

CLOSING THE ENFORCEMENT GAP: COMMUNITY-LED GROUNDTRUTHING OF ENVIRONMENTAL VIOLATIONS IN MORMUGAO, GOA



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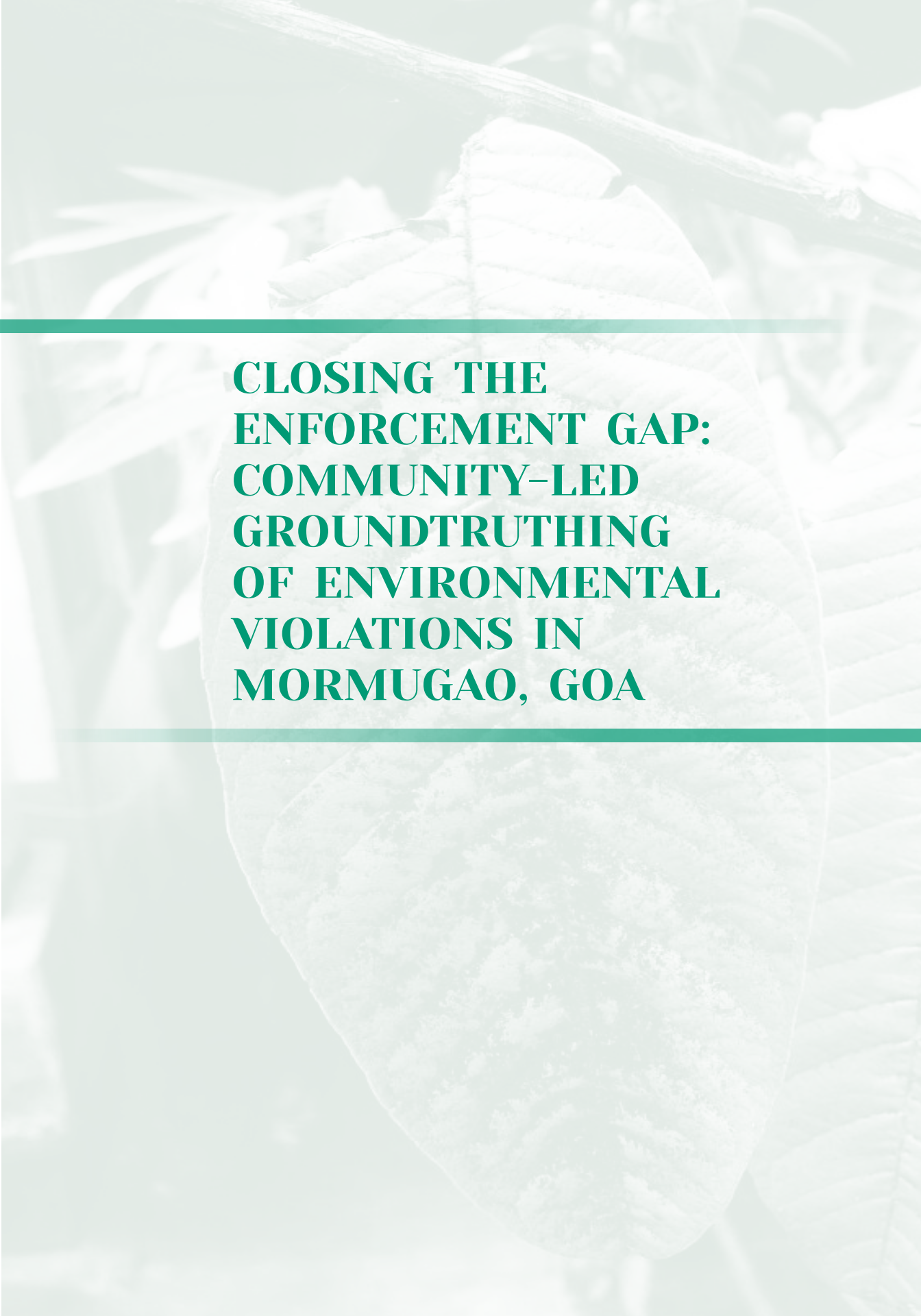
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CONTENTS

List of Abbreviations	4
I. Executive Summary	5
II. The Mormugao Port Trust Project.....	8
A. History and Contestation.....	8
B. Expansions since 2001.....	10
i. Berths 5a 6a.....	10
ii. Berth 7.....	13
iii. Public hearings for 4 expansion proposals at MPT (2017-2018).....	15
III. Groundtruthing partners	17
Supporters	18
IV. Methodology	19
A. Assessing the need.....	19
B. Community meetings to identify impacts of violations	19
C. Training on compliance mechanisms, appraisal processes.....	20
and monitoring structures	
D. Filing of requests under the Right to Information Act, 2005.....	20
and document collection	
E. Filing of complaints for redressal with respect to violations	20
during the current activities at MPT	
F. Complaints/cases filed to find remedies proactively by.....	21
citizens in 2018 (supporting the groundtruthing findings)	
V. Findings of the Groundtruthing.....	22
A. Excessive dust from coal handling at port in violation of	22
4 EC conditions and 4 CTO conditions at Berths 7 and 9	
CTO violations at Berth 5a 6a	
i. Conditions violated at Berth 5a 6a vis-a-vis dust	25
and air pollution during coal handling at berth.	
ii. Conditions violated at Berth 7 vis-a-vis dust and	26
air pollution during coal handling at berth.	
iii. Evidence of Air pollution related Violations at Berths 5a 6a.....	27
iv. Evidence of Air pollution related Violations at Berth 7	29

B.	Excessive dust and air pollution as a result of coal transportation 32 via road and rail in violation of 1 CTO conditions at Berth 5a 6a and 2 EC conditions and 3 CTO conditions at Berth 7	32
i.	Conditions violated at Berth 5a 6a vis-a-vis dust and..... 34 air pollution during coal transportation	34
ii.	Conditions violated at Berth 7 vis-a-vis dust and air..... 34 pollution during coal transportation	34
iii.	Evidence of violations during transportation of coal..... 35 from Berths 5a 6a and Berth 7	35
C.	Water pollution from coal spillage during unloading and..... 38 loading of coal specifically at Berth 7 in violation of 3 EC conditions and 4 CTO conditions	38
i.	Conditions violated at Berth 7 vis-a-vis water pollution..... 41	41
ii.	Evidence of related violations at Berth 7 operated by AMPTPL..... 42	42
VI.	Seeking institutional response and action..... 46	46
VII.	Institutional limitations with monitoring of environmental safeguards..... 47	47
A.	Regional and Central Office of the Ministry of Environment,..... 47 Forests and Climate Change	47
B.	Goa State Pollution Control Board..... 48	48
C.	Mormugao Port Trust..... 49	49
List of Annexures.....	52	52
Annexure 1	: EC for 5a 6a	
Annexure 2	: CTO for 5a 6a	
Annexure 3	: EC for Berth 7	
Annexure 4	: CTO for Berth 7	
Annexure 5	: CM Digambar Kamat's letter to MoEFCC	
Annexure 6	: GSPCB letter to MoEFCC 25/1/2018	
Annexure 7	: GSPCB inspection report for unloading of coal directly on to berth at Berth 7	
Annexure 8	: Issued by GSPCB to SWPL for excess coal handling at Berth 5a 6a	
Annexure 9	: Directions issued by GSPCB to SWPL revoking CTO for Berth 5a 6a	
Annexure 10	: Tabulation of repeated non-compliance at Berth 5a 6a and Berth 7	
Annexure 11	: Timeline of events vis-a-vis coal handling at the MPT	

LIST OF ABBREVIATIONS

1. AAQM: Ambient Air Quality Monitoring
2. AMPTPL: Adani Mormugao Port Terminal Pvt. Ltd
3. CAAQMS: Continuous Ambient Air Quality Monitoring System
4. CTO: Consent To Operate
5. CZMP: Coastal Zone Management Plan
6. EC: Environment Clearance
7. EAC: Expert Appraisal Committee
8. EIA: Environment Impact Assessment
9. GSPCB: Goa State Pollution Control Board
10. GCZMA: Goa Coastal Zone Management Authority
11. JSW: Jindal Steel Works
12. MPT: Mormugao Port Trust
13. MMTPA: Million Metric Tons Per Annum
14. MoEFCC: Ministry of Environment, Forests and Climate Change
15. RO – MoEFCC: Regional Office - Ministry of Environment, Forests and Climate Change
16. SWPL: South West Port Ltd
17. SEIAA: State Environment Impact Assessment Authority
18. NEERI : National Environmental Engineering Research Institute

1 EXECUTIVE SUMMARY

The Mormugao Port is located at Vasco bay in the Mormugao taluka of Goa at the point where the Zuari river meets the Arabian Sea. This region is home to thousands of fisherfolk¹ from the Karvi community who live along the beaches of Mormugao, Salcete and Tiswadi talukas. It is a natural harbour that provides safe haven for ships and fishing vessels during storms, like it did in 2017 when cyclone Okchi² hit this coast.

The lives and livelihood of these fisherfolk are intrinsically linked to the activities of Mormugao port as they have had to share their customary livelihood areas – the sea and the beaches – with the port.

This has resulted in them competing for space for their daily activities like fish landing, boat parking, net mending, and even housing with the port and its infrastructure development on the landward side³, and competing with larger shipping vessels for navigation space⁴ and access to certain parts of Vasco bay.

The Mormugao Port was commissioned by the Portuguese in 1888⁵ and over many years developed 5 berths for import and export of oil, cashews, wine, iron ore, etc. Iron ore export gained importance after 1948. After liberation in 1961, the Mormugao Port was declared a Major Port by the Government of India in 1965⁶. It was after this that major infrastructure developments began at the port and by 1994, the port had built its 11th Berth and soon after this coal handling began in earnest. Mormugao Port Trust (MPT) is now one of India's oldest and largest ports with 11 berths of which 6 are leased out to third parties⁷. The port handles cargo like coal, iron ore, woodchips, steel coils, gypsum, bauxite, ammonia, other dry bulk, petroleum, oil and lubricants (POL), and also services cruise ships.

In March 2017, it came to light that the MPT was in the process of seeking environment clearance (EC) for three proposals to expand and modernise its existing facilities. Residents of Vasco and the fishing villages around the site realised this when notices for public hearing under the Environment Impact Assessment (EIA) Notification of 2006 were issued in local

¹Fernandes, A. (2014). The Raponkars. *Goa Streets*. [online] Available at: <http://goastreet.com/raponkars/> [Accessed 7 November 2018].

²Port Wings Maritime Exim Weekly Newspaper (2017). Mormugao Port Provides Emergency Relief to Fishermen Affected By Cyclone Ockhi. [online] Available at: <http://portwings.in/mormugao-port-provides-emergency-relief-to-fishermen-affected-by-cyclone-ockhi/> [Accessed 14 November 2018].

³Herald (archive on Issuu.com) (2011). Stop Port - MPT blocked from sea and land by Kharewado's fishermen. [online] Available at: https://issuu.com/herald-goa/docs/16_april [Accessed 8 November 2018].

⁴Agarwal, P. (2009). MPT compelled to close Khariwado Jetty for security reasons. Herald. [online] Available at: <https://www.heraldgoa.in/Goa/The-Sunday-Roundtable/mpt-compelled-to-close-khariwado-jetty-for-security-reasons/21973.html> [Accessed 16 November 2018].

⁵Mptgoa.com. (2018). *History | Mormugao Port Trust*. [online] Available at: <http://www.mptgoa.com/history/> [Accessed 17 November 2018].

⁶Mptgoa.com. (2018). *History | Mormugao Port Trust*. [online] Available at: <http://www.mptgoa.com/history/> [Accessed 17 November 2018].

⁷EIA Draft report for Proposed Modernisation and Expansion of Port Infrastructure for Fishing, Coastal, Multipurpose Cargo Berth and Liquid /General Cargo at Mormugao Port, Goa

newspapers⁸. Of these, two proposals were for coal handling capacity enhancement and modernisation of existing Berth 5a 6a and Berths 8 & 9 and barge berths respectively. This was despite long standing resistance from the people of Vasco da Gama in Mormugao taluka and other citizens of Goa against coal handling and resultant pollution.

Since 2000, the Goa State Pollution Control Board (GSPCB) in its capacity as the regulatory authority had also been issuing numerous show cause notices and directions to both South West Port Limited (SWPL) and Adani Mormugao Port Terminal Pvt Ltd (AMPTPL) in order to curb pollution and ensure compliance. Despite this, SWPL reportedly continued to flout these norms and refused to acknowledge the same, maintaining that the pollution levels in Vasco were not serious.⁹ There was coverage of these facts in local and national¹⁰ media as well leading to increased public awareness about these illegalities at MPT. The GSPCB has also initiated a source apportionment study in Vasco da Gama since April 2018 in light of coal pollution with the aim of quantifying the various sources of pollution¹¹. The GSPCB, in fact, wrote to the Ministry of Environment Forests and Climate Change (MoEFCC)¹² asking it not to issue any new EC for expansion of coal handling activities at the port until and unless this study was done and appropriate measures were taken based on its findings.

When the proposals for the capacity enhancement became public, several unresolved issues and impacts came to a head.

It was in this backdrop, that a community led groundtruthing study was initiated in April 2018 by Old Cross Fishing Canoe Owners Co-op Society Ltd, Baina Ramponkar, Fishing Canoe Owners Society, Destierro Fisherman Association – Vasco, Goenchea Raponkarancho Ekvott (GRE) and the Centre for Policy Research (CPR)-Namati Environmental Justice Program with support from concerned citizens of Vasco and the Federation of Rainbow Warriors. Impacts that community members were facing due to coal handling at MPT were identified through multiple discussions and these are the main issues that emerged:

- Increased coal dust in the homes and other areas near the port as a result of open coal handling at the berths, open transportation by trucks and wagons.
- Respiratory issues like asthma attacks especially in children and the elderly.
- Water pollution from spillage during transport of coal through waterways in barges and washing of barges. Runoff from the stockyard into Vasco bay was also cited,

⁸Times of India (2017). Public hearing for MPT expansion on April 26-28. [online] Available at: <https://timesofindia.indiatimes.com/city/goa/public-hearing-for-mpt-expansion-on-april-26-28/articleshow/57844969.cms> [Accessed 16 November 2018].

⁹The Herald (2018). GSPCB kept on telling SWPL to reduce coal handling, SWPL went on handling excess. [online] Available at: <https://www.heraldgoa.in/Goa-News/GSPCB-kept-on-telling-SWPL-to-reduce-coal-handling-SWPL-went-on-handling-excess/124895.html> [Accessed 16 November 2018].

¹⁰Nair, S. (2018). Coal burying Goa. *The Indian Express*. [online] Available at: <https://indianexpress.com/about/coal-burying-goa/> [Accessed 16 November 2018].

¹¹Times of India (2018). Phase 2 of pollution study in Vasco from next month. [online] Available at: <https://timesofindia.indiatimes.com/city/goa/phase-2-of-pollution-study-in-vasco-from-next-month/articleshow/65494090.cms> [Accessed 16 November 2018].

¹²The Financial Express. 2017. *GSPCB asks MoEF not to clear MPT's proposal to enhance coal handling capacity*. [ONLINE] Available at: <https://www.financialexpress.com/industry/gspcb-asks-moef-not-to-clear-mpts-proposal-to-enhance-coal-handling-capacity/913836/>. [Accessed 14 November 2018].

where the fisherfolk of Kharewado, Baina and Desteiro primarily go fishing on a daily basis.

- Threat of eviction of fisherfolk living along the beaches¹³ abutting MPT in Kharewado, Baina and Desteiro areas for expansion of port activities¹⁴ and road connectivity.

Subsequently, conditions were identified in the ECs and Consents to Operate (CTOs) of these berths, which could be linked to the above-mentioned impacts. Evidences were collected by the community members in order to support the claims of non-compliance. In some cases, community members filed complaint letters with the Regional Office of MoEFCC (Bangalore), State Environment Impact Assessment Authority (SEIAA), Goa and MoEFCC, New Delhi. There have been no responses to these complaints as of December 2018. The details of non-compliance were also formally submitted to the EAC. (Expert Appraisal Committee) (Infra II) of the MoEFCC in order to enable a proper appraisal of the expansion and modernisation proposals. The expansion and modernisation of Berth 5a 6a has however been recommended for an EC in November 2018, subject to certain conditions.

The recent push to expand activities at MPT comes from the fact that these projects are an integral part of the Sagarmala project of the Government of India, which is a flagship program for port-led development. It must also be seen in the context of other programs such as the Bharatmala coastal road program, the introduction of the Major Port Authorities Bill of 2018 and a new shipping corridor for merchant ships that is in the offing at various ports including MPT. All this has also sparked several protests by fishing unions at state and national level¹⁵.

Other residents of Vasco da Gama too face impacts related to port activity as a result of the close proximity of the coal handling berths to residential areas and transport of coal through road and rail. Even the Mormugao Municipal Council in Vasco da Gama has taken note of this issue¹⁶. This is why compliance to environmental regulations by the Port has been of importance to the daily life and survival of these communities.

Note:

- This report analyses data using government documents and evidence collected by citizens. Government reports, directions, letters as far back as 1998 have been studied and citizen-sourced data as far back as 2016 has been collated.
- During this groundtruthing effort, coal handling at Berths 5a 6a was shut down from January 2018 to July 2018.

¹³Agarwal, P. (2009). MPT compelled to close Khariwado Jetty for security reasons. Herald. [online] Available at: <https://www.heraldgoa.in/Goa/The-Sunday-Roundtable/mpt-compelled-to-close-khariwado-jetty-for-security-reasons/21973.html> [Accessed 16 November 2018].

¹⁴The Hindu (2009). Mormugoa Port Trust proposes to close down Khariwado fishing jetty. [online] Available at: <https://www.thehindu.com/todays-paper/tp-national/tp-karnataka/Mormugoa-Port-Trust-proposes-to-close-down-Khariwado-fishing-jetty/article16356631.ece> [Accessed 16 November 2018].

¹⁵The Herald. 2018. *Fishermen protest national shipping corridor proposal; burn effigy of Modi*. [ONLINE] Available at: <https://www.heraldgoa.in/Goa/Fishermen-protest-national-shipping-corridor-proposal-burn-effigy-of-Modi/138231.html>. [Accessed 1 November 2018].

¹⁶The Economic Times (2016). Municipal council in Goa decides to protest against coal pollution in port town Mormugao. [online] Available at: <https://energy.economictimes.indiatimes.com/news/coal/municipal-council-in-go-a-decides-to-protest-against-coal-pollution-in-port-town-mormugao/55389900> [Accessed 4 November 2018].

A. History and Contestation

Mormugao Port was commissioned by the Portuguese in 1888¹⁷ and over many years developed 5 berths for import and export of oil, cashews, wine, iron ore etc. Iron ore export gained importance after 1948. After liberation in 1961, the Mormugao Port was declared a Major Port by Government of India in 1965¹⁸. It was after this that major infrastructure developments began at the port, and by 1994, the port built its 11th Berth and soon after this coal handling began in earnest. Mormugao Port Trust (MPT) is now one of India's oldest and largest ports with 11 berths of which 6 are leased out to third parties¹⁹. The port handles cargo like coal, iron ore, woodchips, steel coils, gypsum, bauxite, ammonia, other dry bulk, petroleum, oil and lubricants (POL) and also services cruise ships. Goa's coal related impacts started in 1999 when Mormugao Port began handling coal at Berths 10 and 11 which were built as "multi-purpose general cargo berths"²⁰. As information and data collected as part of this research reveals, most of the remedial action taken on this issue has been largely because of the vigilance, commitment and pro-activeness of the citizens of Goa, especially those from the port city of Vasco da Gama²¹. This groundtruthing report builds on the history of the citizen action against coal related pollution and alleged violations of regulations at Mormugao port and the current status of the same. It also documents the past and current initiatives of both politicians and regulatory authorities to recognise impacts that would potentially be arising out of non-compliance of approval conditions.

In 2001, the Bombay High Court took cognizance of a letter regarding air pollution caused by MPT's coal handling written by Goa Citizens Watchdog Association and turned it into a *Suo Moto* Writ Petition (no.8 of 2001)²². It directed the shut-down of coal handling at these berths and transferred the operations to the newly mechanised Berth 5a 6a in 2005. As per the High Court orders, the National Environmental Engineering Research Institute (NEERI) conducted a study in 2008 and gave several recommendations regarding safeguards to be taken vis-a-vis coal handling activities. This included limits of 5 metres on stack height, requirement of windscreen, covering of all trucks and rail

¹⁷Mptgoa.com. (2018). *History | Mormugao Port Trust*. [online] Available at: <http://www.mptgoa.com/history/> [Accessed 17 November 2018].

¹⁸Mptgoa.com. (2018). *History | Mormugao Port Trust*. [online] Available at: <http://www.mptgoa.com/history/> [Accessed 17 November 2018].

¹⁹EIA Draft report for Proposed Modernisation and Expansion of Port Infrastructure for Fishing, Coastal, Multipurpose Cargo Berth and Liquid /General Cargo at Mormugao Port, Goa

²⁰Mptgoa.com. (2018). *History | Mormugao Port Trust*. [online] Available at: <http://www.mptgoa.com/history/> [Accessed 17 November 2018].

²¹The Navhind Times (2017). *Freeing Vasco Air Of Coal Dust*. [online] Available at: <http://www.navhindtimes.in/freeing-vasco-air-of-coal-dust/> [Accessed 9 November 2018].

²²Casemine.com. (n.d.). *Concerned Citizens O... v. 1. The Chairman, Mor... | Bombay High Court | Judgment | Law | CaseMine*. [online] Available at: <https://www.casemine.com/judgement/in/58117f662713e1794791d5cc> [Accessed 7 November 2018].

wagons with tarpaulin to prevent spillage, etc. MPT was also asked to ensure that coal handling only happens in fully enclosed domes²³ that it was directed to construct at Berths 11 and 7. MPT kept insisting it was going to adhere²⁴ immediately. In 2011, MPT submitted an action plan to GSPCB stating that these enclosed domes will be completed by October 2014²⁵. These enclosed domes for coal handling activities are yet to be constructed and coal handling has simply been shifted to Berth 5a 6a and Berth 7²⁶. In the meantime, other cargo such as wood chips is being handled at Berths 10 and 11.

ENVIRONMENTAL APPROVALS REQUIRED FOR PORT PROJECTS

Any project related to major ports, such as the MPT is required to follow procedures laid down in a range of environment laws that includes:

1. The Environmental Protection Act, 1986 that includes the:
 - a. Environment Impact Assessment (EIA) Notification of 2006 - lays out the procedure for appraisal and issue of ECs for specific category of projects that includes modernisation of port and capital dredging related activities. This notification includes Schedules specifying which projects need permissions from the MoEFCC and which ones can receive clearances from the SEIAA.
 - b. Coastal Regulation Zone Notification (CRZ) of 2011 under which CRZ clearances are issued.
2. Laws related to implementation of pollution control norms like Air (Prevention and Control of Pollution) Act, 1981 and Water (Prevention and Control of Pollution) Act, 1974
 - a. under these two laws, State Pollution Control Boards (SPCB) are given powers to issue, monitor, issue directions and even revoke certain clearances - Consent to Establish (CTE) and Consent to Operate (CTO)
3. Forest (Conservation) Act, 1980 under which Forest Clearances (FC) are issued in case a project involves the diversion of forest land. Each of these approvals is issued with a list of conditions in the form of environmental safeguards, indicating additional legal procedures to be followed or additional studies to be carried out. These have to be mandatorily followed by project proponents as recipients of a conditional approval.

²³The Times of India (2012). High Court to Mormugao Port Trust: Enclose coal berth by Oct 2014. [online] Available at: <https://timesofindia.indiatimes.com/city/goa/High-Court-to-Mormugao-Port-Trust-Enclose-coal-berth-by-October-2014/articleshow/12349923.cms> [Accessed 5 November 2018].

²⁴The Hindu. 2010. *MPT to mechanise coal operations*. [ONLINE] Available at: <https://www.thehindu.com/todays-paper/tp-national/tp-karnataka/MPT-to-mechanise-coal-operations/article16151243.ece>. [Accessed 6 November 2018].

²⁵Casemine.com. (n.d.). *Concerned Citizens O... v. 1. The Chairman, Mor... | Bombay High Court | Judgment | Law | CaseMine*. [online] Available at: <https://www.casemine.com/judgement/in/58117f662713e1794791d5cc> [Accessed 7 November 2018].

²⁶Scroll.in / Gokhale.N. 2018. *There's pressure on environmental agencies to allow more coal to pass through Goa*. [ONLINE] Available at: <https://scroll.in/article/832742/theres-pressure-on-environmental-agencies-to-allow-more-coal-to-pass-through-go>. [Accessed 2 November 2018]

As per figures quoted in the EIA Draft report of October 2017 for building a new POL berth and Fishing jetty at MPT, the port handled 10.97 MTPA of coal which was in excess of its permitted handling capacity of 8.025 MTPA in total. It is projected that by 2030, the port will handle 51.07 MTPA of coal alone.

ENVIRONMENT AND POLLUTION RELATED PERMISSIONS FOR BERTH 5A 6A AND 7			
Type of Clearance	Law authorising clearance	Date of issue for Berth 5a 6a	Date issue for Berth 7
Consent to Establish	Air (Prevention and Control of Pollution) Act 1981 and Water (Prevention and Control of Pollution) Act 1974		2/3/2012
Environment Clearance	MoEF notification no H-11011/6/97-IA (S.O No. 4949(E) dated 9/7/1997)	24/1/2001	30/12/2013
Coastal Regulation Zone Clearance	CRZ Notification of 2011	27/9/2000	7/6/2013
Consent To Operate	Air (Prevention and Control of Pollution) Act 1981 and Water (Prevention and Control of Pollution) Act 1974	6/7/2018 (current)	6/7/2018 (current)

B. Expansions since 2001

i. Berth 5a 6a of the Mormugao Port Trust

This berth was issued an Environment Clearance dated 24.1.2001 (Annexure 1) under the CRZ Notification of 1991 by the Ministry of Shipping (MoS) for the construction of Berth 5a 6a. Such a process was unique since environment clearances are routinely issued under the EIA Notification, since 1994. In the present case the CRZ process was used in the light of the powers given to the MoS as per MoEF notification no S.O no 494(E) dated 9/7/1997. The EC was issued for modernisation of said berths on Build Own Operate Transfer (BOOT) basis and was accorded to ABG Goa Port Private Ltd, which was later acquired by JSW Group in 2002 and renamed as South West Port Ltd (SWPL)²⁷. Most of the coal from this berth is evacuated via rail wagons. The train routes cut through the heart of Vasco da Gama town and rural South Goa on their way to in Karnataka to service JSW's steel plants²⁸. The EC does not mention anything about coal handling or related safeguards nor does it mention transportation of coal.

²⁷JSW Group - Among India's largest conglomerates. 2016. *Maritime Gateway since 2002*. [ONLINE] Available at: https://www.jsw.in/sites/default/files/assets/industry/infrastructure/Final%20JSW_ports%20brochure_spreads_250216.pdf. [Accessed 7 November 2018].

²⁸JSW Group - Among India's largest conglomerates. 2018. *About Southwest Port*. [ONLINE] Available at: <https://www.jsw.in/infrastructure/about-southwest-port>. [Accessed 7 November 2018].

Coal handling was started at this berth in 2005 (Berth 6 was earlier a Mechanical Ore Handling Plant and was decommissioned in 1992²⁹). Even after the HC gave its final orders with respect to the PIL on coal pollution in 2012, complaints from the local MLA and citizens were made in 2013 regarding the same to the GSPCB, who inspected this berth (details in Annexure 10) and found many violations of CTO conditions. Thus began the documented saga of numerous violations that ultimately led to revocation of CTO by GSPCB on 9/1/2018 due to excess coal handling by SWPL. In fact, in August 2017, Chief Minister Manohar Parrikar took cognizance of the data on air pollution and public sentiment into account and wrote a letter to Minister of Environment Dr. Harshvardhan³⁰ asking him not to allow capacity enhancement at Berth 5a & 6a till particulate matter levels are brought under control.

