HOW EFFECTIVE ARE ENVIRONMENTAL REGULATIONS TO ADDRESS IMPACTS OF INDUSTRIAL AND INFRASTRUCTURE PROJECTS IN INDIA

Centre For Policy Research (CPR)-
Namati Environmental Justice Program

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HOW EFFECTIVE ARE ENVIRONMENTAL REGULATIONS TO ADDRESS COMPLIANCE AND MONITORING OF INDUSTRIAL AND INFRASTRUCTURE PROJECTS IN INDIA

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CONTENTS

LIST OF ABBREVIATIONS

CCF	Chief Conservator of Forests
CCTV	Closed Circuit Television
CECB	Chhattisgarh Environment Conservation Board
CEPI	Comprehensive Environmental Pollution Index
CGWA	Central Ground water Authority
CGWB	Central Ground Water Board
CPCB	Central Pollution Control Board
CPR	Centre for Policy Research
CRZ	Coastal Regulation Zone
CTE	Consent to Establish
CTO	Consent to Operate
CZMA	Coastal Zone Management Authority
CZMP	Coastal Zone Management Plan
DC	District Collector
DEAC	District Level Expert Appraisal Committee
DEIAA	District Environmental Impact Assessment Authority
DFO	Divisional Forest Officer
DIC	District Industries Centre
DLCC	District Level Coastal Committees
EAC	Expert Appraisal Committee
EC	Environment Clearance
EIA	Environment Impact Assessment
EJ	Environmental Justice
EMP	Environment Management Plan
EPA	Environment Protection Act
ESP	Electrostatic Precipitator
FAC	Forest Advisory Committee
FBC	Fluidised Bed Combustion
FC	Forest Conservation
FCA	Forest Conservation Act
FRA	Forest Rights Act
GDP	Gross Domestic Product
GHCL	Gujarat Heavy Chemicals Limited
GIDC	Gujarat Industrial Development Corporation
GPCB	Gujarat Pollution Control Board
GPS	Global Positioning System
HTL	High Tide Line
KCZMA	Karnataka Coastal Zone Management Authority
KIRDTI	Keonjhar Integrated Rural Development and Training Institute
LTL	Low Tide Line
MoEFCC	Ministry of Environment, Forest and Climate Change
MSW	Municipal Solid Waste
NBWL	National Board for Wild Life
NCZMA	National Coastal Zone Management Authority
NDZ	No Development Zone
NGO	Non Governmental Organisation
NGT	National Green Tribunal
NIO	National Institute of Oceanography
NOC	No Objection Certificate
OMC	Orissa Mining Corporation
PCC	Pollution Control Committee
PCCF	Principal Chief Conservator of Forests
PDO	Panchayat Development Officer
PEKB	Parsa East and Kanta Basan
PH	Public Hearing
RCC	Reinforced Cement Concrete
RTI	Right to Information
RVUNL	Rajasthan Rajya Vidyut Utpadan Nigam Limited
SAG	State Advisory Group
SC	Scheduled Caste
SCZMA	State Coastal Zone Management Authority
SEAC	State Level Expert Appraisal Committee
SEIAA	State Environment Impact Assessment Authority
SPCB	State Pollution Control Board
SPPL	Sarguja Power Private Limited
ST	Scheduled Tribe
ToR	Terms of Reference
TPP	Thermal Power Plant
TSDF	Treatment, Storage and Disposal Facility

1

INTRODUCTION

People around the world live in areas that have been altered for industrial, infrastructure or mining projects. Their lives and occupations are being negatively impacted by problems of access, encroachment or pollution. Though governments in many countries have regulatory procedures for implementing environmental and social safeguards that are applicable to such projects so that problems can be minimised or mitigated, the qualitative difference of such regulatory systems depends on the efficacy of their compliance safeguards.

Typically, in countries where compliance is low, projects meant for development have also resulted in substantial environmental and social costs. Governments and investors fear the implementation of environmental policies and claim that these are bottlenecks or speed breakers to growth. Several new studies show that stringent compliance of environmental policies will neither affect competitiveness nor slow down GDP growth. On the contrary, it may result in bottom line benefits at the level of projects as well as sustain economic growth by enhancing efficiency and innovation.[1]

India promulgated a series of environmental legislations between 1980 and 2005 to ensure that environmental and social impacts of land use change, infrastructure development and industrialisation are kept in check and timely mitigation is undertaken. The laws establish detailed procedures for assessing the environmental impacts of the proposed projects that are likely to cause land use change. The laws also involve the laying of conditions that are attached to the approvals granted to these projects. These conditions are meant to mitigate or prevent damage or impacts to the extent ascertained by the project proponents and the government or regulator.

Since the time these laws were first designed, there have been numerous amendments to them to change the scope of applicability of these laws, the time taken by regulators for decision-making and the sharing of responsibility between state and central governments in implementing these laws. However, one aspect of these laws that has seen minimal change is in their monitoring and compliance regimes. What happens to the projects once they are granted approvals? Do they comply with all the conditions imposed on them for mitigating or minimising environmental and social impacts? Who oversees these processes and what is the extent to which compliance is achieved?

This report is the outcome of a research project undertaken to understand the efficacy of conditional compliance, institutional monitoring and enforcement of environmental regulations to address the impacts faced by communities living around industrial and infrastructure projects. The project identified the institutions responsible for monitoring and compliance under various environmental laws, their procedures and practices by which these roles are realised. While it has been known that government agencies and regulatory bodies hold the formal duties of monitoring, the project also focused on how affected communities engage these institutions for greater compliance and remedies in case of environmental and social impacts of various kinds, such as encroachment or damage to common or private property, loss of livelihoods and loss of access to public spaces.

By analysing the efforts made by affected parties to engage with environmental institutions to craft remedies for existing environmental impacts, this research aims to highlight regulatory ingredients that are necessary for sound environment regulation and better outcomes through compliance. If translated into concrete policy on environmental monitoring and compliance, these lessons could address the chasm between enforcement of environmental regulations and the ever-growing difficulties of meeting environmental challenges.

[1]"Green Tape: Environmental Regulations may not cost as much as governments and businesses fear, Jan 3, 2015, The Economist; Albrizio. S, Botta.E, Kozlu. T, and Zipperer. V. (2014).; Do Environmental Policies matter for productivity growth? Insights from new cross-country measures of environmental policies. Organisation for Economic Cooperation (OECD). Economics Department Working Papers No. 1176; Kathleen Dechant, Barbara Altman, Robert M. Downing, Timothy Keeney, Mark Mahoney, Abigail Swaine, . . . Post, J. (1994). Environmental Leadership: From Compliance to Competitive Advantage [and Executive Commentary]. The Academy of Management Executive (1993-2005), 8(3), 7-27. Retrieved from http://www.jstor.org/stable/4165201

II

THE FRAMEWORK FOR ENVIRONMENT REGULATION AND COMPLIANCE IN INDIA

As discussed earlier, environmental legislation in India has been promulgated to respond to the impacts of land use change, infrastructure development and industrialisation. While major acts are legislated in the Parliament at both the central and state level, India has several executive led rules, guidelines and other orders that are passed by the central and state authorities, which have governed how environment and related social impacts can be assessed, regulated and managed. These authorities are given delegated powers through the Acts to frame rules within the framework of the legislation. For example, Section 6 of the Environment Protection Act gives the Central Government power to make rules to protect and improve the environment, by notification in the Official Gazette.

Is it mandatory to follow regulation?

As per India's Constitution[2] *"laws in force includes laws passed or made by Legislature or other competent authority in the territory of India before the commencement of this Constitution and not previously repealed, notwithstanding that any such law or any part thereof may not be then in operation either at all or in particular." This definition covers, "any Ordinance, order, bye law, rule, regulation, notification, custom and usages having in the territory of India the force of law"*

In this section, we deal with some of the major environmental regulations, which include an overview of the law and how they regulate approvals and the monitoring and compliance mechanisms. This is not a comprehensive listing of laws and their monitoring protocols. However, it demonstrates the framework of laws and executive led regulations, which bind environmental decision-making in India.

- *The first* sub-section provides a brief explanation of some laws and corresponding notifications that necessitate the requirements for approvals from the point of view of environmental and social impacts. It also provides a snapshot of the number of approvals granted under these regulations to understand the quantum of projects that regulatory agencies need to deal with each year.
- *The second* sub-section discusses the monitoring and compliance protocols established for enforcing the legal safeguards put forth as part of licenses or approvals granted. This section also presents data on notices, compliance reports and other directions to address the compliance gap, which have been made available by regulatory bodies over the last five years.

Photo credit: Kanchi Kohli

[2]Article 13(3) of the Constitution

I. WHAT THE ENVIRONMENT AND FOREST LAWS SAY ABOUT APPROVALS

There is a range of laws and subordinate legislations that lay down procedures and conditions under which approvals have to be taken on environmental parameters. Some of these present upfront restrictions for areas where no approvals can be granted and others present the requirement of detailed appraisals and public consultations based on which expert bodies would need to take considered decisions. In this section we present some of these to understand the range of regulatory approvals that industrial and infrastructure projects need to go through prior to initiating any construction activity. They also directly speak to the subsequent sections which identify the monitoring and compliance protocols as well as the institutional maps that show how these processes take place within respective institutions.

1. ENVIRONMENT PROTECTION ACT, 1986

The Environment (Protection) Act (EPA) was passed in 1986. The overall objective of this legislation is driven towards the protection and improvement of the environment. It is the umbrella legislation that extends to water, air and land and how they inter-relate with both the human and natural environment.

The Act vests with the Central Government[3] through the Ministry of Environment, Forests and Climate Change (MoEFCC) the powers to take any measure to control pollution and protect and improve the environment. The Central Government also has the power to direct closure or stoppage of any activity or cut the electricity, water or any supply to it as per Section 5 of the Act. Violation of any of the provisions under the EPA can lead to punishment under Section 15.

The legislation has also been brought to life through rules and notifications. Some of these include Environment Impact Assessment Notification, 2006 (EIA 2006), Coastal Regulation Zone (CRZ) Notification, 2011 and Hazardous Wastes Rules, 2016, which are discussed further in this section. There is a range of institutions and processes both for approval as well as compliance that have been created under specific notifications or rules.

1(a). ENVIRONMENT IMPACT ASSESSMENT NOTIFICATION, 2006 (EIA 2006)

The EIA Notification 2006 lays out a detailed process for obtaining Prior Environment Clearance for any new projects or activities, or the expansion or modernisation of existing projects and projects seeking capacity addition with change in process or technology. Projects or activities are categorised as A and B, depending upon the extent of their capacity and size. For example, River valley projects of more than 50 MW hydroelectric power generation are Project A while river valley projects whose power generation is between 25 and 50 MW are Project B, as per the Notification.

Approval process: Category A projects acquire their clearance from the MoEFCC while category B projects apply for clearances to the State Environment Impact Assessment Authority (SEIAA). The environment clearance process consists of four steps of screening, scoping, public consultation and appraisal. Expert Appraisal Committees (EACs) are constituted at the Central Government and the State Government or Union Territory level (called the State Expert Appraisal Committee), which screen, scope and appraise applications for Category A and Category B projects respectively. Category B projects can be further broken down to B1 and B2, thereby determining which projects and activities will require an EIA before approval. Since January 2016, institutions have been created at the District level as well and they too have been included in the EIA Notification for approving certain instances of mining of minor minerals. These are the District Environmental Impact Assessment Authority (DEIAA) and District Level Expert Appraisal Committee (DEAC).

[3]Though "central government" is not defined, the law is administered by the Ministry of Environment, Forests and Climate Change (MoEFCC) in New Delhi with its 10 regional offices.

ENVIRONMENT IMPACT ASSESSMENT PROCESS

SCREENING	At this first stage it is determined whether a project is Category A or B. More detailed screening is done for Category B. Only those projects, which require an impact assessment, are considered B1. In recent years, there have been guidelines issued for determining projects as B1 and B2.[4] There are also special references to building and construction projects and mining of minor minerals upto 5 hectares as B2.
SCOPING	Under the scoping process, detailed and comprehensive Terms of Reference (ToR) are generated by the EAC or SEACs, as the case maybe, according to which the EIAs are prepared.
PUBLIC CONSULTATION	This step is to ascertain the concerns of the "locally affected people and others who have a plausible stake in the environmental impacts of the projects or activity". This is applicable for all the Category A and B1 projects (unless there is a stated exception). It includes both a public hearing (PH) and seeking written responses based on a draft EIA made available 30 days prior to the PH. The public hearing is conducted by the concerned State Pollution Control Board (SPCB) in collaboration with the district administration. There is a detailed procedure prescribed in Appendix IV of the notification.
APPRAISAL	The applications are then scrutinised by the EACs and SEACs and recommendations are made to the concerned regulatory authority- the MoEFCC or SEIAA. It is only after this that an environment clearance is issued with a specific validity depending on the kind of project.

1(b). COASTAL ZONE REGULATION NOTIFICATION, 2011 (CRZ 2011)

The CRZ Notification regulates the setting up and expansion of any industry, operations and processes in the coastal stretches and water area upto the territorial limits of the country called the coastal regulation zone (CRZ). The CRZ is defined as:

- the land from the High Tide Line (HTL) to 500m on the landward side along with the sea front,
- the land between the HTL and 100m or width of the creek (whichever is less) on the landward side along the tidal influenced water bodies,
- the land between the hazard line and 500 from the HTL,
- the land between the HTL and the LTL, water area of the tidal influenced water body and
- the water and the bed area between the LTL and the territorial water limit.

The CRZ is further classified in to 4 sub zones and regulates the use of these different sub zones differently. Under each area, a list of activities that are permissible and not allowed is given.

Zone	Area Included
CRZ-1	It includes the area between the High Tide Line and Low Tide Line. It also includes areas that are ecologically sensitive and that have geomorphological features that play a role in maintaining the integrity of the coast and lie in the CRZ. For example mangroves, mudflats, salt marshes, turtle nesting grounds.
CRZ-2	It includes developed and urban areas, which are substantially built-up and have been provided with drainage and approach roads and other infrastructural facilities, such as water supply and sewerage mains.
CRZ-3	It includes underdeveloped and rural areas, which do not belong to either CRZ-I or II. It includes the coastal zone in the rural areas (developed and undeveloped) and also areas within municipal limits or in other legally designated urban areas, which are not substantially built-up.
CRZ-4	It includes territorial waters from the LTL to 12 nautical miles out to the sea and water area of the tidal influenced water body from the mouth of the water body at the sea upto the influence of tide.

[4]Amendment to EIA Notification, 2006 in January 2016

Approvals required and interface with EIA

Any application seeking CRZ clearance is appraised by the concerned State/Union Territory Coastal Zone Management Authority (CZMA). If the project seeking clearance is covered under the EIA Notification, 2006, the SCZMA forwards its recommendations to either the MoEFCC or SEIAA, as the case may be.[5] Other projects that are examined by the MoEFCC based on recommendations of the concerned SCZMA, are construction and operation of lighthouses, laying of pipelines, mining of rare minerals and construction projects of the Department of Atomic Energy and Defence requirements. The SCZMA forwards the recommendations on projects that are not listed under the EIA Notification to the respective SEIAA, except for construction projects of less than 20,000 sq m of built up area. Construction projects of less than 20,000 sq m of built up area are approved by the concerned State Planning Authority. Validity of the CRZ clearance is the same as the environment clearance or permission from the State Planning Authority, within which the CRZ clearance is also included.

The District Level Coastal Committees (DLCCs) are also consulted by the CZMAs in some states like Karnataka and Tamil Nadu, as the CRZ Notification states that DLCCs will 'assist' the State CZMAs.

1(c). HAZARDOUS AND OTHER WASTES RULES, 2016

The Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 lays down the rules for management and transportation of hazardous wastes.

- **Authorisation or approval:** Every occupier who is engaged in handling, generation, collection, storage, packaging, transportation, use, treatment, processing, recycling, recovery, pre-processing, co-processing, utilisation, offering for sale, transfer or disposal of the hazardous and other wastes obtains an authorisation from the State Pollution Control Board. The SPCB after scrutiny of the application, grants an authorisation which is valid for five years.
- **Establishment of a Treatment, Storage and Disposal Facility (TSDF):** The state government, occupier, operator of a facility or any association of occupiers is responsible individually or jointly, or severally for identifying sites for establishing a facility for treatment, storage and disposal of the hazardous and other waste in a state. This is done as per the guidelines issued by the CPCB and after obtaining approval from the SPCB, on the design and layout of the facility.

1(d). SOLID WASTE MANAGEMENT RULES, 2016

The Solid Waste Management Rules 2016 was promulgated in supersession of the Municipal Solid Wastes (Management and Handling) Rules 2010. It lays down the regulations for handling solid waste. There are two aspects of these Rules which are elaborated further.

