Re, Special Reference No. 1 of 2012**		Public trust mandates a high degree of judicial scrutiny.	The PTD imposes the affirmative duty to protect the people's common heritage of mankind.	Interesting expansion on the doctrine, including explicating the duties on admininstrators and the degree o
	(2013) 8 SCC 234	Radhakrishnan and CK Prasad	**CIEL v. Union of India**				
	Supreme Court (2013) 7 SCC 226	G.S.Singhvi & S.A, Borde (Judgement written by G.S. Singhvi)	**Association for Environment Protection v. State of Kerala & Ors.**	Construction of hotel on the banks of River Periyar undertaken without EIA.	Project undertaken in contravention of the Government Order issued by state government as a part of its obligations under Article 21 and 48 A.	Relies on ruling in M.C. Mehta, MI Builders, Intellectual Forum and Fomento. Does not offer anything new to the PTD discourse.	The heart of the public trust doctrine is that imposes limits and obligations upon government agencies and their administrators on behalf of all the people and especially future generations.
	(2013) 4 SCC 575	AK Patnaik and Gokhale	**Sterlite Industries v. Union of India**				
	2014 (9) SCC 772	MY Eqbal and PC Ghose	**State (NCT) v. Sanjay**	Illegal Mining of Sand	PTD rests on the principle that certain resources cannot be subject to private ownership.	Applies to illegal sand bed mining.	
	2014) 11 SCC 192	GS Mishra and VG Gowda	**State of Assam v. Sushrita Holdings Pvt. Ltd.**	Official liquidator's actions in regard to sale of tea garden land brought into question.	Based on PTD, the official liquidator has not acted fairly	Only a tangential reference to the PTD in this case.	
	(2014) 6 SCC 150	AK Patnaik, Nijjar and Kalifulla	**TN Godavarman v. Union of India**	PIL against the destruction of the Nilgiri Forest Range			
	(2014) 12 SCC 696	Lodha, Dattu, Chandramauli, Prasad, Lokur and Eqbal	**State of TN v. State of Kerala**	Mullaperiyar Dam case	Principle of PTD held to be inapplicable in this case	PTD cannot be invoked to indirectly control the actions of the court	
	(2014) 6 SCC 110	Radhakrishnan and V. Sen	**Association of Unified Teleservices v. Union of India**	Public Accountability Vigilance and Prevention of Corruptunion - CAG - invoking PTD	PTD mandates affirmative state action for effective management of natural resources and empowers citizens to question ineffective management.	A clear guidance available in this judgement fro both administrators and citizens.	
	(2015) 5 SCC 366	FMI Kalifulla and SK Singh	**Muneer Enterprises versus Ramgad Minerals**	Mining			
2015-2019	(2016) 4 SCC 469	AR Dave and AK Goel	**State of Rajasthan v. Gotan Lime Stone Kanij Udog Pvt Lts,**				
	(2016) 6 SCC 1	D.S Thakur and Kuriend Joseph	**State of Punjab v. Brijeshwar Singh Chahal & Anr,**				
	(2016) 11 SCC 378	AR Dave and AK Goel	**Uddar Gagan Properties Ltd. v. Sant Singa & Others**				
	2017 SCC Online SC 1739	Arun Mishra & Mohan N. Shantanagoudar	**Municipal Corporation of Greater Mumbai v. Hiraman Sitaram Deorukhar**	Private land marked as garden within the development plan. Owner sought to sell the property claiming that the reservation as garden had lapsed as acquisition proceedings had lapsed.	The court berated the officials for their lethargy in completing the land acquisition process. It directed them to determine the compensation amount and complete the process. Relied on PTD and FR provisions to protect the public park space..	Relying on AELDF and MC Mehta, the court held the doctrine enjoins upon the Government to protect the natural resources for the enjoyment of the general public rather than to permit their use for private ownership or commercial purposes.	
	2017) 4 SCC 269	Dipak Mishra and PC Pant	**Reliance Telecom Ltd v. Union of India**				
	2017 1 SCC 121	5 Judge Bench, A.R.Dave, PC Ghose, S.K. Singh,	**In Re Punjab Termination of Agreement Act, 2004**				
	(2018) 15 SCC 407	Arun Mishra & Mohan N. Shantanagoudar	**Lal Bahadur v. State of UP**				
	2018 (2) SCC 642	AK Goel and UU Lalit	**Mansukhbhai Dhamjibhai Patel & Another v. State of Gujarat & Ors.**	Acquisition of land for building a dam in 1981. Subsequently, the Government passed a resolution for regrant of land that is not being used for public purpose.	If land acquired for public purpose is no longer required for public purpose, the state can transfer such land but such disposal is regulated by public trust doctrine.	If land acquired for public purpose is no longer required for public purpose, the state can transfer such land but such disposal is regulated by public trust doctrine.	It is unclear if the Court meant subject to public purpose or did intend to use the term public trust doctrine. The two have significant differences in meaning although they may overlap.
	2019 SCC Online 1419	A Mishra, MR Shah and BR Gavai	**Tata Housing Development Co Ltd.v. Aalok Jagga & Ors**	Housing project challenged on the ground that it close to the Sukhna Lake and Wildlife Sanctuary	Considering the proximity to the eco-sensitive zones, no such project can be granted permission by the state. The state is in violation of the public trust doctrine	Relying extensively on precedents, the court held that the state was in violation of the public trust obligations	Extracted rulings from various preceddents but no new argument or rationale for PTD is offered by the Court
	2019 SCC Online 298	Sikri, Nazeer and Shah	**State of Gujarat & Ors v. Jayeshbhai Khanjibhai Kalathiya**	Sand mining			sand mining
	(2019) 7 SCC 342	Khanwalkar & Rastogi	**State of Tamil Nadu v. Vasanthi Veerashekaran**				