GSPCB initially filed criminal charges against SWPL and MPT in December 2017³¹ before the Judicial Magistrate in Vasco da Gama for violations of Air (Prevention and Control of Pollution) Act, 1981 and Water (Prevention and Control of Pollution) Act, 1974 (henceforth referred to as Air Act and Water Act). These legal matters are yet to be resolved.

Following the CTO revocation on 9/1/2018, SWPL immediately put in a fresh application for CTO on 12/1/2018, but that too was rejected by the GSPCB³² stating that they did not have a valid EC which is a necessary precondition for issue of fresh/renewal of CTO. EC's under EIA Notification of 1994 expired within 5 years of it being issued and SWPL's current EC was issued in 2001.

VALIDITY OF AN EC

Under the EIA Notification of 1994, environmental clearances were valid for a period of 5 years. (Clause II sub-clause III a of the 1994 Notification) In 2006, when the EIA Notification was amended, the period of validity for Ports still remained 5 years. (Clause 9 of the EIA Notification 2006). Thereafter, in 2015, the MoEFCC amended the EIA Notification to extend the validity of ECs for a period of 7 years. (S.O. 1141 (E) dated 29th April 2015).

²⁹mptgoa.com. (2018). History | Mormugao Port Trust. [online] Available at: <http://www.mptgoa.com/history/> [Accessed 17 November 2018].

³⁰The Times of India. 2017. *Ask South West Port to curb coal pollution: CM Manohar Parrikar to Centre*. [ONLINE] Available at: <https://timesofindia.indiatimes.com/city/goa/ask-south-west-port-to-curb-coal-pollution-cm-to-centre/article-show/60150070.cms>. [Accessed 7 November 2018].

³¹The Herald. 2017. *Pollution board moves to criminally prosecute MPT and South West port for excess coal handling*. [ONLINE] Available at: <https://www.heraldgoa.in/Goa-News/Pollution-board-moves-to-criminally-prosecute-MPT-and-South-West-port-for-excess-coal-handling/123729.html>. [Accessed 7 November 2018].

³²The Herald. 2018. *Pollution Board rejects SWPL application for coal handling*. [ONLINE] Available at: <https://www.heraldgoa.in/Goa-News/Pollution-Board-rejects-SWPL-application-for-coal-handling/128731.html>. [Accessed 7 November 2018].

During the month of January 2018, SWPL appealed this rejection at the HC and then immediately withdrew this petition and filed the appeal with the National Green Tribunal (NGT). The NGT did not grant relief to SWPL³³ in this matter as GSPCB filed an affidavit reiterating that the SWPL “doesn’t have a valid EC”³⁴ for its current coal handling activities at the port.

HIGH COURT CASE BY SWPL (W.P. NO 173 OF 2018 DATED 24.4.2018)

SWPL’s fresh proposal for Terminal Capacity Enhancement at Berth 5a 6a was being considered at the EAC level and had been recommended for EC at the time (Dec 2017). Since SWPL was encountering all these roadblocks (revocation of currently CTO, rejection of application, criminal case, etc,) to get their CTO to even continue its current operations, it then approached the High Court of Bombay in Goa in February 2018 stating that the NGT order of 21/11/2017 (which stated that no clearances should be given in Coastal Regulation Zone (CRZ) areas until states submitted their new Coastal Zone Management Plans (CZMPs) as mandated by CRZ Notification 2011) doesn’t apply to it. It claimed in its petition that the MoEFCC was not issuing an EC for expansion despite the EAC’s recommendation because of the judgement and sought direction to ask MoEFCC to issue a fresh EC at the earliest.

Goa Foundation and Old Cross Fishing Canoe Owners Co-operative Society Ltd became Intervenor (third parties involved in a legal proceeding) in this matter on 18/3/2018. They filed an affidavit informing the HC that SWPL was concealing facts regarding the issues it was facing like illegal over handling, violation of pollution norms etc. In light of this, the High Court dismissed the matter entirely, leaving SWPL no option but to raise the matter with MoEFCC or NGT if it so desired³⁵.

High Court judgement W.P. No 173 of 2018 dated 24-04-18 dismissing SWPL’s prayers states *“Even though the Petition is sought to be presented before us for a ‘limited purpose’, the ultimate aim of the Petitioner, as appears from the Petition, is that it wants to expand its ‘existing legitimate activities at the port’. If the existing activities at the port have been shut down for violation of the norms, well before the affirmation of the Petition, it is a most relevant factor which should have been disclosed. By not doing so, the Petitioner is guilty of suppression.”*

At the time this study was being finalised, the EAC had recommended the EC for the capacity enhancement proposal for Berth 5a 6a pending the outcome of a separate PIL against coal handling. P.I.L. W.P. No 24 of 2018 is currently being heard at the High Court of Bombay in Goa.

³³The Goan Everyday. 2018. NGT refuses interim relief to SWPL, opines proceedings on merit; hearing in mid-April. [ONLINE] Available at: <http://englishnews.thegoan.net/story.php?id=41906>. [Accessed 7 November 2018].

³⁴The Herald. 2018. *No permission to SWPL sans valid EC, GSPCB tells NGT*. [ONLINE] Available at: <https://www.heraldgoa.in/Goa-News/No-permission-to-SWPL-sans-valid-EC-GSPCB-tells-NGT/129662.html>. [Accessed 7 November 2018].

³⁵The Herald. 2018. *SWPL fails to get relief from HC*. [ONLINE] Available at: <https://www.heraldgoa.in/Goa-News/SWPL-fails-to-get-relief-from-HC/129980.html>. [Accessed 7 November 2018].

In the days to follow, SWPL sought clarification on the validity of its EC from MoEFCC. It received two letters from the MoEFCC³⁶ explaining that the EC given to SWPL in 2001³⁷ was:

- a) an EC given under the CRZ notification³⁸ and
- b) that the EC was valid and subsisting³⁹

Based on this clarification from the MoEFCC, GSPCB then issued a fresh CTO (Annexure 2) to SWPL in July 2018 as a result of which coal handling has now resumed at Berth 5a 6a. The CTO includes a condition directing SWPL to deposit Rs. 1 crore as bank guarantee which it stands to forfeit in case of non-compliance.

Community members have challenged these CTOs by filing appeals at the First Appellate Authority⁴⁰ of the GSPCB, Panjim. This is primarily because they felt that several illegalities and reported impacts had not been addressed. These appeals are currently being heard and final orders were not issued at the time this study was being finalised.

ii. Berth 7

MPT received its EC for modernisation of Berth 7 for coal handling in 2013 (Annexure 3). It has been operated by AMPTPL on Design, Built, Operate, Finance and Transfer (DBOFT) basis through a 30 year concessionaire agreement. Since the onset of coal handling at this berth, there have been numerous complaints from citizens resulting in show cause notices and directions regarding violations ranging from stack height, uncovered coal stacks, use of JCBs for loading of trucks, CAAQMS not being installed, etc⁴¹. Most of the coal from this berth is evacuated via road in trucks. In 2016, due to excessive pollution the handling capacity of this berth was reduced from 5.5 MTPA to 3.9MTPA and AMPTPL was asked to submit a compliance report to this effect (Directions issued vide letter No. 1/25/15-PCB/9882 dated 23/3/2016)⁴². In 2018, the CTO was amended on application by AMPTPL to 4.4 MTPA (subject to 0.4 MMT/ month till validity of consent) (Annexure 4).

In July 2018, a new PIL was filed at the High Court of Bombay in Goa (PIL WP no 24 of 2018) seeking permanent closure of coal handling at MPT. The petitioners are Mr. Sherwyn Filipe Francisco Correia (18 years), Mr. Sanjay Redkar, Mr. Parshuram Sonurlekar, Old

³⁶Scroll.in / Gokhale.N. 2018. *Clearance to controversial coal terminal in Goa is based on outdated rules from the 1990s*. [ONLINE] Available at: <https://scroll.in/article/888576/clearance-to-controversial-coal-terminal-in-go-is-based-on-outdated-rules-from-the-1990s>. [Accessed 9 November 2018].

³⁷Scroll.in / Gokhale.N. 2018. *Clearance to controversial coal terminal in Goa is based on outdated rules from the 1990s*. [ONLINE] Available at: <https://scroll.in/article/888576/clearance-to-controversial-coal-terminal-in-go-is-based-on-outdated-rules-from-the-1990s>. [Accessed 9 November 2018].

³⁸Letter from Arvind Nautiyal, Director, MoEFCC to M/s South West Port Ltd , dated 08.05.2018

³⁹Letter from Arvind Nautiyal, Director, MoEFCC to M/s South West Port Ltd , dated 18.05.2018

⁴⁰Sec 31 (1) of Air (Prevention and Control of Pollution) Act, 1981: "Any person aggrieved by an order made by the State Board under this Act may, within thirty days from the date on which the order is communicated to him prefer an appeal to such authority (hereinafter referred to as the Appellate Authority) as the State Government may think fit to constitute. Provided that the Appellate Authority may entertain the appeal after the expiry of the said period of thirty days if such authority is satisfied that the appellant was prevented by sufficient cause from filing the appeal in time."

⁴¹GSPCB Show Cause notice dated 30/12/2014 to AMPTPL for Berth 7

⁴²GSPCB Directions issued to AMPTPL for berth 7 on 23/03/2016

Cross Fishing Canoe Owners Co-operative Society Ltd., The Concerned Citizen through its President, T. T. Shreedharan and the Goa Foundation. Hearings in this matter were ongoing at the time this study was being finalised.

POTENTIAL THREAT OF EVICTIONS

In Goa the resistance specifically to these very same expansion plans of MPT can be traced as far back, as 2009 when the then Chief Minister Digambar Kamat wrote a letter to the then Minister of Environment and Forests Jairam Ramesh stating that “The Government and the people of Goa were totally against this myopic vision of Mormugao Port Trust as we all want Goa to remain the natural paradise which it is today.” (Annexure 5). This further led to a mass agitation in 2011 where fisherfolk blocked MPT’s navigation channel⁴³ in protest against its attempts to evict them from Kharewado⁴⁴, Baina and other affected beaches. At this time, the deadlock was broken after a meeting took place between the fisherfolk and the then Chief Minister, 5 other Ministers, Leader of the Opposition and other bureaucrats. At this meeting, the fisherfolk were promised that their demand of demarcating as fishing villages would be looked into⁴⁵. This has not been done till date.

In fact, as recently as September 2018, the NGT⁴⁶ ordered with respect to Baina that fishing villages in Goa should be demarcated immediately as per CRZ Notification of 2011 before any more evictions can take place. There have been evictions at Kharewado, Baina and Desteirro from 2004⁴⁷ to 2018⁴⁸ but many of the fisherfolk are still fighting for their right to their traditional home and use areas. The need for these evictions leads back to highway expansion projects (NH17B) to aid evacuation of cargo to and from MPT.

iii. Public hearings for 4 expansion proposals at MPT (2017-2018)

In 2016, Old Cross Fishing Canoe Owners Co-operative society Ltd won a damning order from the NGT holding MPT guilty of illegal capital dredging of the approach channel in Vasco bay and quashed the exemption given to it from going through the public hearing process⁴⁹. As a result of this, in April 2017, GSPCB conducted 3 simultaneous public hearings for 3

⁴³Herald (archive on Issuu.com) (2011). Stop Port - MPT blocked from sea and land by Kharewado's fishermen. [online] Available at: https://issuu.com/herald-goa/docs/16_april [Accessed 8 November 2018].

⁴⁴The Hindu. 2009. *Mormugao Port Trust proposes to close down Khariwado fishing jetty*. [ONLINE] Available at: <https://www.thehindu.com/todays-paper/tp-national/tp-karnataka/Mormugao-Port-Trust-proposes-to-close-down-Khariwado-fishing-jetty/article16356631.ece>. [Accessed 7 November 2018].

⁴⁵Minutes of the Meeting held on 16/4/2011 at 4.30 pm to discuss the problems of Fishermen of Kharewada jetty and Mormugao Port Trust

⁴⁶The Goan EveryDay. 2018. *Apex court respite for 22 houses in Baina, demolitions stayed*. [ONLINE] Available at: <http://englishnews.thegoan.net/story.php?id=45245>. [Accessed 7 November 2018].

⁴⁷The Herald. 2015. *Unrest by the sea: Baina demolitions and their motives*. [ONLINE] Available at: <https://www.heraldgoa.in/Goa/Perspective/Unrest-by-the-sea-Baina-demolitions-and-their-motives/87490.html>. [Accessed 7 November 2018].

⁴⁸Goa 365. 2018. *Baina Demolition Drive: 34 out of 121 structures down to rubble*. [ONLINE] Available at: <https://www.goa365.tv/issues/E/baina-demolition-drive-34-out-of-121-structures-down-to-rubble-/02410.html>. [Accessed 7 November 2018].

⁴⁹The Times of India. 2017. *MPT to hold public hearing on capital dredging issue*. [ONLINE] Available at: <https://timesofindia.indiatimes.com/city/goa/mpt-to-hold-public-hearing-on-capital-dredging-issue/articleshow/56633869.cms>. [Accessed 7 November 2018].

proposals namely modernisation and capacity enhancement of Berth 5a 6a, modernisation of Berths 8, 9 and barge berths and capital dredging of the navigation channel to allow entry of capsize vessels⁵⁰. These public hearings went on for 8 days where residents unanimously⁵¹ objected to all three proposals on specific grounds⁵². In the days following these hearings, a large number of Gram Sabhas passed resolutions to stop coal transportation through their villages due to severe coal dust pollution experienced by them⁵³ and objecting to coal handling in general at the MPT⁵⁴. Out of these three proposals, only the proposal regarding capacity enhancement of Berth 5a 6a has been taken up at the EAC level, details of which are shared above and also in the Methodology section.

ILLEGAL COAL HANDLING AT MOORING DOLPHINS AND TRANSHIPPERS

As per the minutes of the 128th Meeting of GSPCB on 7/12/2017, a show cause notice was issued to MPT on 21/7/2017 asking it why all dusty cargo and coal handling at the mooring dolphins should not be shut down immediately as MPT has no clearances for this activity from the GSPCB. MPT responded by saying that it had been handling cargo at these mooring dolphins from 2003 and was unaware of any clearance requirements⁵⁵. Upon learning that MPT had no pollution control measures in place at these mooring dolphins and had handled 0.38 MT of coal in 2016-17 alone⁵⁶, GSPCB in its 131st board meeting⁵⁷ on 8/1/2018 ordered an immediate halt to any further coal handling at mooring dolphins at MPT. It also ordered that a study of the impact of pollution due to coal and dusty cargo handling at these mooring dolphins shall be initiated by a Centre of Excellence such as NEERI, IIT, etc. and asked MPT to submit a bank guarantee of Rs. 1 crore.

It was after these public hearings in 2017 that the GSPCB wrote to the MoEFCC categorically asking it not to issue any new ECs for these proposals till a Source Apportionment Study is completed⁵⁸ (Annexure 6). The GSPCB referenced pollution data, past compliance issues and public opposition as key factors.

⁵⁰The Times of India. 2017. Public hearing for MPT expansion on April 26-28. [ONLINE] Available at: <https://timesofindia.indiatimes.com/city/goa/public-hearing-for-mpt-expansion-on-april-26-28/articleshow/57844969.cms>. [Accessed 7 November 2018].

⁵¹Scroll.in / Gokhale.N. 2017. *Fishermen, grandmas, priests, politicians and activists reject plans to make Goa a coal hub*. [ONLINE] Available at: <https://scroll.in/article/837111/fishers-grandmas-students-priests-politicians-and-activists-reject-plans-to-make-go-a-coal-hub>. [Accessed 7 November 2018].

⁵²The Indian Express/Nair. S. 2017. Goa raises voice against coal pollution in public hearing. [ONLINE] Available at: <https://indianexpress.com/article/india/goa-raises-voice-against-coal-pollution-in-public-hearing-4644262/>. [Accessed 7 November 2018].

⁵³The Herald. 2017. *Sao Jose De Areal: Fighting back railway double tracking in its backyard*. [ONLINE] Available at: <https://www.heraldgoa.in/Goa/Perspective/Sao-Jose-De-Areal-Fighting-back-railway-double-tracking-in-its-backyard/123086.html>. [Accessed 7 November 2018].

⁵⁴Scroll.in/D'mello.P. 2017. *In Goa, 54 village councils vow to stop coal trucks passing through their streets*. [ONLINE] Available at: <https://scroll.in/article/858460/in-go-a-54-village-councils-vow-to-stop-coal-trucks-passing-through-their-streets>. [Accessed 7 November 2018].

⁵⁵Minutes of the 128th Meeting of the GSPCB, 7/12/2017

⁵⁶The Herald. 2018. *MPT directed to suspend coal operations at mooring dolphin*. [ONLINE] Available at: <https://www.heraldgoa.in/Goa-News/MPT-directed-to-suspend-coal-operations-at-mooring-dolphin/125156.html>. [Accessed 7 November 2018].

⁵⁷131st Minutes of meeting of GSPCB Board, 8/1/2018

⁵⁸The Financial Express. 2017. GSPCB asks MoEF not to clear MPT's proposal to enhance coal handling capacity. [ONLINE] Available at: <https://www.financialexpress.com/industry/gspcb-asks-moef-not-to-clear-mpts-proposal-to-enhance-coal-handling-capacity/913836/>. [Accessed 14 November 2018].

In October 2018, another proposal of MPT expansions came up for public hearing. This time it was for the construction of a POL berth, fishing jetty, 2 coastal and multipurpose cargo berths and dredging associated with the same.⁵⁹ The EIA report prepared, claimed that the proposed projects would solve all the problems of the fisherfolk in this region⁶⁰. This time the citizens of Goa presented detailed objections to the EIA and unanimously rejected this proposal⁶¹. The proposal is yet to come up for review at the EAC level.

ONGOING SOURCE APPORTIONMENT STUDY BY GSPCB

GSPCB had felt and articulated the need for a Source Apportionment Study in the port area as early as 2016. In its 128th board meeting, GSPCB confirmed that it had initiated the process for the same in 2016 and had roped in IIT Bombay to conduct the study. That would help ascertain the impacts of handling and transport of dusty cargo including coal and inform additional mitigation measures and/or changes to existing requirements. The study would also aim to determine the exact sources of ambient air pollution and the chemical compositions of the same⁶². MPT would be bearing the costs of the same. The study began in March 2018 and is ongoing⁶³.

Note: Annexure 11 provides a chronology of the MPT port approvals/proposals for expansion for the last 10 years (2008-2018).

⁵⁹TheTimes of India. 2018. MPT expansion plan: Public hearing in Chicalim on October. [ONLINE] Available at: <https://timesofindia.indiatimes.com/city/goa/mpt-expansion-plan-public-hearing-in-chicalim-on-october-5/articleshow/65682690.cms>. [Accessed 7 November 2018].

⁶⁰The Wire / Devaiah. T. 2018. *Modernising Mormugao Port May Not Be the Ultimate Answer to Goa's Problems*. [ONLINE] Available at: <https://thewire.in/urban/mormugao-port-sagarmala-project-go-a-dredging>. [Accessed 7 November 2018].

⁶¹The Herald. 2018. *Citizens slam MPT's Environment Impact Assessment Report at public hearing*. [ONLINE] Available at: <https://www.heraldgoa.in/Goa/Citizens-slam-MPTs-Environment-Impact-Assessment-Report-at-public-hearing-/137123.html>. [Accessed 7 November 2018].

⁶²128th Minutes of Meeting of GSPCB , 7/12/2017

⁶³The Times of India. 2018. *Phase 2 of pollution study in Vasco from next month*. [ONLINE] Available at: <https://timesofindia.indiatimes.com/city/goa/phase-2-of-pollution-study-in-vasco-from-next-month/articleshow/65494090.cms>. [Accessed 7 November 2018].

III GROUNDTRUTHING PARTNERS

Old Cross Fishing Canoe Owners Co-op Society Ltd from Kharewado in Vasco da Gama was formed in 2007. It has 63 members from various fishing villages around Vasco, such as Hollant, St. Jacinto, Vaddem, Bogmalo and Kharewado. Custodio D'souza (President), Paixao Monteiro (Treasurer), Rahmed Abbas (Vice President) and Bernard Marques (Joint Treasurer) were involved in the groundtruthing process.

Baina Ramponkar Fishing Canoe Owners Society was also formed in 2007. It has 87 members who live and work on Biana beach. Mohamed Sajid (President), Shashikant Majalikar (Vice President), Andrew Gurjao (Legal Advisor) and Alcantra Gurjao (Member) were involved in the groundtruthing process.

Desteirro Fisherman Association, Vasco was formed in 2003 and has 28 members from Desteirro area which is adjacent to Baina. Roque Mendes (Secretary), Tukaram Chandekar (Joint Secretary) and Paulo Lobo (Member) were involved in the groundtruthing process.

These associations of fisherfolk in and around Vasco da Gama were primarily formed to protect the rights of the community, encourage unity and assist members with procedural matters including availing benefits of Government schemes for their community and increasing negotiating power in order to protect their livelihood and the resources they are dependent on.

Goanchea Raponkarancho Ekvott (GRE) is a federation of traditional fisherman union of Goa which was formed in 1974 and registered in 1976. It represents 80,000 small and traditional fishing communities in Goa who are involved in traditional fishing activities. GRE's first battle against pollution in Goa was against Zuari Agro Chemicals.



Pic credit: Goa against coal

Late Matanhy Saldanha pioneered this union and eventually formed the National Fishworkers Forum (NFF). The General Secretary of GRE Olencio Siomes was a key member of the groundtruthing team.

Supporters

Concerned citizens of Vasco, namely, Sanjay Redkar, Edwin Mascharenhas, Savio Corriea, Vikram Sarmalkar, Parshuram Sonulekar and others played an important role in collating historic data and in evidence collection.

The Federation of Rainbow Warriors is a grassroots organisation working for empowering communities, restoring community spirit and peace. It works with marginalized communities like tribals, fisherfolk and farmers who are under sustained assault from corporate greed and violence. It is associated with local communities in more than 70 villages across Goa and has been fighting against indiscriminate mining, land speculation, destruction of environment, resources, water and communities. Rainbow Warriors Abhijit Prabhudesai and Diana Tavares supported groundtruthing activities and proactively took steps to seek remedies.

IV METHODOLOGY

A. Assessing the need

The need for this groundtruthing study emerged after the 2017 public hearings for 3 project proposals for expansion of activities at MPT. It was during this public hearing that many citizens and subject matter experts came together to discuss impacts of port activities. It is also noteworthy that the public hearings were being held as a result of the vigilance of the traditional fisherfolk of Kharewado. It was only because they highlighted the illegal capital⁶⁴ dredging being done in Vasco Bay in 2016 by MPT that the NGT ordered an immediate halt to the same and also held that capital dredging could not be exempt from the public hearing process arbitrarily as done in this case and thus this proposal was put up for discussion in 2017. Even prior to 2017, it was because of the efforts of the residents of Vasco that monitoring of coal handling at MPT was put in place since 2012.

All proposals for expansion by MPT were strongly objected to and rejected by affected communities, fishing unions, citizens, groups and civil society organisations. The public hearings went on for 8 days making them historic by any measure⁶⁵. From the presentations made by citizens at these hearings, it became apparent that there were ongoing violations and breakdown of regulatory compliance at MPT. In the months that followed, citizens proactively began collecting evidence of how MPT's activities were impacting their lives and reaching out to regulatory authorities too. Media too became more vigilant and has continued to lay bare the scale and impact of coal handling at MPT⁶⁶ on Goans across the state.

The fact that community members were already involved in proactive monitoring to push for compliance and accountability meant that introducing the groundtruthing methodology could only enhance their efforts.

B. Community meetings to identify impacts and assess legal compliance

From May 2018 to Oct 2018, the study team met with members of the fishing associations in and around Vasco da Gama. Through these bi-monthly interactions with small groups ranging from 3-8 fisherfolk in informal settings, the team was able to identify the main impacts on these communities i.e. health impacts of air pollution, possible impact of water pollution and dredging on fisheries, loss of commons and threat of eviction.

⁶⁴The Times of India. 2016. *NGT declines to bail out MPT in capital dredging case*. [ONLINE] Available at: <https://timesofindia.indiatimes.com/city/goa/NGT-declines-to-bail-out-MPT-in-capital-dredging-case/articleshow/54384823.cms>. [Accessed 7 November 2018].

⁶⁵The Indian Express / Nair. S. 2017. *Goa raises voice against coal pollution in public hearing*. [ONLINE] Available at: <https://indianexpress.com/article/india/goa-raises-voice-against-coal-pollution-in-public-hearing-4644262/>. [Accessed 7 November 2018].

⁶⁶The Indian Express. 2017. *Express Investigation - Coal Burying Goa*. [ONLINE] Available at: <https://indianexpress.com/about/coal-burying-goa/>. [Accessed 7 November 2018].

The study team also worked closely with other concerned citizens of Vasco and Mormugao who were impacted by port activities and had been engaging in redressal mechanism. Their main concerns were with respect to the health impacts of coal pollution on residents of Vasco town and on residents of areas through which transportation is taking place. Another chief concern is about safety risks with respect to ammonia and fuel storage tanks in the heart of Vasco town, adjacent to coal the coal stockyard.

C. Trainings on compliance mechanisms, appraisal processes and monitoring structures

During the meetings with fisherfolk and other residents of the area, the study team was able to engage in discussions about what the regulatory and compliance mechanism for large infrastructure projects entails and how one can engage in using the redressal systems available. This included discussions on the ambit of Air (Prevention and Control of Pollution) Act, 1981 and Water (Prevention and Control of Pollution) Act, 1974 role of Goa State Pollution Control Board (GSPCB), function of CTO and, monitoring of the same and how violations can be reported and followed up.

The process of appraisal for new proposals such as those for expansion was also discussed in detail emphasizing the EIA Notification of 2006 and explaining the process by which a project receives an EC and how compliance of the same is supposed to be monitored.

D. Filing of requests under the Right to Information Act, 2005 and document collection

An integral part of the groundtruthing process was to identify what documentation had to be collected in order to assess the current situation regarding compliance and monitoring of Port activities especially at Berth 5a, 6a and Berth 7. During discussions on this aspect, it was found that many citizens had been collecting data on the same in a diligent manner for many years. The study team studied these documents shared by community partners and then assessed that the main documents required were those related to any actions taken by monitoring bodies like the pollution control board and Ministry of Environment, Forests and Climate Change - Regional Office (MoEFCC - RO) (inspection reports, showcause notices, directions issued) and regular compliance reports. The same were applied for using RTI by one of community partners from the fishing community.

E. Filing of complaints for redressal with respect to violations during the current activities at MPT

Groundtruthing activities included collection of evidence regarding violations of CTO and EC conditions using field observations, photos and videos. As a result of this, one complaint was filed by 4 fishing associations in Vasco area highlighting alleged violations of EC conditions during operations at Berth 7 being operated by AMPTPL in July 2018.

ENGAGEMENT WITH EXPERT APPRAISAL COMMITTEE

The first attempt to engage with the EAC (Infra II) of MoEFCC by community partners took place after the EAC recommended the issue of EC (on 15th Dec 2017) for the expansion and modernisation of Berths 5a 6a operated by SWPL. This was one of the proposals heard during the public hearing of May 2017. This recommendation came as a shock to most of them who had spoken categorically against this project at that time.

During document collection it was found that the GSPCB had also on 2 separate occasions in 2017 and 2018⁶⁷ written to the MoEFCC specifying why no EC should be given for expansion of coal handling activities that includes Berth 5a 6a. Details of this are discussed in the Findings section of this report.