- **Solid waste processing and disposal facility:** These rules lay down the conditions for setting up a solid waste processing and disposal facility. As per the rules, the setting up of a solid waste processing and disposal facility is to be facilitated by the District Magistrate/District Collector/Deputy Commissioner. Suitable land for the same is to be identified and allocated to the local authorities in co-ordination with the Secretary-in-charge of State Urban Development Department.[6] The performance of the local bodies is reviewed on waste segregation, processing, treatment and disposal, once in a quarter and corrective measures if necessary are taken. The local authorities and the village panchayats are responsible for facilitating the construction, operation and maintenance of solid waste processing facilities on their own or with private sector participation or through any agency.
- **Authorisation:** An application is to be given by these authorities to the State Pollution Control Board (discussed below) or the Pollution Control Committee for the grant of authorisation for setting up waste

[5]Category A projects are examined at the national level by the MoEFCC. Category B Projects are granted clearance by the State Environment Impact Assessment Authority (SEIAA).

[6]Section 12 of the Solid Waste Management Rules 2016

processing, treatment or disposal facility, if the volume of waste is exceeding five metric tones per day including sanitary landfills.

2. WATER (PREVENTION AND CONTROL OF POLLUTION) ACT, 1974

This legislation (in short, Water Act) was promulgated with an aim to prevent and control water pollution. It provides for setting up standards for discharge of effluents and sewage in the water bodies. The Water Act also provides for the formation of a Central Pollution Control Board and a State Pollution Control Board, which are given powers and functions to enact the provisions given under the Act. The PCBs are supposed to ensure that no surface water body is contaminated by industrial effluents or sewage.

Approvals required: Consent to Establish (CTE) and Consent to Operate (CTO)

CTE is procured from the SPCBs before establishing or taking steps in establishing any industry, operation or process, or any treatment and disposal system or an extension or addition which is likely to discharge sewage or trade effluent into a stream or well or sewer or on land. The consent letter contains conditions regarding outlet of discharge, nature and composition, temperature, volume or rate of discharge, period of consent etc.

While CTE is taken before actual commencement of work to establish, CTO is procured before actual commencement of work of production. Usually CTEs are valid for a period of 5 years. CTOs are renewed periodically. The period for which it is valid, is set by the concerned SPCB.

3. AIR (PREVENTION AND CONTROL OF POLLUTION) ACT, 1981

The stated objective of the Air Act is to prevent, control and reduce air pollution including noise pollution. The Act also has a provision for declaring Air Pollution Control Areas, in which industrial plants cannot be set up without due permissions. It also provides for putting in place air pollution emission standards for industries.

Approvals required: Consent to Establish (CTE) and Consent to Operate (CTO)

CTO and CTE are required to be taken from the SPCBs to establish or operate any industrial plant in an air pollution control area. Conditions given in the consent are concerning installation and operation of control equipment of said specifications, alteration or replacement of existing control equipment in, the conditions accordance with directions of the SPCB, running condition of the control equipment etc.

4. FOREST DIVERSION RELATED APPROVALS

The Forest Conservation Act, 1980 lays down the provisions that regulate the diversion of forestland for non-forest purposes. This is with the stated objective of ensuring long-term conservation of the forests in India, and reducing forest degradation. Any user agency (both government and non government) has to seek prior permission from the Central Government before de-reserving any forest land, felling of trees or before diverting any forestland for non-forest use. The application for the same is moved through the Forest Department of the State Government, which is the final point of approval for forest diversion under this legislation. Non-forest use implies the breaking up or clearing of any forest land for the cultivation of tea, spices, rubber, palms, oil-bearing plants, horticultural crops or medicinal plants and for any purpose other than re-afforestation.

Approvals required: Permission is sought by applying for 'Forest Clearance'. The Forest Clearance will consist of an approval along with certain conditions that try to minimise the impact on forest land.

The forest clearance consists of general conditions like that of compensatory afforestation, rehabilitation of project affected families (if any) and also has specific conditions depending on the type of project it is.

Proposals involving forest land upto 40 hectares (not including activities related to mining and encroachments) are handled by the Regional office of the MoEFCC. Proposals involving forest land above 40 hectares and those related to mining and encroachments are handled by the MoEFCC.

WHEN DOES THE FOREST CLEARANCE COME INTO EFFECT?

MINISTRY OF ENVIRONMENT, FORESTS AND CLIMATE CHANGE

Stage-I (in-principle approval): The stage-I clearance is a conditional approval based on the recommendations of the Forest Advisory Committee (FAC) or the State Advisory Group (SAG), as the case maybe. The conditions could include identification of compensatory afforestation land, additional studies, and others. Only after compliance of these is the approval granted. For linear projects like construction of roads, railways etc, after an in-principle approval, construction can begin.

Stage-II (final approval): This is the final approval by the MoEFCC which is communicated to the state governments along with a list of conditions that need to be followed while allowing for use of forest land for other uses including industry, mining, plantations etc.

STATE GOVERNMENT

The forest diversion comes into effect only after the state government, under Section 2 of the Forest Conservation Act, 1980, passes an order. It is only after this that any non-forest activity can be initiated on the forest land.

INTERFACE WITH FOREST RIGHTS

Following the passage of the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (FRA 2006), forest land cannot be diverted and trees cannot be felled until the process of recognition of rights is determined and approval of the gram sabha (village assembly) is taken. The details of this are prescribed under the FRA, 2006. According to the MoEFCC Circular (dated 3/8/2009), the state government has to provide evidence of initiating and completing the process of settlements while sending the proposals for the diversion of forestland. It also has the requirement of the consent of the gram sabhas prior to any permission for diversion. This consent however applies only to non-linear projects (as per MoEFCC circular in 2013).

5. GROUNDWATER EXTRACTION REGULATIONS

The guidelines/criteria for evaluation of proposals/requests for groundwater abstraction (hereinafter referred to as the Groundwater Guidelines) were issued by the Central Groundwater Authority (CGWA). These guidelines give the conditions for granting permission for abstracting groundwater for any industrial or infrastructure operation.

For this purpose the CGWA has classified identified certain areas as Notified Areas and Non-Notified Areas. CGWA has designated 162 areas as Notified Areas, where construction of structures to draw groundwater can be given only for drinking and domestic purposes. Under Non Notified Areas, the CGW has identified 4 types of areas. While the detailed list is available in the guidelines, broadly the numbers are as follows:

Area Classification	Number of Designated Places
Safe Area	4850
Semi Critical Area	697
Critical Area	217
Over-exploited Area	1071

As discussed above the conditions for granting permission for drawl of groundwater are different based on the area and the type of industry. For example, conditions for groundwater withdrawal and groundwater recharge will be different based on the type of industry- infrastructure, mining, water-intensive industry as well as area-safe, semi-critical, critical or over-exploited.

Approvals required: No Objection Certificate

- A No Objection Certificate (NOC) is required to be obtained from Authorised Officers in case of Notified Areas. Authorised Officers can be the District Magistrate/Deputy Commissioner/District Collector in an Administrative Block or Taluka or Head of a Municipality in a Municipal Area.
- NOCs in non-notified areas are given for a period of two years, which if the conditions are complied with, can be renewed for three years. Thereafter it can be renewed for a period of 5 years, subject to compliance with the NOC.

Apart from the groundwater guidelines, in some states, there are specific legislations that deal with the use and management of groundwater. For example in Karnataka, the Karnataka Groundwater (Regulation and Control of Development and Management) Act, 2011 regulates and controls the development and management of groundwater, while in Maharashtra the same is done by the Maharashtra Groundwater (Development and Management) Act, 2009.

6. WILDLIFE PROTECTION ACT, 1972

The Wildlife Protection Act, 1972 is an act to provide for the protection of wild animals, birds and plants. It provides for declaration of national parks and sanctuaries and prohibits hunting and harm of wild animals and uprooting of specified plants in general.

Approvals required: A permit is required in case any activity including industrial, mining or infrastructure is likely to destroy, exploit or remove any wildlife including forest produce from a Protected Area. A Protected Area includes a Sanctuary, National Park, Conservation Reserve or a Community Reserve. It is also required in case an activity could destroy, damage or divert the habitat of any wild animal and in cases where activities are likely to divert, stop or enhance the flow of water into or outside the protected area.

This is granted through the Chief Wildlife Warden only after the state government in consultation with the National Board for Wild Life (NBWL) is satisfied that such an action is necessary for the improvement and better management of the wild life. In case of non-compliance the permits can be cancelled and punishment can be imposed through imprisonment and/or fine.

APPROVALS SNAPSHOT

Using the above laws, regulatory bodies at the state and central levels have issued several hundred approvals to projects. We have collated the approval figures for the environmental clearances, forest clearances and coastal zone regulation clearances given over the last five years. We have attempted to compile the number of consents that are given by the state pollution control boards, and wherever available, the approval rate of these consents. This data was collated using the official websites of the MoEFCC, CPCB and SPCBs. Right to Information (RTI) applications were also filed with the SPCBs. Studies done on these institutions, newspaper reports and notices issued by the CPCB were also referred to for this compilation.

Many of the SEIAAs do not even have websites, making it difficult to assess the extent of approvals given at the state level. It is also difficult to establish the approval rate, as in many instances there is no information on how many clearances are granted as against applications received.

A snapshot of the approvals that have been granted under various environmental laws is given below.

- The MoEFCC received 1202 proposals between July 2014 and August 2016 for environmental clearances for Category A projects. Out of these, 633 were granted EC[7] and 58 were rejected. A newspaper source indicates that a total of 2,306 proposals were received by the Ministry between 2013 and June 30 2016. A total of 432 projects are pending for environmental clearances as on June 30.[8] The highest number of environmental clearances in the past five years was in 2015 of 740 (See Table 1).
- To illustrate the extent of applications for environment clearances at the state level, here is one example. Since its constitution on 8.3.2013[9] the Uttarakhand SEIAA & SEAC has received a total of 1065 applications for environment clearances. Out of this 954 ECs were issued, making the approval rate for the projects 89.57%. Details of other states where SEIAAs have publicly shared data are available in Table 2.
- As per a study done on the functioning of Coastal Zone Management Authorities, Gujarat has the highest approval rate of coastal clearances, followed by Tamil Nadu and Andhra Pradesh and Karnataka. The highest approval rate is 93% in Gujarat. (See Table 3)
- In 2013-15 and in 2016, the central government gave 174 in-principle approvals and 266 final approvals under the Forest Conservation Act 1980[10] (See Table 4).
- Consolidated information of SPCB approvals is not available publicly. However, figures from Haryana PCB received through Right to Information highlight that the state agency granted 810 new consents to establish in the year 2011-12 and rejected 85 out of the 1011 applications made to it. 3442 consents to operate under the Water Act and 6814 under the Air Act were granted or renewed that year. (See Table 5).

Table 1: Number of environmental clearances granted for Category A projects[11]

Year	Number of clearances granted
2016[12]	42
2015	740
2014	659
2013	730
2012	630
2011	519

Table 2: Number of environment clearances granted for Category B projects (as per the data available on http://environmentclearance.nic.in/)

State	2016[13]	2015
Andhra Pradesh	70	269
Chhattisgarh	62	174
Gujarat	68	570
Karnataka	139	145
Punjab	17	3
Tamil Nadu	1	1
Pondicherry	3	NA

[7]Source: http://environmentclearance.nic.in/

[8]Press Trust of India. (2016, July 19).Out of 2306 projects received for environmental clearances 432 are pending: Anil Madhav Dave. Dnaindia. Retrieved from http://www.dnaindia.com/india/report-out-of-2306-projects-received-for-environmental-clearance-432-are-pending-anil-madhav-dave-2236117

[9]Information received through Right to Information.

[10]Press Trust of India.(2016, August 8). 266 projects given final approval under Forest Conservation Act. Business Standard. Retrieved from http://www.business-standard.com/article/pti-stories/266-projects-given-final-approval-under-forest-conservation-act-116080801119_1.html

[11]as per the data available on the environmentclearance.nic.in website

[12]As of 8:8:2016; Source http://environmentclearance.nic.in/

[13]As of July 2016;Source http://environmentclearance.nic.in/

Table 3: Rate of project clearances by SCZMAs*[14]

State	Clearance rate (in %)	Total proposals received
Gujarat	93	76
Tamil Nadu	86	347
Andhra Pradesh	85	228
Karnataka	85	1310
Goa	80	1297
Kerala	74	571
Maharashtra	74	618
West Bengal	71	28
Odisha	70	178

*As discussed in the minutes of the SCZMAs' meetings from 1999 (except Kerala: from 2000, Karnataka: from 2009 and Maharashtra: from 2012) till March 2014

Table 4: Forest clearances granted by MoEFCC

Year	Final	In-principle
2013	480	315
2012	389	239
2011	891	695

Photo credit: Kanchi Kohli

[14]Menon, M., Kapoor, M., Venkatram, P., Kohli, K., & Kaur, S. (2015). CZMAs and Coastal Environments: Two decades of regulating land use change on India's coastline. India: CPR-Namati Environmental Justice Program.

II. MONITORING AND COMPLIANCE PROTOCOLS

Approval processes under each regulation result in either a rejection or acceptance of the proposal, with conditions. Ensuring compliance of these conditions is the responsibility of the approval holder and there are clear penalties incase there are violations of these conditions. While the nature or veracity of these conditions can be debated, the fact that they are binding and mandatory safeguards is a critical aspect of any regulatory process. Therefore, each framework has, over the years developed a protocol on how government institutions should monitor the compliance of these conditions post the approval of the project.

Presented below are details of the existing monitoring protocols and responsible institutions under the regulatory frameworks discussed above.

Table 5: Protocols, institutions and actions under the environmental regulatory framework

REGULATORY FRAMEWORK	MONITORING JURISDICTION	PROTOCOL	RESPONSIBLE INSTITUTIONS	ACTIONS THAT CAN BE TAKEN
Environment Protection Act, 1986				
EIA Notification, 2006	Conditions of the Environment Clearance (EC)	- Half-yearly compliance reports by project proponent - Half yearly monitoring reports by the responsible institution - Periodic Site inspections and visits - Periodic meetings where complaints and suo moto action are discussed	MoEFCC Regional Office for Category A projects SEIAA for Category A and B projects DEIAA for Category B2 projects	- Cancel or revoke the EC if it is established that misleading or false information was provided at the time of project examination or in case of non-compliance with the conditions of the EC - DEIAA/SEIAA/ MoEFCC can issue appropriate directions to the offending unit. Including the directions of closure. - Punishment or fine or both (As per Section 15 of the EPA 1986)
CRZ Notification, 2011	Conditions of the CRZ Clearance	- Half-yearly compliance reports by project proponent - Half yearly monitoring reports by the responsible institution - Periodic Site inspections and visits - Periodic meetings where complaints and suo moto action are discussed	- NCZMA (for overall functioning of SCZMAs) - SCZMA for enforcement against non-compliance - MoEFCC Regional Offices, SEIAA for approvals linked with Environment Clearance	- Non-compliance of CRZ conditions or the notification is a punishable offence under Section 15 of the EPA - SCZMA can issue appropriate directions such as Stop Work Order to the offending unit, directions of closure - SCZMA can cancel/ revoke the CRZ clearance to a project if it has been established that misleading or false information was provided at the time of project examination

REGULATORY FRAMEWORK	MONITORING JURISDICTION	PROTOCOL	RESPONSIBLE INSTITUTIONS	ACTIONS THAT CAN BE TAKEN
Forest Conservation Act, 1980				
Forest Conservation Act, 1980	Conditions of the Forest Clearance (FC) Monitoring instances of tree felling without permission	-Quarterly progress reports of implementation of the conditions by user agency - Periodic Site inspections and visits - Periodic meetings where complaints and suo moto action are discussed	- Monitoring Cell in the MoEFCC under the Forest Conservation Division headed by the Director (FC) and Assistant Inspector General of Forests - Regional Office of MoEFCC - State Forest Department	- Revocation of approval, fines and penalties in case of non-compliance of approval conditions - Penalties and fines under Indian Forests Act 1927 for illegal felling of trees -Punishment of simple imprisonment
Pollution laws				
Air Act, 1981	Consent to Operate, Consent to Establish	- Periodic Site inspections and visits - Periodic meetings where complaints and suo moto action are discussed	SPCB (regional and state)	- Issue notice, directions or penalty - Show cause notice, stop work order, closure notice - Stop electricity and water connection - Filing cases before District Magistrate
Water Act, 1974	Consent to Operate, Consent to Establish	Periodic Site inspections and visits - Periodic meetings where complaints and suo moto action are discussed	SPCB (regional and state)	-Issue notice, directions or penalty -Show cause notice, stop work order, closure notice -stop electricity and water connection - Filing cases before District Magistrate
Hazardous Waste Rules, 2016	Permissions for storage, transport and management of hazardous waste Permissions for setting up of Common or captive TSDF	- Periodic Site inspections and visits - Periodic meetings where complaints and suo moto action are discussed	SPCB or the Union Territory Pollution Control Committee	- Financial penalties for any violation under the Rules[15] -Cancellation or suspension of the authorisation in case of non-compliance
Solid Waste Management Rules, 2016	Authorisation for setting up waste processing, treatment or disposal facility	Periodic site visits and meetings to ensure compliance with rules	SPCB or the Union Territory Pollution Control Committee Role of Local Body for waste generation in hill areas as well as in waste to energy projects	-Violation of provisions will attract penal provision of the EPA, 1986 - Cancellation or suspension of the authorisation in case of non-compliance (after notice)

[15]Section 23(2) the occupier and the operator of the disposal facility shall be liable to pay financial penalties as levied for any violation of the provisions under these rules by the State Pollution Control Board with the prior approval of the Central Pollution Control Board.