ANNEXURE F –Extracts of National Mineral Policy

National Mineral Policy 2008 – Select Clauses that implicitly acknowledge the principles embedded in the Public Trust Doctrine

2.1 The country is blessed with ample resources of a number of minerals and has the geological environment for many others. ……Minerals being a valuable resource the extraction of mineral resources located through exploration and prospecting has to be maximised through scientific methods of mining, beneficiation and economic utilisation. Zero waste mining will be the national goal and mining technology will be upgraded to ensure extraction and utilisation of the entire run-of-mines.

2.3. Mining is closely linked with forestry and environment issues. A significant part of the nation's known reserves of some imporANNtant minerals are in areas which are under forest cover. Further, mining activity is an intervention in the environment and has the potential to disturb the ecological balance of an area. However, the needs of economic development make the extraction of the nation's mineral resources an important priority. A framework of sustainable development will be designed which takes care of bio diversity issues and to ensure that mining activity takes place along with suitable measures for restoration of the ecological balance. Special care will be taken to protect the interest of host and indigenous (tribal) populations through developing models of stakeholder interest based on international best practice. Project affected persons will be protected through comprehensive relief and rehabilitation packages in line with the National Rehabilitation and Resettlement Policy.

2.6 India is a federal structure with a single economic space. Nevertheless, the legitimate fiscal interests of States which are mineral rich need to be protected. The revenues from minerals will be rationalised to ensure that the mineral bearing States get a fair share of the value of the minerals extracted from their grounds. New sources of revenue will be developed for the States and State agencies involved in mineral sector development and regulation will be encouraged to modernise in the areas of prospecting as well as regulation. The States will be assisted to overcome the problem of illegal mining through operational and financial linkages with the Indian Bureau of Mines.

7.2. Conservation and Mineral Development Conservation of minerals shall be construed not in the restrictive sense of abstinence from consumption or preservation for use in the distant future but as a positive concept leading to augmentation of reserve base through improvement in mining methods, beneficiation and utilisation of low grade ore and rejects and recovery of associated minerals. There shall be an adequate and effective legal and institutional framework mandating zero-waste mining as the ultimate goal and a commitment to prevent sub-optimal and unscientific mining. Non-adherence to the Mining Plan based on these parameters will carry repercussions. Mineral sectoral value addition through latest techniques of beneficiation, calibration, blending, sizing, concentration, pelletisation, purification and general customisation of product will be encouraged. This is particularly important in iron ore mining as about 80% of the iron ore produced in the country is in the form of Fines and to promote such value addition fiscal and non fiscal incentives will be considered. A thrust will be given to exploitation of mineral resources in which the country is well endowed so that the needs of domestic industry are fully met keeping in mind both present and future needs, while at the same time exploiting the external markets for such minerals.