Detailed representations were sent twice⁶⁸ by 4 fishing associations highlighting this fact as well as other policy issues like the lack of a valid Coastal Zone Management Plan (CZMP) and no demarcation of fishing villages in Goa in lieu of which these projects cannot be assessed adequately. It was also through such submissions that the EAC learnt that the GSPCB had in fact filed criminal charges against the project proponent (SWPL) for violation of CTO. These facts led to the deferment of the decision on the issuance of the EC twice, on 30th May and again on 10th August 2018.

At the time of writing this report, the EAC in its 36th meeting on 28/11/2018 again issued a recommendation of EC for the capacity enhancement and expansion of Berth 5a and 6a of MPT subject to the outcome of PIL filed in the High Court of Bombay in Goa and the appeals ongoing at the First Appellate Authority in Panaji. It also included the Source Apportionment Study and implementation of its recommendations based on findings as additional conditions to be incorporated into the final EC.

F. Complaints and cases filed to find remedies proactively by citizens in 2018 (supporting the groundtruthing findings)

Vasco resident Parshuram Sonulekar who lives opposite the AMPTPL silos filed a complaint on 18/5/2018 regarding the noise levels in the area resulting from handling activities as well as transport. He had filed a similar complaint earlier on 5/5/2017 as well.

In April 2018, Vasco resident Advocate Savio Correia filed a complaint with the GSPCB regarding coal being unloaded directly on to berth area causing air pollution at Berth 7. Site inspection was done on 17/4/2018 and violations were noted. The complainant has now filed an appeal with the First Appellate Authority challenging the latest CTO issued to AMPTPL for Berth 7. Hearings were in process at the time of writing this report.

Another complaint was filed by concerned citizens of Vasco on June 5th highlighting EC and CTO violation at Berth 7 during which coal was being unloaded from the ship directly

⁶⁷GSPCB letter to Ro, MoEFCC dated 12/7/2017

GSPCB letter to Director, MoEFCC, New Delhi dated 25/1/2018

⁶⁸Letters to EAC members and Directors, MoEFCC dated 28/5/2018 and 9/8/2018

onto a barge using grab cranes. This complaint was possible due to the vigilance of fisherfolk of Kharewado who had noticed this activity. A site inspection was carried out by the GSPCB and the inspection report cites numerous violations.

In July 2018, a group of residents including Vasco da Gama residents, namely, 18 year old Sherwyn Correia (victim of air pollution), Old Cross Fishing Canoe Owners Co-operative Society Ltd, other concerned residents and NGO Goa Foundation filed a PIL at the High Court of Bombay (Goa Bench) seeking permanent closure of coal handling activities at MPT. Reasons cited included ongoing and permanent damage to health and right to clean and planned environment guaranteed under Article 21 of the Constitution of India. The parties to the PIL were SWPL, AMPTPL, MPT, GSPCM, MoEFCC, the Town and Country Planning Department and the Mormugao Municipal Council Party and hearings are currently ongoing.

In August 2018, the study team also shared data with community partners who were looking to file appeals with the First Appellate Authority designated under Section 31 of the Air (Prevention and Control of Pollution) Act of 1981 and Section 28 of Water (Prevention and Control of Pollution) Act 1974. This was with the purpose of highlighting non-compliance of existing CTO conditions and requesting the GSPCB to hold back the renewal of the same.

Note: In this section we will look at primary evidence collected by community members in 2018 along with corroborating secondary data collected by community partners and supporters even prior to the groundtruthing efforts. We will also look at all relevant official records available for the area where the groundtruthing has been carried out. For any evidence that is in the past, we correlate it to the existing EC/ CTO condition relevant for that time period. Hence you will find reference to multiple clearances.

A. Excessive dust from coal handling at port in violation of 4 EC conditions and 4 CTO conditions at Berths 7 and 9 CTO violations at Berth 5a 6a

Discussion with various community members including fisherfolk highlighted certain key impacts due to air pollution which they felt were a result of coal handling at Berth 5a 6a and Berth 7. They are:

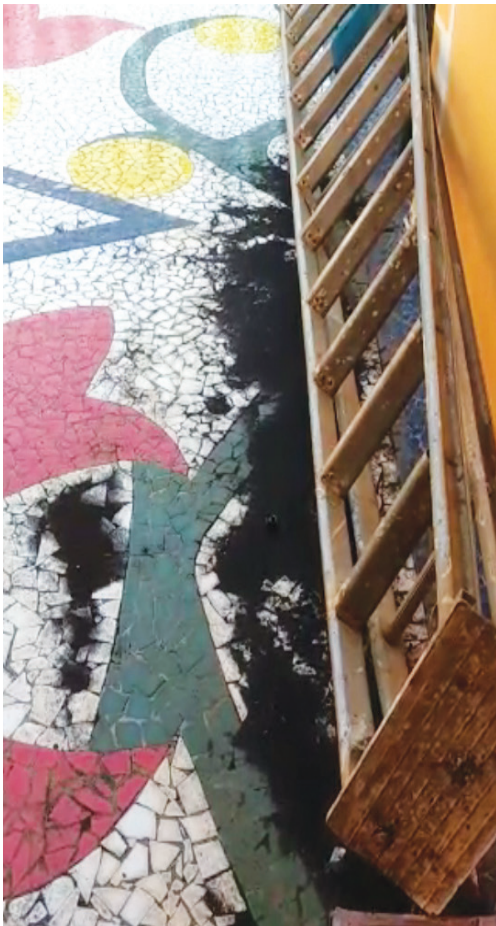


Pic credit: Tania Devaiah

Fisherfolk living in Kharewado reported seeing fumes and dust emanating from coal berths especially when it rained.

The first showers left behind heaps of black dust on the balconies of homes in Chicalim village, which is just up the shoreline from the coal handling berths, and is bordered by National Highway 17a which is used by coal carrying trucks to exit Vasco city. This was also noticed in the winter months.

Mrs. Ema Mascharenhas, a resident of Chicalim village says “We have been noticing coal dust on our balconies and terraces regularly for few years now. This is obviously the result of the coal handling at the port and the trucks that carry the coal past our homes in Chicalim while leaving Vasco town.”



Coal dust in the balcony in the residence of Mrs. Ema Mascharenhas, May 2017
Pic credit: Edwin Mascarenhas



Coal dust on the balcony in the residence of Mrs. Ema Mascharenhas, July 2018
Pic credit: Goa against coal

On studying the ECs an CTOs of Berths 5a 6a and Berth 7, it was found that there were numerous conditions listed that aimed to reduce the impact of air pollution that have a direct bearing on impacts observed by community members. These conditions and evidence to prove their violation are listed below.

i. Conditions violated at Berth 5a 6a vis-a-vis dust and air pollution during coal handling at the berths.

CTO conditions violated

CTO (21/7/2017) condition 4 (xxvii)

The application shall store coal in such a way that coal heap should not be higher than 15ft (5mts) and distance between two adjoining heap at G.L. should be 5 metres, so that in case of fire, approach is available.

CTO (21/7/2017) condition 4 (xiii)

the applicant shall maintain metalled road within the premises.

CTO (21/7/2017) condition 4 (xvii)

The applicant shall take all necessary steps to maintain good and healthy ambient air quality in and around the plot.

CTO (21/7/2017) Condition 4 (xix)

The applicant shall be minimum 500 metres away from the residential area, school/colleges, historical monuments, religious places, ecological sensitive area as well as forest areas.

Note: This condition has been removed from the latest CTO issued to SWPL on 6/7/2018. reason for the same not specified in meeting minutes of the Board.

CTO (6/7/2018) Specific condition (ii)

Use enclosures (detachable if required) on conveyors or chutes and telescoping arm loaders, hoppers to reduce spillage and dust; also minimise the distance between the working area and trucks/trains being loaded to reduce areas exposed to fugitive dust generation and area that has to be swept clean. Free fall of material to be avoided.

CTO (6/7/2018) Specific condition (xvii)

Permanently stabilize entire work areas/transportation routes to minimize fugitive dust emissions within 3 month period from date of order. Consideration may be given to the use of compacted clay due to its low tendency to crack, in consultation with experts.

CTO (6/7/2018) condition 4 (xi) *the applicant shall maintain wind breaking walls/ barriers.*

CTO (6/7/2018) condition 4 (xiv) *the applicant shall plant fast growing trees around the periphery/ compound wall of the plat to arrest dust pollution.*

CTO (6/7/2018) Specific Condition (x) *Explore the use of total or partly retractable permanent enclosures for stock pile handling areas during loading/unloading or installation of an additional windscreen (height to be established keeping in mind the elevation height of the hill top residences and the structural stability of the same) adjacent to the road adjoining MPT and the residences, whichever is feasible for control of dust generation with extraction to suitable bag or appropriate filters to minimize fugitive dust emissions, thereby controlling material loss.*

ii. Conditions violated at Berth 7 vis-a-vis dust and air pollution during coal handling at berth.

CTO Conditions violated:

CTO Condition 3

- *(iii [ii]): A good housekeeping shall be maintained within factory premises.*
- *(iii [x]) The unit shall install machinery/mechanism for regular collection and removal of coal/coke spillage within the yard, internal roads and along the railway track within premises.*

CTO Condition 3 (xv)

Stack height should not exceed the height of the windshields.

CTO 6 General conditions (xi)

The Unit shall contribute with MPT carryout sweeping of the transportation city road routes i.e. both mechanically as well as manually, water sprinkling, proper covering of trucks with tarpaulin sheets and to ensure trucks are not overloaded.

CTO 6 General conditions (xiv)

Stack height shall be between 11-12 metres as wind breaking wall is 15 metres.

EC Conditions Violated:

EC Specific condition (iv):

Entire transportation of coal shall be in closed conveyor belt.

EC Specific Condition (vi)

The project proponent shall provide windscreens of minimum 15 metres height fabric HDPE all along the periphery. This shall be designed taking into account the wind velocity modelling etc. Also explore creepers in consultation with forest department.

EC Specific condition (xii)

Cargo shall be unloaded directly onto hopper from the ship and transported to the stockyard through closed conveyor systems only. Inbuilt dust suppression systems shall be provided at hoppers and all the transfer/storage yards. Cargo shall not be unloaded directly onto the berth. Water meters shall be provided at different locations to record the consumption of water used for dust suppression and daily log shall be maintained.

EC Specific Condition (xiii)

Atleast 15 metres width of greenbelt along periphery and 15 metres width alongside the stockyard or stockyard? shall be undertaken including plantation of mangroves in consultation with Forest department.

iii. Evidence of Air pollution related Violations at Berth 5a 6a

During the groundtruthing process, evidence was also collected from community members in the form of photos they had taken in the past and photographs taken recently to show the following:

1. The conveyor belts in Berth 5a 6a were not fully enclosed in July 2018. This remained the case in December 2018 at the time of writing this report.



Pic credit: Tania Devaiah

2. The coal unloading and stacking areas were not stabilised within 3 months of order.



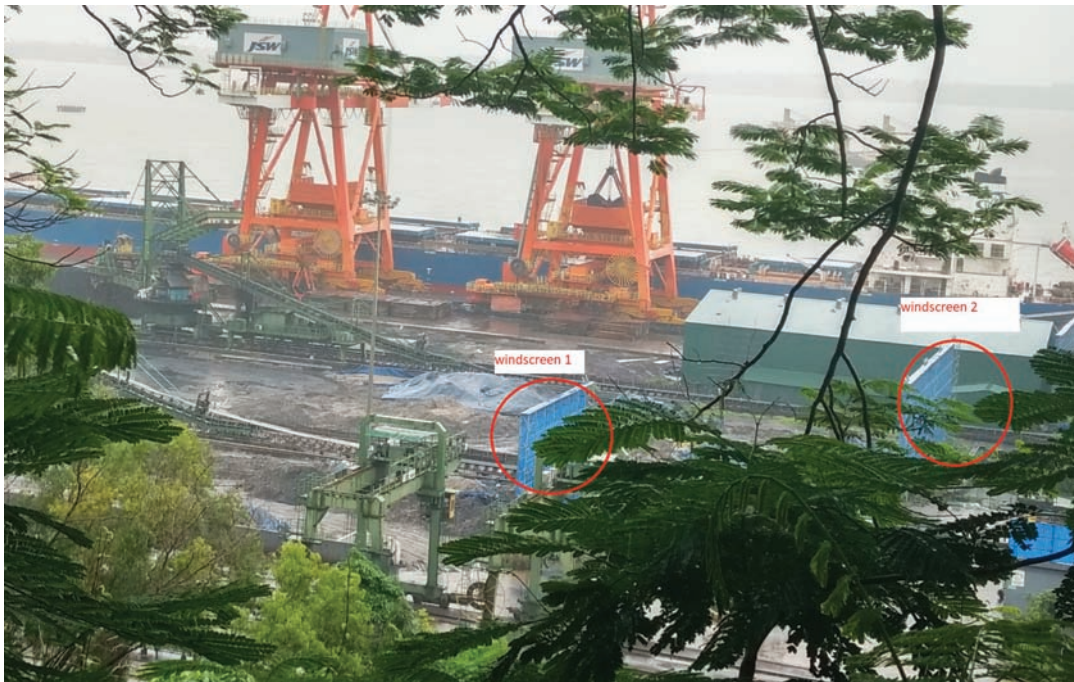
Pic credit: Tania Devaiah

3. Berth 5a 6a is less than 500 metres from the residences at Sada, Mormugao fort, which is a historic site, and at least one religious site, thus exposing them to dust pollution.



Pic credit: Tania Devaiah

4. There were only 2 small windcreens installed at Berth 5a 6a and no greenbelt at the periphery of the berth.



Pic credit: Tania Devaiah

Official documents collected via RTI by community partner Olencio Simoes (GRE) (RTI response via letter no. 8/33/2018-PCB/legal/6512, no. 8/33/2018-PCB/legal-6383 and no. 8/33/2018-PCB/Legal-/6099) showed that violations having a bearing on similar impacts were also noted in inspection reports, monitoring report, show cause notices etc. e.g:

Monitoring report by RO, MoEFCC dated 1/6/2017 observes that “Greenbelt developed *where possible* and greenbelt on *Dabolim airport road*” when in fact the relevant CTO mandated that “condition 4 (xvi): the applicant shall plant fast growing trees **along the periphery/compound wall of the plot** to arrest dust pollution.”

GSPCB Inspection report dated 19/1/2018 noted multiple points. Here are a few highlights:

- There exists 3 yards for coal stacking and height of coal stacks is 10 metres
- The yard conveyors are not covered
- There is coal spillage along rail track
- The ground along the rail track is not concreted
- They were directed to pave the same and provide a mechanism to collect the spillage.

These points show that numerous conditions of CTO relevant this time period dated 21/7/2017 were violated (listed in table above).

A detailed table of repeated violations observed at Berth 5a 6a and mentioned in such reports is attached in Annexure 10.

iv. Evidence of Air pollution related violations at Berth 7

During the groundtruthing process, evidence was also collected to show the following:

1. Stack heights at Berth 7 were seen to be above the windscreen height.



Coal stack higher than the height of windscreen, July 2018; Pic credit: Tania Devaiah

2. There are no creepers or any fabric on the windscreen at periphery of the berth to act as dust barrier.



No creepers or greenbelt in periphery of the stockyard of Berth 7, June 2017 (above) Pic credit: Tania Devaiah



Lack of creepers on windscreen and only partially covered by fabric/tarp, Oct 2018; Pic credit: Tania Devaiah

Documents collected via RTI filed by community partner Olencio Simoes (GRE) (Letter no. 8 / 33 / 2018 - PCB / legal / 6968; no. 8 / 33 / 2018 - PCB / legal / 6514; no. 8 / 33 / 2018 - PCB / legal / 6387) showed that violations having a bearing on similar impacts were also noted in inspection reports, monitoring reports, show cause notices etc. Eg:

Document	Observation	Points toward violation
Inspection report for Berth 7 dated 6/6/2018, sent to complainant vide letter no 10/1/18-PCB/Tech-7084 (based on complaint by Vasco resident Sanjay Redkar)	During normal operations, the cargo discharged from the vessel by M/s AMPTPL is stacked at plot no. A and plot no. B using conveyor belts and stacker reclaimers and loading of trucks and wagon rakes with the help of hopper system.	This unloading of coal on to the berth area is a violation of EC Specific condition (xii) which specifies that “Cargo shall not be unloaded directly on to berth.”
Inspection report for Berth 7 dated 17/4/2018 by GSPCB vide Office order no 10/1/17-pcb/tech/1368 (based on a complaint by Vasco resident Savio Correia)	<ul style="list-style-type: none"> • Noted unloading coal on berth • Sometimes loaded directly onto barges from berth/ship • Trucks being manually loaded instead of using truck loading system • Coal being dropped on to berth from 14 metres height leading to dust generation • Heavy spillage of coal on internal roads causing dust generation • Dust sweeping did not appear to be used often and was not effective 	These observations too point to direct violations of the following conditions: EC Specific condition (xii) above, (iv) and also various aspects of CTO condition 3 (specified in table above).

A detailed table of repeated violations observed at Berth 7 and mentioned in such reports is attached in Annexure 10.

B. Excessive dust and air pollution as a result of coal transportation via road and rail in violation of 1 CTO conditions at Berth 5a 6a and 2 EC conditions and 3 CTO conditions at Berth 7

Those living in and around Vasco da Gama and Chicalim complained of coal dust in their homes, on trees and plants and on the roads that the coal bearing trucks use to and from the port.



Coal dust on a leaf in Vasco city, 7th Nov 2017; Pic credit: Goa against coal



Coal spillage on main road, IOC circle, Vasco, 7th Nov, 2017; Pic credit: Goa against coal

Residents also shared concerns about respiratory ailments seen in their own families – young children and adults too – requiring multiple doctors, visits and prolonged medication. Along with these insights, comments from a local doctor practicing in Vasco have been documented in Australian Broadcasting Corporation's (ABC) documentary "Digging into Adani" released in 2017⁶⁹. GSPCB's directions to both SWPL and AMPTPL on 23/12/2015 also confirms that AQM reports indicated that pollution levels exceeded the stipulated norms and both parties were asked to show cause as to why their CTOs should not be revoked.

Many studies have been conducted to highlight the impact of coal dust on human health⁷⁰ and recently the World Health Organisation in its report on Global Impact of Respiratory Diseases⁷¹ states that "Exposure to mineral dusts causes silicosis or coal worker's pneumoconiosis, and exposure to organic antigens causes hypersensitivity pneumonitis and asthma."

Sanjay Redkar, resident, Mongor says "When my son was studying in Eurokids school, which is on the main road near Kadamba bus stand (NH 17A), he used to suffer from severe cough, cold and also used to get asthma attacks. Right outside his school, there was a speed breaker, and as the coal bearing trucks would go over it they would spill coal dust everywhere. I suspected that this was impacting my son and I shifted him to another school in Mongor a few kilometres away in 2016. Since then his health has improved and he has not suffered any asthma attacks."

⁶⁹Australian Broadcasting Corporation (ABC). 2017. *Digging into Adani - Four Corners*. [ONLINE] Available at: <https://www.abc.net.au/4corners/digging-into-adani/9008500>. [Accessed 7 November 2018]. (timestamp 6.29 , Dr, Baban)

⁷⁰Energy News Network / Ferber.D. 2013. *Research finds additional harm from coal dust exposure*. [ONLINE] Available at: <https://energynews.us/2013/02/20/midwest/research-finds-additional-harm-from-coal-dust-exposure/>. [Accessed 7 November 2018].

⁷¹Forum of International Respiratory Societies. Sheffield, European Respiratory Society. 2017. *The Global Impact of Respiratory Diseases - Second Edition*. [ONLINE] Available at: http://www.who.int/gard/publications/The_Global_Impact_of_Respiratory_Disease.pdf. [Accessed 7 November 2018].

It had been noticed multiple times that the coal laden trucks were not cleaned regularly and were not covered properly with tarpaulin, there by allowing dust to spread as they moved.



Vasco resident picking up coal dropped from a truck on Chicalim - Airport Road, Aug 2017
Pic credit: Sanjay Redkar, Custodio Dsouza and Vikram Sarmalkar

Again, study of the relevant ECs and CTOs showed that this could be an outcome of violation of the following conditions identified:

i. Conditions violated at Berth 5a 6a vis-a-vis dust and air pollution during coal transportation

CTO Conditions violated:

CTO (6/7/2018) 7. Specific Condition (viii) on page 9 of 9 (note: numbering is repeated in this section, hence page numbers have been provided for clarity)

If cargo is dispatched by wagons then all the wagons should be properly covered by tarpaulin and tied neatly in order to avoid spillage during transport. The Unit should also study on the aspects of having a mechanised system for closing the wagons and submit an action plan for the same.

ii. Conditions violated at Berth 7 vis-a-vis dust and air pollution during coal transportation

EC Conditions violated:

EC Specific condition (iv):

Entire transportation of coal shall be in closed conveyor belt.

EC Specific condition (xii)

Cargo shall be unloaded directly into hopper from the ship and transported to stackyard through closed conveyor system only. Inbuilt dust suppression systems shall be provided at hoppers and all transfer points storage yards. Cargo shall not be unloaded directly on to berth. Water metres shall be provided at different locations to record the consumption of water used for dust suppression and daily log shall be maintained.

CTO Conditions violated:

CTO condition 3 (iii[x]):

The unit shall install machinery/mechanism for regular collection and removal of coal/ coke spillage within the yard, internal roads and along the railway track within premises.

CTO General condition (xiii):

Loading of trucks should be carried out at all times through truck loading system only. Unit shall maintain the records of the loading operations & install monitoring system. (it appears this condition was added as a result of the inspection in April 2018)

CTO 6 .General conditions (xvii)

Trucks should be covered with tarpaulin and properly fastened.

iii. Evidence of violations during transportation of coal from Berth 5a 6a and Berth 7

Photographs and videos taken by community members and media reports showed the following:

1. Rail wagons/rakes were not securely covered hence spilling coal and allowing fugitive dust emissions throughout transportation.



Plastic tarps loosely tied around rail rakes carrying coal, May 2017; Pic credit: Goa against coal



Exposed coal visible through improperly closed rail wagons, May 2017; Pic credit: Goa against coal

2. In August 2018, barely a month after JSW received its fresh CTO to restart coal handling at this berth, a revealing news report⁷² by local journalists detailed how the rail wagons leaving this berth were still spewing coal dust along the tracks.

“Moving coal wagons from Mormugao Port Trust (MPT) not only had gaps in the tarpaulin cover over the rakes, but in some rakes the tarpaulin cover over the coal cargo had a tear allowing spillage of coal cargo all along the railway route, thereby putting at risk all those living in the vicinity of the railway tracks.”

⁷²The Goa Spotlight. 2018. *The Truth Spills*. [ONLINE] Available at: <http://thegoaspotlight.com/the-truth-spills/>. [Accessed 7 November 2018].

They documented this⁷³ at railway crossings at Velsao and Cansualim villages through which these trains travel once they leave from MPT.



Pic credit: Tania Devaiah

3. Trucks leaving the port laden with coal were not cleaned properly and were not securely covered.



Coal bearing truck travelling on NH17b outside Dabolim airport, Aug 2017

Pic credit: Sanjay Redkar, Custodio Dsouza and Vikram Sarmalkar

⁷³The Goa Spotlight. 2018. *The Truth Spills but Govt Chills*. [ONLINE] Available at: <http://thegoaspotlight.com/the-truth-spills-but-the-govt-still-chills/>. [Accessed 7 November 2018].



Coal spilt by the same truck at speed breaker outside Dabolim airport, Aug 2017
Pic credit: Sanjay Redkar, Custodio Dsouza and Vikram Sarmalkar

From Government reports on compliance we found the following evidence of violations that also contribute to the impacts identified:

Show cause notice by GSPCB (Letter No. 1/25/14-PCB6376) for Berth 7 dated 30/12/2014 observes:

- coal is being transported through trucks which are not covered
- dispatched through trucks loaded using dozers causing dust pollution

Inspection Report dated 17/4/2018 by GSPCB vide Office order no. 10/1/17-PCB/tech/1368 (based on complaint filed by Savio Correia of coal being unloaded directly on berth observed that sometimes the coal is loaded directly on to barges from berth/ship

These observations point to the violation of 2 EC conditions and 3 CTO conditions that have a bearing on air pollution at Berth 7.

C. Water pollution from coal spillage during unloading and loading of coal specifically at Berth 7 in violation of 3 EC conditions and 4 CTO conditions

With regards to water pollution, the observations were mainly regarding activities at Berth 7. It should be noted that during the groundtruthing period, activities at Berth 5a 6a were stopped from January 2018 to June 2018, which could be the reason for fewer observations regarding this berth's impacts on water pollution.

Community members complained of coal pieces and dust polluting Kharewado beach in particular. Coal has been documented washing up on Kharewado beach both as big particles and fine dust. Here are screenshots from a video that was produced by Video Volunteers⁷⁴ in April 2017 with support from community members, ahead of the 1st public hearing on MPT expansion proposals.



Pic credit: Tania Devaiah



Pic credit: Tania Devaiah

⁷⁴Video Volunteers. (2018). *#GoaAgainstCoal: Protect Goa from Becoming a Coal Hub.* [Online Video]. 26 April 2016. Available from: <https://www.youtube.com/watch?v=J-ROOVzLTOY>. [Accessed: 1 November 2018].

Fisherfolk have noticed dark plumes of water closer to the coal handling berths as seen in this pic taken in June 2018.



July 2018 water pollution edited; Pic credit: Tania Devaiah

They suspect this must be impacting the marine life and water quality in the area but are not certain how to validate the same.

On studying the ECs and CTOs of Berth 5a, 6a and Berth 7, it was found that there were numerous conditions listed that aimed to reduce the impact of water pollution especially in the clearances for Berth 7 that have a direct bearing on impacts observed by community members. These conditions and evidence to prove their violation are listed below.

i. Conditions violated at Berth 7 vis-a-vis water pollution

EC conditions violated:

EC Specific condition (ii)

The project proponent shall provide lining for collection of run off from coal stockyard and leachate shall be treated before disposal.

EC Specific condition (xii)

Cargo shall be unloaded directly into the hopper from ship and transported to the stockyard through closed conveyor system only. In-built dust suppression systems shall be provided at hoppers and all the transfer points/storage yards. Cargo shall not be unloaded directly onto the berth. Water meters shall be provided at different locations to record the consumption of water used for dust suppression and daily log shall be maintained.

EC Specific condition (xvi)

Necessary arrangements for treatment of the effluents and solid wastes must be made and it must be ensured that the untreated effluents are not discharged into the water or on the beach, and no effluent or solid waste shall be discharged on the beach.

CTO conditions violated:

CTO condition 3 (iii) (ii)

A good housekeeping shall be maintained within factory premises. All pipes, valves and drains shall be maintained in leak proof condition. Floor washings shall be maintained to the effluent collection system only and shall not be allowed to find way in open areas.

CTO condition 3 (iii) (ii)

The unit shall install machinery/mechanism for regular collection and removal of coal/coke spillage within the yard, internal roads and along railway tracks within premises.

CTO condition 4 (xv):

Applicant shall construct garland drains along periphery of the unit to avoid siltation of into seasonal streams/agricultural land etc.

CTO condition 4 (xviii)

Proper drainage system shall be provided in all coal storage areas so that water drained from coal sprinkling is collected at a common tank and can be used after screening through the coal silt.

CTO General condition 6 (xix)

Unloading of coal from vessel on to Plot A directly through grab crane to be avoided & only to be channelised through conveyor belt on plot area.

ii. Evidence of related violations at Berth 7 operated by AMPTPL

During the groundtruthing process, evidence was also collected from community members and by community members to show the following:

- i) Coal unloading directly on ground at Berth 7 + runoff and leaching, Aug 2016.