REGULATORY FRAMEWORK	MONITORING JURISDICTION	PROTOCOL	RESPONSIBLE INSTITUTIONS	ACTIONS THAT CAN BE TAKEN
Groundwater Guidelines, 2015				
Groundwater Guidelines, 2015	No-Objection Certificate	No specific protocol prescribed Periodic site inspections and action on complaints	Authorised Officers for Notified Areas[16] CGWA for Non-notified areas [17] District Collector	Cancel or not renew the NOC Notices and directions by CGWA or other authorised agencies under specific State level laws (as discussed above)
		Quarterly progress reports by State Ground Water Authority	Central Ground Water Authority	
Wildlife Protection Act, 1972				
Wildlife Protection Act, 1972	Permissions for using a protected area if no damage to wildlife	Permits as given in Section 29 and Section 35(6)	Chief Wild Life Warden National Board for Wildlife	-Punish with imprisonment and or fine -Cancel the licence or permit

III. GOVERNMENT DATA ON MONITORING AND COMPLIANCE

This section presents some observations on the state of monitoring and compliance of environmental safeguards by analyzing publicly available data put out by different regulatory agencies. The data has been collected from annual reports of the CPCB and the SPCB, which are available on their websites. The official websites of the MoEFCC provides data of the monitoring reports generated by the ministry.

The data presented below highlights a critical gap in the manner in which enforcement related data is publicly disclosed through the government systems. Based on such data it is nearly impossible to determine the extent of non-compliance of each law, leave alone track the specific cases of non-compliance. The data also does not include details on what resulted from the regulatory actions on non-compliance, was the impact mitigated or minimised as is expected by the protocols. These points have been discussed in detail in the section on conclusion and findings.

As highlighted in the section on monitoring protocols, regulatory agencies often carry out site inspections and notices to enforce the legally mandated conditions. Some regulations have an inbuilt mechanism for submission of compliance reports by project authorities and preparation of monitoring reports by the regulatory authority. For instance, projects granted approval under EIA notification, 2006, are required to submit six monthly compliance reports to the monitoring agencies. Monitoring reports are prepared by the ten Regional offices of the MoEFCC for all approved Category A projects. They are located at Bangalore, Bhopal, Bhubaneswar, Chandigarh, Chennai, Dehradun, Lucknow, Nagpur, Ranchi and Shillong. Ideally this should include site visits and verification of the status of compliance of the project on the general and specific conditions that are given in the Environmental Clearance. The reports usually state whether these conditions have been complied with, partly complied with or not complied with, and contains the details of the same. They do not generally recommend action to be taken for the non-compliance. However, through an office order dated September 30, 2009, the MoEFCC, set a procedure for invoking legal action and issuing directions under section 5 of the EPA to take follow up action on the basis of monitoring and compliance reports received from the regional offices of the MoEFCC, concerned SPCB and CPCB. As per the procedure, first a show- cause notice (with or without proposing closure) is to be issued, next a hearing is to be scheduled and afterwards a final direction (with or without closure) would be issued by the concerned regional office or

[16]As per the Guidelines/Criteria for evaluation of proposals/requests for ground water abstraction, with effect from 16.11.2015

[17]As per the cgwb.gov.in website as accessed on 8:8:2016

What does a compliance report look like?

ANNEXURE - A

COMPLIANCE TO THE CONDITIONS STIPULATED IN THE GRANT ORDER OF ENVIRONMENTAL CLEARANCE GRANTED BY MOEF, GOVT.OF INDIA VIDE LETTER NO.J-11015/1084/2007-IA.II (M) DT 03.02.2009 PERTAINING TO GANDHAMARDAN BLOCK-B IRON ORE MINES OF M/S ODISHA MINING CORPORATION LIMITED

Sl. No.	Conditions Stipulated.	Status of compliance made by OMC
A.	**Specific Conditions:**	
1.	The project proponent shall obtain consent to establish from the State Pollution Control Board, Odisha and effectively implement all the conditions stipulated therein.	Consent to establish has been granted by the State Pollution Control Board, Odisha vide letter No. 11212/ IND– II– NOC- 4427 dt 07.05.2008. The conditions stipulated therein are being implemented.
2.	Environmental clearance is subject to grant of forestry clearance. Necessary forestry clearance under the Forest (Conservation) Act, 1980 for an area of 1409.6489 ha forest land involved in the project shall be obtained before starting mining operation shall be restricted to 232.428 ha forestland for which forest clearance was obtained on 17.08.07. No mining shall be undertaken in the forest area without obtaining requisite prior forestry clearance.	Complied. Mining Operation is restricted to 232.428 ha of forest area granted by MoEF, Govt. of India vide F. No. 8-81/ 2005- FC dt. 17.08.2007. OMC has also applied forest diversion proposal for balance forest area over 1177.211ha. The observations sought by FAC and communicated by MoEF&CC, Govt. of India vide letter dt. 12.11.2015 is under compliance by OMC.
3	The environmental clearance is subject to approval of the State Land use Department, Govt. of Odisha for diversion of agricultural land for non-agricultural use.	No agricultural land is diverted for use against this project. Hence approval of the State Land use Department, Govt. of Odisha may not be required.
4	The project proponent shall develop fodder plots in the non-mineralized area in lieu of the use of the grazing land.	No grazing land is used for this project and kept untouched.
5	The mining operations shall be restricted to above ground water table and it should not intersect groundwater table. In case of working below ground water table, prior approval of the Ministry of Environment and Forests and Central Ground Water Authority shall be obtained, for which a detailed hydro-geological study shall be carried out.	The mining operations are restricted to above ground water table. Iron ore does not continue below ground water table for which mining operation will never intersect the GW table. However if such case arises in future, OMC will seek approval of CGWA.
6	The project proponent shall ensure that	No natural watercourse or water

What does a monitoring report look like?

PART II & III

DESCRIPTIVE REPORT ON STATUS OF COMPLIANCE TO THE CONDITIONS OF ENVIRONMENTAL CLEARANCE AND ENVIRONMENTAL MANAGEMENT

Subject: Development drilling of wells (on-land, 24 developmental wells and establishment of Early Production Facilities one) at Malleswaram, Krishna district, Andhra Pradesh by M/s Oil Natural Gas Corporation Limited (ONGCL)

Reference: J-11011/439/2011-IA-II(I) dated 16.9.2013

S.No.	Conditions	Compliance status
A. Specific Conditions		
i.	Gas produced during testing shall be flared with appropriate flaring booms. The flare system shall be designed as per good oil field practices and Oil Industry Safety Directorate (OISD) guidelines. The stack height shall be provided as per the regulatory requirements and emissions from stacks will meet the MOEF/CPCB guidelines.	**Partly complied.** There is no gas flaring at the development drill site. It was informed that the flare system at Malleswaram EPS has been designed as per the OISD guidelines. The stack height provided to the DG sets is not in conformity with the CPCB guidelines. It was informed that stack emission from D.G. sets are confirming to the prescribed norms. However, stack emission monitoring data from the DG sets has not provided during the visit.
ii.	Ambient Air quality shall be monitored at the nearest human settlements as per the National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R.No.826(E) dated 16th November, 2009 for PM_{10}, $PM_{2.5}$, SO_2, NOx, CO, CH_4, HC, Non-methane HC etc.	**Complied.** The nearest human settlement is about 2km from the drilling site and informed that vibration and subsidence levels are monitored and record is maintained. Ambient Air Quality (AAQ) monitoring is being carried out at the settlement area located near the drill sites during the drilling activities and EPS area by a third party (MoEF&CC recognized laboratory) on monthly basis for all the parameters stipulated in the G.S.R.No.826(E) dated 16.11.2009. HC detectors have been installed in the process areas. Report provided during the visit shows that the AAQ levels are within the limits.
iii.	Approach road shall be made pucca to mitigate generation of suspended dust.	**Complied.** Approach road has been made pucca to mitigate dust generation.
iv.	The company shall make the arrangement for control of noise from the drilling activity. Acoustic enclosure should be provided to DG sets and proper stack height should be provided as per CPCB guidelines.	**Partly complied.** Acoustic enclosures have been provided to the DG sets. All the personnel working at the drill site have been provided with ear muffs. Ambient noise level (Day time and Night time) is being monitored by a third party (MoEF&CC recognized laboratory) at the drill sites during the drilling activities and EPS area on monthly basis. Report provided during the site visit shows that the

the SPCB. In cases where a revocation of the direction/order is requested, CPCB's opinion is to be obtained besides the suggestion for a bank guarantee for installation of pollution control equipment within a given time. All these orders and directions are to be issued after the approval of the Impact Assessment division of the MoEFCC or the Secretary, Environment & Forests as the case may be.

Table 5 below shows the extent of publically accessible monitoring reports. There is an upward trend in the number of monitoring reports that have been uploaded over the years since 2010 when monitoring reports were not public documents. However, this is still a very low access compared to the number of projects that are being monitored by the MoEFCC's regional offices. This is also the only suo moto mechanism through which monitoring reports are made public by the government.

Table 6: Monitoring reports of Category A projects

Year	Monitoring reports uploaded as on September 2016
2016	2880
2015	2731
2014	2328
2013	1313
2012	206
2011	31

At the central level, the CPCB has the power to issue specific directions under the Environment Protection Act, the Water Act and the Air Act. Inspections carried out by the Central and state PCBs is one way in which the implementation of safeguard conditions is monitored. For instance, in Karnataka, the total number of inspections carried out is 20268, and 1614 closure orders were issued under Air and Water Act in 2013-14. In 2011-12, 16717 inspections were carried out and 1767 closure orders were issued.

Table 6 shows monitoring data of the CPCBs for two separate years. Due to the direct powers it derives from the EPA, we observe a higher rate of directions under this law as compared to under the Water and Air Acts. Further, the directions for compliance are on the higher side in all cases as opposed to directions for closure. The CPCB has used the powers vested to it under these legislations to take action on non-complying industries through notices and directions. For instance, the CPCB issued show cause notices to 3387 highly polluting industries of 17 categories in July and August 2015.[18] Data is available on the website only for this period and there is no information regarding the result of these notices and any follow up actions by the CPCB.

Table 7: Notices and directions issued by CPCB

Year	No. of directions issued to the units under Section 5 of EPA			No. of directions issued to the SPCBs/PCCs for units under section 18(1)(b) of the Water/Air Act		
	No. of directions for compliance	No. of directions for closure	Total	No of directions for compliance	No of directions for closure	Total
2013-14	150	15	165	11	1	12
2011-12	79	18	97	48	6	54

Under the Air Act and the Water Act, the SPCBs have the power to issue directions for closure, prohibition or regulation. They can also issue directions to stop or regulate the supply of electricity or water.[19] Therefore looking at the extent to which SPCBs are issuing directions it is possible to ascertain the extent of non-compliance by industries. Looking at the number of show cause notices issued by the SPCBs is another way in which the extent of non-compliance can be understood. Show cause notices are issued in order to give the industry an opportunity to give a reason for its non-compliance. However, these responses are not publicly available.

Table 7 gives the quantum of show cause notices and directions issued by four of the state PCBs that are looked at in this study-Chhattisgarh, Gujarat, Karnataka, and Odisha PCBs. In some cases the data for closure orders was available while in others the directions issued were available.

- Karnataka issued over 1000 closure orders in 2011-12 and 2013-14. The Karnataka PCB also gives the number of closure orders that are revoked. Revocation in this case is done when the closure directions are complied with or more time to comply has been requested. In 2014-15, the number of closure orders revoked is 73 while in 2013-14, it is 485. The rate of revocation therefore does not show a huge difference (34.59% in 2014-15 and 30.04% in 2013-14). Both however indicate a low level of compliance.
- In Chhattisgarh, we can observe that the number of directions issued are lesser than the number of show cause notices issued. This could be an indication that show cause notices are effective in bringing industries to compliance or the resistance to take stringent action in cases of non-compliance.

Table 8: Show cause notices and directions issued by select SPCBs

State	Year	Show cause notices	Directions	Closure orders
Chhattisgarh	2011-12	278	70	NA
	2012-13	138	12	NA
	2013-14	103	72	NA
Karnataka	2011-12	NA	NA	1767
	2013-14	NA	NA	1614
	2014-15	NA	NA	211
Odisha	2014-15	552	505	NA
Gujarat	2014-15	NA	1707	2525

In the case of regulations that are well studied such as the EIA and CRZ notifications, the non-compliance of mitigation measures is extremely high and enforcement actions are found to be slow or non-existent by the Ministry or State agencies. The time available with institutions is spent on approval granting processes, claiming that it is necessary for economic growth, rather than compliance and monitoring.

The framing of the binding conditions for mitigation is vague and open ended due to which their implementation on the ground remains challenged. For example, the Environment Clearance issued by the MoEFFC to Odisha Mining Corporation in 2009 for expansion of Gandhamardan- B iron ore mines in Keonjhar, Odisha states, "Regular monitoring of water quality upstream and downstream of the Suakati Nallah shall be carried out." Vague words such as 'regular' and 'appropriate' are used often while framing conditions in clearances and permissions. As per a report, the Bengal State Coastal Zone Management Authority, while examining the Integrated Sahara Tourism Project in Sundarbans, in a meeting in May 2014, said that dredging should be carried out as part of the project. In the very next sentence, the Authority stated that if dredging took place, the dredge spoil should be discarded at designated sites by the Kolkata Port Trust, contradicting the statement it had previously made.[20]

Though formal mechanisms for official monitoring and reporting of compliance exist, the responsibilities delegated to administrative agencies to act on complaints are fragmented. For example, different states have assigned responsibility of verifying CRZ violations and taking action against them to different agencies-in Karnataka, it is the regional director but District Level Coastal Committees (DLCCs) can also verify violations, in Kerala it is the Gram Panchayat or other local bodies which carry out the inspection, in Odisha it is the District Collector and in the case of Andhra Pradesh it is the select members of the concerned State Coastal Zone Management Authority. In West Bengal, Tamil Nadu and Maharashtra, District Level Coastal Committees are responsible for verification of violations and taking action on violations.[21]

[18]Source: http://www.cpcb.nic.in/List_17Cat_Defaulter.pdf

[19]Section 31A of the Air Act, Section 33A of the Water Act

[20]Menon M., Kapoor, M., Venkatram, P. Kohli, K. & Kaur, S. (2015). CZMAs and Coastal Environments: Two decades of regulating land use change on India's coastline. India: CPR- Namati Environment Justice Program.

[21]ibid

Even when actions are taken, they are broad and generic rather than specific to the problems caused by non-compliance. The instruments available to the institution are hard and blunt such as notices and closures, when remedies to non-compliance require nuanced action.

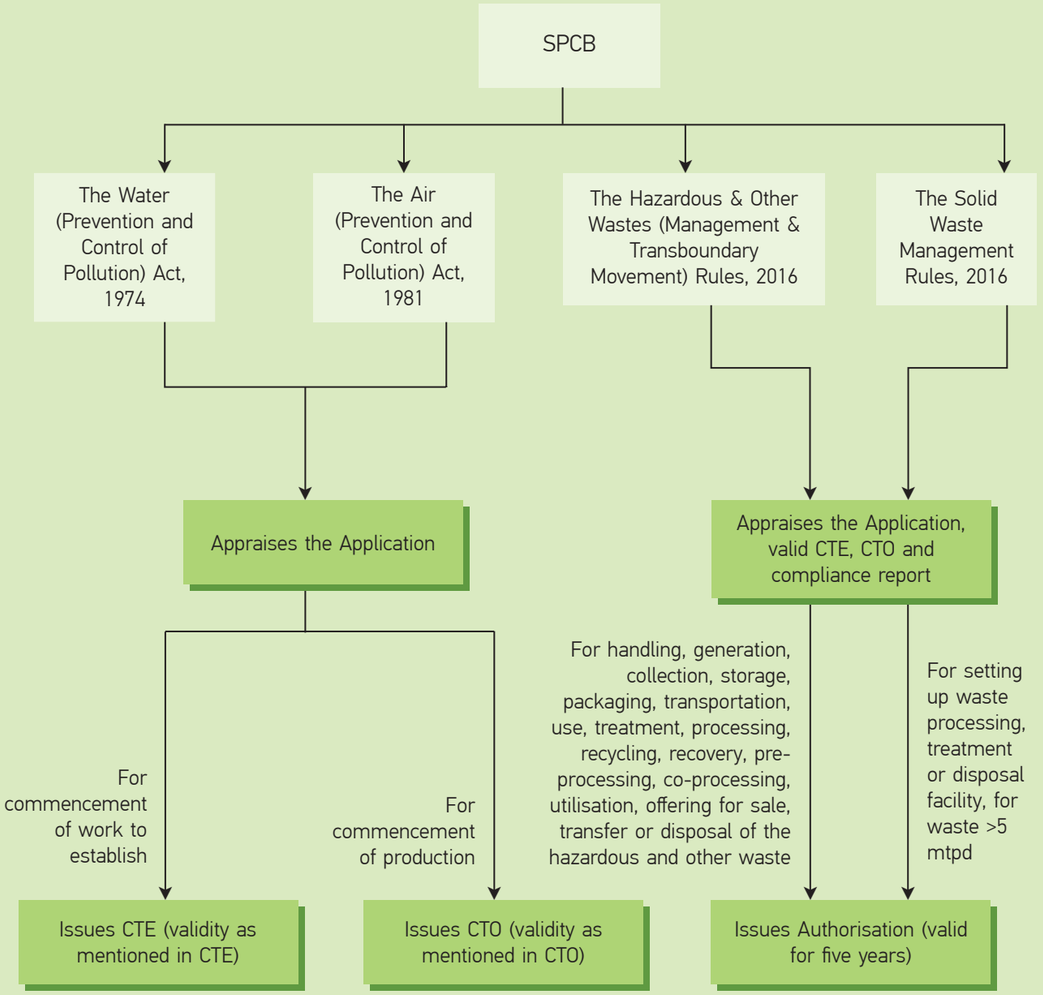
As a result of these gaps in the compliance and monitoring system, large numbers of people are vulnerable to the everyday effects of pollution, loss of access to community resources, restrictions on mobility and fear of loss of property and livelihoods. The absence of institutional action for timely remedies results in increasing reliance on adversarial routes such as courts or street protests for seeking remedies. Besides being expensive, time-consuming and sometimes risky, these routes do not lead to any sustained improvements in compliance of projects, or lasting policy or institutional reform.