7.9 Small Deposits Small and isolated deposits of minerals are scattered all over the country. These often lend themselves to economic exploitation through small scale mining. With modest demand on capital expenditure and short lead-time, they provide employment opportunities for the local population. However, due to diseconomies of scale they can also lead to sub-optimal mining and ecological disturbance. Efforts will be made to promote small scale mining of small deposits in a scientific and efficient manner while safeguarding vital environmental and ecological imperatives. Regulation of these conditionalities will be tightened so as to control and prevent the growth of illegal mining Where small deposits are not susceptible to viable mining a cluster approach will be adopted by granting the deposits together as a single lease within a geographically defined boundary. Efforts would be made to grant such mineral concessions to consortia of small scale miners so that such clusters of small deposits will enable them to reap the benefits of economies of scale. In grant of mineral concessions for small deposits in Scheduled Areas, preference shall be given to Scheduled Tribes singly or as cooperatives.

7.10. Mineral Development & Protection of Environment Extraction of minerals closely impacts other natural resources like land, water, air and forest. The areas in which minerals occur often have other resources presenting a choice of utilisation of the resources. Some such areas are ecologically fragile and some are biologically rich. It is necessary to take a comprehensive view to facilitate the choice or order of land use keeping in view the needs of development as well as needs of protecting the forests, environment and ecology. Both aspects have to be properly coordinated to facilitate and ensure a sustainable development of mineral resources in harmony with environment.

Mining activity often leads to environmental problems like land degradation in opencast mining and land subsidence in underground mining, deforestation, atmospheric pollution, pollution of rivers and streams, soil erosion due disposal of solid wastes like overburden and so on, all affecting the ecological balance of the area. Open-cast mining in areas with actual forest cover leads to deforestation. Prevention and mitigation of adverse environmental effects due to mining of minerals and repairing and re-vegetation of the affected forest area and land covered by trees in accordance with the latest internationally acceptable norms and modern afforestation practices shall form integral part of mine development strategy in every instance. All mining shall be undertaken within the parameters of a comprehensive Sustainable Development Framework which will be so devised as to take all these aspects into consideration. The guiding principle shall be that a miner shall leave the mining area in better ecological shape than he found it. Mining operations shall not ordinarily be taken up in identified ecologically fragile and biologically rich areas. Strip mining in forest areas should be avoided and it should be permitted only when accompanied with comprehensive time-bound reclamation programme.

No mining lease would be granted to any party, private or public, without a proper mining plan including the environmental management plan approved and enforced by statutory authorities. The environmental management plan should adequately provide for controlling the environmental damage, restoration of mined areas and for planting of trees according to the prescribed norms. As far as possible, reclamation and afforestation will proceed concurrently with mineral extraction. Efforts would be made to convert old disused mining sites into forests and other appropriate forms of land use. 7.11 Relief & Rehabilitation of Displaced and Affected Persons Mining operations often involve acquisition of land held by

individuals including those belonging to the weaker sections. In all such cases a social impact assessment will be undertaken to ensure that suitable Relief and Rehabilitation packages are evolved. While compensation is generally paid to the owner for his acquired land, rehabilitation of affected persons in the form of substitute land, land for housing and jobs is not always adequate. Appropriate compensation will form an important aspect of the Sustainable Development Framework mentioned in para 2.3 and 7.10 above. In so far as indigenous (tribal) populations are concerned the Framework shall incorporate models of stakeholder interest for them in the mining operation, especially in situations where the weaker sections like the local tribal populations are likely to be deprived of their means of livelihood as a result of the mining intervention.