Coal run off and leaching in Berth 7 Aug 2016; Pic credit: Vasco Resident

ii) Coal unloading directly on ground at Berth 7 + runoff and leaching, Aug 2016.



Pic credit: Vasco Resident

iii) Unloading of coal directly on ground at Berth 7, 2017.



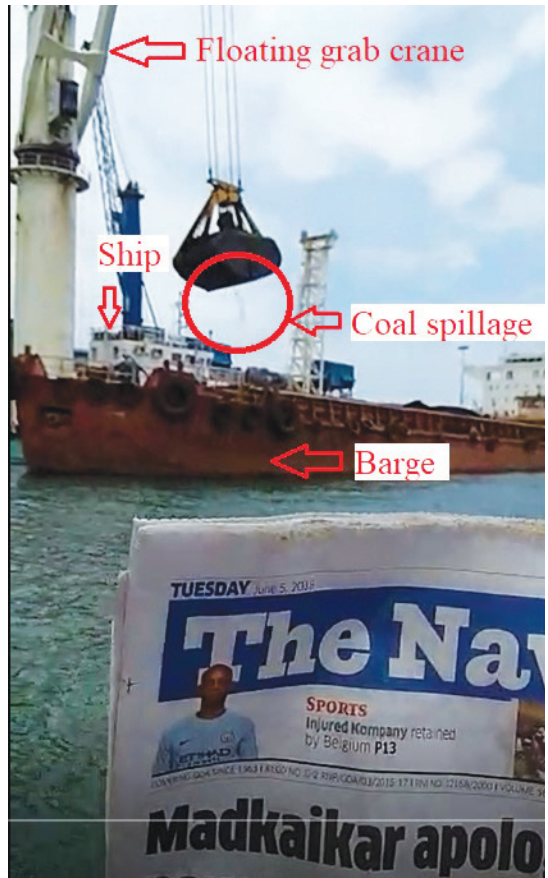
Unloading on Berth 7 2017; Pic credit: Tania Devaiah

iv) Unloading of coal directly on ground at Berth 7 + leaching, May 2018.



Unloading on Berth 7 May 2018; Pic credit: Tania Devaiah

v) Unloading of coal from ship directly onto barge using a floating grab crane and spillage of coal into water during the same, 5th June 2018.



Screenshot from video shot by fisherman Custodio D'souza from his canoe, 5/6/2018



Unloading on Berth 7 water's edge July 2018; Pic credit: Tania Devaiah

From studying official records such as inspection reports, show cause notices, directions, etc., we were able to identify observations of the following violations that have a bearing on water pollution:

For Berth 7, Inspection report by GSPCB dated 6/6/2018 shared with complainant vide letter no.10/1/18-PCB/Tech-7084 observed that:

- It was informed that the vessel “MV Mondial Success” carrying cargo was unloaded with the help of floating grab crane and was transferred into the barges and transported to Vedanta Amona plant.
- During loading of barges using floating crane there is possibility of spillages of cargo into sea and dust generation. Complainant showed the video recording wherein some spillages of coal can be observed from grabs.

These observations point to violation of EC Specific condition (xii).

Note: Though photographic evidence could not be collected with respect to water pollution at Berth 5a 6a (since it was not operational during the groundtruthing time frame), Inspection report by GSPCB by dated 19/1/2018 noted:

- no water with coal or coal dust should be let into the sea
- embankments /gutters to be provided along berth
- surface runoff channelised into settling pond.

These points show that conditions 4 (xv) and 4 (xviii) of CTO relevant this time period dated 21/7/2017 were violated:

As a result of groundtruthing activities, community partners from 3 fishing associations, namely, Old Cross, Baina and Desteirro, filed complaints detailing violations of EC conditions at Berth 7 18/7/2018. They sent these complaints to the Chairperson of SEIAA, Goa, Directors at MoEFCC, Delhi and to the Regional Office of MoEFCC in Bangalore. At the time of writing this report no response had been received to these complaints.

Since activities at Berth 5a 6a had been shut down since January 2018 until July 2018, no complaints have currently been filed by community partners at the time of filing this complaint. They are being vigilant and will do so as the need becomes evident.

Federation of Rainbow Warriors has filed appeals against the latest CTOs issued by GSPCB to AMPTPL and SWPL in July 2018 and the proceedings are currently underway. These appeals were filed with the First Appellate Authority in proceedings in August 2018.

On the issue of engaging with the appraisal process for the new proposals, it is evident from the minutes of the 33rd EAC meeting that the submissions made to it did feed into the decision making process. The minutes state *“the committee felt that the earlier recommendations were made by the committee after exercising all due diligence and based on merits of the case. The need for source apportionment was never informed to the committee prior to or during the EAC meeting and neither does it form part of the Standard Terms of reference earlier decided by the MoEFCC. It was noted that Consent to Operate has been granted now by the State Pollution Control Board.*

The committee also felt that a new condition on source apportionment be added to the stipulated set of environmental safeguards/conditions. It was noted that the SPCB would also like to include it in the conditions to Consent to Establish.

The committee, after deliberation upon the information provided by the project proponent, recommended that a clarification be sought from the Goa State Pollution Control Board about the court cases as related to the Port and their current status.

In view of the foregoing observations, the EAC recommend to defer the proposal. The proposal shall be reconsidered after the above essential details are addressed and submitted.”

At the time of writing this report, the EAC had recommended the EC for the proposal for capacity enhancement and modernisation once again of Berth 5a 6a and included the source apportionment study and implementation of its findings as a special condition to be applied.

A. Regional and Central Office of the Ministry of Environment, Forests and Climate Change

1. Deficiencies in Compliance monitoring:

- a. *Regularity of monitoring:* Monitoring bodies like the Regional Office of the MoEFCC are charged with the duty of regularly inspecting and ensuring compliance to EC conditions. In the case of Berth 5a 6a, monitoring report dated 01.06.2017 shows that this berth was inspected only on 2 other occasions – once in 2007 and once in 2008. That means for a period of 9 years the central compliance monitoring agency had not inspected this site.
- b. *Delays in accessing monitoring reports:* Since monitoring reports were not publicly available for Berth 5a 6a, community members filed an RTI application in June 2018 requesting copies of the six monthly compliance reports that should be filed by SWPL ideally. Though the fees was paid for the same as directed by RTI response from RO – MoEFCC vide letter no SPA/2(1)(ENV)(GOA) / RO (SZ)/ RTI 411, these reports are pending as of December 2018 these reports are not available on the JSW website.
- c. *Cognizance of submissions to Expert Committees:* In his letter (no. 8/7/18-PCB/Vol.X/Leg/20147) to the MoEFCC dated 25/1/2018, the GSPCB Member Secretary while asking that the EAC to reconsider its EC recommendation to SWPL highlighted that it appeared that the EAC had neither taken due note of the proceeding of the public hearing held for the proposal regarding capacity enhancement at for Berth 5a 6a, nor had it considered the technical recommendations of the GSPCB regarding including source apportionment in the TOR for the EIA before any EC is accorded to this project. In fact, the letter states that the EAC meetings minutes do not so much as reference these matters, let alone consider them. (Annexure 6)

2. Weak and vague clearance conditions:

- a. Environmental Clearance for Berth 5a 6a issued in 2001:
 - i. Doesn't mention the amount of coal that the berth is allowed to handle.
 - ii. Doesn't specify how much reclamation of land has been approved.
 - iii. Doesn't mention the mode of evacuation of the cargo nor specifies what safeguards need to be taken.
 - iv. Speaks heavily of conditions during the construction phase but does not do the same for the operations phases.

- v. Was issued by the Ministry of Shipping which was at the time entrusted with powers to issue ECs to Port. The validity of this EC was brought into question by the GSPCB in its affidavit to the NGT in 2018 in response to SWPL's petition regarding issuing of a new CTO.

3. Lack of compliance related information sharing with Expert Appraisal Committee (Infra II + CRZ) of MoEFCC

- a. Though the RO, MoEFCC received detailed submission from the GSPCB on 12/7/2017 (Letter no. 1/25/17/PCB/Legal/6689) detailing on going issues regarding air pollution and the need to modify TORs for proposals relating to capacity enhancement of coal handling at MPT, this information did not reach the EAC as is evident from the minutes of the 33rd EAC meeting that state *"the committee felt that the earlier recommendations were made by the committee after exercising all due diligence and based on merits of the case. The need for source apportionment was never informed to the committee prior to or during the EAC meeting and neither does it form part of the Standard Terms of reference earlier decided by the MoEFCC. It was noted that Consent to Operate has been granted now by the State Pollution Control Board."*

- 4. Cumulative Impact Assessment for the MPT operations:** Need for cumulative EIA has been ignored summarily in the appraisal process for all the proposals relevant to MPT even though documents show that as far back as 2011 (MPTs response dated 17/3/2011 to GSPCBs directions based on NEERI report) MPT was asked to prepare a comprehensive EIA to understand the impact of coal handling on this region.

B. Goa State Pollution Control Board

- 1. Shortcomings in implementation of directions:** Though the GSPCB's documentation and actions show that it has been working consistently to uphold the law and be accountable for environmental safeguards there has been resistance on the part of the project proponents.
 - a. For example, the first mention of installing a CAAQMS can be seen in directions given to MPT in 2011. As the years went by, numerous warnings were given to both AMPTPL and SWPL to install and connect the same. It was only in 2017 that SWPL finally installed its CAAQMS and yet it was not connected to the GSPCB server for real time data monitoring until 2018. (for details, please refer Annexure 10)
 - b. It can be seen that in multiple site inspection reports, show cause notices and directions, GSPCB has had to address the same violations over and over – coal stacks not covered, above stipulated height, lack of windscreen, lack of housekeeping, manual handling, etc. This begs the question why more stringent action could not have been taken at an earlier stage rather than merely adding more conditions into CTOs and levying monetary fines/deposits as in the case of SWPL's current CTO. (for details, please refer Annexure 10).

- c. It is also evident that there are cases where despite finding violations on the ground during routine inspections or after receiving complaints, GSPCB has still gone ahead and renewed CTOs of erring parties thus putting the environment and the health of Vasokars at repeated risk.

C. Mormugao Port Trust

1. Lack of proactive vigilance and accountability

- a. GSPCB inspection report (shared vide letter no 10/1/18-PCB/Tech- 7084) states that on 17/5/2018, MPT issued a letter to “M/s Vedanta Ltd for installation and operation of floating grab crane for unloading coal cargo from the “MV Mondial Success”. This is inspite of the fact that both the EC and the CTO for this berth given to AMPTPL are quite clear that unloading should only be done into hoppers. In fact, in the 133rd Board meeting of the GSPCB , the minutes reveal that MPT has advocated for allowing unloading directly on to barges saying it is “less polluting” while offering no evidence to back up this statement. It is also important to note here that Vedanta and MPT had been handling coal at the moorings dolphins earlier without any clearances to do so and this activity too had been shut down by the GSPCB in January 2018⁷⁵.
- b. GSPCB notes in its letter dated 12/7/2017 to the RO, MoEFCC that based on data submitted by MPT, it had learnt that SWPL (Berth 5a 6a) “exceeds productions for the year 2012-2013(coal/coke), 2013-2014 (coal/coke), 2014-2015 (coal/coke) and 2015 -2016 (coal/coke) in comparison to permitted capacity as per Consent to Operate granted.” Its seems very unlikely that MPT themselves would not have noticed this anomaly in exceeding the handling capacity year after year and yet it failed to raise any red flags about this blatant illegality.
- c. In its show cause notice to SWPL for exceeding handling capacity for 5th consecutive year, GSPCB states that it received handling data for 2016-2017 from MPT on 25/7/2017 which also showed that SWPL had handled an excess of 5.987 tons in 2016-2017 in blatant violation of CTO dated 21/7/2017. This begs the question why this was not caught earlier by Port Authorities.

2. Alleged violations by MPT

- a. From the list of repeated violations listed in Annexure 10 it is clear that violation of regulatory conditions is the norm at MPT. In fact, inspection report dated 28/11/2011 directed MPT to stop construction activity at Berth7 as the approval of MoEF was still in process. CRZ approval had not been obtained. In fact, the EC for construction of this berth was only issued in 2013.

⁷⁵The Herald. 2018. *MPT directed to suspend coal operations at mooring dolphin*. [ONLINE] Available at: <https://www.heraldgoa.in/Goa-News/MPT-directed-to-suspend-coal-operations-at-mooring-dolphin/125156.html>. [Accessed 4 September 2018].



Pic credit: Tania Devaiah

This Google Earth image from 2011 clearly shows that reclamation and construction works had already commenced. This fact is also corroborated by MPT's response dated 17/3/2011 to GSPCB's direction based on NEERI report dated 30.06.2008 (as mandated by the High Court in the first coal pollution related PIL).

- b. According to the minutes of the 128th and 131st meetings, of GSPCB, the show cause notice and directions mentioned therein prove that MPT had been illegally handling various cargo including coal at its mooring dolphins since 2003 without any pollution mitigation measure in place and without any clearances for the same.

LIST OF ANNEXURES

Annexure 1 : EC for 5a 6a

Annexure 2 : CTO for 5a 6a

Annexure 3 : EC for Berth 7

Annexure 4 : CTO for Berth 7

Annexure 5 : CM Digambar Kamat's letter to MoEFCC

Annexure 6 : GSPCB letter to MoEFCC 25/1/2018

Annexure 7 : GSPCB inspection report for unloading of coal directly on to berth at Berth 7

Annexure 8 : Issued by GSPCB to SWPL for excess coal handling at Berth 5a 6a

Annexure 9 : Directions issued by GSPCB to SWPL revoking CTO for Berth 5a 6a

Annexure 10 : Tabulation of repeated non-compliance at Berth 5a 6a and Berth 7

Annexure 11 : Timeline of events vis-a-vis coal handling at the MPT

GOVERNMENT OF INDIA
MINISTRY OF SHIPPING
(PORTS WING)

No.PD-26018/2/2000-PDZ (CRZ)

New Delhi, the 24th Jan., 2001

To

The Chief Manager (Finance),
M/s ABG Goa Port Limited,
5th Floor, Bhupati Chambers,
13, Mathew Road,
Mumbai - 400 004.

Sub.: Proposal for Environmental Clearance for construction of two multi-purpose cargo berths (5-A & 6-A) in Mormugao Port on BOOT basis by M/s ABG Goa Port Limited.

The undersigned is directed to refer to your letter dated 4th May, 2000, 6th April, 2000, 11th Sept., 2000, 9th Oct., 2000 and 27th Oct., 2000 on the subject mentioned above and to say that the proposal has been considered by this Ministry from environmental angle and clearance is hereby accorded under Ministry of Environment & Forests Notification No.H-11011/6/97-IA.III dated 9th July, 1997 (SO No.494 (E) subject to strict implementation of the following safe guard measures:-

- (i) All construction design/drawings relating to construction activities must have the approval of the concerned Government Departments/ Agencies of the State Government of Goa. Ground water should not be tapped for construction activities as the drawl of ground water for industrial use from the CRZ is a prohibited activity.
- (ii) Adequate provision for all infrastructural facilities such as water supply, fuel, sanitation etc. must be extended for labourers during the construction period in order to avoid damage to the environment.
- (iii) Dredging operations, if any, should be undertaken in consultation with either the Central Water and Power Research Station, Pune or National Institute of Oceanography, Goa or any other authorised agency to ensure that dredging operations do not cause adverse impact on water quality and marine productivity in the vicinity. Dredging operation as far as possible should be kept to the minimum for avoiding any adverse impact on marine life.
- (iv) Disposal sites for excavated material should be so designed that the revised land use after dumping and changes in the land use pattern do not interfere with the natural drainage.
- (v) To meet any emergency situation, adequate foam containers should be kept ready with supporting fire fighting system and water pipeline.

...2/-

- (vi) The staff posted in sensitive areas should be trained in implementation of the Crisis Management Plan already drawn by the authorities. Mock drill(s) for this purpose should be conducted on a regular basis. Provisions of Dock Safety Act and the guidelines issued by the DG, FASLI/CLI, Mumbai for the safety and health of the workers should be followed.
- (vii) For development of green buffer including mangroves wherever feasible, the authorities should start growing large nursery of multipurpose species such as Eucalyptus, Casuarine, Dalbergia, Terminalia etc. The norm of about 2000-2500 trees per hectare may be adopted for raising of green belt. Necessary permission may be obtained from the concerned authorities for cutting of trees, if any, for the project.
- (viii) To prevent discharge of sewage and other liquid wastes including ballast into marine environment, adequate system for collection, treatment and disposal of liquid wastes must be provided to the satisfaction of Goa State Pollution Control Board.
- (ix) Adequate noise control measures must be taken to maintain noise level at various work places within the standard prescribed by the competent authorities. If need be, ear-plugs and ear muffs should be provided to the workers in the project area.
- (x) The quality of treated effluents, solid wastes and emissions must conform to the standards laid down by the competent authority including Goa State Pollution Control Board, Panaji.
- (xi) An Environmental Cell should be set up immediately and made operational with adequate laboratory facilities, equipment and a mobile van for collecting air samples. The record and data should be submitted with proper analysis and corrective measures required, if any, for maintaining the levels within the prescribed limits to the Regional Office, Ministry of Environment and Forests, (SR) Government of India, Bangalore. The Environment Cell should coordinate and monitor environmental mitigative measures executed in the project area. The Project Proponent is advised to institutionalise their Environmental Monitoring through some recognised Scientific Institution for the Project.
- (xii) Necessary leakage detection devices with early warning system must be provided at strategic locations.
- (xiii) Standby DG Sets must be provided to ensure uninterrupted power supply to the pump house and the fire fighting system.

- (xiv) Third party inspection should be ensured during construction and operational phases with adequate insurance cover. The project authorities should confirm on regular intervals of six months to the Ministry about the implementation of the suggested safeguard measures and the data/report should be opened for inspection by the Team which would be constituted by the Ministry, if found necessary.
- (xv) Full support should be extended to the Regional Office, Ministry of Environment and Forests, (SR) Government of India, Bangalore during inspection of the project for monitoring purposes by the project proponents by furnishing full details and action plans including action taken report on mitigative measures.
- (xvi) Adequate funding provisions, year-wise and item-wise, must be made for implementation of the above mentioned safeguard measures.
- (xvii) The Project Proponents should follow the mitigative measures in toto as mentioned in the documents submitted by them.

2. In case of any deviation or alteration in the project including the implementation agency, a fresh reference should be made to the Ministry for modification in the clearance conditions or imposition of new ones for ensuring environmental protection. The project authorities would be responsible for implementing the above suggested safeguard measures.

3. The Ministry reserves the right to revoke clearance, if the conditions stipulated as above are not implemented to the satisfaction of the Ministry.

4. These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability (Insurance) Act, 1991 alongwith their amendments and rules from time to time.

This issues with the approval of competent authority.

Yours faithfully,


(M. L. MEENA)

DIRECTOR, PORTS (DEVELOPMENT)

Copy to:

- (i) Director (IA), Ministry of Environment & Forests, Paryavaran Bhavan, CGO Complex, Lodhi Road, New Delhi - 110 003.
- (ii) Chief Conservator of Forests, Kendriya Sadan, 4th Floor, E&F Wing, 17th Main Road, Bangalore - 560 034.
- (iii) Director, Science, Technology and Environment Department, Opp. Saligao Seminary, P.O. Saligao, Bardez, Goa - 403 511.
- (iv) Goa State Pollution Control Board, 243, Patta, Panaji - 403 001 (Goa).
- (v) Guard File.

ANNEXURE 2: CTO FOR 5A 6A

GOA STATE POLLUTION CONTROL BOARD गोंय राज्य प्रदुशण नियंत्रण मंडळ

(An ISO 9001-2008 Certified Board)

Phone Nos : 91-832-2438567, 2438528
2438563, 2438550
Tel / Fax No. : 0832-2438528



Email id's :
Member Secretary, GSPCB - ms-gspcb.goa@nic.in
Environment Engineer, GSPCB - ee-gspcb.goa@nic.in
Scientist, GSPCB - scientist-gspcb.goa@nic.in
Asst. Env Engineer, GSPCB - aee-gspcb.goa@nic.in
Asst. Law Officer, GSPCB - alo-gspcb.goa@nic.in

No. 5/2580/04-PCB/CA - 4313

Date: 6/07/2018

Consent to Operate under Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization/Renewal of under Rule 6(i) of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016

[To be referred as Water Act, Air Act and HW (M & T) Rules respectively]

CONSENT TO OPERATE AND AUTHORIZATION is hereby granted to:

M/S. SOUTH WEST PORT LTD
(Berth No. 5a & 6a)
(Red Category)

Chalta No. 1 of P.T. Sheet No. 7,
1st Floor, Port Users Complex,
Mormugao Harbour, Mormugao - Goa.

Located in the area declared under the provisions of the Water Act, Air Act and Authorization under the provisions of HW (M & T) Rules, subject to the provisions of the Act and the Rules and the Orders that may be made further and subject to the following terms and conditions:

1. This Consent to operate and Authorization is valid up to :31/03/2019
2. This Consent to operate and Authorization is valid for the manufacture of:

Sr. No	Description	Quantity
1.	Handling of Coaking Coal/coke (Import)	0.4 MMT/Month from date of issue of consent
2.	Limestone (Import)	1 MMT/annum
3.	Steel slab (export)	1 MMT/annum

3. CONDITIONS REQUIRED TO BE COMPLIED UNDER THE WATER ACT:

- (i) The daily quantity of industrial effluent from the factory shall not exceed NIL.
- (ii) The daily quantity of domestic effluent from the factory shall not exceed 8 KLD.
- (iii) Domestic Effluent treatment and Disposal:-

The domestic wastewater shall be treated in a properly designed septic tank and discharged on land for percolation through soak pit of adequate size within the premises.

The unit should empty septic tank and soak pit periodically through night soil tankers for safe disposal and submit the copies of the receipts to the Board on regular basis.

A good house-keeping shall be maintained within the factory premises. All pipes, valves and drains shall be maintained in leak-proof condition. Floor washings shall be maintained to the effluent collection system only and shall not be allowed to find way in open areas.

(vi) **Non-Hazardous Solid Waste:**

The total quantity shall be segregated and treated as follows:

Sr. no.	Type of segregated solid waste	Quantity	Disposal
1	Scrap steel	26.5Tons/Month	Sale
2	Wooden planks	13.5Tons/Month	Sale
3.	Other solid waste	0.12Tons/Month	Given to MMC/MPI garbage disposal site

(vii) The unit should implement rain water harvesting and ground water re-charge measures in consultation and approval of the Water Resource Department, Govt. of Goa and Directorate of Industries, Trade and Commerce, Govt. of Goa.

4. **CONDITIONS REQUIRED TO BE COMPLIED UNDER THE AIR ACT:**

(i) The unit shall maintain and operate air pollution control system of adequate capacity for the following equipments


Sr. No.	Name of Equipments/ Installation	No of Installation	Capacity	SO ₂ Kg/Hr	NO _x , HC, CO, PM			
					NO _x	HC	CO	PM
1.	D.G. set	02	1500 KVA	7.36	9.2	1.3	3.5	0.3
2.	D.G. set	1	125 KVA		9.2	1.3	3.5	0.3
3.	D.G. set	1	100 KVA		9.2	1.3	3.5	0.3
4.	D.G. set	1	2000 KVA	7.36	9.2	1.3	3.5	0.3
5.	D.G. set	1	250KVA		9.2	1.3	3.5	0.3

ii) The applicant shall observe the following standards for D. G. Sets \geq 1000 KVA

Sr. No	Parameters	Limits
1.	Nox(as NO ₂)	1100 ppmv (as 15%O ₂)Dry basis in ppmv
2.	NMHC(as C)	150 mg/Nm ³ (at 15% O ₂)
3.	Particulate Matter	75 mg/Nm ³ (at 15 % O ₂)
4.	CO	150 mg/Nm ³ (at 15 % O ₂)
5.	Sulphur Content in Fuel	Less than 2%

ii) The unit shall erect the chimney(s) of the following specifications:

Sr. No	Chimney attached to	Height
1.	D.G. set 1500 KVA	30Mtrs
2.	D.G. set 125 KVA	3 Mtrs
3.	D.G. set 100 KVA	2 Mtrs
4.	D.G. set 2000 KVA	30 Mtrs
5.	D.G. set 250 KVA	3 Mtrs


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 Member Secretary
 Goa State Pollution Control Board

unit shall observe the following standards:-

Sr. No	Type of fuel	Quantity /hr
1.	H.S.D. (for D.G. set of 100 KVA	18 ltrs/hr
2.	H.S.D. (for D.G. set of 125 KVA	20ltrs/hr
3.	H.S.D. (for D.G. set of 250 KVA	45 Ltrs/hr
4.	H.S.D. (for D.G. set of 1500 KVA)	220Ltrs /hr
5.	H.S.D. (for D.G. set of 2000 KVA	394 Ltrs/hr

(v) The Stack Port Hole and Platform is to be designed as per CPCB guidelines Method 1 Part 1 of Stack Monitoring – Material & methodology for isokinetic sampling

(vi) The unit should comply with all the standards for D.G. Sets prescribed at Sr. no. 94, 95 and 96 of Schedule 1 of the Environment (Protection) Rules, 1986.

(vii) The unit should carry out emission monitoring from the stacks once in a year from a laboratory recognized by Ministry of Environment and Forest under the Environment Protection Act, 1986 and the result shall be submitted to this Board.

(viii) The unit shall take adequate measures for control of noise levels from its own sources within the premises in respect of noise. The limits are as follows

Category of Area/ Zone	Limits in dB (A) Leq	
	Day time	Night time
Industrial Area	75	70
Commercial Area	65	55
Residential Area	55	45
Silence Zone	50	40

Day time is reckoned between 6 a.m. to 10 p.m. and night time is reckoned between 10 p.m. to 6 a.m.

(ix) Adequate mitigation measures shall be taken to control emissions of SO₂, NO_x, PM_{2.5}, RSPM. Applicant shall achieve following Ambient Air Quality standards:

Sr.No.	Pollutant	Time Weighted Average	New Standards (Scheduled VII, Rule 3 (3B) 16 th Nov 2009
			Concentration in Ambient Air Industrial Area Residential Rural & Other Areas
1	Sulphur Dioxide (SO ₂)	Annual Average *	50.0 µg/ m ³
		24 Hours **	80.0 µg/ m ³
2	Oxides of Nitrogen as NO ₂	Annual Average *	40.0 µg/ m ³
		24 Hours **	80.0 µg/ m ³
3.	Particulate matter (size less than 10)µm	Annual Average *	60.0 µg/ m ³
		24 Hours **	100.0 µg/ m ³
4.	Particulate matter (size less than 2.5) µm	Annual Average *	40.0 µg/ m ³
		24 Hours **	60.0 µg/ m ³

*Annual Arithmetic mean of minimum 104 measurement in a year taken twice a week 24 hourly at uniform interval.

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24 hourly /8 hourly or 1 hourly monitored values as applicable shall be complied with 98% of the time in a year .However ,2 % of the time ,they may exceed the limits but not on two consecutive days of Monitoring .

The Unit shall maintain and operate continuous ambient Air Quality Monitoring System and The date so generated shall be transferred to GSPCB Server on real –time basis . Unit has to ensure that the online CAQMS system has to be connected to Board server within 15 days of receipt of the consent.