Photo credit: Kanchi Kohli

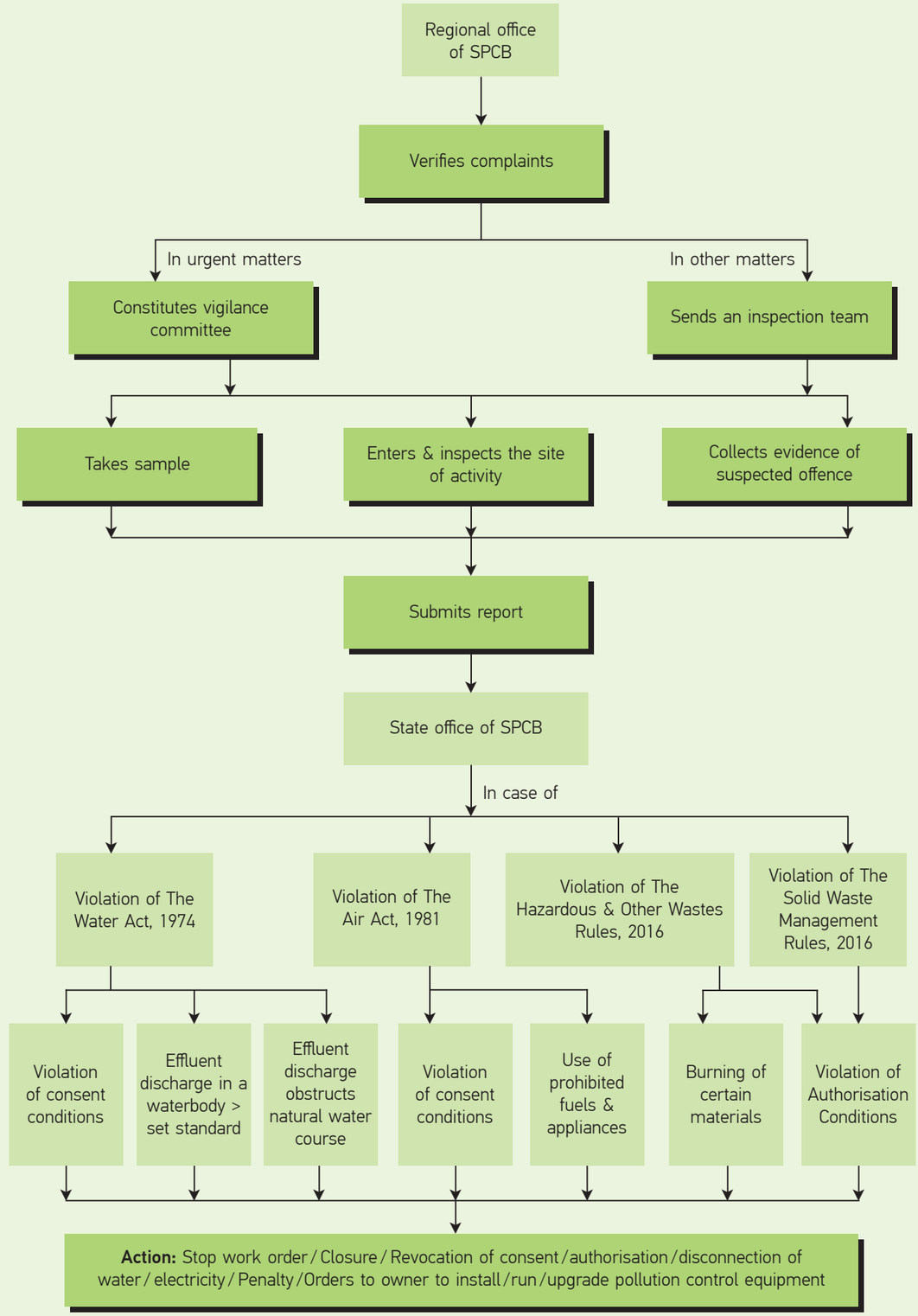
III

INSTITUTIONAL MAPPING

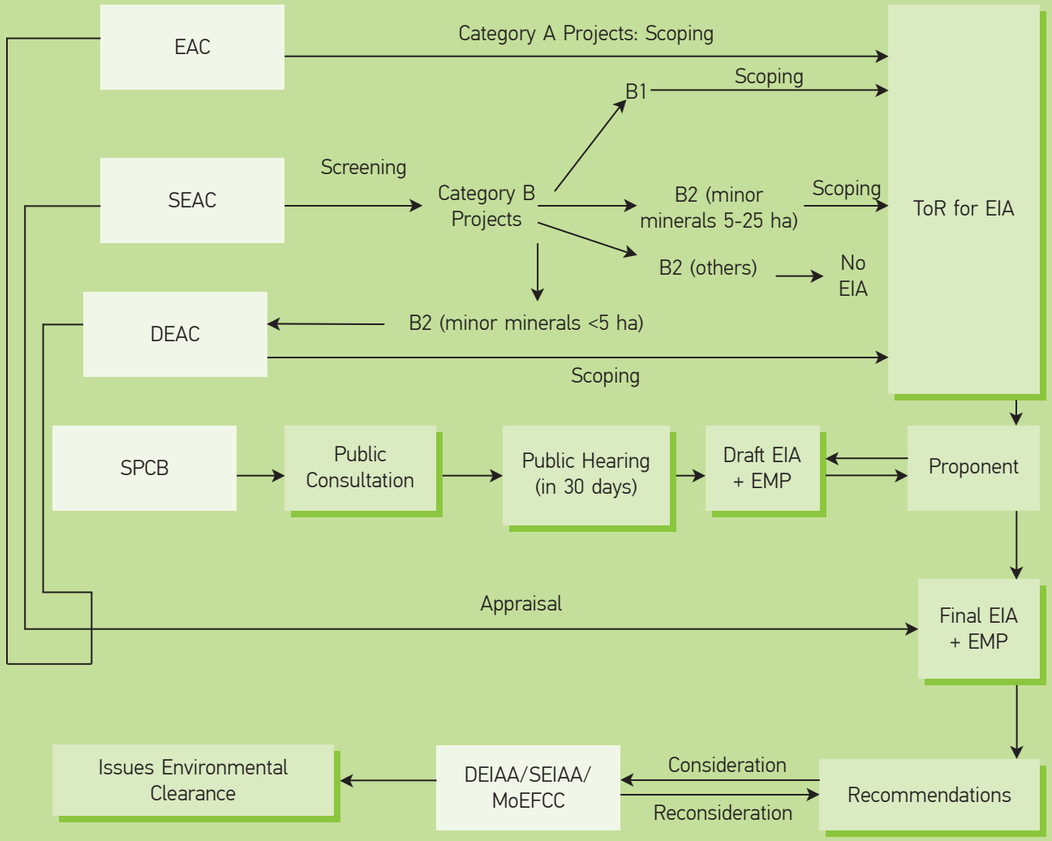
Consents/authorisations under pollution laws



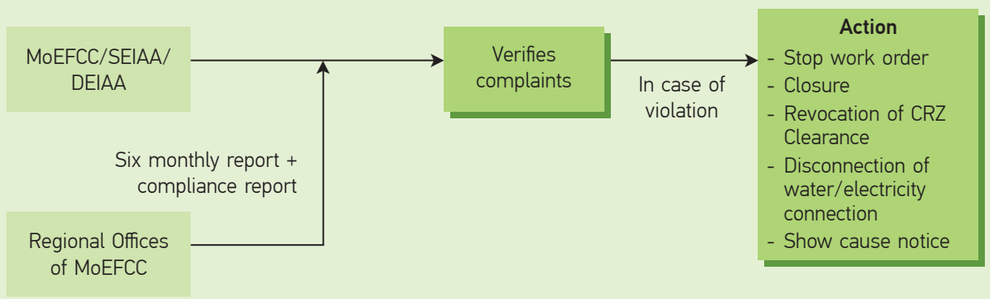
Monitoring and enforcement under pollution laws



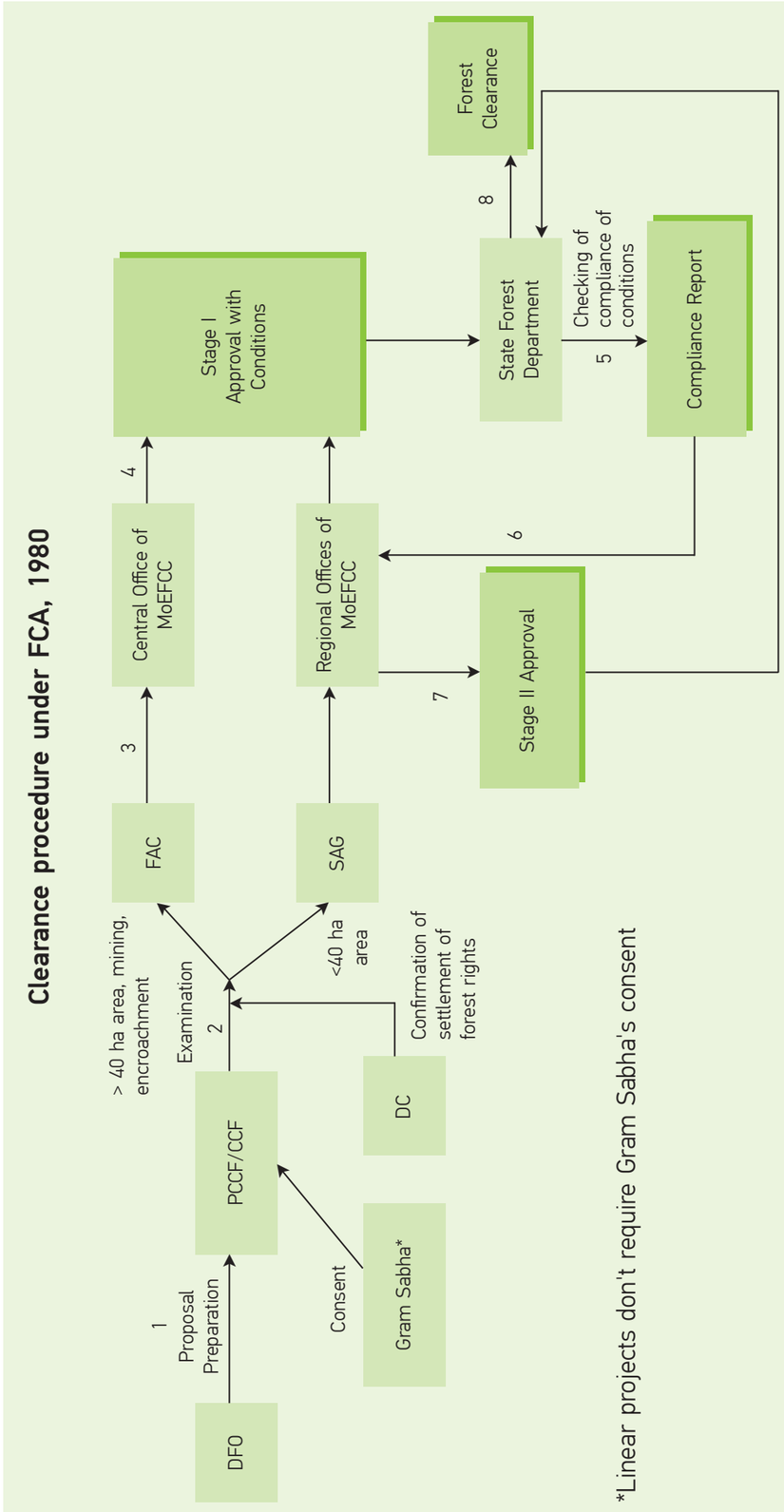
Clearance procedure under EIA Notification, 2006



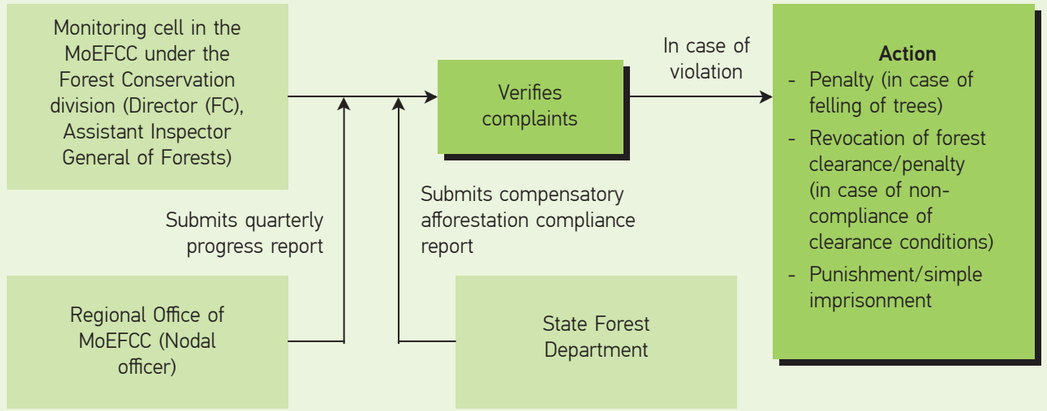
Monitoring and enforcement under EIA Notification, 2006



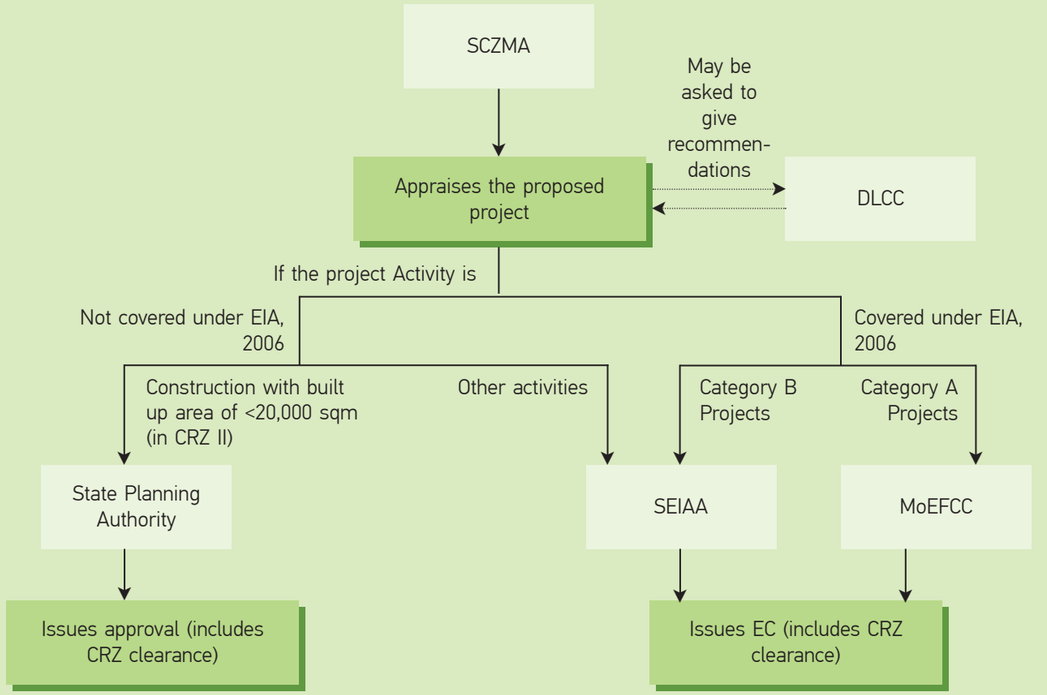
Clearance procedure under FCA, 1980



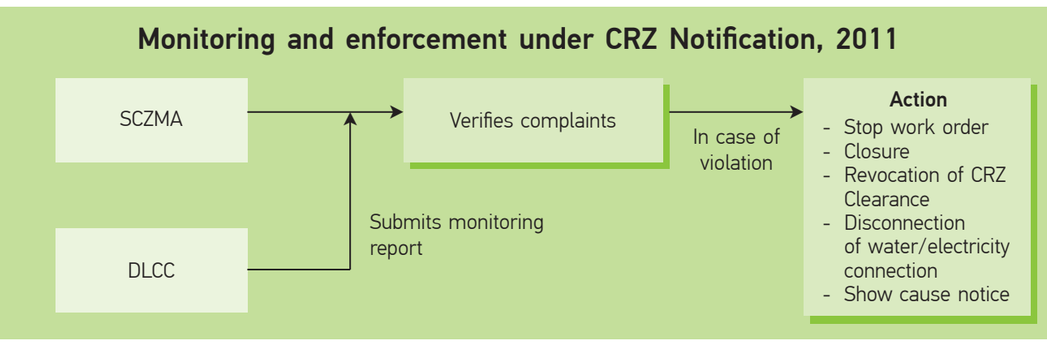
Monitoring and enforcement under FCA, 1980



Clearance procedure under CRZ Notification, 2011



Monitoring and enforcement under CRZ Notification, 2011



IV

SEEKING ADMINISTRATIVE REMEDIES USING ENVIRONMENT REGULATION

The previous sections in this study highlight the range of regulatory and monitoring protocols governing the environmental and social impacts of industrial and infrastructure projects in India. It also brings out issues related to the poor performance of these protocols and their inability to mitigate or minimise these impacts. Although the government spends resources and time on these protocols, if they do not result in improving compliance and guarantee better outcomes of regulations, there is a need to rethink how these laws are being implemented.