In areas in which minerals occur and which are inhabited by tribal communities and weaker sections it is imperative to recognize resettlement and rehabilitation issues as intrinsic to the development process of the affected zone. Thus all measures proposed to be taken will be formulated with the active participation of the affected persons, rather than externally imposed. A careful assessment of the economic, environmental and social impact on the affected persons will be made. A mechanism will be evolved which would actually improve the living standards of the affected population and ensure for them a sustainable income above the poverty line. For this purpose, all the provisions of the National Rehabilitation and Resettlement Policy or any revised Policy or Statute that may come into operation, will be followed. 7.12 Mine Closures Once the process of economical extraction of a mine is complete there is need for scientific mine closure which will not only restore ecology and regenerate bio mass but also take into account the socio-economic aspects of such closure. Where mining activities have been spread over a few decades, mining communities get established and closure of the mine means not only loss of jobs but also disruption of community life. Whenever mine closure becomes necessary, it should be orderly and systematic and so planned as to help the workers and the dependent community rehabilitate themselves without undue hardship.

7.13. Mine Safety Mining operations are hazardous in nature. Accidents happen and often result in the loss of life or limb of persons engaged in it. Efforts must be directed towards the development and adoption of mining methods which would increase the safety of workers and reduce the accidents. Towards this end, participation and cooperation of mine workers shall be secured. Steps will also be taken to minimise the adverse impact of mining on the health of workers and the surrounding population.

11. CONCLUSIONS Mineral wealth, though finite and non-renewable in the long term, is a major resource for development. The need for a well planned programme of survey and exploration, management of resources which have already been discovered and those which are in the process of discovery and their optimal, economical and timely use are matters of national importance. The success of the second national mineral policy will depend largely on a national consensus to fulfil its underlying principles and objectives.

ANNEXURE G - Extracts of Relevant Legal Provisions

MINES AND MINERALS DEVELOPMENT AND REGULATION ACT

Explicit Provisions

Declaration as to the expediency of Union control.

Section 2. It is hereby declared that it is expedient in the public interest that the Union should take under its control the regulation of mines and the development of minerals to the extent hereinafter provided.

Termination of prospecting licences or mining leases.

4A. (1) Where the Central Government, after consultation with the State Government, is of opinion that it is expedient in the interest of regulation of mines and mineral development, preservation of natural environment, control of floods, prevention of pollution, or to avoid danger to public health or communications or to ensure safety of buildings, monuments or other structures or for conservation of mineral resources or for maintaining safety in the mines or for such other purposes, as the Central Government may deem fit, it may request the State Government to make a premature termination of a prospecting licence or mining lease in respect of any mineral other than a minor mineral in any area or part thereof, and, on receipt of such request, the State Government shall make an order making a premature termination of such prospecting licence or mining lease with respect to the area or any part thereof.

(2) Where the State Government is of opinion that it is expedient in the interest of regulation of mines and minerals development, preservation of natural environment, control of floods, prevention of pollution, or to avoid danger to public health or communications or to ensure safety of buildings, monuments or other structures or for such other purposes, as the State Government may deem fit, it may, by an order, in respect of any minor mineral, make premature termination of prospecting licence or mining lease with respect to the area or any part thereof covered by such licence or lease. 1 [Omitted].

(3) No order making a premature termination of a prospecting licence or mining lease shall be made except after giving the holder of the licence or lease a reasonable opportunity of being heard.

(4) Where the holder of a mining lease fails to undertake mining operations for a period of two years after the date of execution of the lease or having commenced mining operations, has discontinued the same for a period of two years, the lease shall lapse on the expiry of the period of two years from the date of execution of the lease or, as the case may be, discontinuance of the mining operations: Provided that the State Government may, on an application made by the holder of such lease before its expiry under this sub-section and on being satisfied that it will not be possible for the holder of the lease to undertake mining operations or to continue such operations for reasons beyond his control, make an order, subject to such conditions as may be prescribed, to the effect that such lease shall not lapse: Provided further that the State Government, may on an application by the holder of a lease submitted within a period of six months from the date of its lapse and on being satisfied that such non commencement or discontinuance was due to reasons beyond the control of the holder of the lease, revive the lease from such prospective or retrospective date as it thinks fit but not earlier than the date of

lapse of the lease: Provided also that no lease shall be revived under the second proviso for more than twice during the entire period of the lease.

Royalties in respect of mining leases.