- (xi) The applicant shall maintain wind breaking walls/barriers.
- (xii) The applicant shall maintain dust containment cum suppression system.
- (xiii) The applicant shall maintain metalled road within the premises.
- (xiv) The applicant shall carry out regular cleaning and wetting of ground within the plot to suppress dust pollution.
- (xv) The applicant shall plant fast growing trees along the periphery/compound wall of the plot to arrest dust pollution.
- (xvi) The applicant shall take all the necessary steps to maintain the good and healthy ambient air quality in and around the plot.
- (xvii) Continuous water sprinkling shall be carried out on the top of the heap at regular intervals to prevent dusting, fire & smoke. During loading/unloading, fixed pipe with sufficient water storage and pump shall be installed.
- (xviii) The applicant shall ensure regular sweeping of coal from internal and main road and also ensure that there is space for free movement of vehicles at the surrounded area.
- (xix) Fixed pipeline should be installed for sprinkling of water to ensure that total plot area is covered with adequate water tank of compatible storage.
- (xx) The applicant shall provide adequate fire fighting measure to avoid any fire and shall ensure that there is no explosive or chemical reaction in storage yard.
- (xxi) The applicant shall store coal in such a way that coal heap should not be higher than 9 mtrs and distance between two adjoining heap at G.L. should maintain gap, so that in case of fire, approach is available.
- (xxii) Proper drainage system shall be provided in all coal storage area so that water drained from sprinkling is collected at a common tank and can be reused after screening through the coal silt



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Goa State Pollution Control Board**

5. CONDITIONS REQUIRED TO BE COMPLIED UNDER THE HAZARDOUS AND OTHER WASTES (MANAGEMENT AND TRANSBOUNDARY MOVEMENT) RULES 2016:

- (i) The unit is hereby granted authorization to operate a facility for collection, storage and disposal of hazardous wastes as specified below:

Sr. No.	Category	Type of waste	Quantity	Mode of disposal
1.	5.1	Used/Spent oil	9.0MT/annum	To recycler registered with CPCB and having valid authorization of SPCB
2.	5.2	Waste residues Containing oil	2.0 MT/annum	To be sent to M/s Mumbai Waste Management Ltd. at Taloja for incineration

- ii) The authorizer shall comply with the provisions of the Environment (Protection) Act, 1986 and the rule made thereunder.
- iii) The person authorized shall not rent, lend, sell or transfer or otherwise transport the hazardous waste without obtaining prior permission of the Goa State pollution Control Board.
- v) Any unauthorized change in personnel, equipment or working conditions as mentioned in the application by the person authorized shall constitute a breach of his authorization.
- It is a duty of the authorized person to take permission of the Goa State Pollution Control Board to close down the facility.

The inner bottom surfaces of the tank shall be impervious enough to prevent leakage or seepage of these wastes into the sub surface soil or ground water.

The occupier shall maintain a manifest system as per Rule 19 for disposal of hazardous wastes to ensure that these wastes are delivered to the designated facility preventing pilferage and clandestine disposal due to unforeseen events that may occur during transit.

The manifest shall be endorsed by the dispatcher, transporter and receiver of hazardous wastes. The endorsed copy shall be furnished to the Goa State Pollution Control Board.


Under no circumstances the hazardous waste shall be disposed to unauthorized facilities.

The occupier shall maintain the records for collection, storage and disposal of hazardous waste in Form 3 of as per Hazardous & Other Waste (Management & Transboundary Movement) Rules 2016.

The occupier shall furnish monthly returns for collection, storage and disposal of hazardous waste through online XGN system.

The unit shall put up an online board (minimum size 6x4 Feet) at prominent location near the main gate providing details as follows in English and Konkani languages:-

- Hazardous Waste category number.
- Hazardous Waste quantity number.
- Treatment facility for each category.
- Mode of disposal for each category.
- Hazardous Waste Authorization number, date and validity period.


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
- Water Consent number, date and validity period.
- Air Consent number, date and validity period.
- Quantity and Nature of Hazardous Chemicals being used.

(xiii) The occupier shall ensure that the Hazardous Wastes are not allowed to be stored for more than 90 days.

(xiv) The unit shall submit annual returns in prescribed format to the Board for financial year by 30th June of every year for the previous financial year.

6 GENERAL CONDITIONS:

- (i) The unit shall not change or alter the quantity, quality of discharge, temperature or the mode of the effluent/ emission or hazardous wastes or control equipments provided for without previous permission of the Board.
- (ii) The unit shall provide facility for collection of samples of effluent, air emissions and hazardous wastes to the Board staff.
- (iii) An application in prescribed form along with the prescribed fees for renewal of Consent shall be submitted at least 60 days before the expiry of validity of this Consent. An application for renewal of Consent submitted after expiry of the validity shall accompany with penalty of 50% of the Consent fees in addition to the prescribed consent fees.
- (iv) The Board shall be forthwith informed of any accident or unforeseen event involving discharge of any poisonous, noxious or polluting matter into a stream or well or on land or into the atmosphere, as result of such discharge water/ air is being polluted.
- (v) This Consent to Operate is granted without any prejudice to any of the permission(s) required under any law, by laws and regulations in force.
- (vi) This Consent does not entitle the party to commence activities until and unless all the other Permissions as required under the relevant statutes are obtained by the party and this Consent to Operate is confined to matters arising out of the Air Act and Water Act only
- (vii) The Board reserves the right to amend or add any conditions in this consent and the same shall be binding on the applicant.
- (viii) The unit shall submit to this office, the Environmental Statement Report in Form V for the Financial Year ending April to March by 30th September of the succeeding year as per the provisions of the rule 14 of the Environment (Protection) (Second Amendment) Rules, 1992.
- (ix) Reliable flow meter shall be installed to maintain record of water consumption/waste water generation per day. The records so maintained shall be made available to the Board officials whenever required.
- (x) The industry shall bear the cost of analysis / monitoring in case of complaints received by the Board/ reinspections due to non compliances observed by the Board & monitoring carried by the Board.


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 Member Secretary
 Goa State Pollution Control Board

The unit shall submit the details of the Public Liability Insurance Policy under the PLI Act 1991, to the Board office as applicable.

The unit shall submit returns for disposal of batteries under the Batteries (Management & Handling) Rules 2011, if applicable.

- (xii) The unit shall submit returns for disposal of e - waste under the E- Waste (Management and Transboundary) Rules 2016, if applicable.
- (xiii) The unit shall submit returns for disposal of plastic waste under the Plastic Waste (Management and Transboundary) Rules 2016, if applicable.
- (xiv) Unit shall improve the housekeeping at wagon loading point and submit compliance report to this office.


7. SPECIFIC CONDITION

- i. Take into consideration Best Available Technology (BAT) or Good International Industry Practices (GIIP).w.r.t DUST MANAGEMENT when determining air quality management techniques, generally and in specific cases ,including during expansion or up gradations .
- ii. Use enclosures (detachable if required) on conveyors or chutes and telescoping arm loaders, hoppers to reduce spillage and dust; also ,minimize the distance between the working area and trucks /trains being loaded to reduce the area exposed to fugitive dust generation and area that has to be swept /cleaned .free fall of material should be avoided.
- iii. Cover the cargo stock pile with an impervious tarpaulin ,adequately anchored ,as soon as possible after loading /unloading and adjusting the cover as material is removed from the pile thereby ensuring maximum closure of the pile and minimum exposure to existing weather conditions.
- iv. Maintain pile size /volume to maximum height specified by the Board or consistent with customer demand ,transportation schedules and materials cost, whichever is lesser ,to reduce the amount of material exposed to weather to conditions ;and for the shortest time as possible .Dry cargo pile heights should remain low, to minimize material from becoming airborne.
- v. Insert the ship loader or loading mechanism in the ship's hold before loading /unloading begins .All ship loader booms should be fitted with fogging sprays at the loading chute.
- vi. Periodically clean the drainage channels and properly dispose of the sediment as per applicable regulations .Storm drainage channels / holding tanks should not be discharge directly into surface waters without prior Consent of the Board and compliance verification.
- vii. Use dust suppression system, bag house ,screw conveyors and vacuum collecting equipment wherever practical in the handling and further prevention of dispersion of fine ,granular or powdery material .



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Member Secretary
Goa State Pollution Control Board

- establish the Dust Extinction Moisture (DEM) for the various cargoes handles as applicable and ensure that all ore/coal /bauxite /sawdust/other powder form of material (directly or indirectly derived) brought into, stockpiled and unloaded/loaded through the MPT is at, or above, the Dust Extinction Moisture (DEM) for that particular material type. DEM as well as any specific characteristics such as hydrophobicity which would indicate that practices relying on water application would be effective enough or ineffective. Both the DEM and hydrophobicity of ore/coal/bauxite/sawdust/other powder form of material (directly or indirectly derived) should be determined and the reports of the same should be submitted to the Board including their respective material (or mineral) characteristics of the material.
- ix. Use water cannons /sprinklers on all stockpile areas to maintain the Dust Extinction Moisture (DEM) of the product and prevent dust emissions associated with wind erosion. Use of low -volume misting nozzles directed along the raw material stream. Use of water addition nozzles in conjunction with the low volume misting nozzles where the raw material is not at DEM.
 - x. Explore the use of total or partly retractable permanent enclosures for stock pile handling areas. during loading /unloading or installation of an additional windscreen (height to be established keeping in mind the elevation height of the hill top residences and the structural stability of the same) adjacent to the road adjoining MPT and the residences, whichever is feasible ,for control of dust generation with extraction to suitable bag or appropriate filters to minimize fugitive dust emissions, thereby controlling material loss.
 - xi. Consider predominant wind patterns when stock piling ,avoiding dry and conditions where possible Spray stockpiles immediately prior to strong wind events or dry weather conditions.
 - xii. Consider removal of materials from the bottom of piles to minimize dust re-suspension.
 - xiii. In Mobile reclaimers , the bucket wheel reclaimers can be fitted with two sets of nozzles (one set to spray the face of the stockpile immediately ahead of and behind the cutting wheel, and the second set to spray into the raw material stream as it cascades out of the buckets into the transfer chute and onto the conveyor.
 - xiv. Where practicable during expansion ,designing new facilities to minimize travel distance from ships off-loading and on -loading facilities to storage areas.
 - xv. Provide details of water source for sprinklers and provide flow meters to the sprinkling systems line and submit daily readings of input and output at the end of the month to the Board.
 - vi. Noise sources in ports include cargo handling ,vehicular traffic ,and loading /unloading containers and ships to be identified ,controlled and regulated within defined time frames keeping in view the distribution of population density.
 - ii. Permanently stabilize entire work areas /transportation routes to minimize fugitive dust emissions within three month from date of order. Consideration may be given to the use of Compacted Clay ,due to its low tendency to crack ,in consultation with concerned experts.


 (Levinson J. Martins)
 Member Secretary
 Goa State Pollution Control Board

The unit shall submit a bank guarantee of Rs.1crore with a validity period of one year, within 10 days from the date of issue of this consent for ensuring compliance of the consent conditions and including condition of capping of handling upto 0.4 MMTM .The same will be forfeited incase of any noncompliance.

- xix. Unit has to submit Monthly cargo handling data to the Board by subsequent month and maintain a the records of the same.
- xx. For the purpose of source apportionment study in respect of dusty cargo handled in MPT including coal, the unit shall jointly/ severally contribute periodically toward the expenses incurred for the said study to MPT
- (vii) The unit should have a complete plan of arrival of ships and the permitted handling capacity shall be strictly adhered.
- (viii) If cargo is dispatched by Wagons then all the wagons should be properly covered by Tarpaulin & tied neatly inorder to avoid spillage during transport .The unit should also study on the aspects of having a mechanized system for closing the wagons and submit a action plan for the same .
- (ix) The unit shall comply to the guidelines and DUST Mitigation measures in handing Construction material and C and D waste issued by Central Pollution Control Board and are placed on Board website goaspcb. gov. in

To,
M/s. SOUTH WEST PORT LTD.
(Berth No. 5A & 6A)
Chalta No. 1 of P.T. Sheet No. 7,
1st Floor, Port Users Complex,
Mormugao Harbour, Mormugao-Goa.

Copy to:-
1 Accounts Section
2 Concerned File
3 Guard File

Received Consent fee of: **The capital Investment of the unit is Rs. 31426.15**

Challan no.	Amount	Date
572	Rs. 5,61000/- (Air & Water Consent fees)	12.06.2018

Typed by	Verified by


(Levinson J. Martins)
Member Secretary
Goa State Pollution Control Board

Copy to :

- 1. Chief Engineer MPT –To submit monthly handling Data of the unit to the Board by 7th of subsequent month

ANNEXURE 3: EC FOR BERTH 7

F.No.10-39/2009-IA.III
Government of India
Ministry of Environment & Forests
(IA Division)

Paryavaran Bhawan,
CGO Complex, Lodhi Road,
New Delhi - 110 003.

Dated: 30th December, 2013

To,
The Chairman,
M/s Mormugao Port Trust,
Administrative Office: Headland Sada,
Mormugao, Goa - 403 804

Contact Person Details:
The Chairman,
M/s Mormugao Port Trust,
Tel: 0832 - 2521100, 2521200,
Fax: 0832 - 2521105

Subject: Environmental and CRZ Clearance for modernisation of Berth No. 7 for coal handling at Mormugao Port, Goa by M/s Mormugao Port Trust - Reg.

This has reference to the letter No. CE/PC-3/6204, dated 06.02.2009 of Chief Engineer and subsequent letters dated 26.03.2009, 18.02.2009, 07.12.2009, 02.02.2010, 27.02.2010 and 12.06.2013 seeking Environmental and CRZ Clearance under the Environment Impact Assessment Notification, 2006 and Coastal Regulation Zone Notification, 1991/2011 respectively. The proposal has been appraised as per prescribed procedure in the light of provisions under the Coastal Regulation Zone Notification, 1991/2011 and EIA Notification - 2006 and on the basis of the mandatory documents enclosed with the application viz., the Questionnaire, EIA, EMP, recommendations of the State Coastal Zone Management Authority and the additional clarifications furnished in response to the observations of the Expert Appraisal Committee constituted by the competent authority in its meetings held on 20th - 22nd July, 2009 and 19th - 21st September, 2013.

2. It is inter-alia, noted that the proposal involves modernisation of Berth No. 7 for coal handling at Mormugao Port, Goa. The port has six operational berths namely, berth 5A & 6A for coal and general cargo, Berth No.8 for liquid cargo, berth no.9, a dedicated iron ore berth, berths No.10 & 11 which are general cargo berths. The berth No.7 is a shallow draft berth which is now proposed to be developed/modernised. The proposed berth No. 7 would be 300m for handling panamax vessels. Reclamation of about 28,000 m² would be undertaken. The berth would be used for coal handling. The capital dredging involved will be about 50,000 cubic meter. It is proposed to use the dredged material for reclamation. The balance dredged spoil will be dumped at the designated

pk
S/E (IA)
We have to
send
compliance
JA
To be kept
in separate
file

XEN/PAK

dumping ground which is about 10 km from the project site. M/s Mormugao Port Trust informed that the cargo volume at MPT has dropped from 50 million tonnes in 2010-11 to 17.69 million tonnes in 2012-13. This is on account of stoppage of iron ore mining in Goa. The coal is presently handled at the general cargo berths 10 & 11 of the port without mechanized handling facilities. The entire coal handled at berths 10 & 11 is moved by trucks and serve the local industries. There will be a mechanized facility with dry fog and sprinkling systems for effective dust suppression. By shifting this cargo to the berth no.7, the Vasco city will be free from dust pollution being experienced currently due to coal handling at berths 10 & 11. Even with the resumption of iron ore mining at Goa, the maximum cargo that can be expected to be handled at MPT will be around 25 million tonnes. Hence even with the modernization of Berth No.7, the capacity of the port will be substantially lower compared to permitted capacity.

3. The Goa Coastal Zone Management Authority has recommended the project vide letter No. GCZMA/S/13-14/09/360 dated 07.06.2013.

4. The proposal was considered by the EAC in its meeting held on 26th – 28th March, 2008 and finalized additional ToR and ToR was granted vide letter no. F.No.10-158/2007-IA.III dated 04.04.2008.

5. The Expert Appraisal Committee, after due consideration of the relevant documents submitted by the project proponent and additional clarifications furnished in response to its observations, have recommended for the grant of Environmental and CRZ Clearance for the project. Accordingly, the Ministry hereby accords necessary Environmental and CRZ Clearance for the above project as per the provisions of Environmental Impact Assessment Notification – 2006 and Coastal Regulation Zone Notification, 2011, subject to strict compliance of the terms and conditions as follows:

6. SPECIFIC CONDITIONS:

- (i) "Consent for Establishment" shall be obtained from Goa Pollution Control Board under Air and Water Act and a copy shall be submitted to the Ministry before start of any construction work at the site.
- (ii) The project proponent shall provide lining for collection of run off from coal stockyard and the leachate shall be treated before disposal.
- (iii) The project proponent shall provide dry fog and sprinkling systems for effective dust suppression.
- (iv) Entire transportation of coal shall be in closed conveyor.
- (v) There shall be no washing of conveyor belt.
- (vi) The project proponent shall provide wind screen of minimum 15 m height fabric HDPE all along the periphery. The height shall be designed taking into account the wind velocity modelling etc. Also explore creepers in consultation with forest department.



- (vii) Coal shall be kept under moist conditions using water sprinklers. Transportation shall be in closed conveyors with water spray.
- (viii) All the conditions stipulated by Goa Coastal Zone Management Authority (GCZMA) vide letter No. GCZMA/S/13-14/09/360 dated 07.06.2013, shall be complied with.
- (ix) Periodical study on shore line changes shall be conducted and mitigation carried out if necessary. The details shall be submitted along with the six monthly monitoring report.
- (x) Oil spills if any shall be properly collected and disposed as per the Rules. Proper Oil Contingency Management Plan shall be put in place.
- (xi) All the conditions stipulated in the earlier Clearance including the recommendations of Environment Management Plan, Disaster Management Plan shall be strictly complied with.
- (xii) Cargo shall be unloaded directly into hopper from the ship and transported to the stack yards through closed conveyor system only. Inbuilt dust suppression systems shall be provided at hoppers and all the transfer points/storage yards. Cargo shall not be unloaded directly onto the berth. Water meters shall be provided at different locations to record the consumption of water used for dust suppression and daily log shall be maintained.
- (xiii) At least 15 m width of green belt along the periphery and 15 m width along the stockyard shall be undertaken including plantation of mangroves in consultation with Forests Department.
- (xiv) The dredge material shall be reused for low level rising wherever possible and excess shall be dumped into sea at the designated dumping areas identified based on mathematical model studies.
- (xv) To prevent discharge of sewage and other liquid wastes including ballast into marine environment, adequate system for collection, treatment and disposal of liquid wastes must be provided
- (xvi) Necessary arrangements for the treatment of the effluents and solid wastes must be made and it must be ensured that the untreated effluents and solid wastes are not discharged into the water or on the beach; and no effluent or solid waste shall be discharged on the beach.
- (xvii) The quality of treated effluents, solid wastes, emissions and noise levels and the like, from the project area must conform to the standards laid down by the competent authorities including the



Central or State Pollution Control Board and under the Environment (Protection) Act, 1986.

- (xviii) All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to MoEF along with half yearly compliance report to MoEF-RO.
- (xix) The funds earmarked for environment management plan shall be included in the budget and this shall not be diverted for any other purposes.
- (xx) The project proponent shall set up separate environmental management cell for effective implementation of the stipulated environmental safeguards under the supervision of a Senior Executive.

7. GENERAL CONDITIONS:

- (i) Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality.
- (ii) Full support shall be extended to the officers of this Ministry/ Regional Office at Bangalore by the project proponent during inspection of the project for monitoring purposes by furnishing full details and action plan including action taken reports in respect of mitigation measures and other environmental protection activities.
- (iii) A six-Monthly monitoring report shall need to be submitted by the project proponents to the Regional Office of this Ministry at Bangalore regarding the implementation of the stipulated conditions.
- (iv) Ministry of Environment & Forests or any other competent authority may stipulate any additional conditions or modify the existing ones, if necessary in the interest of environment and the same shall be complied with.
- (v) The Ministry reserves the right to revoke this clearance if any of the conditions stipulated are not complied with the satisfaction of the Ministry.
- (vi) In the event of a change in project profile or change in the implementation agency, a fresh reference shall be made to the Ministry of Environment and Forests.
- (vii) The project proponents shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of land development work.



(viii) A copy of the clearance letter shall be marked to concerned Panchayat/local NGO, if any, from whom any suggestion/representation has been made received while processing the proposal.

(ix) Goa State Pollution Control Board shall display a copy of the clearance letter at the Regional Office, District Industries Center and Collector's Office/Tehsildar's office for 30 days.

8. These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification 1994, including the amendments and rules made thereafter.

9. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.

10. The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental and CRZ Clearance and copies of clearance letters are available with the Goa State Pollution Control Board and may also be seen on the website of the Ministry of Environment and Forests at <http://www.envfor.nic.in>. The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional office of this Ministry at Bangalore.

11. This Clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No.460 of 2004 as may be applicable to this project.

12. Status of compliance to the various stipulated environmental conditions and environmental safeguards will be uploaded by the project proponent in its website.

13. Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

14. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.

15. The proponent shall upload the status of compliance of the stipulated Clearance conditions, including results of monitored data on their website and



shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.

16. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of Clearance conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.



(Lalit Kapur)
Director (IA-III)

Copy to:

1. The Secretary (Environment), Department of Science, Technology & Environment, Government of Goa, Panjim, Goa.
2. The Chairman, CPCB, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 32.
3. The Chairman, Goa Coastal Zone Management Authority, C/o Department of Science, Technology & Environment, Govt. of Goa. Opp. Saligao Seminary, P.O. Saligao, Bardez, Goa - 403 511.
4. The Chairman, Goa State Pollution Control Board, Dempo Towers, EDC Plaza, Patta, Panaji - 403 001, Goa.
5. The Chief Conservator of Forests, Ministry of Environment and Forests, Regional Office (SZ), Kendriya Sadan, 4th Floor E&F Wings, 17th Main Road, II Block, Koranmangala, Bangalore - 560 034.
6. Guard File.
7. Monitoring Cell.

(Lalit Kapur)
Director (IA-III)

ANNEXURE 4: CTO FOR BERTH 7

ANNEXURE A-1

GOA STATE POLLUTION CONTROL BOARD गोंय राज्य प्रदूशन नियंत्रण मंडळ (An ISO 9001-2008 Certified Board)

Phone Nos . 91-832-2438567, 2438528
2438563, 2438550
Tel / Fax No. 0832-2438528



Email id's :
Member Secretary, GSPCB - ms-gspcb.goa@nic.in
Environment Engineer, GSPCB - ee-gspcb.goa@nic.in
Scientist, GSPCB - scientist-gspcb.goa@nic.in
Asst. Env Engineer, GSPCB - aee-gspcb.goa@nic.in
Asst. Law Officer, GSPCB - alo-gspcb.goa@nic.in

No: 5/356/10-PCB/CI-3743

Date: 06/07/2018

Renewal of Consent to Operate under Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization under Rule 6(i) of the Hazardous Wastes and other wastes (Management, and Transboundary Movement) Rules 2016.

[To be referred as Water Act, Air Act and HW (M & T) Rules respectively]

RENEWAL OF CONSENT TO OPERATE AND AUTHORIZATION is hereby granted to.

M/S ADANI MORMUGAO PORT TERMINAL PVT. LTD.
(Large Scale Industry)
(Red Category)

Mechanized Coal Handling Terminal At Berth No: 7,
Headland Sada,
Vasco-Da-Gama.

Located in the area declared under the provisions of the Water Act, Air Act and Authorization under the provisions of HW (M, H & T) Rules, subject to the provisions of the Act and the Rules and the Orders that may be made further and subject to the following terms and conditions:

1. This Renewed Consent to operate and Authorization is issued in supersession of the earlier Consent Orders issued vide Order No. 5/356/10-PCB/CI-3743 dated 23/01/2018, Addendum No. 5/356/15-PCB/CI-4264 Dt: 28/06/2018 is valid for : 31/01/2020.

2. This Consent to operate and Authorisation is valid for the Production/ manufacture of:

Sr. No	Product	Quantity
1.	Operation of Mechanised coal handling terminal at berth no .7	Handling of Coal -4.8MMTPA, Subject to 0.4MMT/Month !!! validity of consent

3. CONDITIONS REQUIRED TO BE COMPLIED UNDER THE WATER ACT:

(i) The daily quantity of industrial effluent from the factory shall not exceed NIL.

(ii) The daily quantity of domestic effluent from the factory shall not exceed 40 KLD.

(iii) Domestic Effluent treatment and Disposal:-

Page 1 of 8

-9-

True Copy
Senior Environmental Engineer
Goa State Pollution Control Board
Patto, Panaji Goa.

The domestic wastewater shall be taken to holding tank and thereafter shall be transferred through night soil tankers to sewage treatment plant of PWD and maintain the records of disposal.

- (ii) A good house-keeping shall be maintained within the factory premises. All pipes, valves and drains shall be maintained in leak-proof condition. Floor washings shall be maintained to the effluent collection system only and shall not be allowed to find way in open areas.
- (iii) Runoff from coal stock yard shall be collected and treated for removal of heavy metals and quality to be monitored for heavy metals, phenols and organic carbons before disposal.
- (iv) There shall be no disposal of mud from pile driving into sea. It shall be disposed at a designated dump site identified by the local body or use it for reclamation purpose.
- (v) There shall be an Environmental Monitoring Cell with suitably qualified person to carryout various environmental related activities regularly. Marine monitoring should be on monthly basis and all other monitoring shall be as per CPCB norms.
- (vi) Construction equipment and vehicles shall be fitted with catalytic converters to reduce CO and HC emissions.
- (vii) Construction equipment noise shall be controlled by intake and exhaust mufflers for darning noise.
- (viii) The unit shall install dry fog dust suppression system to control respirable and larger air borne dust and mist.
- (ix) All the roads in the vicinity of the project site, the roads connecting the project site to the public road and along the railway track within premises should be paved or black topped to minimize the entrainment of fugitive emissions.
- (x) The unit shall install machinery/mechanism for regular collection and removal of coal/coke spillage within the yard, internal roads and along the railway track within premises.
- (xi) The unit shall install mobile fire tenders placed at the coal stock pile area to control fire hazards from coal stock yards.
- (xii) The applicant shall install fully mechanized systems for unloading and loading of coal comprising of shore mobile cranes/unloaders, mobile hoppers, covered belt conveyors, sited in motion wagon and truck loading systems.
- (xiii) The unit shall install continuous Ambient Air Quality Monitoring Systems to measure the parameters like PM₁₀, PM_{2.5}, CO, SO_x and NO_x and submit real time data to the office.
- (xiv) Vehicular noise shall be controlled by development of a green belt.
- (xv) Stack height should not exceed the height of the wind shield.

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(Levinson J. Martins)
Member Secretary
Goa State Pollution Control Board

-10-

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Chaliker
Senior Environmental Engineer
Goa State Pollution Control Board
Datta, P...

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- (xvi) Usage of Auxiliary Equipment's for loading, reclamation and cargo collection in the yard is permitted subject to implementation of proper pollution control measures such as sprinklers and dust suppression systems..

(xviii) **Non-Hazardous Solid Waste:**

The total quantity shall be segregated and treated as follows:

Sr. no.	Type of segregated solid waste	Quantity	Disposal
1.	Non bio degradable waste	3 MT/month	Land filling

- (xix) The unit should implement rain water harvesting and ground water re-charge measures in consultation and approval of the Water Resource Department, Govt. of Goa and Directorate of Industries, Trade and Commerce, Govt. of Goa.