In this section we deal with seven case studies where social and environmental impacts were being caused due to non-compliance of regulatory conditions by project proponents and poor monitoring by the concerned government agencies. These cases explain the efforts made by affected people and concerned citizens in seeking effective remedies through invoking one or more regulations or enforceable conditions. This route for seeking remedies for addressing social and environmental impacts of land use change has been relatively underused. This is both because the regulatory institutions have not been able to deliver their responsibilities and the affected communities have not been able to access these offices either due to lack of information or incapacity to present credible evidence.

The levels of success and failure in seeking remedies through this method have differed, the reasons for which are discussed in the specific case studies. Presented here is an overreaching analysis of the trends that emerge from the seven case studies.

Accessibility of regulatory institutions

- Institutions at the district or village level are usually most accessible to affected people. However, they are sometimes unaware of their jurisdiction or lack the capacity to exercise the powers. Submissions highlighting clear legal violations, evidence, and linking it to the powers of these intitutions to secure remedies as highlighted in the case studies can also push dormant institutions into action.
- More often than not, it is difficult for the affected people to approach state level institutions without assistance, as they are mostly based in capital cities. Higher officials are not always easily accessible without prior appointments and rigid protocols. However, addressing copies of complaints to these authorities can increase the communication within regional and national offices of the same institution and also push a conversation between two authorities (eg. PCB and District Collector or SEIAA and CGWA), which otherwise may not take place.

Availability of compliance related information

- Documents such as clearance letters, monitoring reports are not easily accessible in designated government offices for public viewing. Affected people and interested citizens are able to access these either through the internet or by using the Right to Information (RTI) Act, 2005. This makes the knowledge of environmental safegaurds extremely limited, especially for the people to whom they matter in everyday life.
- Despite the use of the RTI Act, while seeking information from the regional and state level institutions, the information is provided only after repeated requests. In most cases, RTI applications and letters of complaints have been followed up with visits to government offices, which has made the institutions respond.

Lack of clarity of powers and jurisdiction

- Substantial amount of time is needed in understanding the regulatory arrangements for monitoring as well as the institutional heirarchies which need to be navigated in order to secture remedies. This is both due to lack of knowledge as well as overlapping jurisdiction of different authorities. This can lead to delays in finding the appropriate authority which has the power to redress a problem arising out of non-compliance. For instance, a case of solid waste management would involve the concerned municipality, pollution control board and the department that has jurisdiction over the land where the waste is being dumped (in one of the instances discussed below, it was the forest department and in the other it was the coastal authority).

Activating dormant regulations and legal clauses

- The case studies have also brought to light that it is the use of law by the affected parties that can highlight unknown and unused clauses of regulations. For example, powers of the PCB to constitute a vigilance committee in urgent matters and to authorise anybody to carry out inspection of the site of the project in question became known only once the people living around Kolak estuary began exercising their right to complaint and seek action from a concerned body primarily set up to respond to urgent and untimely instances of non-compliance.

Institutional actions and remedies

- The case studies reveal that regultory institutions take three kinds of actions. The first is in the form of verification visits, second, issuance of notices seeking clarification from a potential violator and third, directing a remedy. This does not necessarily progress in a linear manner. Site inspections do not always result in notices and notices are not necessarily followed up, even if no response is received. They can remain one time events if there is no follow up.
- Action taken on complaints is largely limited to bringing a project into compliance. Neither do they compensate for livelihood loss, inconvenience and other impacts faced by the community during the time of the violation, nor do they set any future checks to avoid future recurrence.

Knowledge of multiple laws

- For affected people using environment regulation to address impacts of non compliance, the knowledge and use of multiple regulations can work to their advantange. They have been able to simultaneously pursue similar or different remedies exercising monitoring protocols available under more than one institution.

Overall, the case studies show that the system of compliance needs a third party besides the government and the project proponent, which is the affected community. They also show that when communities are involved in compliance, they seek remedies that are meaningful to them and collaborate with regulatory agencies to craft them.

These case studies demonstrate that compliance is not merely a regulatory protocol for the people living in and around projects. It is a social contract between the project proponent, government and affected communities to ensure that the operations of the project will not result in loss of their freedom or impose risks on them. High levels of persistent non-compliance of mandatory conditions and mitigation measures are a significant part of the larger challenge of sustainable development and resource governance. Yet very little policy attention has been given to address this chasm between environmental regulations and enforcement.

CITIZENS' ACTION ON COMPLIANCE AND MONITORING PROTOCOLS TO SEEK REMEDIES

1. FISHERFOLK'S DREAMS IN THE PIPELINE

Vapi is a bustling little town, at the southern tip of the western Indian state of Gujarat, home to rivers, fisherfolk, industries and high levels of pollution, amongst all other things. Some call Vapi the armpit of India, due to the high levels of pollution in this region. "You'll be able to smell it," is the constant refrain.[22]

While industrialisation in Gujarat allowed several big operations to be located, it has also created an array of problems for the people living there to grapple with. Vapi is one of the places that has taken part in the Gujarat industrialisation vigorously – the Vapi Industrial Estate was set up in 1967 by the Gujarat Industrial Development Corporation (GIDC) and supports almost 1800 industries. In 1989 it was categorised as a 'critically polluted area' by the Central Pollution Control Board (CPCB). The CPCB in collaboration with the

[22]Gahilote, P. (2014, February 3). Where the Black Water part. Outlook. Retrieved from http://www.outlookindia.com/magazine/story/where-the-black-waters-part/289276

Indian Institute of Technology formulated the Comprehensive Pollution Index (CEPI) to estimate the level of pollution in industrial clusters.[23]

South of Vapi lies Daman & Diu that is one of the seven union territories in the country. Daman is twenty minutes away from the heart of Vapi, making it the weekend getaway for many. While the boundaries of Vapi and Daman are demarcated clearly, the natural resources are still shared. Damanganga flows from Vapi to Daman and back again to Vapi, putting the river under the jurisdictions of two different regulatory authorities. Kolak is another of the rivers in Vapi that is infamous for its pollution. The CPCB has categorised both Kolak and Damanganga as 'rivers unfit to support life'.[24] Over 5000 people are dependent on these rivers and estuaries for fishing.[25]

The impacts faced by the fishing community are directly linked with the non-compliance of environmental laws by industrial units. In this case study, it is looked at how the fisherfolk in Vapi, facing the impacts of the water pollution on their livelihood, are trying to overcome it.

A river once blue

The Morai area of Valsad district, home to a fishing community, has been facing the impacts of effluent discharge by the industries into the Kolak and Damanganga rivers for decades now. There has been a dwindling supply of fish which is affecting their livelihood. Fish deaths after dumping of effluents by the industries, is a common problem being faced by the fishing community for several years now. For instance in 2011, the Sarpanch had complained to the Gujarat Pollution Control Board (GPCB). *"This is not the first time this has happened, but nothing has been done about it. The industries in the nearby areas are discharging chemical wastes into the Kolak river, which later get into the sea and results into the death of fish."* Kishor Patel, Sarpanch.[26]

The GPCB in this instance acknowledged the fact that there are dead fish found in the area and instructed the Fisheries Department to take samples but no steps were taken following that.[27]

One of the challenges is that the dumping that occurs near the Kolak estuary is affected by the tides that come and go. To even collect evidence of the pollution that is occurring in this part would mean collecting samples within hours, before the tide comes in. As the dumping of these effluents occurs at night, this adds to the challenge of getting even the Vigilance Committee of GPCB to respond and collect the samples within the natural time frame. There are seven industries in the Morai area and to make a complaint that would make the authorities not dismiss it means collecting evidence of the pollution, being able to clearly identify the violator and the provisions of the law that are being violated.

The Kolak river is further polluted due to the discharge of effluents by industries into Bill Khadi, which is a canal in Vapi for releasing domestic waste water. The people living nearby have revealed that the industries dump effluents at night. This increases the water pollution in the river.

Efforts of the fishing community

With the help of researches, the community members took up the challenging task of finding whether any of the seven industries near the Morai area in Valsad had the permission to lay pipelines and for discharge. While the problem was established that the water pollution is due to effluent discharge, but it was still not known who laid those pipelines and under what conditions the permissions for laying them were obtained.

Right to Information (RTI) applications were filed by the representative of the fishing community in July 2014 to find out whether the required permissions were obtained e.g., the environment clearance, consent to operate (CTO), consent to establish (CTE) by the industries. RTIs were filed with the GPCB to obtain the

[23]http://pib.nic.in/newsite/PrintRelease.aspx?relid=94969

[24]John, P.(2010,June 5). Vapi: Caught in a toxic chokehold. Times of India. Retrieved from http://timesofindia.indiatimes.com/home/environment/pollution/Vapi-Caught-in-a-toxic-chokehold/articleshow/6012923.cms

[25]http://www.daman.nic.in/websites/planning_daman/documents/2014/statistical-diary-2012-13WEbside.pdf

[26]Bhatt, H. (2014, April 14). Dead fish found on the banks of Kolak. Times of India. Retrieved from http://timesofindia.indiatimes.com/city/surat/Dead-fish-found-on-banks-of-Kolak-river/articleshow/7975128.cms

[27]ibid

Photo credit: Kanchi Kohli

CTO, CTE, and with the District Industries Centre (DIC) and Gujarat Water Supply Department to find out whether permissions had been given for laying pipelines to any of the industries. The DIC, Water Supply Department responded saying that they have not given permission to lay pipelines.

Evidence was also collected in the form of photographs, newspaper articles, interviews of the affected people and mapping of the river by the community researchers. Discussions with the representatives of the fishing community were key in gathering evidence, as the community researchers worked together with them in putting together the evidence.

An application has also filed to the GPCB to empower the members of the community under the provisions of the Water (Prevention and Control of Pollution) Act. Section 23[28] of the Water Act, allows the State Pollution Control Board to empower any person to perform any of functions of the Board on its behalf. This was done to overcome the challenge of timely sample collection and assist the regulatory authorities in evidence collection.

Still in the making

It was only after several applications that it was ascertained that only two out of seven industries had permission to discharge treated effluents at an outlet suggested by the National Institute of Oceanography

[28]Section 23. Power of entry and inspection

(1) Subject to the provisions of this section, any person empowered by a State Board in this behalf shall have a right at any time to enter, with such assistance as he considers necessary, any place —

(a) for the purpose of performing any of the functions of the Board entrusted to him;

(b) for the purpose of determining whether and if so in what manner, any such functions are to be performed or whether any provisions of this Act or the rules made thereunder or any notice, order, direction or authorisation served, made, given, or granted under this Act is being or has been complied with;

(c) for the purpose of examining any plant, record, register, document or any other material object or for conducting a search of any place in which he has reason to believe that an offence under this Act or the rules made thereunder has been or is being or is about to be committed and for seizing any such plant, record, register, document or other material object, if he has reason to believe that it may furnish evidence of the commission of an offence punishable under this Act or the rules made thereunder: Provided that the right to enter under this sub-section for the inspection of a well shall be exercised only at reasonable hours in a case where such well is situated in any premises used for residential purposes and the water thereof is used exclusively for domestic purposes.

(NIO). This was found from the Environment Clearances of the two industries. An RTI has been filed asking for the NIO report and file notings of the communication to determine the exact location of the suggested outlet. However, this just establishes the permission for pipelines for two industries; the legalities of the other pipelines still remain. Meanwhile GPCB has replied to the complaints of the fishing community, saying that they are regularly monitoring discharges of the two industries.

A site visit was done by the GPCB following the complaints of the community members in the presence of the complainants. As per the inspection report[29] of this site visit, the GPCB has designated local bodies "to initiate efforts for controlling water pollution at source" and the Irrigation Department, Notified Area, Vapi Nagarpalika & Gram Panchayats "to set up a dedicated continuous monitoring system along with CCTV surveillance & keep constant watch" to improve the quality of the Kolak river.

Despite the responses and site visits of the regulatory authority, the biggest challenge that still remains is that of enforcement. Empowering and involving the community who is facing the impacts of non-compliance, to assist the authorities to monitor compliances can help in mitigating the negative environmental impacts.

The fishing community in Morai said that this year the fish catch has increased and some fish that had disappeared from the river, have returned. It is yet to be ascertained if the claimed improvement is due to the efforts to use the law and the GPCB's response. But, for now, the problem has been formally acknowledged by the regulators and steps are underway to address the impact, almost twenty years in existence. The river still is not blue though, not just yet.

2. COAL DUST POLLUTION ON GUJARAT COAST AND IMPLEMENTING GUIDELINES

In the year 2010, the Government of Gujarat, through its Pollution Control Board, enacted Guidelines for Coal Handling Units. These guidelines give safeguards to address impacts, covering a variety of criteria on location, storage and handling, transportation, pollution prevention and certain legal criteria. Safety requirements too are mentioned. For example, they give safeguards with respect to the minimum distance from agricultural land, forest land, ecologically sensitive areas, residential areas, etc. that is to be maintained by a coal handling unit/agency. They state that a mechanised loading/unloading system should be in place and that trucks transporting coal should be showered with water and be covered. To prevent pollution, the guidelines say that adequate air pollution control measures should be installed and "tall growing" trees must be planted at the periphery of the unit/agency's premises. The fact that an Environment Management Plan must be prepared and implemented too is acknowledged, as is the necessity for adequate firefighting measures.

The issuance of these guidelines was an important regulatory response to address coal dust pollution that was causing problems at various locations across the Gujarat coast. However, it was not enough that the guidelines were issued; were they being complied with or not was the important question. As a first step, a research team decided to investigate the status of implementation of the coal handling guidelines at four of these locations on the coast. Information was gathered to understand and assess whether compliance is taking place for coal handling in the four ports established by the Gujarat Maritime Board. These ports were in four different districts in the state- Kandla Port in Kutch, Okha Port in Devbhoomi Dwarka, Hazira Port in Surat and Navlakhi Port in Morbi. This was along with understanding what kinds of impacts the non-compliance is leading to. Some details are discussed below.

Mishandling at ports

At Kandla Port in Kutch, the complaints about coal mishandling by people living around the port were few. However they did share that the direction in which the wind blew was from the land towards the sea, thereby leading to felt impacts of coal dust to a minimum.

At Okha Port in Devbhoomi Dwarka, large scale import and export of aluminium ore, bauxite and the chemicals manufactured at the Tata Chemicals Limited plant situated at Mithapur takes place. A groundtruthing exercise revealed that many clauses of the guidelines were being violated. Photographs were taken as evidence of the same.

The evidence collected corroborated that there were at least six conditions of the coal handling guidelines that were not in order. The height of the compound wall had to be at least 9 m, but it was of a much lesser height. The coal stack was also higher than the compound wall, whereas the guidelines stipulated the need for the opposite. Additionally, it was found that though the floor where the coal was being stored had to be made of concrete, this too was not the case. No green barrier had been set up with three rows of plantation. Further, though the guidelines called for it, there was no proper water facility. As the trucks used for ferrying the coal were not covered with tarpaulin covers, it was leading to spillage.