9. (1) The holder of a mining lease granted before the commencement of this Act shall, notwithstanding anything contained in the instrument of lease or in any law in force at such commencement, pay royalty in respect of any mineral removed or consumed by him or by his agent, manager, employee, contractor or sub-lessee from the leased area after such commencement, at the rate for the time being specified in the Second Schedule in respect of that mineral.

(2) The holder of a mining lease granted on or after the commencement of this Act shall pay royalty in respect of any mineral removed or consumed by him or by his agent, manager, employee, contractor or sub-lessee from the leased area at the rate for the time being specified in the Second Schedule in respect of that mineral.

(2A) The holder of a mining lease, whether granted before or after the commencement of Mines and Minerals (Regulation and Development) Amendment Act, 1972, shall not be liable to pay any royalty in respect of any coal consumed by a workman engaged in a colliery provided that such consumption by the workman does not exceed one-third of a tonne per month.

(3) The Central Government may, by notification in the Official Gazette, amend the Second Schedule so as to enhance or reduce the rate at which royalty shall be payable in respect of any mineral with effect from such date as may be specified in the notification: Provided that the Central Government shall not enhance the rate of royalty in respect of any mineral more than once during any period of three years.

Dead rent to be paid by the lessee.

9A. (1) The holder of a mining lease, whether granted before or after the commencement of the Mines and Minerals (Regulation and Development) Amendment Act, 1972, shall notwithstanding anything contained in the instrument of lease or in any other law for the time being in force, pay to the State Government, every year, dead rent at such rate as may be specified, for the time being, in the Third Schedule, for all the areas included in the instrument of lease: Provided that where the holder of such mining lease becomes liable, under section 9, to pay royalty for any mineral removed or consumed by him or by his agent, manager, employee, contractor or sub-lessee from the leased area, he shall be liable to pay either such royalty, or the dead rent in respect of that area, whichever is greater.

(2) The Central Government may, by notification in the Official Gazette, amend the Third Schedule so as to enhance or reduce the rate at which the dead rent shall be payable in respect of any area covered by a mining lease and such enhancement or reduction shall take effect from such date as may be specified in the notification: Provided that the Central Government shall not enhance the rate of the dead rent in respect of any such area more than once during any period of three years.

Reservation of areas for purposes of conservation.

17A. (1) The Central Government, with a view to conserving any mineral and after consultation with the State Government, may reserve any area not already held under any prospecting licence or mining lease and, where it proposes to do so, it shall, by notification in the Official

Gazette, specify the boundaries of such area and the mineral or minerals in respect of which such area will be reserved.

(1A) The Central Government may in consultation with the State Government, reserve any area not already held under any prospecting licence or mining lease, for undertaking prospecting or mining operations through a Government company or corporation owned or controlled by it, and where it proposes to do so, it shall, by notification in the Official Gazette, specify the boundaries of such area and the mineral or minerals in respect of which such area will be reserved.

(2) The State Government may, with the approval of the Central Government, reserve any area not already held under any prospecting licence or mining lease, for undertaking prospecting or mining operations through a Government company or corporation owned or controlled by it and where it proposes to do so, it shall, by notification in the Official Gazette, specify the boundaries of such area and the mineral or minerals in respect of which such areas will be reserved.

(3) Where in exercise of the powers conferred by sub-section(1A) or sub-section (2) the Central Government or the State Government as the case may be undertakes prospecting or mining operations in any area in which the minerals vest in a private person, it shall be liable to pay prospecting fee, royalty, surface rent or dead rent, as the case may be, from time to time at the same rate at which it would have been payable under this Act if such prospecting or mining operations had been undertaken by a private person under prospecting licence or mining lease.

Periods for which mining leases may be granted or renewed.

8. (1) The maximum period for which a mining lease may be granted shall not exceed thirty years: Provided that the minimum period for which any such mining lease may be granted shall not be less than twenty years.

(2) A mining lease may be renewed for a period not exceeding twenty years. 4 [Omitted].

(3) Notwithstanding anything contained in sub-section (2), if the State Government is of opinion that in the interests of mineral development it is necessary so to do, it may, for reasons to be recorded, authorise the renewal of a mining lease in respect of minerals not specified in Part A and Part B of the First Schedule for a further period or periods not exceeding twenty years in each case.