4. **CONDITIONS REQUIRED TO BE COMPLIED UNDER THE AIR ACT:**

- (i) The unit shall maintain and operate air pollution control system of adequate capacity for the following equipments

Sr. No.	Name of Equipments/ Installation	No of Installation	Capacity	SO ₂ Kg/Hr	(g/kw-hr)			
					NO _x	HIC	CO	PM
1.	D.G Set	1	380 KVA	1.8	9.2	1.3	3.5	0.3
2.	D.G Set	2	2000 KVA	10.8	9.2	1.3	3.5	0.3

- (ii)

Sr. No.	Name of Equipments/ Installation	No of Installation	Capacity	SO ₂ Kg/Hr	Particulate Matter mg/Nm ³
1.	D.G.Set	02	200KVA	1.08	75

- (iii) The applicant shall observe the following standards for D. G. Sets \geq 1000 KVA

Sr. No.	Parameters	Limits
1.	NO _x (as NO ₂)	710 ppmv (as 15%O ₂) Dry basis in ppmv
2.	NMHC(as C)	100 mg/Nm ³ (at 15% O ₂)
3.	Particulate Matter	75 mg/Nm ³ (at 15 % O ₂)
4.	CO	150 mg/Nm ³ (at 15 % O ₂)
5.	Sulphur Content in Fuel	Less than 2%

- (iv) The unit shall erect the chimney (s) of the following specifications :

Sr. No	Chimney attached to	Height
1.	D.G Set (380KVA)	3 Mts
2.	D.G Set (2000 KVA)	30Mts

- (v) The unit shall observe the following standards:-

Sr. No	Type of fuel	Quantity /hr
1.	H.S.D (for 380KVA D.G Set)	50 litres/hr
2.	H.S.D (for 2000 KVA D.G Set)	300 Litres /hr

- (vi) The Stack Port Hole and Platform is to be designed as per CPCB guidelines Method 1 Part 1 of Stack Monitoring – Material & methodology for isokinetic sampling.

(Levinson J. Martins)
Member Secretary
Goa State Pollution Control Board

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Page 3 of 8

M. J. Martins
Senior Environmental Engineer
Goa State Pollution Control Board
Patto, Panaji Goa

-12-

(vii) The unit should comply with all the standards for D.G. Sets prescribed in Sr. no. 94, 95 and 96 of Schedule I of the Environment (Protection) Rules, 1986.

(viii) The unit should carry out emission monitoring from the stacks connected to D.G. Sets once a year and other stacks once in 3 months from a laboratory recognized by Ministry of Environment and Forest under the Environment Protection Act, 1986 and the result shall be submitted to this Board.

(ix) The unit shall take adequate measures for control of noise levels from its own sources within the premises in respect of noise. The limits are as follows

Category of Area/ Zone	Limits in dB (A) Leq	
	Day time	Night time
Industrial Area	75	70
Commercial Area	65	55
Residential Area	55	45
Silence Zone	50	40

Day time is reckoned between 6 a.m. to 10 p.m. and night time is reckoned between 10 p.m. to 6 a.m.

x) Adequate mitigation measures shall be taken to control emissions of SO₂, NO_x, PM_{2.5}, RSPM. Applicant shall achieve following Ambient Air Quality standards:

Sr.No.	Pollutant	Time Weighted Average	New Standards (Scheduled VII, Rule 3 (3B) 16 th Nov 2009)
			Concentration in Ambient Air Industrial Area Residential Rural & Other Areas
1	Sulphur Dioxide (SO ₂)	Annual Average *	50.0 µg/ m ³
		24 Hours **	80.0 µg/ m ³
2	Oxides of Nitrogen as NO ₂	Annual Average *	40.0 µg/ m ³
		24 Hours **	80.0 µg/ m ³
3	Particulate matter (size less than 10 µm)	Annual Average *	60.0 µg/ m ³
		24 Hours **	100.0 µg/ m ³
4	Particulate matter (size less than 2.5 µm)	Annual Average *	40.0 µg/ m ³
		24 Hours **	60.0 µg/ m ³

*Annual Arithmetic mean of minimum 104 measurement in a year taken twice a week 24 hourly at uniform interval.

** 24 hourly /8 hourly or 1 hourly monitored values as applicable shall be complied with 98% of the time in a year .However ,2 % of the time ,they may exceed the limits but not on two consecutive days of Monitoring .

(ix) The Unit shall maintain and operate continuous ambient Air Quality Monitoring System and the date so generated shall be transferred to GSPCB Server on real-time basis .

(Levinson J. Martins)
Member Secretary
Goa State Pollution Control Board

-12-

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Page 4 of 8 Senior Environmental Engineer
Goa State Pollution Control Board

5. CONDITIONS REQUIRED TO BE COMPLIED UNDER THE HAZARDOUS AND OTHER WASTES (MANAGEMENT AND TRANSBOUNDRY MOVEMENT) RULES 2016:

(i) The unit is hereby granted authorization to operate a facility for collection, storage and disposal of hazardous wastes as specified below:

Sr. No.	Category	Type of waste	Quantity	Mode of disposal
1.	5.1	Used/ Spent Oil Waste oil	3 MT/Annum	To recycler registered with CPCB and having valid authorization of SPCB
2	5.2	Cotton waste contaminated with oil	50.00 MT/Annum	To be sent to M/s Mumbai Waste Management Ltd at Taloja for incineration
3	33.3	Discarded containers /Barrels /Linners contaminated with Hazardous wastes /Chemicals	20.00 MT/Annum	To recycler registered with CPCB and having valid authorization of SPCB

- (ii) The authorizer shall comply with the provisions of the Environment (Protection) Act, 1986 and the rule made thereunder.
- (iii) The person authorized shall not rent, lend, sell or transfer or otherwise transport the hazardous waste without obtaining prior permission of the Goa State pollution Control Board.
- (iv) Any unauthorized change in personnel, equipment or working conditions as mentioned in the application by the person authorized shall constitute a breach of his authorization.
- (v) It is a duty of the authorized person to take permission of the Goa State Pollution Control Board to close down the facility.
- (vi) The inner bottom surfaces of the tank shall be impervious enough to prevent leakage or seepage of these wastes into the sub surface soil or ground water.
- (vii) The occupier shall maintain a manifest system as per Rule 19 for disposal of hazardous wastes to ensure that these wastes are delivered to the designated facility preventing pilferage and clandestine disposal due to unforeseen events that may occur during transit.
- (viii) The manifest shall be endorsed by the dispatcher, transporter and receiver of hazardous wastes. The endorsed copy shall be furnished to the Goa State Pollution Control Board.
- (ix) Under no circumstances the hazardous waste shall be disposed to unauthorized facilities.
- (x) The occupier shall maintain the records for collection, storage and disposal of hazardous waste in Form 3 of as per Hazardous Waste (Management, & Transboundary Movement) Rules 2016.
- (xi) The occupier shall furnish monthly returns for collection, storage and disposal of hazardous waste through online XGN system.

(Levinson J. Martins)
Member Secretary
Goa State Pollution Control Board

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Senior Environmental Engineer
Goa State Pollution Control Board
Patto, Panaji Goa.

- (xii) The unit shall put up an online board (minimum size 6x4 Feet) at prominent location near the main gate providing details as follows in English and Konkani languages:-
- Hazardous Waste category number.
 - Hazardous Waste quantity number.
 - Treatment facility for each category.
 - Mode of disposal for each category.
 - Hazardous Waste Authorization number, date and validity period.
 - Water Consent number, date and validity period.
 - Air Consent number, date and validity period.
 - Quantity and Nature of Hazardous Chemicals being used.


(xiii) The occupier shall ensure that the Hazardous Wastes are not allowed to be stored for more than 90 days.

(xiv) The unit shall submit annual returns in prescribed format to the Board for financial year by 30th June of every year for the previous financial year..


6 GENERAL CONDITIONS:

- (i) The unit shall not change or alter the quantity, quality of discharge, temperature or the mode of the effluent/ emission or hazardous wastes or control equipments provided for without previous permission of the Board.
- (ii) The unit shall provide facility for collection of samples of effluent, air emissions and hazardous wastes to the Board staff.
- (iii) An application in prescribed form along with the prescribed fees for renewal of Consent shall be submitted at least 60 days before the expiry of validity of this Consent. An application for renewal of Consent submitted after expiry of the validity shall accompany with penalty of 50% of the Consent fees in addition to the prescribed consent fees.
- (iv) The Board shall be forthwith informed of any accident or unforeseen event involving discharge of any poisonous, noxious or polluting matter into a stream or well or on land or into the atmosphere, as result of such discharge water/ air is being polluted.
- (v) This Consent is granted without any prejudice to any of the permission(s) required under any law, by laws and regulations in force.
- (vi) This Consent does not entitle the party to commence activities until and unless all the other Permissions as required under the relevant statutes are obtained by the party and this Consent to Operate is confined to matters arising out of the Air Act and Water Act only
- (vii) The Board reserves the right to amend or add any conditions in this consent and the same shall be binding on the applicant.
- (viii) The unit shall submit to this office, the Environmental Statement Report in Form V for the Financial Year ending April to March by 30th September of the succeeding year as per the provisions of the rule 14 of the Environment (Protection) (Second Amendment) Rules, 1992.
- (ix) Reliable flow meter shall be installed to maintain record of water consumption/waste water generation per day. The records so maintained shall be made available to the board officials whenever required.

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Senior Environmental Engineer
Goa State Pollution Control Board
Patto, Panaji Goa.

Page 6 of 8


(Levinson J. Martins)
Member Secretary
Goa State Pollution Control Board


- (v) A comprehensive source apportionment study is being conducted by this office through HIF Members at cost paid by MPT. The unit shall bear all costs associated with the study. Upon evaluation of results of said study, The Board shall issue appropriate directions from time to time, which the unit shall comply.
- (xi) The Unit shall contribute with MPT carryout sweeping of the transportation city roads routes (e, both mechanically as well as manually, water sprinkling, proper covering of trucks with tarpaulin sheets and to ensure that trucks are not overloaded.
- (xii) The unit should have a complete plan of arrival of ships and the permitted handling capacity shall be strictly adhered
- (xiii) Loading of trucks should be carried out at all times through truck loading system only. Unit shall maintain the records of the loading operation & install monitoring system .
- (xiv) The stacks height shall be between 11-12 meters ,since wind breaking wall is 15 mtrs .
- (xv) Sprinkling should be continuously carried out during loading and unloading .
- (xvi) Coal Stacks should be covered with tarpaulin at all times except loading and unloading
- (xvii) The Trucks should be covered with tarpaulin and properly fastened.
- (xviii) Flow meters should be maintained for the sprinkling system .In addition two separate flow meters to be installed for monitoring water consumption in Plot A& Plot B of the premises .
- (xix) Unloading of coal from the vessel on to the plot A directly through grab crane to be avoided & only to be channelised through conveyor belt on the plot area .
- (xx) Dispatch of cargo by wagons rate have to be increased than compared to truck transport .
- (xxi) Continuous AAQM data along with weather monitoring connected online by GSPCB server should be maintained at all times and incase of laid down official intimation should be made to the Board
- (xxii) Handling i.e., Unloading , Loading of trucks quantity data should be submitted to GSPCB on monthly basis .
- (xxiii) If cargo is dispatched by Wagons then all the wagons should be properly covered by Tarpaulin & tied neatly in order to avoid spillage during transport .the unit should also study on the aspects of having a mechanized system for closing the wagons and submit a action plan for the same .
- (xxiv) The unit shall comply to the guidelines and DUST Mitigation measures in handling Construction material and C and D waste issued by Central Pollution Control Board and are placed on Board website goaspcb. gov. in

Adani Mormugao Port Terminal Pvt. Ltd
 Mechanized Coal Handling Terminal At Berth No: 7,
 Headland Sada,
 Vasco-Da-Gama.



(Levinson J. Martins)
 Member Secretary
 Goa State Pollution Control Board

True Copy


 Senior Environmental Engineer
 Goa State Pollution Control Board
 Patto, Panaji Goa.

Copy to:-
1 Accounts Section
2 Concerned File
3 Guard File

Received Consent fee of: **The capital Investment of the unit is Rs. 252.44/- (in lacs)**

Challan no.	Amount	Date
3560	Rs. 3,06,000/- Air and water consent fees.	23/11/2017.

Typed by	Verified by




(Levinson J. Martins)
Member Secretary
Goa State Pollution Control Board

Copy to:

1. Chief Engineer MPT -For compliance to clause 6(xi) of berth and submit monthly handling Data of the unit to the Board by 7th of subsequent month

True Copy


Senior Environmental Engineer
Goa State Pollution Control Board
Fatto, Panaji Goa.

ANNEXURE 5: CM DIGAMBAR KAMAT'S LETTER TO MoEFCC

Digambar V. Kamat
Chief Minister, Goa



Secretariat, Porvorim, Goa
Tel. : (O) 0832-241 9504
241 9843

D.O. No. CM/GOI/09/10150

Dated: 9th November, 2009.

Sub:- Adverse impact on ecology, environment and tourism of
Goa by proposed developments of Mormugao Port Trust

Dear *Jairamji*,

The Port at Mormugao is situated in a densely populated area of small town of Vasco Da Gama. All the areas around Port are thickly populated and there is no land available in the hinter land of the Port for any expansion of activity. Even for the present activities of the Port, all the loading material being loaded & unloaded passes through thickly populated areas of the town causing pollution and littering fine dust in residential areas.

Some time ago, the Port has floated advertisements for the following developments:

- ◆ Vasco Bay: Offshore base, general cargo, POL containers, POL, Major International Size Shipyard .
- ◆ Baina Bay: container Transshipment, shipyard, marina, leisure activities, POL.
- ◆ West of Breakwater: Offshore, rig-repair, leisure, non-cargo vessel, cruise, coastal operations, Ro-Ro.;
- ◆ Berth 7: Bulk terminal (5MTPA, coal/iron-ore)

The notified limits of the Port are also under dispute so far as the Goa Government is concerned and a committee of Ministers has been constituted to look into this issue. Recently Port has entered into an agreement with Adani Mormugao Port Terminal Pvt. Ltd., Ahmedabad for mechanized handling of several million tones of coal over and above than what the Port is already handling. Even the current amount of coal is being handled is causing lot of inconvenience to the population and the matter is also being agitated in the High Court which has ordered strict monitoring of the pollution.

contd.....2/-

The Mormugao Port is situated in the heartland in the middle of Goa in a densely populated area. All around the coast to the North and also to the South are the world famous pristine beaches of Goa being flocked by an average of 4.5 lacs of foreign tourists and more than 21.00 lacs Indian Tourists. If MPT is allowed to go ahead with their proposed activities these pristine areas will be destroyed forever, as these development will cause massive pollution, finally resulting in destruction of the tourism which is the backbone of Goa. The Govt. of India is trying so hard to increase the touristic inflow from present 5.00 million tourists to 10.00 million tourists in the next few years while in Goa the Port is bent upon destruction of one of the most important tourist destination of the country. Kindly recall that while we are struggling to enhance our 5.00 millions tourist arrivals. China is already getting 59.00 millions tourist per year.

In view of the above, we in the Government as well as the people of Goa are totally against this myopic vision of the Mormugao Port Trust as all of us want the Goa to remain a natural paradise, which it is today. The people are so much agitated that a number of time Government has received warning of civil unrest among the local population.

I am, therefore to earnestly request your goodself to intervene at the earliest in the matter at a personal level and stop the proposed destruction of Goa's touristic resources.

Yours Sincerely,



(Digambar Kamat)

Shri Jairam Ramesh
Hon. Minister of State for
Environment & Forest,
Government of India,
New Delhi

ANNEXURE 6: GSPCB LETTER TO MoEFCC 25/1/2018

ANNEXURE 'D'

GOA STATE POLLUTION CONTROL BOARD

गोंय राज्य प्रदुशण नियंत्रण मंडळ

(An ISO 9001-2008 Certified Board)

Phone Nos : 91-832-2438567, 2438528
2438563, 2438550

Tel / Fax No. : 0832-2438528



Email id's :

Member Secretary, GSPCB - ms-gspcb.goa@nic.in
Environment Engineer, GSPCB - ee-gspcb.goa@nic.in
Scientist, GSPCB - scientist-gspcb.goa@nic.in
Asst. Env Engineer, GSPCB - aee-gspcb.goa@nic.in
Asst. Law Officer, GSPCB - alo-gspcb.goa@nic.in

No. 8/7/18-PCB/Vol.X/Leg / 20417

Date: 25/01/2018

To,
The Director,
Ministry of Environment, Forest and Climate Change (MoEF & CC),
Indira Paryavaran Bhavan,
Jorbagh Rd., New Delhi – 110 003

Sub: EAC (Infra-2) recommendation taken during its 26th meeting held on 14th December 2017 in respect of the proposed project activity entitled “ Terminal capacity Enhancement at Berth 5A-6A of Mormugao Port for handling Coal, coal-products, iron ore and limestone including unitised & steel-products at the Mormugao Port Trust (MPT)” – reg.,

Ref. This office letter vide no. 1/25/17/PCB/Legal/6689 dated 12th July 2017

Sir,

Kindly refer this office letter of even no. dated 12th July 2017 (*copy enclosed for ready reference*). In continuation to the same as well as in response to minutes of the 26th meeting of Expert Appraisal Committee (*Infra-2*) – EAC held on 14-15th December 2017, your attention is kindly invited to the agenda item no. 16.4.14 wherein the proposal submitted by **M/s South West Port Limited (SWPL)** for capacity enhancement of cargo-handling capacity (*in coal/coal-products, iron-ore, limestone and steel-products*) at berth nos. 5A-6A at Mormugao Port Trust (MPT) has been recommended for environmental clearance (EC) to handle upto 15 million tons per annum (MTPA).

Page 1 of 4

In this context, the Board strongly object to the EAC's recommendation for grant of EC to the proposed handling of cargo-handling capacity by M/s SWPL at the MPT in view of the following facts –

1. The Expert Appraisal Committee (*EAC – Infra-2*), while recommending the said project-activity, has merely referred that the Board has conducted the Public Hearing (PH) on 26th April 2017 as mandated in the EIA Notification, 2006 instead of deliberating / discussion on the PH proceedings / technical matters submitted vide above-referred letter dated 12th July 2017.

Thus, it appears that EAC has considered the entire exercise of conducting a public hearing vis-a-vis its follow-up proceedings as well as Board's recommendations or merely a reference while recommending the proposed enhancement for grant of environmental clearance (EC).

2. The Board, *vide its above-referred letter dated 12th July 2017*, had clearly mentioned that the 'Source Apportionment' study is not a part of 'Terms of References (ToRs)' issued by the MoEF& CC which is mandated to ascertain the environmental fall-outs likely to be impacted due to proposed enhancement in cargo-handling capacity prior to consider grant of environmental clearance (EC). Ideally, the 'ToRs' need to have been modified to include Source Apportionment studies as in the close vicinity of the port-area in Vasco city, ambient air-quality is not good.
3. Further, the Board has proposed a 'Source Apportionment' studies at MPT port to study the port-related operations at the cost of the MPT. The same is scheduled to start through IIT, Mumbai by march 2018 and will be completed in further 18-months.

4. Further, it is informed that at the first instance, existing cargo-handling capacity (*i.e.* 5.5 MTPA) by M/s SWPL needs to be further streamlined so as to adequately address the current pollution scenario in port-city limits by adopting to adequate pollution control measures (*i.e.* erection of enclosed sheds / dome-structure) while handling present cargo-handling capacity at 5A-5B berths of coal – 5.5 MTPA in enclosed shed / domes before even proposing for enhanced capacity. Further, the ECA (Infra-2) has not considered other on-going cargo-handling and port-related activities being carried out by other MPT-berth user namely – M/s Adani who has been granted environment clearance (EC) by the MoEF & CC to handle 5.2 MTPA of cargo. Currently, M/s Adani is under-operating than its consented cargo-handling capacity. In view of the above, it is argued that the EAC need to consider integrated and comprehensive Environment Impact Assessment (EIA) and consideration of merely a stand-alone EIA / EMP report as submitted by M/s SWPL will not address the current environmental scenario (*i.e.* *ambient air-quality*) as a whole (*i.e.* *in-situ*) at or around port-town of Vasco.
5. The Board has initiated criminal proceeding against the project proponent – M/s SWPL for consistently violating / exceeding the cargo-handling capacity as per the Consented conditions stipulated (*i.e.* 5.5 MTPA). In fact, the prosecution has been filed against the said company and its officials before the Vasco court.

Similarly, M/s SWPL has again violated the Consent condition for which a Show Cause Notice (SCN) has been issued and the matter after being heard in the Goa Bench of Bombay High Court was placed before the Board wherein the consent has been withdrawn (order enclosed).

6. Thus, the EAC, while appraising / scrutinising the aforesaid project proposal submitted by M/s SWPL, has not at all used apparently not considered Board's recommendations let alone its reference in the EAC minutes.
7. It appears that the very importance of the Public Hearing vis-a-vis its proceedings as well as Board's recommendations while addressing / attempting to visualize the scientific / technical aspects of the proposed activity without highlighting the current on-site scenario.

I am sure you will look into the matter urgently and re-visit the EAC's decision for putting before you the glaring discrepancies considering the gravity and seriousness of this State-specific issue.

This is issued with the approval of the Chairman.

Yours sincerely,



(Levinson J. Martins)
Member Secretary

- Encl.: i. Minutes of the 26th EAC meeting held on 14-15th December 2017.
ii. Show Cause Notice's issued by the Board dated 09/01/2018

Copy for information and further needful to –

The Director,
Ministry of Environment, Forests and Climate Change (MoEF&CC),
Regional Office (South Zone),
Kendriya Sadan, 4th Floor,
E & F Wing, 17th Main road,
Karamangalam – II Block, Bangalore – 560 034

ANNEXURE 7: GSPCB INSPECTION REPORT FOR UNLOADING OF COAL DIRECTLY ON TO BERTH AT BERTH 7

Inspection Report

Sub: Compliant by Mr. Savio Corria regarding illegal handling of coal/coke at berth no.7 of Marmugao Port causing Air Pollution.

Office order 10/1/17-pcb/tech/1368 dated 17/04/2018

As directed, the undersigned official of the Board, Mr. Pravin Fal Dessai (Junior Environmental Engineer), conducted site inspection on 17/04/2018 with regards to the complaint from Mr Savio Corria regarding illegal handling of coal/coke at berth no.7 of Marmugao Port causing Air Pollution

Complainant had submitted that illegal handling of coal at berth no.7 is carried out by M/s Adani Marmugao Port Terminal Pvt Ltd. It was submitted that a vessel MV August Oldendoft discharging coal right at the berth area and causing dust pollution. Complainant submitted that as per EC the said activities has to be carried out mechanically in a closed conveyors and M/s Adani Marmugao Port Terminal Pvt Ltd is handling manually.

1. Name, address & contact no .of complainant:

Savio Correia
ss-1,Newtons Apartment-II,Mangor Hill,
Vasco Da Gama.

2. Nature of Complaint :

- a) Noise pollution:- No
- b) Waste Water disposal : -no
- c) Air emission: - yes
- d) Solid waste disposal: - No
- e) Any other:No.

3. Whether any previous complaint received, if yes, details: -No. There are others compliant regarding dust pollution against MPT, Southwest ports and M/s AMPTPL.

4. Whether any show cause notice/directions/letter for corrective if yes, provide details: - No.

5. Name and address industry/unit against whom complaint is filed:

M/s Adani Mormugoa Port Terminal Pvt Ltd
MPT,Berth No.7
Headland Sada,
Vasco Da Gama

6. Product manufactured: operation of mechanized coal handling.

7. Quantity of production: operation of mechanized coal handling

GSPCB/F/72
Rev. No.00
Issued date: 16/03/2015

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8. **Raw Material:** operation of mechanized coal handling
9. **Machine/equipment installed:** NA
10. **Approximate production in last 2 months (based on receipts of purchase of raw materials orders and payments received) :**Details enclosed at below table no. 1 and 2
11. **Man power requirement:** 250nos
12. **Status of operation of unit:** In operation
13. **Type of area:** Berth No.7,MPT
14. **Distance of nearest residence/school/hospital/any prominent structure:**
Berth No.7,MPT
15. **Distance of water body (Specify which if any):** Berth No.7,MPT
16. **Noise Pollution Control measures adopted :** NA
17. **Water consumption (meter reading of previous water supply bills):**
Average: na
18. **Waste water generation:** NA
19. **Disposal method:** NA
20. **Capacity of septic tank/soak pit/sewage treatment plant/effluent treatment plant:** NA
21. **Whether capacity sufficient (Yes/No):** NA
22. **Solid waste:** NA
23. **Electrical consumption:** NA
24. **Hazardous Waste :** NA
25. **Permission from:**
 - a) **Local body:** na
 - b) **Applied for Consent to operate from GSPCB: VALID CONSENT TO OPERATE**
26. **Noise levels recorded:** NA
27. **DG set capacity :** 2000KVAX2
28. **Boiler Capacity :** NA
29. **Oven capacity :** NA
30. **Furnace capacity:** NA
31. **Rotary kiln:** NA
32. **Dust suppression methods:** water sprinkling
33. **In case of Induction furnace:** NA
34. **In case of sponge iron units:** NA
35. **Is ambient monitoring carried out (Yes/No) :** NA
36. **Are reports submitted as per consent conditions (Yes/No) :** NA
37. **Is environmental statement submitted (Yes/No):** NA
38. **Is water cess submitted (Yes/No):** NA
39. **Are all consent conditions complied with (Yes/No):** NA
40. **Is Bank Guarantee submitted (Yes/No):** NA
41. **If yes, has the unit complied, give details:** NA

GSPCB/F/72
Rev. No.00
Issued date: 16/03/2015

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(complainant had not submitted any contact details,hence complainant could not be contacted)

42.Additional observations:

- M/s Adani Port Terminal Pvt Ltd was in operation at the time of inspection. Vessel MV Syberian Express was berth at the berth no.7 at the time of inspection. Unloading of coal from vessels was in progress. Mr Prashant Pathra and Mr Sangodkar was present at the time of inspection.
- It was informed that vessel MV August Oldendoft was already unloaded.It was informed that 17 barges were loaded and sent to Vedanta Amona.
- Heavy spillages of coal on all the internal roads of M/s Adani Marmugoa Port Terminal Pvt Ltd was seen at the time of inspection due to which dust is generated during internal truck and machinery movement. Operation of Dust sweeping machines is not effective.
- Unit has provided truck loading hopper for mechanized loading of truck. However the same is not operated and truck are loaded manually with machineries at near the plot A near the berth area.
- Unit has installed flow meter for water consumption. However unit was recommended to provide two separate meters for water sprinkling at plot A and plot B to monitor water consumption and maintain the records of the same..
- It was informed that truck are usually loaded at night time and transport is started at 22:00hrs.However it may be noted that on some occasion the transport is diverted in the morning a hours from 14:00 to 16:00 hours also. Details sought and submitted by unit are attached.
- During the visits at the berth heavy spillage of coal was seen on the berth area. It appeared that sweeping machine was not operated for a long time.
- It may also be noted that 04 numbers of drippers are installed at the berth area in plot A to unload the coal from vessel. Coal is transferred to conyevor belts onto the drippers and the drippers discharges coal from a height of approximately 14 meters onto the ground. Unit has provided water sprinklers. However still during initial drop from 14 metrs height potential dust generations is noted . Coal stacked in plot A is mostly transported through truck. As per the details submitted 9552 numbers of trucks have been transported from 01/01/2018 to 31/03/2018.

GSPCB/F/72
Rev. No.00
Issued date: 16/03/2015

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TABLE NO.1: TRUCK TRANSPORTATION DETAILS

TRUCK TRANSPORTATION VIA ROAD						
	January		February		March	
Timings of Transportation	No. of Trucks	Quantity	No. of Trucks	Quantity	No. of Trucks	Quantity
07:00hrs-16:00hrs	647	10385.9	830	11897.72	634	8991.54
16:00hrs-07:00hrs	3824	62516.75	1847	30733.22	1770	33746.8
TOTAL	4471	72902.65	2677	42630.94	2404	42738.3

- At the time of inspection it was observed that coal was stacked just adjacent to the berth no.7. It was informed and noted that the sometimes grab cranes used from unloaded the vessel directly unload the coal from vessels on to the plot next to the berth instead of transferring it though the conveyer belts or to drippers and the said coal stacked is transported through trucks by manual loading with JCB instead of loading is truck loading hopper
- Also CT5 and CT6 were not in operation due to ongoing demolition work of the tunnel near the berth due to which the handling coals through the truck movement is more.
- Overall in view of above it may be noted that the handling of coal from unloading from vessel to the loading and transportation of coal from the M/s AMPTPL through trucks usually involves more manual handling then compared to mechanized system.
- The height of the coal stacked is approx 12 meters.
- It may be noted that the coal imported through MV August Oldendoft was for Vedanta Goa plant and was discharged at plot no. A near the berth and in the surrounding area. The same was loaded into the Barge through grab cranes which are used to unload the coal from ship.