A letter detailing the above violations, with the photographs attached as evidence, was sent to the Gujarat PCB (GPCB) at Gandhinagar by a community level legal worker. In addition to this, the guidelines were also translated from English to Gujarati, and discussed between community level legal workers in the area

Photo credit: Bharat Patel

Navlakhi Port: Coal transportation in violation of the guidelines

Photo credit: Bharat Patel

Navlakhi Port: Coal transportation in compliance with the guidelines

[29]GPCB Inspection report of inspection done on 25/04/2016

and the affected community members, especially those from the Sagar Khedu Fisherfolk Association (an association working for the wellbeing of the fisherfolk community in Okha). During this discussion they also spoke about the best ways of seeking remedies for the problem at hand. A month after this letter was sent, the affected people, along with the community legal worker, observed that several changes had been made leading to compliance with the guidelines.

Although there was no formal acknowledgement of the complaint or response by the GPCB, a repeat visit four months later confirmed that compliance was sustained.

In the case of Hazira Port in Surat, violations comparable to those at Okha Port were taking place. Here too, compliance was achieved post the submission of complaints with appropriate evidence provided by a community level legal worker.

Investigation and research at Navlakhi port in Morbi revealed that while Navlakhi Port had been operating in the absence of the Consent to Operate for about three years, when the Consent to Operate was finally issued, it had no mention of the fact that the Guidelines must be applicable at the Port. The GPCB had been carrying out numerous visits to the Port, and had repeatedly observed blatant mishandling of coal along with ambient air quality not being maintained at all. In spite of multiple directions issued after the visits, the non-compliance continued. A community legal worker paid a visit to the GPCB Appellate Authority in Gandhinagar to pursue the matter of compliance. A month later, an amendment to the Consent to Operate was issued, which included the applicability of the guidelines at Navlakhi Port. After some months, in a follow up visit to the Port by the community worker, compliance with the guidelines was observed.

Mishandling at chemical and power plants

After the learnings from the above instances, efforts were made by a team of enviro-legal workers on the Saurashtra coast to work to address the impacts on people living around facilities where similar non-compliance was taking place.

Sutrapada, Gir-Somnath

At Sutrapada in Gir-Somnath, it was observed that fly ash from the Gujarat Heavy Chemicals Limited (GHCL)'s plant was causing problems to those living nearby. Well versed with the guidelines, an enviro-legal worker in the area realised that GHCL was not complying with them. He got the attention of the GPCB at Junagadh towards the matter by writing a letter about the improper handling of coal. Though an official contacted him saying that further evidence was required in order to move forward with the matter, a written reply acknowledged that the guidelines had to be followed. Receipt of this letter was followed up with the filing of a Right to Information (RTI) application, inquiring what action had been taken with respect to the initial letter sent.

In a positive step, about a month after the complaint was sent, officials from the GPCB visited GHCL's plant and gave directions about expanding the capacity of the electrostatic precipitator (ESP), bringing about changes in the quality of handling and building an internal road. The dumping of fly ash, however, was not discussed. The enviro-legal worker and affected fisherfolk then together filed a specific complaint about this with the GPCB at Junagadh.

Kodinar, Gir-Somnath

The coal which was being stored for the purpose of the Ambuja Power Plant was also not being handled as per the guidelines at the jetty in Muldwarka village, Kodinar, Gir-Somnath. Improper handling was causing numerous fly ash related problems for the villagers in the area. The height of the stacked coal was exceeding the height of the boundary wall. This, coupled with the uncovered transportation of coal was causing dust to settle on plants and people's homes. Compliance reports too indicated that the coal was not being handled properly. In spite of complaints to local authorities, no action had been taken.

A community level legal worker in the area took photographs of the violations and attached them with a letter to the Member Secretary of the GPCB, indicating health effects of coal dust. Copies were sent to the DC of Gir-Somnath and the Regional Officer of the GPCB at Junagadh. On the basis of the complaint letter, the GPCB at Junagadh conducted a site visit and verified that the guidelines were being violated. Post the visit, instructions were given to Ambuja on how to handle the coal properly. Specifically, it was told to keep the yard covered, cover any open coal with tarpaulin covers, and increase the height of the boundary wall to two times its present height. The GPCB at Gandhinagar sent the community worker a letter stating that post a site visit, a 15 days closure notice had been issued. News of this closure notice was publicised on a television news channel as well.

The community worker met up with the local community leaders from the Khavraj Samaj (fisherfolk community) who had been complaining to the Sarpanch as well as company officials about the hazardous health effects of coal. Even after the increase in the height of the wall, it was being observed that though covered now, the height of the coal stack had gone beyond the wall's height. Pursuant to this development, along with another complaint letter to the GPCB, an RTI application was also filed with to get information on the permissible height of the coal stacks.

Once a reply to the RTI application had been received, an application was sent to the GPCB to take action in this respect. Thereafter, another RTI application was filed with the GPCB, inquiring what action had been taken in response to the request for action to be taken. Although the GPCB did not officially reply to the complaints or applications, a while later it was seen that the guidelines were being followed at the site and as a result, the coal dust in the area had reduced.

Khambalia, Devbhoomi Dwarka

Along similar lines of non-compliance, Essar Power Limited in Khambalia, Devbhoomi Dwarka too was violating the guidelines, greatly distressing nearby farmers. The coal was stored in an open space, the walls were not high enough, the land surface was not of Reinforced Cement Concrete (RCC) and the loading trucks did not have tarpaulin covers over the coal. As a result of all this, the farmers were left to tackle the problem of coal dust settling on their crops. Affected farmers along with community level legal workers met and discussed that, to remedy the situation, the matter could be taken up with the GPCB.

In a follow up site visit three weeks later, it was learnt that the company had constructed wind barriers so that the coal dust does not fly out of the compound in which it was being stored. However, other guidelines were still being ignored. A letter highlighting the violations of the guidelines was then sent to the GPCB, Jamnagar, in order for it to take action against the mishandling of coal. However, no response was received from the department in this regard. A while later, one of the farmers observed that the company had now begun to stealthily carrying out its operations during the night. Though the construction of the wind barrier was much welcomed, it was determined that the GPCB needed to be pursued with greater vigour so that desired results could be achieved in this case.

Regular monitoring and perusal by community workers and the people affected by the mishandling of coal has ensured that the coal handling guidelines are now being implemented at the four ports. With respect to cases of non-complying chemical and power plants where efforts have been made, the GPCB (the body responsible for the implementation of the guidelines) in some instances has taken note of the complaints of negative impacts and has started trying to remedy the situation. In other instances, greater accountability and monitoring on the part of the GPCB, needs to be in place. With the local communities empowered with the relevant legal knowledge, slowly but surely positive results should emerge.

3. CLARIFYING LAWS FOR PROTECTING PEOPLE'S HOMES

Background and the problems

The Coastal Regulation Zone (CRZ) Notification, 2011, is a legislation with the objective to ensure livelihood security to fisher and other local communities living in coastal areas, to protect the unique environment and marine area of coastal stretches, and to promote development along the coast in a sustainable manner based on scientific principles. Paradoxically, in spite of such a protective objective, it is a legislation feared by the very people whom it is meant to protect. In a large part, this is because of its poor implementation and lack of knowledge about it amidst the people whom it primarily affects.

The Notification regulates the various kinds of activities that can be carried out in four zones along the coast. In the beginning of 2015, it was noted that the problem of fear surrounding the law was particularly severe in Uttara Kannada district of Karnataka. Not only was it unclear as to what were the exact documents required, but long physical distances had to be traversed for basic information. It was observed that a rather wearisome process had to be navigated by local people wanting to get the requisite permissions for construction or reconstruction of their small houses.

The ambiguous and time consuming process has resulted in other problems too. Government housing schemes that provide financial aid to the underprivileged (e.g. Indira Awas Yojana, Basava Housing Scheme, Ambedkar Housing Scheme and Fishermen Housing Schemes) require that construction must commence within a specific time period. However, even in instances where people have been able to submit the mandated documents, due to the fact that the waiting period to hear back on their application often ends up extending over a year, more often than not the time frame for which the scheme is valid lapses before the beneficiary has been able to begin construction. In 11 Panchayats that researchers associated with the CPR-Namati EJ Program visited- Kagal, Baad, Holanagadde, Kalbhag, Devgiri, Divgi, Mirjan, Kodkani, Bargi, Gokarna and Alkod- it was discovered that more than 58 applications for housing schemes had lapsed due to failure on the part of the beneficiaries to provide a CRZ clearance. Many Panchayat Development Officers (PDOs) questioned in this regard said that they were unable to help applicants to get clearances, thanks to all the other work that they had to attend to.

Through investigations it came to be revealed that in 2011 an official circular was released wherein the Karnataka State Co-operative Agriculture and Rural Development Bank proclaimed that it would not grant loans to locals who use their properties within the CRZ as guarantee. The researchers even learnt of instances wherein electricity and water connections were denied in the absence of a house number given by the panchayat. When the panchayat was approached for the same, the applicant would be told that the CRZ authority would be the one to grant the house number, thus leading the troubled

Photo credit: Aubrey Wade

person into a maze of navigating a terribly unclear process. Due to all the uncertainty shrouding the very concept of CRZ, many locals had given in to the 'distress sale' of their land falling within the CRZ, to buyers at low-slung rates.

The process followed

The CRZ Notification, 2011 only lists the documents required by big project applicants, and not those seeking house construction or reconstruction clearances. Also, if the reconstruction pertains to a construction prior to 1991 (the year in which the CRZ Notification was first promulgated), there are some differences with respect to the required documents. To address this issue and to demystify the law for the people, the researchers approached the Regional Director of the CRZ Office at Karwar, and clarified what exactly were the documents required in each case. Accordingly, they prepared two separate checklists, listing the documents that applicants seeking either kind of clearance would require. Armed with the checklists, they conducted street plays in villages falling within the CRZ to raise awareness about the CRZ Notification, 2011, and the significance of community participation in Coastal Zone Management Plan (CZMP) preparation.

Process adopted to assist people in getting clearances

Speaking to the concerned person(s) in villages falling within the CRZ, it was ascertained whether permission was being sought for the construction of a new house or reconstruction of an already existing house. Accordingly, the appropriate checklist for required documents was identified and the need for any additional documents determined. To establish the survey number and the ownership of the land, applicants were directed to visit the Panchayat. At times, the CZMP map was also referred to. The researchers shared the contact numbers of the relevant CRZ officers at Karwar with the applicants, so that they could coordinate submission of the retrieved documents.

If the CRZ Office was satisfied with all the submitted documents, the responsibility to carry out a site visit as part of the procedure lay with them. To follow up on their application status and to ensure that the visit was carried out, applicants were encouraged to call up the CRZ Office. After the site visit, it was the duty of the CRZ Office to forward all the documents to the Karnataka State Coastal Zone Management Authority in Bengaluru to approve or reject the clearance proposal.

Interestingly, after a while Panchayat members who themselves had little idea about the CRZ clearance procedures began approaching the people working to resolve the issue, asking them if they could guide applicants with the approval process. For example, one Panchayat member asked a researcher, "As you are familiar with the application procedure, would you be willing to help some villagers in getting an NOC from the CRZ Office?"

While some villagers were directly helped, in order for this process to have a wider outreach, a decision was taken that the checklists would be distributed on a large scale.

Did people get approvals?

By the end of 2015, local communities in 45 coastal villages and the District Level Coastal Committee (DLCC) were helped with applying for CRZ clearances for their houses, and also with comprehending the CRZ in Uttara Kannada.

Around 25 families were helped with obtaining a CRZ clearance for house construction or reconstruction and more than 40 community members were guided on how to apply for the same. Efforts in Aigalkoorve yielded special results. Since 2011, the area had not seen a single approval for a housing scheme for a BPL beneficiary. Post efforts of the researchers, approvals for housing shelters begun to be granted.

Looking beyond individual approvals

A suggestion that arose from the communities in the villages that the researchers visited was to have CRZ clearances for local housing under the Karnataka Guarantee of Services to Citizen Act or Sakala Act, 2011. This Act guarantees citizens the right to attain documents within a definite time that is prescribed in the Act, making the government departments accountable to provide documents within the stipulated period

Keen to bring together all those involved with and impacted by the CRZ, the researchers convened a meeting with KCZMA members, local fisherfolk, the Deputy Director of the Forest Department, Regional Director of CRZ, representatives from local NGOs and the press. At this meeting, the fisherfolk shared their woes regarding the clearance procedure for their houses being so very tedious. It was strongly felt that if the Regional Director was given more authority and the matter of giving CRZ clearances for the construction and reconstruction of houses could be taken care of at the taluka or even the district level, it would be much easier to get quicker results in such cases.

The minutes of this meeting were then submitted to the Member Secretary of the KCZMA who was also the Special Director of the Forest, Ecology and Environment Department. It remains to be seen whether this suggestion, which would undoubtedly help the local communities, will be implemented or not. But, for the people of coastal Uttara Kannada, the CRZ law is no longer what they fear but a tool that they use in everyday life.

4. MONITORING THE DISPOSAL OF MUNICIPAL SOLID WASTES

The disposal of municipal solid wastes is a matter that affects people and the environment across regions. Landfills in cities are overflowing, unable to accommodate more waste.[30] When urban areas run out of landfill sites, it is not uncommon for them to turn to rural areas. Urban waste is often dumped in rural areas, causing problems of stench and hygiene there as well.[31] When unsegregated solid waste is burned, irrespective of where, toxic gases are released that cause severe health problems and environmental degradation. While burning results in air pollution, leachate causes pollution of surface water and groundwater.[32]

Upon learning of multiple complaints pertaining to impacts faced by its disposal, enviro-legal researchers in two parts of the country were motivated to investigate factors such as who monitors waste disposal, its management, peoples' awareness with respect to how the waste is handled, whom to approach in the event of any problem, etc.

Below are experiences from three cases in which affected community members along with researchers tried seeking remedies to address concerns of non-compliance with respect to the dumping of municipal solid wastes. They did this by learning the regulatory framework, putting it to use and gathering lessons.

Veraval city, Gir Somnath, Gujarat

A community worker working on environmental issues in Veraval, Gir Somnath, noticed in May 2014 that the dumping of solid waste was taking place in the No Development Zone of the Coastal Regulation Zone.[33] He approached the Veraval Municipality in this regard, and learnt that the Municipality was responsible for the collection and dumping of waste in that area. The people residing in the area were greatly inconvenienced as the waste was being dumped outside their shanties.

To address the issue of waste being dumped in what is meant to be a zone protected by stringent regulations, letters, with photographic evidence attached, were sent to the State Environment Department, the District Collector's office and the Gujarat Coastal Zone Management Authority. A month and a half after the submission, a site visit by community workers revealed that the dump had been cleared up. When the community worker later went to ask why the dump was cleared, the Municipality conceded that the dumping at the site had been a mistake on its part and under the *Swachh Bharat Abhiyaan* (Clean India Mission)[34], it had rectified the same. These efforts resulted in getting the Municipality to acknowledge an error on its part. It efficiently went on to remove the waste from the NDZ.

[30]Roychoudhury, S. (2014, November 01). For Clean India to work, country needs to solve its waste disposal problem. Scroll.in. Retrieved from http://scroll.in/article/682335/for-clean-india-to-work-country-needs-to-solve-its-waste-disposal-problem

[31]R., Rohith B. (2016, July 13).Villagers gherao mayor over garbage dumping. The Times of India. Retrieved from http://timesofindia.indiatimes.com/city/bengaluru/villagers-gherao-mayor-over-garbage-dumping/articleshow/53195595.cms

[32]Banerjee, P. (2016, February 09). Gone to waste: How India is drowning in garbage. Hindustan Times. Retrieved from http://www.hindustantimes.com/india/india-s-cities-are-faced-with-a-severe-waste-management-crisis/story-vk1Qs9PJT8l1bPLCJKsOTP.html

[33]As per the CRZ Notification, 2011, any area lying within 200 m from the HTL on the landward side in case of seafront and 100 m or the width of the creek (whichever is less) along tidal influenced water bodies, is to be earmarked as a No Development Zone (NDZ).

[34]Source: https://swachhbharat.mygov.in/

As a follow up to this initial success, an RTI application was then filed with the GPCB to find out whether or not in addition to Veraval, the neighbouring Municipalities of Sutrapada, Mangrol, and Choravad had taken requisite permission for dumping sites under the Municipal Solid Wastes (Management and Handling) Rules, 2000.

Eager to show their support, the local people from the area wrote several applications to the Veraval Municipality, urging it to keep the area clean and garbage free. To keep up the pressure, later an RTI application seeking information on how many applications had been received by the Municipality and what action it was going to take or had already taken regarding them.