(4) Notwithstanding, anything contained in sub-section (2) and sub-section (3), no mining lease granted in respect of mineral specified in Part A or Part B of the First Schedule shall be renewed except with the previous approval of the Central Government.]

Section 17 A – Reservation of areas for purposes of Conservation.

17A. (1) The Central Government, with a view to conserving any mineral and after consultation with the State Government, may reserve any area not already held under any prospecting licence or mining lease and, where it proposes to do so, it shall, by notification in the Official Gazette, specify the boundaries of such area and the mineral or minerals in respect of which such area will be reserved.

(1A) The Central Government may in consultation with the State Government, reserve any area not already held under any prospecting licence or mining lease, for undertaking prospecting or mining operations through a Government company or corporation owned or controlled by it, and where it proposes to do so, it shall, by notification in the Official Gazette, specify the boundaries of such area and the mineral or minerals in respect of which such area will be reserved.

(2) The State Government may, with the approval of the Central Government, reserve any area not already held under any prospecting licence or mining lease, for undertaking prospecting or mining operations through a Government company or corporation owned or controlled by it and where it proposes to do so, it shall, by notification in the Official Gazette, specify the boundaries of such area and the mineral or minerals in respect of which such areas will be reserved.

(3) Where in exercise of the powers conferred by sub-section(1A) or sub-section (2) the Central Government or the State Government as the case may be undertakes prospecting or mining operations in any area in which the minerals vest in a private person, it shall be liable to pay prospecting fee, royalty, surface rent or dead rent, as the case may be, from time to time at the same rate at which it would have been payable under this Act if such prospecting or mining operations had been undertaken by a private person under prospecting licence or mining lease.

[Power of State Government to make rules for preventing illegal mining, transportation and storage of minerals.

23C. (1) The State Government may, by notification in the Official Gazette, make rules for

preventing illegal mining, transportation and storage of minerals and for the purposes connected therewith.

(2) In particular and without prejudice to the generality of the foregoing power, such rules may provide for all or any of the following matters, namely:-

(a) establishment of check-posts for checking of minerals under transit;

(b) establishment of weigh-bridges to measure the quantity of mineral being transported;

(c) regulation of mineral being transported from the area granted under a prospecting licence or a mining lease or a quarrying licence or a permit, in whatever name the permission to excavate minerals, has been given;

(d) inspection, checking and search of minerals at the place of excavation or storage or during transit;

(e) maintenance of registers and forms for the purposes of these rules;

(f) the period within which and the authority to which applications for revision of any order passed by any authority be preferred under any rule made under this section and the fees to be paid therefor and powers of such authority for disposing of such applications; and

(g) any other matter which is required to be, or may be, prescribed for the purpose of prevention of illegal mining, transportation and storage of minerals.

(3) Notwithstanding anything contained in section 30, the Central Government shall have no power to revise any order passed by a State Government or any of its authorised officers or any authority under the rules made under sub-sections (1) and (2).]

Power of entry and inspection.

24. (1) For the purpose of ascertaining the position of the working, actual or prospective,

of any mine or abandoned mine or for any other purpose connected with this Act or the rules made thereunder, any person authorised by the 1[Central Government or a State Government] in this behalf, by general 2[omitted] order, may-

(a) enter and inspect any mine;

(b) survey and take measurements in any such mine;

(c) weigh, measure or take measurements of the stocks of minerals lying at any mine;

(d) examine any document, book, register, or record in the possession or power of any person having the control of, or connected with, any mine and place marks of identification thereon, and take extracts from or make copies of such document, book, register or record;

(e) order the production of any such document, book, register, record, as is referred to in clause (d); and

(f) examine any person having the control of, or connected with, any mine.

(2) Every person authorised by the 3[Central Government or a State Government] under sub-section (1) shall be deemed to be a public servant within the meaning of section 21 of the Indian Penal Code, and every person to whom an order or summons is issued by virtue of the powers conferred by clause (e) or clause (f) of that sub-section shall be legally bound to comply with such order or summons, as the case may be.

Rights and liabilities of a holder of prospecting licence or mining lease.