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GSPCB/F/72
Rev. No.00
Issued date: 16/03/2015

TABLE NO.2:PRODUCTION DETAILS AND DISPATCHED DETAILS.

Sr. No.	DATE	Cargo Received (MT)	Cargo dispatched by Road(MT)	Cargo Dispatched by Rail Rakes(MT)	Total Cargo Despatched (MT)	% dispatched by Rail	% dispatched by Road
1	Jan-18	160901	72902.65	72512	145415	49.87	50.13
2	Feb-18	0	42630	26097	68727	37.97	62.03
3	Mar-18	79626	42738	44697	87435	51.12	48.88
Grand Total		240527	158271	143306	301577	47.52	52.48

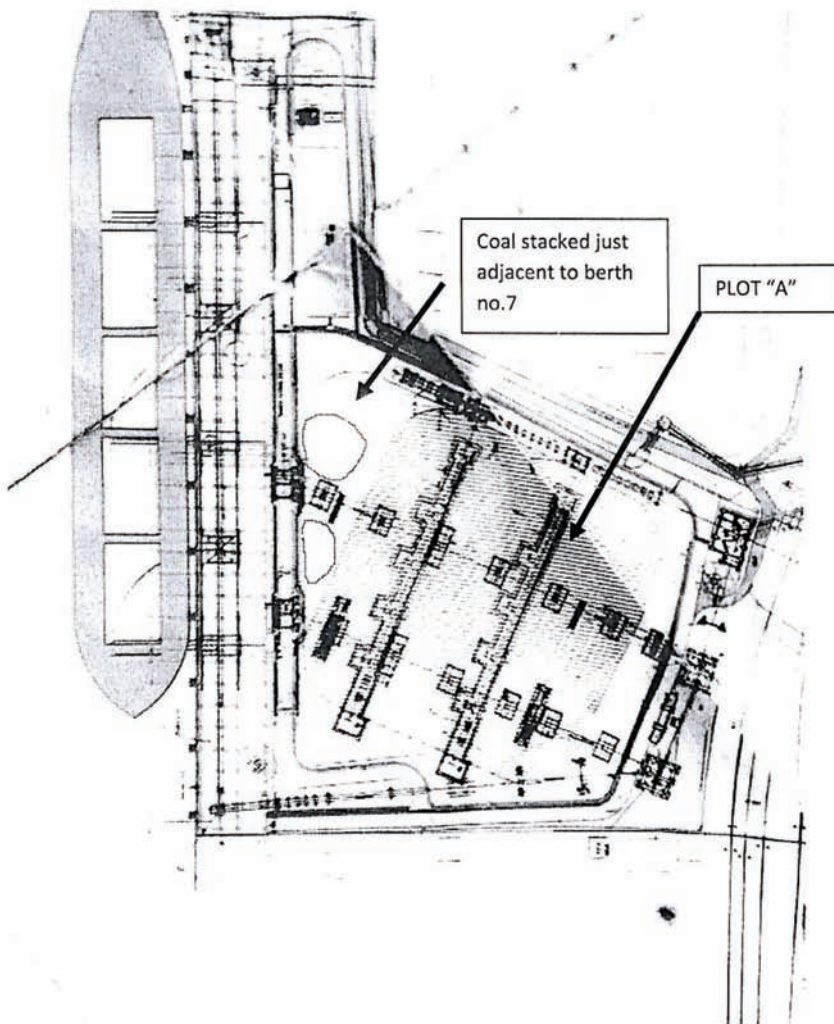
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P. O. / P. O.

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GSPCB/F/72
Rev. No.00
Issued date: 16/03/2015



Conclusion/Recommendations:

- Heavy spillages of coal on all the internal roads of M/s Adani Marmugoa Port Terminal Pvt Ltd was seen at the time of inspection due to which dust is generated during internal truck and machinery movement. Operation of Dust sweeping machines is not effective.

GSPCB/F/72
Rev. No.00
Issued date: 16/03/2015

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- Unit has provided truck loading hopper for mechanized loading of truck. However the same is not operated and truck are loaded manually with machineries at near the plot A near the berth area.
- Unit has installed flow meter for water consumption. However unit was recommended to provide two separate meters for water sprinkling at plot A and plot B to monitor water consumption and maintain the records of the same..
- It was informed that trucks are usually loaded at night time and transport is started at 22:00hrs.However it may be noted that on some occasion the transport is diverted in the morning hours from 14:00 to 16:00 hours also. Details sought and submitted by unit are attached.
- During the visits at the berth heavy spillage of coal was seen on the berth area. It appeared that sweeping machine was not operated for a long time.
- It may also be noted that 04 numbers of drippers are installed at the berth area in plot A to unload the coal from vessel. Coal is transferred to conyevor belts onto the drippers and the drippers discharges coal from a height of approximately 14 meters onto the ground. Unit has provided water sprinklers.
- Coal stacked in plot A is mostly transported through truck. As per the details submitted 9552 numbers of trucks have been transported from 01/01/2018 to 31/03/2018.(both during day and night time)
- At the time of inspection it was observed that coal was stacked just adjacent to the berth no.7. It was informed and noted that the sometimes grab cranes used from unloaded the vessel directly unload the coal from vessels on to the plot next to the berth instead of transferring it though the conyeour belts or to drippers and the said coal stacked is transported through trucks by manual loading with JCB instead of loading is truck loading hopper
- The height of the coal stacked is approx 12 meters.
- Overall in view of above it may be noted that the handling of coal from unloading from vessel to the loading and transportation of coal from the M/s AMPTPL through trucks usually involves more manual handling then compared to mechanized system.
- It may be noted that the coal imported through MV August Oldendoft was for Vedanta Goa plant and was discharged at plot no. A near the berth and in the

GSPCB/F/72
Rev. No.00
Issued date: 16/03/2015

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surrounding area. The same was loaded into the Barge through grab cranes which are used to unload the coal from ship.

- **Unit may be directed to clean the internal road and operate the sweeping machines effectively to reduce dust emission from internal road.**
- **Mechanized Truck loading hopper and CT5 / CT6 has to be made operation and loading of trucks has to be carried out strictly through mechanized hopper instead of manual machinery loading near the berth area and from plot A stacking. Unit has to maintain records of trucks (Tonage, truck number, quality loaded in hopper, online DCS records and camera system) for monitoring the mechanized truck loading hopper.**
- **Unit has to install separate flow meters for plot A and Plot B water sprinkling and maintain daily logbooks of the same.**
- **Truck movement during the day time has to be reduced. Also the coal stack height may be reduces to 9 meters.**
- **Dispatch of cargo by wagon rakes have to be increased then compared to truck transport which involve more manual handling. It may be noted that approx 50% of cargo handled by M/s AMPTPL is handled by road transport then compared to wagon rakes.**
- **Stacking/discharging of coal from vessels directly adjacent to the berth no.7 from the grab crane has to stopped. Also direct loading of coal from the from said stack directly into the barge on the berth no.7 has to be stopped.**

Name of the Inspecting Official:



Mr. Pravin Fal Dessai
(Junior Environmental Engineer)

Verified By:

GSPCB/F/72
Rev. No.00
Issued date: 16/03/2015

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**ANNEXURE 8: ISSUED BY GSPCB TO SWPL FOR EXCESS COAL
HANDLING AT BERTH 5a 6a**

GOA STATE POLLUTION CONTROL BOARD

गोंय राज्य प्रदूशन नियंत्रण मंडळ

(An ISO 9001-2008 Certified Board)

Phone Nos : 91-832-2438567, 2438528

2438563, 2438550

Tel / Fax No. : 0832-2438528



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Scientist, GSPCB - scientist-gspcb.goa@nic.in
Asst. Env Engineer, GSPCB - aee-gspcb.goa@nic.in
Asst. Law Officer, GSPCB - alo-gspcb.goa@nic.in

No.1/25-17-PCB/LD-95 Reg A.D/ Hand Delivery / Fax Date: 30/11/2017

SHOW CAUSE NOTICE

WHEREAS, the Goa State Pollution Control Board (herein after referred to as 'the Board') has, vide Order bearing no. 5/2580/04-PCB/C1-3090 dated 21/07/2017, granted your unit namely M/s South West Port Ltd. (Berth no. 5A and 6A) located at Mormugao Harbour, Mormugao, Goa, Renewal of Consent to Operate in respect of handling of 4.125 MMT/annum of Coaking Cola /Coke, 1 MMT/annum of Limestone and 1 MMT/annum of Steel Slab at Berth no. 5A and 6A .

WHEREAS, the Board is in receipt of an email message from Mormugao Port Trust (MPT) dated 25/7/2017 wherein they have submitted the details regarding the 'Berth/Position wise traffic handled from April 2016 to March 2017' in respect of all the operational berths at MPT, including Berth no. 5A and 6A operated by the M/s South West Port ltd. (Copy enclosed)

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1

GOA STATE POLLUTION CONTROL BOARD
Goa State Pollution Control Board Panaji - Goa

WHEREAS, perusal of the aforesaid data submitted by the MPT indicates that M/s South West Port has handled a total quantity 10.112 MMT/annum of Coaking Cola /Coke though, the Board vide Consent Order dated 21/07/2017 has permitted the unit to handle 4.125 MMT/annum of Coaking Cola /Coke, during the year 2016-2017.

WHEREAS, the aforesaid indicates that M/s South West Port has handled an excess amount of 5.987 MMT/annum of Coaking Cola /Coke, during the year 2016-2017 in gross violation of the conditions as stipulated in the Consent to Operate order dated 21/7/2017.

WHEREAS, condition number 6(viii) of the aforesaid Consent order states as follows;

6 (viii). *The unit shall submit to this office, the Environmental Statement Report I Form V for the financial year ending April to May March by 30th September of the succeeding year as per the provisions of the rule 14 of the Environment (Protection) (Second Amendment) Rules, 1992*

21/07/2017
21/07/2017



2

21/07/2017
Goa State Pollution Control Board Panaji - Goa


WHEREAS, the Board is in receipt Form V dated 21/09/2017, from your unit for the year 2016-2017 stating that you have handled a cumulative total of 6012000 (6.01 MMT) during the said year which runs contrary to the data submitted by the MPT to the Board as referred to above.

WHEREAS, this misrepresentation by you as well as the factual excess handling of Coaking Cola /Coke, during the year 2016-2017 amounts to a gross violation of the conditions as stipulated in the Consent to Operate order dated 21/7/2017 thereby violating the provisions of the Air Act and the Water Act.

WHEREAS, condition number 6(xvii) of the Consent order dated 21/7/2017 states as follows;

6 (xvii). *The unit shall submit a bank guarantee of Rs.5 Lac with a validity period of one year, within 15 days from the date of issue of this Consent as an assurance for shifting CAAQMS station installed at canteen building to a new location as suggested by GSPCB within 45 days from the date of issue of this consent, failing which the Bank guarantee shall be forfeited and further action taken.*

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WHEREAS, subsequent to the issue of the consent order dated 21/7/2017, the Board was in receipt of letter dated 8/8/2017 from you requesting the Board to reconsider the decision of the Board (as contained in the consent order) to on the location/siting of the Continuous Ambient Air Quality Monitoring System (CAAQMS).

WHEREAS, upon considering the aforesaid letter, the Board is of the opinion that your unit is consistently delaying and disobeying the Boards directions to install the CAAQMS.

NOW THEREFORE in exercise of powers vested with the undersigned under section 31(A) of the Air (Prevention and Control of Pollution) Act, 1981 and under section 33(A) of the Water(Prevention and Control of Pollution) Act, 1974, the management of M/s South West Port Ltd. (Berth no. 5A and 6A) located at Mormugao harbor, Mormugao, Goa, is hereby directed to Show cause by 6/12/2017 as to why the Renewed Consent to Operate order bearing no. 5/2580/04-PCB/C1-3090 dated 21/07/2017, granted to your unit by this Board should not be revoked for handling an excess amount of 5.987 MMT/annum of Coaking Cola /Coke, during the year 2016-2017 in gross violation of the conditions as stipulated

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in the said Consent to Operate order and for submitting false data in the Form V as submitted by you to the Board as aforesaid.

YOU ARE FURTHER directed to Show Cause to this office by 06/12/2017 as to why the Bank Guarantee of Rs. 5 Lakhs as submitted by you to this office as an assurance for shifting the CAAQMS Station installed by you in terms of the condition contained in the Consent order dated 21/07/2017 should not be forfeited by the Board.

TAKE NOTE that, failure to satisfactorily reply to the present Notice will compel the Board to initiate stringent legal action against you that will include revocation of the Renewed Consent to operate order bearing no. 5/2580/04-PCB/C1-3090 dated 21/07/2017 issued to you by the Board, forfeiting of Rs. 5 Lakhs Bank Guarantee as submitted by you to the Board and further issue of directions for suspension/closure of all operations including all cargo handling operations at Berth nos. 5A and 6A without any further notice.

Issued on this th 30 day of November, 2017.


(Levinson J. Martins)
Member Secretary

To,
M/s. South West Port Limited,
1st Floor, Port Users Complex,
Mormugao, Harbour Goa 403803

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5
The State Pollution Control Board Panaji - Goa

**ANNEXURE 9: DIRECTIONS ISSUED BY GSPCB TO SWPL REVOKING
CTO FOR BERTH 5a 6a**

GOA STATE POLLUTION CONTROL BOARD

गोंय राज्य प्रदुशण नियंत्रण मंडळ

(An ISO 9001-2008 Certified Board)

Phone Nos : 91-832-2438567, 2438528
2438563, 2438550

Tel / Fax No. : 0832-2438528



Email id's :

Member Secretary, GSPCB - ms-gspcb.goa@nic.in
Environment Engineer, GSPCB - ee-gspcb.goa@nic.in
Scientist, GSPCB - scientist-gspcb.goa@nic.in
Asst. Env Engineer, GSPCB - aee-gspcb.goa@nic.in
Asst. Law Officer, GSPCB - alo-gspcb.goa@nic.in

No. 1/25/17-PCB/LD - 100 **By Regd. A.D.**

09/01/2018

**DIRECTIONS UNDER SECTION 33(A) OF THE WATER
(PREVENTION AND CONTROL OF POLLUTION) ACT, 1974.**

Ref:- Decision taken in the 131st Board meeting held on 08/01/2018.

WHEREAS, the Goa State Pollution Control Board has, vide Order bearing no. 5/2580/04-PCB/C1-3090 dated 21/07/2017, granted M/s South West Port Ltd. (Berth no. 5A and 6A) located at Mormugao harbour, Mormugao, Goa, Renewal of Consent to Operate in respect of handling of 4.125 MMT/annum of Coaking /Coke, 1 MMT/annum of Limestone and 1 MMT/annum of Steel Slab at Berth no. 5A and 6A . This Renewed Consent to Operate order has been issued under section 25 of the Water Act and under section 21 of the Air Act.

WHEREAS, the Board is in receipt of an email message from Mormugao Port Trust (MPT) dated 25/7/2017 wherein they have submitted the details regarding the 'Berth/Position wise traffic handled from April 2016 to March 2017' in respect of all the operational berths at MPT, including Berth no. 5A and 6A operated by the M/s South West Port Ltd.

Dempo Towers, 1st Floor, EDC Patto, Panaji, Goa. Not liable under
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WHEREAS, on perusal of the aforesaid data submitted by the MPT indicates that M/s South West Port has handled a total quantity 10.112 MMT/annum of Coaking Coal /Coke though, the Board vide Consent Order dated 21/07/2017 has permitted the unit to handle 4.125 MMT/annum of Coaking Coal /Coke, during the year 2016-2017. This prima facie indicates that M/s South West Port has handled an excess amount of 5.987 MMT/annum of Coaking Coal /Coke, during the year 2016-2017 in gross violation of the conditions as stipulated in the Consent to Operate order dated 21/7/2017.

WHEREAS, Condition number 6(viii) of the aforesaid Consent order states as follows;

6 (viii). The unit shall submit to this office, the Environmental Statement Report I Form V for the financial year ending April to May March by 30th September of the succeeding year as per the provisions of the rule 14 of the Environment (Protection) (Second Amendment) Rules, 1992

WHEREAS, the Board is in receipt Form V dated 21/09/2017, from the unit for the year 2016-2017 stating that the unit has handled a cumulative total of 6012000 (6.01 MMT) during the said year which runs contrary to the data submitted by the MPT to the Board as referred to above.

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WHEREAS, this prima facie misrepresentation as well as the factual excess handling of Coaking Coal /Coke, during the year 2016-2017 amounts to a gross violation of the conditions as stipulated in the Consent to Operate order dated 21/7/2017 thereby violating the provisions of the Air Act and the Water Act.

WHEREAS, Condition number 6 (xvii) of the Consent order dated 21/7/2017 states as follows;

6 (xvii). *The unit shall submit a bank guarantee of Rs.5 Lac with a validity period of one year, within 15 days from the date of issue of this Consent as an assurance for shifting CAAQMS station installed at canteen building to a new location as suggested by GSPCB within 45 days from the date of issue of this consent, failing which the Bank guarantee shall be forfeited and further action taken.*

WHEREAS, subsequent to the issue of the consent order dated 21/7/2017, the Board was in receipt of letter dated 8/8/2017 from SWPL requesting the Board to reconsider the decision of the Board (as contained in the consent order) to on the location/siting of the Continuous Ambient Air Quality Monitoring System (CAAQMS). Upon considering the aforesaid letter, the Board is of the opinion that the unit is consistently delaying and disobeying the Boards directions to install the CAAQMS.

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Director, Panaji-Coo

WHEREAS, in exercise of powers vested under section 31(A) of the Air (Prevention and Control of Pollution) Act, 1981 and under section 33(A) of the Water(Prevention and Control of Pollution) Act, 1974, the management of M/s South West Port Ltd. (Berth no. 5A and 6A) located at Mormugao harbour, Mormugao, Goa, was directed to Show cause as to why the Renewed Consent to Operate order bearing no. 5/2580/04-PCB/C1-3090 dated 21/07/2017, granted to the unit by this Board should not be revoked for handling an excess amount of 5.987 MMT/annum of Coaking Coal /Coke, during the year 2016-2017 in gross violation of the conditions as stipulated in the said Consent to Operate order and for submitting false data in the Form V as submitted by SWPL to the Board as afore stated.

WHEREAS, M/s South West Port Ltd approached the High Court of Bombay at Goa vide WP/1092/2017 seeking a direction to the GSPCB to extend the time granted by it for replying to the Show Cause Notice.

WHEREAS, the High Court vide order dated 13/12/2017 has recorded the statement of the GSPCB that it had decided to grant two weeks time more to the Petitioner to file its reply. It also noted that the GSPCB would give a personal hearing to SWPL.

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WHEREAS, this issue was earlier discussed before the Board at its 128th Meeting held on 07/12/2017. In terms of the decision taken by the Board at its 128th meeting and in terms of the order of the Hon'ble High Court dated 13/12/2017, the Board vide letter dated 15/12/2017 informed SWPL that they were granted a further period of two weeks time to file a reply to SCN dated 30/11/2017. In terms of the decision taken by the Board at the 128th meeting, SWPL was further directed to submit a bank guarantee of One Crore to the Board.

WHEREAS, SWPL filed WP/1143/217 opposing the imposition of 1 Crore bank guarantee on it by the GSPCB vide its letter dated 15/12/2017. The High Court vide order dated 27/12/2017 passed in the matter accepted the statement of GSPCB that until it disposes off the SCN issued to the petitioner, GSPCB will not insist upon the Petitioners providing the Bank Guarantee of Rs. 1 Crore. In reference to SWPL's request that if GSPCB's final order is adverse the same may not be given effect for a period of at least two weeks from the date of communication; the GSPCB statement that it is open to the Petitioners to make such a request during the course of the personal hearing and the GSPCB will make suitable orders thereon has been recorded.

WHEREAS, the Board was then in receipt of a reply dated 28/12/2017 from SWPL, to the SCN dated 30/11/2017.

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WHEREAS, the Board has afforded the authorized representatives of SWPL a personal hearing before it at its 130th meeting (Special Meeting) in the matter of the show cause dated 30/11/2017. The proceedings of the personal hearing **are enclosed herewith.**

WHEREAS, on considering the submissions of SWPL as contained in their reply dated 28/12/2017 and as put forth during the personal hearing held on 8/1/2017 (and as recorded in the enclosed minutes of personal hearing) the Board after detailed deliberation has concluded as follows;

1. SWPL has failed to establish/dispute the submission of MPT (vide its letter/email dated 25/7/2017) that it has handled a total quantity of 10.112 MMT/annum of Coaking /Coke though the Boards Consent to Operate order dated 21/7/2017 has permitted the unit to handle 4.125 MMT/annum of coaking /Coke during the year 2016-2017.
2. SWPL has not established that it has handled coaking /Coke during the year 2016-2017 within the limits as stipulated in the Consent Orders issued by the Board. Neither has it established that has handled coaking /coke in terms of the limit stipulated in the renewed consent to operate order dated 21/7/2017.

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3. SWPL merely states that any handling of /coke in excess or otherwise in the absence of scientific data indicating that such excess handling would have an adverse impact on the environment would not render it liable to action by the Board or for revocation of the consent to operate issued to it by the Board.

WHEREAS, in light of the above the Board has arrived at a clear finding that SWPL has committed a gross breach of the consent condition no. 2(1) of the Consent order bearing no. 5/2580/04-PCB/C1-3090 dated 21/07/2017, granted to it by the Board, by virtue of the fact that it has handled a total quantity 10.112 MMT/annum of Coaking /Coke though, the Board vide Consent Order dated 21/07/2017 has permitted the unit to handle 4.125 MMT/annum of Coaking /Coke, during the year 2016-2017.

WHEREAS, section 21 (4) of the Air (Prevention and Control of Pollution) Act, 1981 states as follows;

'(4) Within a period of four months after the receipt of the application for Consent referred to in sub-section (1), the State Board shall, by order in writing, and for reasons to be recorded in order, grant the consent applied for subject to such conditions and for such period as may be specified in the order, or refuse such Consent:

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Provided that it shall be open to the State Board to cancel such consent before expiry of the period for which it is granted or refuse further consent after such expiry if the conditions subject to which such consent has been granted are not fulfilled: .

Provided further that before cancelling consent or refusing a further consent under the first proviso, a reasonable opportunity of being heard shall be given to the person concerned. '

WHEREAS, section 27 of the Water (Prevention and Control of Pollution) Act, 1974 states as follows;

'27. Refusal or Withdrawal of Consent by the State Board.'

WHEREAS, in this regard the Board has after providing SWPL a reasonable opportunity of being heard, has come to the conclusion that the condition no 2(1) of Consent to Operate order bearing no. 5/2580/04-PCB/C1-3090 dated 21/07/2017 has not been fulfilled and has infact been grossly violated. A copy of the relevant extract of the 131st meeting is enclosed.

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P. C. APIC
Goa State Pollution Control Board Panaji - Goa

NOW THEREFORE the Board in exercise of the power vested in it under section 27 read with section 25 of the Water (Prevention and Control of Pollution) Act, 1974 and in light of what is stated herein above hereby directs that the Consent order bearing no. 5/2580/04-PCB/C1-3090 dated 21/07/2017 issued by the Board to SWPL under the Water (Prevention and Control of Pollution) Act, 1981 also stands cancelled/revoked with immediate effect.

Issued on this 09th day of January 2018.