Meghpar village, Kutch, Gujarat

For three years and counting, a solid waste dump in Meghpar village in the district of Kutch, Gujarat was causing a lot of problems. Waste from the neighbouring port town of Gandhidham was making its way here. Towards the end of 2015, the women of the village in particular grew resolute to attain a remedy. The ever growing dump comprised of various types of mixed waste, including animal carcasses. In the absence of a fenced boundary, not only did cattle stray into the site, but the adjoining land too was getting polluted. These were not the only problems. More often than not, the site used to catch fire and the fumes and stench were insufferable.

In spite of the municipal authority being approached and the matter being reported in the local newspaper, no action had been taken. In one instance, when the women tried to physically stop the dumping of waste, the operator filed a police complaint against them. Keen to establish whether legal hooks existed to remedy the prevailing problem, a collaborative exercise was undertaken by those affected and community workers to establish whether any law in particular was being violated by the Municipality. Guidelines, in the form of the Municipal Solid Wastes (Management and Handling) Rules, 2000 put forth by the Central Pollution Control Board (CPCB), came to the fore.

Upon reading the MSW Rules, 2000, it was revealed that permission, in the form of an authorisation letter, had to be taken from the Gujarat PCB (GPCB) on the basis of a report prepared by GPCB officials who had to first visit the site. Based on documents received under the Right to Information Act, 2005, it was established that clauses of the MSW Rules, 2000 had indeed been violated. For instance, there were no facilities in place to prevent run-off from the site; it was not the case that the site was away from water bodies, habitation clusters and places of religious interest, and neither was there any protection against trespassing by people or animals. On the basis of these and other violations, a complaint letter was drafted to the GPCB, to which, however there was no response. The women were growing only more determined to seek a remedy, and thus decided that the Regional Office of the GPCB would now be have to be visited.

Many of the women were illiterate, and with help from a pictorial game by the community workers, they learnt the provisions of the MSW Rules. Better equipped than ever before, the women approached the Regional Office where they demanded the opportunity to meet the Regional Officer and other officials present. Through their legally backed arguments, they succeeded in getting officials to come for a site visit, six months after they had taken up tackling the issue using legal hooks. During the visit, the women were able to inform them about legalities such as the fencing requirements and the fact that they had the power to revoke the authorisation itself in the case of non-compliance with conditions. Post the visit, the GPCB issued a notice to the Gandhidham Municipality, calling it out on points of non-compliance.

As of April 2016, nothing at the site had changed. A remedy had not yet been attained but the women's determination to seek one, no matter what, still stood strong.

Siddhanabhavi village, Kumta, Uttara Kannada

In 2009, the Municipality of Kumta had sought authorisation from the Government of Karnataka for the dumping of waste at a particular site. Farmers nearby were apprehensive of the consequences, and took the matter to the Karnataka High Court in 2010. In 2012 the matter was transferred to the NGT, and during the pendency a stay was imposed on any dumping at that site. What ended up happen-

ing next was that the Municipality began dumping waste around two kilometres away from the site in question. This new site was on a hill. Following the Municipality, nearby hotels and public toilets too began dumping their waste here. Rain and wind would disturb the waste, troubling the villagers of Siddhanabhavi village. The water pollution during the monsoon was particularly intense and posed a threat to the health of the villagers.

Towards the end of 2014, a community worker, as a first step to document evidence, went to the site and took photographs. Next, she went to the Municipality and got copies of guidelines that had been issued with respect to the MSW Rules and along with affected community members, read them together with the Rules to fully understand the legal provisions. Once aware of them, she visited the Karnataka State Pollution Control Board and learnt that no permission had been given to the Municipality to dump waste at the current site.

When she asked the Municipality about the survey number of the current dumping site, she was told that no such document exists. She even filed a Right to Information (RTI) application inquiring about the same. However, that too yielded no results. There was a possibility that the land was actually Reserved Forest land, but this could only be established if the survey number was known. At the Forest Department, she was directed to meet the Range Forest Officer in this regard. He followed up on the matter with her, and together they went for a site visit to take Global Positioning System (GPS) readings so that the survey

Photo credit: Kanchi Kohli

number could be confirmed. Some success was achieved, in the sense that post this, the Forest Department cleaned up some of the waste at the site and put up a signboard saying that the land belonged to it and anybody who dumped waste there would be penalised.

The community worker also met with the Municipality's Environmental Engineer to discuss the matter on different occasions. He told her that the matter would only be looked into once the NGT disposed off the case, but discussed temporary solutions such as the building of a corridor to avoid leachate into the soil and water, and the dumping of soil on the waste to curb the flying of lightweight wastes such as plastic.

In the meantime, the Chief Officer of the Municipality was displeased with the community worker and Forest Department's involvement in the matter and threatened to stop collecting waste from the town and put the blame on them. Not wanting this to happen, the Forest Department became hesitant to take any action specifically against the Municipality.

To sustain pressure on the issue, the community worker organised a workshop on the MSW Rules, which was attended by the affected people, the Environmental Engineer, and Health Officer from the Municipality. Post the workshop, a letter outlining the problem in detail along with 42 signatures was sent to the Municipality. In a follow up call, the community worker was informed that officials from the Municipality would come for a site visit, but no date for the same was given.

Along with all the other officials looking into the matter, the District Collector (DC) too met the Environmental Engineer. The DC was also provided with a letter detailing all the steps taken by the community worker and the affected members till now to remedy the situation. He promised to personally look into the matter. However, when no action was taken, a reminder letter was sent and a complaint was also lodged under the new system of WhatsApp complaints.

Interestingly, amidst all this, the Municipality approached the community worker for help in organising a programme on wet waste management!

In December 2015, the Environmental Engineer informed the affected people and the community worker, with photographic evidence that the Municipality had started following guidelines for the disposal of waste there. A site visit to verify the municipality's claim confirmed the same. Ultimately, continuous visits to the Municipality and Forest Department paid off and the community members were hopeful that with the continuation of proper disposal, they would see a cleaner environment maintained over time.

5. COMPLIANCE TO APPROVAL: THE REVERSE JOURNEY

Background

In December 2011, the Ministry of Environment, Forest and Climate Change (MoEFCC) granted environment clearance to the Parsa East and Kanta Basan (PEKB) Open Cast Coal Mine Project (10 MTPA) and Pit Head Coal Washery (10 MTPA) in Udaipur tehsil, Sarguja, Chhattisgarh. This clearance was subject to compliance with 36 Specific Conditions and 18 General Conditions. Ironically, in 2010, the MoEFCC and the Ministry of Coal had declared this very area as a 'no-go' area for mining, with the aim to protect and conserve high density forest cover, biodiversity and wildlife.[35] The area had also been recognised as an important elephant corridor. Over ninety percent of those residing in the area were reliant on agricultural cultivation and forest produce as means to earn their livelihood.

Again, ironically, the forest approval, under section 2 of the Forest Conservation Act, 1980, granted previously in July 2011, had gone against the Forest Advisory Committee (FAC)'s rejection of the proposal for the PEKB coal block. The rejection had been in light of the fact that the area proposed for diversion had an especially high number of trees that would be felled. From a conservation point of view, the FAC had said that it did not validate such a diversion given the high ecological and forest value of the area.

[35]Press release regarding a joint study conducted by the Ministry of Coal and MoEFCC in 2010– the only such study that clearly demarcated areas for coal mining and arrived at a prioritisation framework for coal allocation based on environmental impact.

Nonetheless, once the environment clearance was granted, the project authorities, Rajasthan Rajya Vidyut Utpadan Nigam Limited (RVUNL) and Adani Mining Private Limited had the permission to start their operations. However, once operations started, people in the area began facing severe impacts. Speeding trucks transporting coal led to an increased rate of road accidents; the increased vehicular traffic coupled with the unchecked burning of coal led to dust pollution; the discharge of mine waste from the project site caused the contamination of common water sources such as rivers and streams.

Groundtruthing of non-compliance

In May 2015, the affected village representatives and a local non-governmental organisation (NGO) initiated a community-led groundtruthing exercise in the area impacted by mining operations. A team from CPR also assisted in the same. It was decided that they would collectively work together to seek remedies. Together, they took the impacts that were being felt as a result of the project's operations as a starting point. The first step was to establish whether the environmental and social impacts of mining had been legally approved. If not, the objective was to examine if going via the administrative route, compliance with the conditions in the clearances could rectify the current problems.

A careful study of impacts on the ground and the environment clearance letter revealed that the following were violations of certain Specific Conditions in the environment clearance:

- Transportation of coal via road instead of rail
- No construction of a railway line for the transportation of coal
- Unchecked burning of large quantities of coal at the stockyard
- Discharge of waste water from the coal pit into common water sources
- Water pollution due to absence of a retaining wall at the overburden dump
- No treatment or recycling of waste water

Photo credit: Kanchi Kohli

Further, contravention was also identified with respect to the Terms of Reference (ToR) under the Environment Impact Assessment (EIA) Notification, 2006 and a National Green Tribunal (NGT) judgment pertaining to the project.

Relevant data was collected and submitted as evidence to the administrative authorities entrusted with the responsibility of ensuring compliance with the clearance conditions. Evidence mainly comprised photographs attesting the impacts and media articles that reported them. In letters that were written with evidence attached, the conditions that were being violated were highlighted. Additionally, when relevant, attention was also drawn towards conditions that held provisions to withdraw the given clearance, for the MoEFCC to stipulate any additional conditions for environmental protection, and the fact that misleading data was being submitted in the six monthly compliance reports.

It is key to note that though not all, but at least some of the complaints made were acknowledged by the authorities and official attempts to remedy them were made. For instance, community members observed that trucks transporting coal started being covered with canvas sheets and barricades were put up to check them from speeding. The Regional Officer of the Chhattisgarh Environment Conservation Board assured that action against the company would be taken with respect to the transportation of coal via road. It was also learnt that the issue of the railway siding would be a topic for discussion in the next gram sabha. Further, the amount of coal stored in the stockyard was reduced and coal began to be directly transported from the washery to the buyer, rather than being stored. Waste water was also no longer released into the river.

Public hearing and the EIA Notification, 2006

During the process of seeking remedies, it was also learnt that a 135 MW reject coal based thermal power plant (TPP) linked to the project had also been proposed within the mine lease. A Specific Condition of the clearance stated that within two months, the location of the Fluidised Bed Combustion (FBC) based TPP had to be finalised in consultation with the villagers. Also, immediately afterwards, an application for the ToR was to be submitted to the MoEFCC. During the process of data collection regarding evidence for violations that were causing the felt adverse impacts, it came to light that the villagers had not been consulted for the identification of the location. Moreover, the EIA report had no mention of it.

The EIA Notification, 2006 lists the holding of a public hearing as a compulsory step in receiving an environment clearance. This is meant to be held in the presence of the District Magistrate or her/his representative and a representative from the relevant State Pollution Control Board (SPCB). 30 days before the hearing, the date that it will be held on and its location need to be advertised in a local newspaper. Further, copies of the draft EIA report and a summary of the EIA report (both in English and a local language) need to be provided to the concerned SPCB(s), District Magistrate, Gram Panchayat, Zila Panchayat or Municipal Corporation, District Industries Office and concerned regional office of the MoEFCC. The draft report is to cover all the data pertaining to the area, its climatic condition, its people, their livelihoods and culture, as well as the effects of the project and measures that will mitigate them to the minimum. It thus becomes essential that affected community members give the draft report a read prior to the hearing, as the report will form the basis of the public hearing.

Use of non-compliance data for demanding cancellation of the public hearing

It came to light that the draft EIA report as per the ToR for the public hearing submitted by Sarguja Power Private Limited (SPPL) was compiled wholly on the basis of incorrect and misleading information. As mentioned, since May 2015, affected community members had been working to identify non-compliance with the environment clearance conditions. They then collected all the complaint letters filed till date and used them to inform the authorities responsible for organising the public hearing- the District Collector (DC) and the Chhattisgarh Environment Conservation Board (CECB), about the ecological and environmental damage carried out by the project authority. Not only was it highlighted that the clearance conditions were not complied with, but also that the ToR for setting up the TPP were violated.

Instead of mentioning the status of compliance with respect to the previous phase(s), under Condition 10 of the ToR, the project proponent had declared that the condition was not applicable to it, as it was a Greenfield project. This too was false and misrepresentative. The project was linked to the coal block, and the connection of this power plant had also been cited in the environment clearance under Specific Condition 2 A (ii).

Under Section 8 (vi) of the EIA Notification, 2006[36] the community members demanded cancellation of the public hearing. They linked the four stages of the EIA process (screening, scoping, public consultation and appraisal) with the information in all the complaints previously filed, and established evidence for non-compliance by the project authority that justified their demand. On December 21, 2015, a memorandum was given to the DC for the cancellation of the public hearing for the TPP. It detailed five points emphasising incorrect and misleading data on the basis of which the EIA report was made, stating that this clearly was a violation of the EIA procedure.

A key point questioned the expansion of the capacity of the plant from 135 MW to 540/600 MW. The environment clearance had mentioned that 135 MW shall be commissioned. However, the EIA report mentioned the capacity as 540/600 MW, in the absence of any reasonable explanation for the increased capacity. The matter raised by the community members was taken seriously, and later that month a statement by the Member Secretary of the CECB publicised that the public hearing was "postponed till further notification".[37]

Influencing future decisions

The purpose of all these efforts was not only to seek remedies in the current situation to lessen the environmental and social impacts, but also to empower the community members to be able to tackle any future impacts. Further, by seeking to improve monitoring and compliance, it also intended to strengthen the regulatory process. Interestingly in this instance, it even took the path of a reverse journey, i.e. one from the monitoring of compliance to approval, questioning approval on the basis of displayed non-compliance. Rationally, why should a proposal for expansion by a project proponent who has been blatantly violating prior conditions be up for approval at all?

6. MURKY WATERS OF GROUNDWATER REGULATION

Coasts across the globe are areas of high ecological and economic significance. In India, most of our cities, industrial hubs and trading towns are located on the coasts.[38] Population density of 500 people per square kilometer on the coasts is way above the national average of 324 people per square kilometer.[39] One way the coasts have come to support high population density is through their ground water aquifers. Some of the most potential ground water aquifers in the country lie in its coastal areas.[40] In fact, the Coastal Regulation Zone (CRZ) Notification of the country when issued first in 1991 acknowledging this potential put regulations for ground water drawl in the legislation.[41]

Ground water aquifers become even more pertinent for districts like Kutch in Gujarat, which lies in the semi-arid climatic zone with an average annual rainfall of less than 75 cm. After the earthquake in 2001, the district saw rapid industrial and infrastructure development. The Government of Gujarat rolled out a series of port-based industries, expansion of existing and development of new ports, road and railways

[36]"Deliberate concealment and/or submission of false or misleading information or data which is material to screening or scoping or appraisal or decision on the application shall make the application liable for rejection, and cancellation of prior environmental clearance granted on that basis. Rejection of an application or cancellation of a prior environmental clearance already granted, on such ground, shall be decided by the regulatory authority, after giving a personal hearing to the applicant, and following the principles of natural justice."

[37]Das, R. K. (2015, December 26). Adani's proposed power project in Chhattisgarh hits a roadblock. Business Standard. Retrieved from http://www.business-standard.com/article/companies/adani-s-proposed-power-project-in-chhattisgarh-hits-a-roadblock-115122500319_1.html

[38]Menon M., Kapoor, M., Venkatram, P. Kohli, K. &Kaur, S. (2015). CZMAs and Coastal Environments: Two decades of regulating land use change on India's coastline. India: CPR- Namati Environment Justice Program.

[39]Census 2001

[40]http://cgwb.gov.in/documents/papers/incidpapers/Paper%2010-Dhiman.pdf

[41]Mohan, T. in his talk on "Coastal laws and policies" at the Seminar on "Securing our coastal assets and communities for a sustainable future." On September 17, 2016. Chennai.

construction projects in the district.[42] As for industries, as per the government portal of the district, as of 2010-11, there were 72 large scale and 29 medium industries and 13 industrial estates in the district. All these industries and infrastructure projects are required to obtain environmental permissions prior to commencement of any work. Environmental permissions and pollution control related consents usually contain conditions related to water such as the purpose for which ground water can be drawn and the maximum amount of use of freshwater. When read together with the CRZ Notification, these permissions inhibit the drawl of water in the first 500 m of the sea except for local needs such as domestic use and for agriculture and fisheries.

However, violation of these laws and stipulations may result in impacts such as lower water table and increased salinity, which may render the ground water unfit for drinking purpose. Coupled together, the two impacts mean less water available for local communities to meet their daily needs and pursue their traditional livelihood activities.

Different sites, same impacts

Communities in three sites in Mundra Taluka of Kutch living close to three different industries (Steel Pipe coating plant of Jindal Saw Limited, Coke manufacturing unit of Mahashakti Coke Private Limited and Carbon Black manufacturing plant of Philips Carbon Private Limited) have been facing these impacts for the last few years. This is a case study of how these communities are trying to turn the impacts felt by them into evidence of non-compliance and invoking institutional accountability when responsibilities concerning permission, regulation and control of ground water drawl are muddled.