24A. (1) On the issue of a 4 [reconnaissance permit, prospecting licence or mining lease] under this Act and the rules made thereunder, it shall be lawful for the 1[holder of such permit, licence or lease], his agents or his servants or workmen to enter the lands over which 2 [such permit, lease or licence had been granted] at all times during its currency and carry out all such 3[reconnaissance, prospecting or mining operations] as may be prescribed:

Provided that no person shall enter into any building or upon an enclosed court or garden attached to a dwelling-house (except with the consent of the occupier thereof) without previously giving such occupier at least seven days' notice in writing of his intention to do so.

(2) The holder of a 4[reconnaissance permit, prospecting licence or mining lease] referred to in sub-section (1) shall be liable to pay compensation in such manner as may be prescribed to the occupier of the surface of the land granted under 5[such permit, licence or lease] for any loss or damage which is likely to arise or has arisen from or in consequence of the 6[reconnaissance, mining or prospecting operations].

(3) The amount of compensation payable under sub-section (2) shall be determined by the State Government in the manner prescribed.

Recovery of certain sums as arrears of land revenue.

25. (1) Any rent, royalty, tax, fee or other sum due to the Government under this Act or the rules made thereunder or under the terms and conditions of any 7[reconnaissance permit, prospecting licence or mining lease] may, on a certificate of such officer as may be specified by the State Government in this behalf by general or special order, be recovered in the same manner as an arrear of land revenue.

(2) Any rent, royalty, tax, fee or other sum due to the Government either under this Act or any rule made thereunder or under the terms and conditions of any 7[reconnaissance permit, prospecting licence or mining lease] may, on a certificate of such officer as may be specified by the State Government in this behalf by general or special order, be recovered in the same manner as if it were an arrear of land revenue and every such sum which becomes due to the Government after the commencement of the Mines and Minerals (Regulation and Development) Amendment Act, 1972, together with the interest due thereon shall be a first charge on the assets of the holder of the 1[reconnaissance permit, prospecting licence or mining lease], as the case may be.

Delegation of powers.

26. (1) The Central Government may, by notification in the Official Gazette, direct that any power exercisable by it under this Act may, in relation to such matters and subject to such conditions, if any, as may be specified in the notification be exercisable also by -

(a) Such officer or authority subordinate to the Central Government; or

(b) Such State Government or such officer or authority subordinate to a State Government, as may be specified in the notification.

(2) The State Government may, by notification in the Official Gazette, direct that any power exercisable by it under this Act may, in relation to such matters and subject to such conditions, if any, as may be specified in the notification, be exercisable also by such officer or authority subordinate to the State Government as may be specified in the notification.

(3) Any rules made by the Central government under this Act may confer powers and impose duties or authorise the conferring of powers and imposition of duties upon any State Government or any officer or authority subordinate thereto.

ANNEXURE H– Interview Schedule and Participant Details

ANNEXURE

Sl.No	Date of Interview	When Retired	Last Held Post
Expert 1 (AB)	10th Jan 2019	Redacted	Redacted
Expert 2 (CD)	30th Jan 2019	Redacted	Redacted
Expert 3 (EF)	Feb 2019	Redacted	Redacted
Expert 4 (GH)	13th Mar 2019	Redacted	Redacted
Expert 5 (IJ)	12th Apr 2019	Redacted	Redacted
Expert 6 (KL)	3rd May 2019	Redacted	Redacted
Expert 7 (MN)	11th June 2019	Redacted	Redacted
Expert 8 (OP)	11th June 2019	Redacted	Redacted
Expert 9 (QR)	13th June 2019	Redacted	Redacted
Expert 10 (ST)	24th June 2019	Redacted	Redacted
Expert 11 (UV)	17th July 2019	Redacted	Redacted
Expert 12 (WY)	Email interview	Redacted	Redacted
Expert 13 (XY)	6th March 2019	Redacted	Redacted
Expert 14 (Z)	10 Aug 2019	Redacted	Redacted
Expert 15 (DF)	28th Aug 2019	Redacted	Redacted

ANNEXURE I – Two Sample Transcripts

Redacted to ensure data protection

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