Local people in three villages of Mundra noticed that the level of water in their village wells was going down. Some also observed that wells that used to provide sweet water 10 years ago, had now turned saline. They suspected that drawl of water by industries in their vicinity was contributing to it as some of them had seen bore wells in the premises of these companies. However, they did not know how they could establish this link and even if it is established, what could be done to remedy the problem.

With the help of community organisers working in the area and legal researchers, they found out that conditions regulating drawl of water are usually given in the environmental permission and consents granted to these industries. They obtained clearance and consent letters by filing Right to Information Applications with the Gujarat State Environment Impact Assessment Agency (SEIAA) and Gujarat Pollution Control Board (GPCB). On reading these letters together in community meetings they found out that these industries were permitted to dig bore wells only for domestic use. From their experience they knew that 2-3 bore wells were sufficient for domestic purpose, a number higher that that should be a violation. However they were not sure as they still did not know how many bore wells have been permitted, for how long and by whom.

Locating accountability

To understand the permission procedure for digging wells, one member of the community made a visit to the regional office of the Central Ground Water Board (CGWB) in Ahmedabad. From there she found out that the regional office of CGWB and the district collector can grant the No Objection Certificate (NOC) to draw ground water. This is granted on basis of an application made by the project owner along with a referral letter from the concerned PCB office. Through this visit, she also got to know that complaints of ground water being drawn without requisite permission could be made with the regional office of the CGWB. CGWB, after verifying the complaints, would direct the district collector to take action.

Building evidence

Based on the information, in all three cases the communities filed RTI applications with the regional office of CGWB to obtain copies of NOCs granted to these industries. From the replies to the RTI applications they realised that none of the industries had a valid NOC. While in the case of Philips Carbon, the CGWB office received an application, it never granted an NOC to it, in the other two cases (Jindal Saw and

[42]Gujarat Infrastructure Development Board (GIDB). July 2005. Study on Potential Development of Kutch, Gujarat.

Mahashakti Coke), their NOCs were issued with two years validity in 2008 and 2005, respectively. This meant that currently all three industries were operating without an NOC to draw groundwater. However, villagers suspected that there was more to this violation story, as mere operation of 2-3 wells per industry cannot have such an impact on the water table in the region. They needed to establish that current water crisis in the region was linked to non-compliance by these industries. To arrive at this attribution they needed to dig deeper.

Water balance sheet

It is through the environment clearance letter that the villagers realised that industries have permissions (if at all) on a specific quantum of fresh water that they can draw from the ground. They decided to draw a balance sheet of water required and water available (through various permissions). While from the CGWB, they would find out how much ground water can these industries extract, they decided to ask Gujarat Water Infrastructure Limited to know the amount of water the industries were permitted to withdraw from Narmada River canal. They intended to establish that there was a deficit between the amount of water required and the amount of water that can be extracted. Then it could be assumed that these industries were meeting this deficit by drawing much more water than what was permitted.

Counting bore wells

Parallel to the above efforts the communities have also been trying to locate and count the number of bore wells in the premises of these industries. Since the industry premises are usually areas of restricted entry, entering them is not a possibility as it would be considered trespassing; the villagers are trying to work out a legally valid mechanism to gather evidence on the number of bore wells that have permissions and those which are operating in violation of environment regulation. In one case they have written to the authorities to enable a joint inspection to ascertain the numbers but are still awaiting a response.

Observations to facts

While villagers had seen the water table going down in the region they needed to turn this into indisputable fact. To do so, the villagers have asked the CGWB office for ground water monitoring reports of Mundra Taluka for the last ten years. They are hoping that through these reports their observations can be presented as facts. In the coming days, the villagers are looking to submit to the CGWB the evidence of violations committed by these industries and impacts they are facing and seeking action to check the violation and avoid recurrence.

Although villagers understand that regulatory action will not resolve the current water crisis immediately, they still want to pursue the remedies to spare their children of this water scarcity. Now that the maze of ground water regulation has been solved and they have the determination to turn their lived experiences into evidence of illegalities, there is hope.

7. MIND THE MINE: NON-COMPLIANCE AND IMPACTS OF A MINE ON TRIBAL COMMUNITIES

Background

Keonjhar or Kendujhar, the landlocked district of Odisha bordering with Jharkhand, is part of the iron ore belt of India. More than 25% of country's total reserves of iron ore are found in Keonjhar alone.[43] With over 80 open field mines spread across the district (Industries Division, Keonjhar. February 2016), Odisha's dream to partake in the industrial revolution is heavily hinged on Keonjhar. For 2016-17, the Odisha Government has set the target of 8.64 Million Tonnes of iron ore and chrome as raw material outputs.[44] This target has been split for five mines located in Keonjhar being operated by Odisha Mining Corporation (OMC), a State Government undertaking.

[43]Kalshian, R (ed). Caterpillar and the Mahua flower: Tremors in India's mining fields. 2007. India

[44]PTI.(7 August 2016). Odisha govt moves to step up iron ore, chrome output. .India Today. Retrieved from http://indiatoday.intoday.in/story/odisha-govt-moves-to-step-up-iron-ore-chrome-output/1/734354.html

Photo credit: Kanchi Kohli

75% of the population around these iron deposits is tribal[45] including Juang, Pauri Bhuiyan and Munda tribes. While one would assume that these iron deposits are contributing to the region's development, providing jobs to locals, the reality for most local people is different. As per the official website of the district government, mines provide a chance to earn livelihood to only 6% of the working population of Keonjhar.[46] A large majority pursues subsistence agriculture and still relies on forests for food, fuelwood, fodder and medicines. 77% households of the district live below the poverty line. Given such high dependence on natural resources and poverty, it becomes pertinent that mining in the region is done in a manner that does not endanger the ecological resources and local livelihoods. Some of these considerations are reflected as conditions in environmental permissions and consents to operate granted to these mining operations under the Environment Impact Assessment Notification and Pollution Laws of the country. Similar permissions were granted to Siljora-Kalimati Manganese & iron Mines of M/s Mangilall Rungta and renewal and expansion of Dubna-Sakradih Iron and Manganese Ore Project of the OMC in 2009 and 2014, respectively.

A village sandwiched between two mines

30 households of Jamupaoni village of the district are sandwiched between an old and a relatively new mining operation: OMC on the top and Rungta at the bottom of a hill. The village is part of Badkalimati Gram Panchayat of Joda block (Barbil tehsil) of Champua division of Keonjhar. Barbil tehsil is one of the fifth schedule areas[47] of Keonjhar. Rungta mine spread over 715.6 ha of land of seven villages has been in operation for over five years and OMC (1332 ha, eight villages) has been operational in the region since 1960. Huge heaps of soil and other waste dug out for mining can be seen in the mining area of the OMC. During the rainy season, run-off from these heaps comes down into the village, destroys the standing crop and renders their small fields unsuitable for cultivation. As per the environment permissions, a retaining wall of suitable height (depending on the rainfall data) should be built at the toe of these over dumps to

[45]Asher, M. K, Kohli.(2007 October 4).Uneasy quiet on the Posco front. India Together. Retrieved from http://indiatogether.org/posco-economy

[46]www.kendujhar.nic.in

[47]Fifth Schedule of the Indian Constitution empowers the President of India to declare areas with high number of tribal population and significant disparity in economic standards as scheduled areas. These areas are governed by special provisions to ensure protection of their cultural identity and political and economic interests.

check run-off and siltation. However, as shared by the villagers living close to the mine, these walls are either not built or are not of the required height. OMC has built bunds to check the water run off, but as per villagers, those have also not been effective. Spoil from the dumps gets washed with the rainwater and pollutes the nearby nullah and river. Villagers used to depend on the river and ground water for their drinking water and household needs. However, over years of mining operation, the water table has gone down and the river has been contaminated. Now the villagers depend on water tankers sent by the company as and when it deems fit. Many times a large amount of spoil reaches the river and obstructs its flow. These acts are in non-compliance of environment clearance conditions that require the company to put in measures to prevent pollution of rivers and disallow obstruction of natural course of water sources. The environment clearance also requires the company to regularly monitor water quality upstream and downstream of the nullah and groundwater level and quality. However, the villagers did not know whether such monitoring was being carried out.

Although the environment clearance states that measures to arrest fly rocks and boulders during blasting should be taken, villagers, during the field visit, reported of incidences of blasting stones reaching the village often.

Villagers also shared during the field visit, that the public hearing for the expansion of mining operation of Rungta mine into the nearby forests took place in 2014. In the public hearing the company representatives promised water, employment and medical facilities for the village. While the company got the environment and forest clearance, villagers claim that none of the promises made at the time of public hearing have been kept. They do not remember any meeting of the gram sabha (village assembly) taking place prior to the take over of forestland by the company. With the forest takeover, many villagers confirmed that incidences of elephants rampaging through their crop fields have increased and they have to go deeper into the forests to scout for food, fodder and medicines.

The Odisha Scheduled Areas Transfer of Immovable Property (By Scheduled Tribes), 1956 prohibits the transfer (including mortgage, lease, sale, gift and exchange) of land from scheduled tribes to other castes. But the implementation of the law on ground is very poor. As noted by Keonjhar Integrated Rural Development & Training Institute (KIRDTI), from 2007 to 2009, 230 complaints of transfer of tribal land to non-tribals were filed in the District Court of Keonjhar. During the field visit, two villagers from Jamupaoni shared that Rungta mine has illegally encroached upon their titled lands. Such land acquisition is also in violation of the special provisions provided by the Indian Constitution to Schedule V areas.

Villagers' efforts and outcomes

While villagers have complained about the contamination of the river and nullah and unavailability of drinking water to the OMC in the past, the water sources have never been cleaned. The company has responded by sending water tankers to the village. Even these water tankers have been sent sporadically, particularly at the time when villagers have raised noise about not getting water to drink.

The villagers, with the help of a local person who had also lost his land, in early 2014, had tried filing a case with the ST & SC Development, Minorities & Backward Classes Welfare Department in the matter of illegal encroachment of land by Rungta. All those who had lost their land created a group by the name of *Dalit Adivasi Surakhya Manch* (with this local person as the president of the group) and filed a petition at the Bhubaneswar office of the department. However, the villagers shared that the person helping them in filing the case left them in between. They suspect that the company got him to not pursue the case by paying him a hefty sum of money. The villagers have also complained of the problem to the Block Development Officer and the sarpanch (head of the village council) but no remedy came through.

While the village has suffered from continued non-compliance of environmental and forest laws and constitutional provisions by old and new mines alike, it is yet to witness any successful remedies other than the unreliable dispatch of water tankers. Low level of knowledge of laws that regulate the use of natural resources, an inherent fear of laws and regulators among these tribal communities, high dependence and a beseeching attitude of the villagers towards the companies and unresponsive local government together, have made remedies for the village hard to come by.

V

FINDINGS AND CONCLUSION

A range of conclusions that emerge from this study has been presented below. These draw upon an understanding of the framework of the regulations, the protocols related to monitoring compliance, the nature of proactive disclosure by regulators and efforts of affected communities to bring projects into environmental compliance.

- **Information inconsistency to understand compliance:** Different regulatory institutions discussed in this study, publicly disclose information about action taken against non-compliance through periodic disclosure, annual reports or while responding to parliamentary questions. However, there is no clear pattern or consistency that can be observed in these disclosure mechanisms. The public data on both approvals and monitoring is of different time periods and has no sectoral parity. Many of the regulatory institutions have been in existence for decades and are aware of their jurisdictional overlaps. E.g. Effluent discharge into rivers and streams is monitored both by the PCBs and the MoEFCC under different laws. Approvals under each of these laws refer to the protocols of other related legal clauses. However, there needs to be collaborative effort to collate and present a comprehensive picture of enforcement and compliance of environment regulations rather than scattered disclosure. Since most of these legislations are under the jurisdiction of the MoEFCC, the ministry can take proactive steps towards ensuring this.

Photo credit: Aubrey Wade

- **Notices are not adequate for remedies:** The data and case studies in this study reveal that the regulatory system is focused on issuing notices and giving directions against non-compliance. There are two issues which emerge from this practice. First, the number of notices highlighted by the PCBs or the government monitoring reports uploaded on the MoEFCC's website do not give clarity of whether the complaints were actually addressed after the notice was issued. The second and related issue is that of remedies. The issuance of notices, either proactively or against a complaint does not necessarily result in impacts being addressed. The case studies highlight that additional and much more nuanced effort is required to ensure that the show cause notices actually result in clean ups, or long term compliance to environmental safeguards. For instance, a notice on a complaint on municipal solid waste does not necessarily mean the village is relieved of living next to a municipal garbage dump.
- **Capacity related challenges:** Another concern which continues to affect the effectiveness of regulation, is the basic implementation challenge, which has been highlighted through several studies before.[48] Shortage of staff, large geographical areas under jurisdiction, difficulty of gathering evidence and ascertaining attribution are a few concerns that regulators themselves point to while highlighting the various difficulties faced in making compliance effective. There is a limited number of officials dealing with a large number of projects and monitoring their safeguard requirements. As approval rates are increasing each month and the enforcement and monitoring mechanisms of existing regulatory institutions remain weak, the burden of environmental and social impacts is borne by citizens.
- **Limitations of monitoring protocols:** The monitoring protocols discussed in this study face three clear challenges. First they are mostly practiced as one off inspections rather than ongoing efforts by the regulators for collaborative monitoring along with the affected parties. Second, they don't act as deterrents against non-compliance. Checking the boxes after site inspections and giving warnings through notices as components of these protocols have not been able to instill a commitment to comply amongst project developers. Third, is the focus on standards rather than effects of pollution. This is particularly visible in the practice of PCBs whose site inspection visits are followed up by long term scientific assessments of air and water quality, rather than taking immediate measures to address the impact arising out the pollution.
- **Regulatory confusions and fear of the law:** Specific case examples highlighted in this study bring to light that there are confusions about what a regulation is meant to achieve. Due to fear of the law, affected communities could reject the use of an environmental regulation that can otherwise help address impacts that they face. This was brought out in the case study on the CRZ discussed in this study. The regulation which was enacted for protection of ecologically fragile coastal areas and coastal livelihoods, was feared by communities who had heard that the law was meant to displace them from their homes. Other than this misinformation, confusion about institutional juridisdiction may result in an inability to seek action against an impact. For instance, the decision-making framework on groundwater extraction has remained a puzzle for those seeking an enforcement action. Outreach by regulators through training, community education, other than their own enforcement actions can actually bring violators into compliance.
- **Recognising Third Party Monitoring:** Given the above mentioned challenges, one of the ways to collect data and develop evidence based proposals for remedies for impacts and for institutional reform with regard to monitoring and compliance of environment laws, is to train affected communities to seek remedies from regulatory institutions. Detailed case studies and analysis of the experience of this non-adversarial route to seek compliance could provide insights to develop more robust and effective monitoring protocols. Regulators and institutional bodies in charge of monitoring and compliance of

[48]Kohli,K. and M.Menon.2009.Calling the Bluff: Revealing the state of Monitoring and Compliance of Environmental Conditions.Kalpavriksh.New Delhi; Jamwal P., S. Lele & M. Menon (2016) Rethinking water quality standards in the context of urban rivers In: Eighth INSEE Biennial Conference, 2016, Bengaluru "Urbanisation and the Environment" 4 - 6 January 2016; Annual State of India's Environment Report 2014. Centre for Science and Environment. New Delhi. 2014

environmental impacts exist within panchayats and districts at the local government level, specialised institutions and departments at the state level and national level bodies including the Ministry of Environment, Forests and Climate Change. However, it is imperative that they work with the affected communities so that monitoring protocols aim to achieve meaningful and real-time priorities. Some laws, as highlighted in the case study on the Kolak river, also provide legal mechanisms through which local community representatives can become formally recognised monitors against water pollution and aid PCBs in implementation.

- **Linking compliance to decision making:** None of the regulations discussed in this study have a formal mechanism of including compliance data into decision-making. Examples of cases where compliance data could be used are project expansions, approvals for additional components of an existing project, approvals for new projects being proposed for an already impacted area or a fresh proposal by a proponent who has had a history of violations. It becomes imperative that the status of compliance in a geographical area, or the performance of the project proponent on compliance with mandatory environmental conditions is taken into consideration during decision making by regulators. Good record keeping on show cause notices, directions, action taken and compliance report records can only make this decision making more robust. This reform in the approval process can also draw clear linkages with third party monitoring as discussed above. As discussed in the PEKB coal mine case, when communities are engaged with compliance, they could bring this data and evidence to bear upon decisions that will impact their own lives and livelihood.

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www.namati.org

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How Effective are Environmental Regulations to Address Impacts of Industrial and Infrastructure Projects in India

This report assesses the efficacy of environmental regulations in India with respect to dealing with impacts of industrial and infrastructure projects. It details the existing environment regulation and compliance framework, exploring what the environment and forest laws say about approvals, monitoring and compliance protocols, and how implementation has fared. Concise flowcharts explain clearance procedures and monitoring and enforcement under the institutions responsible for the same. A section of case studies goes on to describe how using environment regulations, administrative remedies to adverse impacts have been sought in various situations and landscapes.

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