(Levinson J. Martins)
Member Secretary

To,
M/s. South West Port Limited,
1st Floor, Port Users Complex,
Mormugao Harbour,
Mormugao Goa 403803

Copy to:

- 1) The Chairman, M/s. Mormugao Port Trust, Administrative Office: Headland Sada, Mormugao, Goa..... *for information and necessary action.*
- 2) Office copy
- 3) Guard file

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ANNEXURE 10: TABULATION OF REPEATED NON-COMPLIANCE AT BERTH 5A 6A AND BERTH 7

Repeated violations found with respect to Berths 5a 6a (SWPL)

Date of document	Name of document	Issuing authority	Observation in document	EC/CTO condition violated	Relevant to Air/ Water Pollution
01/6/2017	Monitoring report	Regional Office, MoEFCC (Bangalore)	Greenbelt developed where possible and greenbelt on Dabolim airport road	<p>EC condition (vii): for development of green buffer including mangroves wherever feasible, authorities should start growing large nursery of multi-purpose species like Eucalyptus, Casuarine, Dalbergia, Terminalia etc. norm of about 2000-2500 trees per hectare may be adopted for raising green belt. Necessary permissions may be obtained from concerned authorities for cutting of trees in any"</p> <p>CTO condition 4 (xvi): the applicant shall plant fast growing trees along the periphery/ compound wall of the plot to arrest dust pollution. (ref. CTO dated 21/7/2017 which was relevant to this period)</p>	Air
19/1/2018	Site inspection report	GSPCB	<ul style="list-style-type: none"> There exist 3 yards for coal stacking and height of coal stacks is ~10 metres Yard conveyors not covered Informed it can't be covered due to movement of stack cum reclaimers over the conveyor Directed to cover where possible and provide water mist spray where not possible CAAQMS installed, not connected to Boards server 	<p>CTO condition 4 (xxvii): the application shall store coal in such a way that coal heap should not be higher than 15 feet (5metres) and distance between two adjoining heap at G.L. should be 5 metres, so that in case of fire, approach is available.</p> <p>CTO condition 4 (xv): applicant shall construct garland drains along periphery of the unit to avoid siltation of into seasonal streams/ agricultural land, etc.</p> <p>CTO condition 4 (xiii): the applicant shall maintain metalled road within the premises.</p> <p>CTO condition 4 (xviii): the applicant shall take all necessary steps to maintain good and healthy ambient air quality in and around the plot.</p>	Air

			<ul style="list-style-type: none"> Coal spillage along rail track Ground not concreted along rail track Directed to pave the same And provide mechanism to collect spillage No water with coal or coal dust should be let into the sea Embankments/gutters to be provided along berth Surface run off channelised into settling pond. 		<p>CTO condition 4 (xviii) proper drainage system shall be provided in all coal storage area so that water drained from coal sprinkling is collected at a common tank and can be used after screening through the coal silt. (ref. CTO dated 21/7/2017 which was relevant to this period)</p>	
09/01/2018	Directions revoking consent with immediate effect	GSPCB	<ul style="list-style-type: none"> Handled 10.12 MMPTA in 2016- 17 when its permitted handling limit was 4.125 MMPTA False data in Form V Delay in shifting CAAQMS since 2016 		<p>CTO condition 2 specifies quantity of coking coal/coke import as reduction in handling capacity by 25% i.e from 5.5 MMTPA to 4.125 MMTPA</p>	Air
30/11/2017	Show-cause notice	GSPCB	<ul style="list-style-type: none"> Excess handling as per MPT records Why 5 lac deposit should not be forfeited for not shifting CAAQMS 		<p>CTO condition 2 specifies quantity of coking coal/coke import as reduction in handling capacity by 25% i.e from 5.5 MMTPA to 4.125 MMTPA</p>	Air
23/3/2016	Directions issued	GSPCB	<ul style="list-style-type: none"> To shift CAAQMS to new location between berths 5a 6a and 7, 6mts above ground Failure to comply with these directions, board will initiate legal action 			Air

23/12/2015	Directions issued notice		<ul style="list-style-type: none"> • AAQM done from 1/9/2015 to 26/11/2015 indicates that on 14 out of 24 occasions the values of PM10 have exceeded permissible limits at Fire Brigade station near this berth • AAQM reports also indicate that on 3 occasions out of 24, the values of PM10 have exceeded permissible limits at monitoring site on the roof of Fuse call office of electricity dept, Vasco • Under Sec 3 of Air Act asks SWPL to show cause as to why CTO 10/04/2015 shouldn't be revoked in light of when AQ data shows high reading 	<p>CTO (10/4/2015) condition 4 (ix): Adequate mitigation measures shall be taken to control emissions of SO2, Nox, PM2.5, RSPM. Applicant shall achieve following Ambient Air Quality Standards:</p> <p>PM10 not to exceed annual average of 60ug/m3 PM10 not to exceed 24hr average of 100ug/m3 (we have only mentioned the relevant limit for pm10 here. CTO contains specific limits for other pollutants too)</p>	
28/3/2014	Site inspection report On Application		<ul style="list-style-type: none"> • CTO for coal handling was for 5.5MMTPA but actual handling was 6.48MMTPA • Surface runoff during monsoon mix with coal is directed to collection tank before discharging to sea • Sought clarification on enhanced production + EC copy • RECOMMENDATION TO REJECT 	<p>CTO (20/8/2013) condition 2 specifies handling capacity for coal as 5.5MMTPA. CTO issued despite this on 10/4/2015.</p>	
18/6/2013:	inspection report – On Application	GSPCB	<ul style="list-style-type: none"> • Wind break wall shall be completed in 6 months • Coal heaps 23t high • CAAQM not done • RECOMMENDED TO REJECT 	<p>Violation of previous directions issued on 2/5/2013 CTO dated 20/8/2013 is issued despite this recommendation in which the 2nd mention of CAAQM appears.</p>	Air

2/05/2013	directions for reduction of air pollution ref show cause notice date 10/04/2013	GSPCB	<ul style="list-style-type: none"> • 20 conditions added • Paved approach • Directed to build windbreaking wall 9mt • Install pipe for water • Stack height less than wind break/compound 	Air and Water
10/4/2013	Show-cause notice on excess air pollution		<ul style="list-style-type: none"> • Monitoring report of AAQ indicates that the prescribed limits of the parameter Particulate Matter carried out near Substation II SWPL during Feb – March 2013 are exceeding said limits • The analytical reports show that the air pollution control measures adopted by the unit are not adequate to control the pollution cause by the activities of this unit. 	Air
27/2/2013:	Site inspection report Routine	GSPCB	<ul style="list-style-type: none"> • Directs unit to clean drains connected to collection tank as that hadn't commenced 	Water
4/1/2013	site inspection on complaint	GSPCB	<ul style="list-style-type: none"> • Water parameter section – collection sump and drains not functional 	Water

Repeated violations found with Respect to MPT and Berth 7 (AMPTPL)

Date of document	Name of document	Issuing authority	Observation in document	EC/CTO condition violated	Relevant to Air/ Water Pollution
6/6/2018	Inspection report (Visit on complaint of Sanjay Redkar and other concerned citizens of coal being unloaded from ship directly to barges)	GSPCB	<ul style="list-style-type: none"> It was informed that the vessel "MV Mondial Succes" carrying cargo was unloaded with the help of floating grab crane and was transferred into the barges and transported to Vedanta Armona plant. During loading of barges using floating crane there is possibility of spillages of cargo into sea and dust generation. Complainant showed the video recording wherein some spillages of coal can be observed from grabs. During normal operations, the cargo discharged from the vessel by M/s AMPTPL is stacked at plot no. A and plot no. B using conveyor belts and stacker reclaimers ad loading of trucks and wagon rakes with the help of hopper system. 	EC Specific condition (xii) cargo shall be unloaded directly into hopper from the ship and transported to stackyard through closed conveyor system only. Inbuilt dust suppression systems shall be provided at hoppers and all transfer points storage yards. Cargo shall not be unloaded directly on to berth. meters shall be provided at different locations to record the consumption of water used for dust suppression and daily log shall be maintained.	Air and Water

17/4/2018	Inspection Report (visit on complaint filed by Savio Correia of coal being un-loaded directly on berth)	GSPCB	<ul style="list-style-type: none"> • Noted unloading coal on berth • Sometimes loaded directly on to barges from berth/ship • Trucks being manually loaded instead of using truck loading system • Coal being dropped on to berth from 14mts height leading to dust generation • Did not have separate water flow meter for Plots A and B • Heavy spillage of coal on internal roads causing dust generation. • Dust sweeping did not appear to be used often and were not effective. • Directions to stop unloading on berth • Stop manual loading of trucks • Stop loading of coal on to barges from ship/berth 	<p>EC Specific condition (iv): Entire transportation of coal shall be in closed conveyor belt.</p> <p>EC Specific condition (xii) cargo shall be unloaded directly into hopper from the ship and transported to stackyard through closed conveyor system only. Inbuilt dust suppression systems shall be provided at hoppers and all transfer points storage yards. Cargo shall not be unloaded directly on to berth. Water metres shall be provided at different locations to record the consumption of water used for dust suppression and daily log shall be maintained.</p> <p>CTO condition 3(iii)(j): A good housekeeping shall be maintained within factory premises.</p> <p>3(iii)(x) the unit shall install machinery/mechanism for regular collection and removal of coal/coke spillage within the yard, internal roads and along the railway track within premises.</p> <p>CTO General condition (xiii): Loading of trucks should be carried out at all times through truck loading system only. Unit shall maintain the records of the loading operations & instal monitoring system. (it appears this condition was added as a result of this inspection)</p>	
17/11/2017	Site inspection report (for verification of consent conditions)	GSPCB	<ul style="list-style-type: none"> • Coal dumps at port were covered with tarpaulin sheets wherea as coal stacks near berth were exposed to the sky. • During monsoon excess water form the settling ponds is discharged into port drain which eventually goes into sea • Conveyor belts at berth were not covered, unit said they couldn't be covered due to movement of machinery over them. 	<p>EC Specific condition (iv): Entire transportation of coal shall be in closed conveyor belt.</p> <p>EC Specific condition (xvi): necessary arrangements for treatment of effluents and solid wastes must be made and it must be ensured that the untreated effluents and solid wastes are not discharged into the water or on the beach, no effluent or solid waste shall be discharged on the beach.</p> <p>CTO condition 3 (iii)(iii): runoff from coal stack yard shall be collected and treated for removal of heavy metals and quality to be monitored for heavy metals, phenols and organic carbons before disposal.</p> <p>CTO condition 3 (iii)(xii): applicant shall install fully mechanised systems for loading/unloading of coal comprising of shore mobile cranes/unloaders, mobile hoppers, covered belt conveyors, silo, in motion wagon and truck loading systems.</p>	

23/3/2016	Direction of action to MPT based on 02/03/2016 site inspection observations	GSPCB	<ul style="list-style-type: none"> Coal stacks not covered AAQM not carried out in 2 locations Reduce coal handling from 5.2MMT/annum to 3.9MMT/annum or 25% less than current handling which ever is less 	CTO (4/2/2016) didn't have conditions addressing this. But these are in violation of direction given on 23/12/2015.	Air
23/12/2015	Direction of action Air Act to Adani + show cause notice as to why CTO should not be revoked.		<ul style="list-style-type: none"> Violation of air quality conditions specifically PM 10 <p>Directions:</p> <ul style="list-style-type: none"> Loading of truck should be done only through trucking system Coal stack not more than 5mts Sprinkling continuously during loading and unloading Trucks to be covered with tarp Flow meters on sprinkling systems AAQM data submitted on weekly basis During arrival of ship, unloading of trucks and rates should be submitted to GSPCB on weekly basis 	CTO date 10/4/2015 was not received via RTI but these directions indicate that you are operating your unit in a manner that amounts to violations of the provisions of the renewed Consent to Operate dated 10/4/2015 issued to you by this board, as aforesaid, thereby amounting to a violation of the provision of the Air (Prevention and Control of Pollution) Act 1981"	Air
30/12/2014	Showcause notice		<ul style="list-style-type: none"> Stockpiles on coal on trucks not covered Coal dispatched through trucks loaded using dozers causing dust pollution CAAQMS not installed Sprinklers not functional 	CTO dated 8/1/2014 was not received via RTI but the showcause notice itself states "Whereas, observations in the report of inspection conducted on 23/12/2014, indicate that you are operating your aforesaid unit in a manner that prima facie amounts to a violation of the conditions contained in the Consent to Operate order dated 8/1/2014 issued to you by this Board, there by causing environmental pollution in the vicinity."	Air
20/6/2014	Inspection report (Berth 5a 6a were also inspected)		<ul style="list-style-type: none"> 2 dump ponds settled water is directed into drain into sea Both berths directed to install CAAQMS so real time data can be monitored by Board. 	CTO dated 8/1/2014 was not received via RTI but the showcause notice itself states "As per CTO dated 8/1/2014, the unit should install Continuous Ambient Air Quality monitoring system by April 2014. however, the same is not installed so far."	Air and Water
30/12/2013	EC to AMPTPL				

ANNEXURE 11: TIMELINE OF EVENTS VIS-A-VIS COAL HANDLING AT THE MPT

TIMELINES

BRIEF HISTORY OF THE PORT

Date/Year	Event
1888	The Mormugao Port was established by the Portuguese. It had 5 berths which were majorly used for the import and export of oil, cashews, wine, iron, etc.
1965	The Mormugao Port was declared as a Major Port by the Government of India.
1994	Infrastructural developments happened at the port and by this time the Port built its 11th Berth.
1999	The Mormugao Port started handling coal in its 10th and 11th berths.

COAL HANDLING AT THE PORT [The story of clearances]

Date/Year	Event
24th January 2001	Environmental clearance was given for modernisation of Berth 5a 6a and the berths were accorded to ABG (later renamed SWPL).
28th February 2008	MPT came up with the TOR for the development of Berth 7 which would be used for coal handling. The EAC, after discussing the TOR, finalized it, but suggested additional TOR to be added.
26th June 2009	The committee recommended the proposal for the development of Berth 7 of the Mormugao port For CRZ Clearance. Certain additional conditions were added in the clearance letter for strict compliance by MPT. The clearance would be subject to recommendations from the Goa CZMA.
1st December 2010	The TOR for the development of a coal terminal at Berth 11 was finalised. Additional TOR was added and the EAC also directed to conduct public hearing for the project and draw up a detailed EIA/EMP report.
21st September 2013	Environment and CRZ clearance was granted for the mechanisation of Berth 7 with added conditions. Also, the committee referred the decision of whether or not to conduct public hearing for the project to the MoEFCC.
30th December 2013	The Environment Clearance for Berth 7 was issued.
21st May 2015	TOR for enhancement of terminal capacity of Berth 5a 6a by M/s SWPL was finalised. The committee directed the project proponent to conduct a public hearing for the project, either independently or with MPT. It also added certain specific TOR.
21st January 2016	Proposal for dredging incidental to the redevelopment of berths 8 and 9 and barge berths was taken up as an additional agenda. The committee recommended imposition of additional TOR.

28th March 2016	Proposal for amendment in TOR for redevelopment of Berths 8 and 9 and barge berths came up. The project proponent mentioned that they are withdrawing their proposal for seeking an exemption from public hearing.
21st August 2017	The environmental and CRZ clearance for the terminal capacity enhancement of Berth 5a 6a was deferred. The EAC (Infra II) sought additional information from the project proponent and the project was deferred till such information was submitted.
20th October 2017	The EAC (Infra II) reconsidered the Environment and CRZ clearance for terminal capacity enhancement of Berth 5a 6a. The committee observed that the issues raised during the public hearing were not addressed adequately, the air quality monitoring also showed exceeding levels of particulate matter, and took into account the directions given by GSPCB to the project proponent. It sought further information from the project proponent and deferred the project till then.
15th December 2017	The EAC (Infra II) recommended the project for grant of Environment and CRZ clearance for the terminal capacity enhancement of Berth 5a 6a. The committee was satisfied with the submissions made by the project proponent and granted the clearance along with certain specific conditions to be added in the Environment clearance.
30th May 2018	The committee brought the Environment and CRZ clearance recommendation given for the terminal capacity enhancement of Berth 5a 6a for reconsideration. The committee noted that the CTO for the project was revoked by the GSPCB and the project has not operated since. Also, no further information was provided by the project proponent in the meeting and hence the project could not be discussed on merits. The proposal was deferred till the desired information was submitted.
10th August 2018	The Environment and CRZ clearances for terminal capacity enhancement of Berth 5a and 6a were reconsidered after the project proponent made additional submissions. The committee observed that CTO had been granted by the GSPCB. In 2016 the GSPCB had initiated the process for source apportionment. The source apportionment study had begun in March 2018. The committee in its meeting mentioned that it was never informed about source apportionment prior to the meeting and it is not included in the TOR granted earlier as well. But it also felt that a new condition on source apportionment should be added to the stipulated set of environmental safeguards/conditions and that SPCB should include it in the CTE as well. The committee deferred the clearance till the essential details mentioned were addressed.
28th November 2018	The EAC (Infra II) discussed the proposal for capacity enhancement at Berths 5a 6a. The EAC was satisfied with the information provided by the proponent. The EC for this project was recommended subject to the outcome of the pending PIL in the Bombay High Court and the First Appellate Authority. The implementation of the source apportionment study's recommendations were added by the EAC as a special condition in the EC.

EFFORTS OUTSIDE AND WITHIN THE GROUNDTRUTHING PROCESS

TABLE 1: EFFORTS WITHIN THE JUDICIAL FRONT

Date/Year	Event
2001	High Court of Bombay in Goa took up a letter written by the Goa Citizens' Watch Dog Association conveying its grievances with regard to air pollution in Vasco city, as a Suo Moto PIL.
4th February 2001	The court took note of the affidavit filed by MPT mentioning that reconstruction of Berth 5a 6a would be completed by 2002 and the coal handling would be shifted there as those berths are far away from the city. Then the court in its order held that there was no air pollution through emission by the company and no notice would be issued to it.
9th June 2003	The state government constituted a Coal Pollution Monitoring Committee. The committee recommended that coal handling should be stopped at Berths 10 and 11 and shifted to Berth 5a 6a once they are constructed.
June 2005	MPT shifted coal handling to Berth 5a 6a which were reconstructed and mechanised.
August 2005	Writ petition filed by some companies praying that the coal handling operations should be continued in Berths 10 and 11.
20th September 2005	The writ filed by the companies was disposed with the court directing the Ministry of Shipping to examine the grievances of the companies and come to a decision along with the GSPCB.
15th December 2005	The Ministry of Shipping decided that the coal handling can continue at Berths 10 and 11 provided that the companies comply with the conditions.
20th November 2006	GSPCB filed an affidavit in response to a previous affidavit filed in 2006 by the Amicus Curiae in the August 2005 writ petition. The affidavit of the Amicus Curiae prayed for stopping all coal handling at Berths 10 and 11. The GSPCB's affidavit clarified that the Ministry of shipping misquoted the board's chairman with respect to continuance of coal handling at berths 10 and 11. The board affirmed that coal handling should be stopped.
4th April 2007	The court passed another order while looking into the issues of air pollution. It found that even though the MPT had stated that 90% of its coal handling activity had been shifted from Berths 10 and 11 to Berth 5a 6a, the dust being generated from Berths 10 and 11 continued to cause pollution. The court directed NEERI, an independent agency, to monitor the ambient air quality in Vasco.
30th June 2008	NEERI made its report which showed high levels of particulate matter in the port and in Vasco town. The report also suggested certain short term and long term measures to control the pollution.

12th March 2009	In another order by the court, it looked into the affidavit filed by the GSPCB who was respondent no. 3 in the petition wherein it said that it accepted the suggestions made by NEERI but the board also recommended certain additional measures to be taken. The board also said it would carry out periodic inspection of the berths.
30th November 2009	This was another order of the court in the petition. The order said that MPT has informed that it would be implementing NEERI's recommendations.
25th February 2010	GSPCB filed an affidavit stating that it conducted monitoring for 4 weeks to assess the air quality after MPT took some measures. Based on the monitoring, and the monitoring report submitted to it by MPT on the compliance of NEERI recommendations it issued further directions to MPT. These directions included points like carrying out ambient air quality monitoring, covering the trucks with tarpaulin, erecting windshields, regulating height of the coal stack, carrying out techno-economic feasibility for mechanisation of Berths 10 and 11, etc.
19th July 2010	MPT filed an affidavit mentioning that it has submitted its feasibility report on coal handling at Berth 11 for consideration by the board. It had also decided to construct a 4 MMTPA Mechanised Coal Terminal at Berth 11 with features like 4 silos or domes, scientific method of storage for a pollution free environment, etc.
28th October 2010	The GSPCB, after considering the reports in its meeting, filed an affidavit conveying its decision. It wanted MPT to comply with some more measures like ensuring construction and mechanisation of Berth 11 by June 2012, ensure continuous air quality monitoring according to CPCB guidelines, etc.
10th January 2011	GSPCB issued directions to MPT under section 31-A of the Air Act to install Continuous Air Ambient Quality Monitoring station and to also furnish the time schedule for mechanisation of Berth 11.
10th March 2011	MPT submitted its action plan and said that mechanization of Berth 11 would be done by October 2014 and continuance ambient air quality monitoring would start by April 2011.
16th August 2011	MPT filed an affidavit saying that its action plan had been accepted by the board and the board shall allow MPT to handle coal at Berth 10 till the completion of mechanisation of Berth 11 or at Berth 7, according to availability.

24th February 2012	The petition was disposed off by the High court with a final order. In the final order the court said that all the directions issued by GSPCB to MPT in its affidavit on 25th February 2010 would be treated as directions of court. The court also accepted the schedule given by MPT in its affidavit on 10th March 2011 and also the affidavit given on 16th August 2011. The court directed the GSPCB to keep monitoring the pollution at MPT and issue directions as and when required. MPT was also directed to continue with all the measures mentioned in the NEERI report. The parties were also given the liberty to move the court in case of problems in implementing the above directions.
2016	Old Cross Fishing Canoe Owners Co-Operative Society Ltd and Baina Ramponkar & Fishing Canoe Owners Society highlighted the illegal capital dredging being done by MPT. They challenged the Environmental Clearance granted on 9.02.2016 to MPT for dredging the Vasco Bay and approach channel of MPT. This issue went for hearing and the NGT gave an order on 2.9.2016 holding MPT guilty of illegal capital dredging and quashed the EC as well as the MoEFCC letter granting exemption to MPT from going through the public hearing process.
9th August 2016	The traditional fishermen living at Katem, Baina filed a petition at the NGT. The petition was against the order passed by the GCZMA for demolition of the traditional fishing structures.
27th September 2016	The NGT set aside the demolition orders by the GCZMA and remanded the matter back to for a fresh hearing.
October 2016	An appeal was filed at the NGT Pune by Baina Ramponkar & Fishing Canoe Owners Society and Federation of Rainbow Warriors. This appeal challenged the grant of CRZ Clearance dated 24th April 2015 for the construction of the NH17B Highway across the beach and the steep hillside in violation of EIA Notification 2006 and CRZ Notification 2011. The pleadings in this case are complete and the case is held up due to absence of the Pune Bench.
7th April 2017	Fresh demolition orders were issued against the Baina fishermen by the GCZMA even after the fishermen filed their additional replies.
24th April 2017	The aggrieved fishermen filed another petition at the NGT challenging this fresh demolition order asking the court to quash it.
July 2018	A PIL was filed at the High Court of Bombay in Goa by a group of residents of Vasco, Old Cross Fishing Canoe Owners Co-Op Society Ltd, the NGO Goa Foundation and other residents seeking permanent closure of coal handling activities at MPT. The hearings in this matter are currently underway.
14th September 2018	In the matter of the fishermen of Baina and the demolition orders by GCZMA issued on 7th April 2017, the NGT set aside the demolition order and remanded the matter back to the GCZMA to look into the matter in accordance of law.

TABLE 2: EFFORTS OUTSIDE THE JUDICIAL ARRAY

Date/Year	Events
2009	Beginning of mass resistance by local people against coal handling activities at MPT. A letter was written by the then CM Digambar Kamat to the then Environment Minister Jairam Ramesh expressing the disagreement of the people with respect to the developments at MPT.
2011	Mass agitation by the fisherfolk against attempts to evict them from Kharewado, Baina and other affected beaches.
2013	Complaints were made by the local MLA and citizens to the GSPCB with respect to coal handling at Berth 5a 6a which led to an inspection by the GSPCB where it found many violations of the CTO.
14th August 2017	A letter was written by CM Manohar Parrikar on air pollution and public sentiment during the recently concluded public hearings on it to the Minister of Environment asking him to not allow SWPL's application for terminal capacity enhancement of Berth 5a 6a till particulate matter levels are brought under control.
April 2018	A complaint was filed by Vasco resident Advocate Savio Correia with the GSPCB regarding stack heights exceeding the permissible limits at Berth 7.
5th June 2018	A complaint was filed by the concerned citizens of Vasco highlighting violations of the EC and CTO conditions at Berth 7 where coal was being directly unloaded onto a barge using grab cranes.
July 2018	A complaint was filed by 4 fishing associations in Vasco, highlighting alleged violations of EC conditions in the operation of Berth 7 by AMPTL. This complaint was made as part of the groundtruthing process.
Sept 2018	Multiple appeals were filed by the Federation of Rainbow Warriors with the First Appellate Authority in Panjim challenging CTO amendments and fresh CTOs issued by GSPCB to AMPTPL and SWPL. Hearings of these appeals are still underway.

TABLE 3: ACTIONS TAKEN BY GSPCB

Date/Year	Events
28th November 2011	GSPCB in its inspection report asked MPT to stop construction activities at Berth 7 as the approvals from the MoEFCC and the CRZ were not obtained.
24th September 2012	Directions were issued to MPT by GSPCB. The directions talked about height of coal stacks to not be more than 5 metres, installation of water sprinklers, covering coal trucks with tarpaulin, shutting coal handling at Berths 10 and 11 and shifting to 7 after it is mechanised.
4th January 2013	Berth 5a 6a was inspected by GSPCB on complaint. Violations of the CTO conditions were found like condition 6 which talks about maintaining housekeeping within factory premises.
27th February 2013	There was routine inspection by GSPCB of Berth 5a 6a. Similar violations of the CTO conditions were found. The GSPCB gave directions to clean the drains near the collection tanks as that hadn't been done.
10th April 2013	A show cause notice was issued by GSPCB to SWPL regarding inadequate air pollution control measures in Berth 5a 6a.
2nd May 2013	Directions were issued by the GSPCB for reduction of air pollution in reference to the previous show cause notice of 10th April 2013.
18th June 2013	GSPCB inspected the Berth 5a 6a on application and found that there was violation of the previous order given by them on 2.05.2013. It also found that the coal heaps were 23 feet in height. The Continuous Ambiguous Air Quality Monitoring (CAAQM) was not done.
23rd March 2014	GSPCB inspection report observed that though the CTO for coal handling was for 5.5 MMT/pa, the actual coal handling happening was for 6.48 MMTPA. the board sought clarification on this enhanced expansion and asked for the copy of the EC.
20th June 2014	GSPCB inspected Berth 7 and observed that the overflow from the dump pond was discharged into the sea.
23rd December 2014	Due to the complaints made by the local MLA of Mormugao regarding pollution, the GSPCB inspected MPT. It found that coal heaps at Berth 5a 6a were 8-9 metres high and they were not covered by tarpaulin. Operations were not entirely mechanised and sprinklers were not continuously in operation.
30th December 2014	The GSPCB issued show cause notice to M/s Adani with respect to coal Berth 7. The stockpiles of coal on trucks were not covered. The CAAQMS was not installed and the sprinklers were not functional.
23rd December 2015	The GSPCB issued directions to SWPL under section 31 (A) to restrict coal stacks to maximum 5 metres. It observed that in the Ambient Air Quality Monitoring done from 1.9.2015 to 26.11.2015, on 14 out of 24 occasions the values of particulate matter exceeded the permissible limits. This also included other directions regarding mitigation measures for controlled emissions and achieving Ambient Air Quality Standards.

28th January 2016	GSPCB discussed coal pollution in Vasco. It observed that the levels of particulate matter 10 had exceeded on several occasions. The board issued certain directions again like SWPL should reduce the coal handling capacity from 5.5 MMT to 4.125 MMT per annum and Adani should reduce the coal handling capacity from 5.2 MMT to 3.9 MMT per annum, 01.02.2016 to 30.04.2016. Both SWPL and Adani were directed to install CAAQMS within 60 days and submit real time data to GSPCB.
23rd March 2016	Directions were issued by GSPCB to shift the CAAQMS to a new location between Berth 5a 6a and Berth 7. It should be 6 metres above ground instead of the present 11 metres and failure to comply with these directions would lead to initiation of legal action by the board.
28th April 2017 to 5th May 2017	The public hearing which was conducted with respect to the redevelopment work and enhancement of coal handling capacity went on for 7 days.
11/12th July 2017	GSPCB made a report to the MoEFCC on the public hearing. It also mentioned that the continuous coal pollution in Vasco is the major reason for reducing the coal handling capacities of both SWPL and Adani. It categorically asked the MoEFCC not to issue any EC for expansion of coal handling capacity before the Source Apportionment Study could be completed. in fact, it stated that this study should have been included in the TORs for these proposals.
21st July 2017	GSPCB renewed the Consent to Operate of SWPL with coal handling limit at 4.125 MMT. The operations were to be done at least 500 mts away from residential area. It was noted in the CTO that the CAAQMS was not yet installed.
21st July 2017	A show cause notice was issued to MPT by GSPCB asking it why the coal handling at the mooring dolphins facility should not be shut down immediately as MPT has no clearances for this activity. MPT replied that it was handling cargo at mooring dolphins since 2003 and was not aware of any clearance requirement.
25th July 2017	GSPCB was informed by MPT that SWPL had handled 10.112 MMT of coal during 2016-17 which was in excess of 5.987 MMT over the permitted limit of 4.125 MMT. The board later prosecuted SWPL for this violation of the Consent to Operate.
8th August 2017	SWPL requested the GSPCB to reconsider the location of installation of CAAQMS. To this the board opined that the installation of CAAQMS was constantly being delayed and the board's directions were being disobeyed.
8th January 2018	GSPCB directed MPT to suspend all coal handling at the Mooring Dolphin Facility because no consent was issued by the board for this activity. There was no EC issued as well. MPT also admitted that there were no pollution control measures at that site.
9th January 2018	GSPCB revoked the CTO of SWPL at Berth 5a 6a due to excessive coal handling and directed it to suspend all coal handling.

25th January 2018	A letter was written by GSPCB to the Ministry of Environment raising objections to the recommendation of the EAC in December 2017 to the EC for terminal capacity enhancement to SWPL because the existing facility still needed to adopt pollution control measures.
27th March 2018	SWPL's application for Consent to Operate was rejected by GSPCB as it was not backed by a valid EC. GSPCB did not accept the letter dated 24.1.2001 from Ministry of Shipping to M/s. ABG Goa Port Ltd for construction of Berth 5a 6a which SWPL was relying on as a valid EC under EIA Notification 2006.
8th May 2018	SWPL sought clarification from the MoEFCC regarding the validity of the EC. The MoEFCC clarified that the clearance was in line with the CRZ Notification and was valid.
6th June 2018	After the citizens, complaint about a vessel moored at Berth 7 which was directly unloading coal in the open via a trans-shipper into barges, causing severe dust pollution, the GSPCB went to inspect the operations and found out that the consignee was M/s Vedanta. Vedanta informed that it had taken permission from MPT. The Board stopped the operations as the EC for Berth 7 only permitted mechanised operations through closed conveyor belts.
29th June 2018	GSPCB decided to grant the CTO to SWPL after the Ministry's clarification was received. It mentioned that SWPL's operations needed to be functioning for the purpose of the source apportionment study being carried out by IIT, Bombay. It also agreed to grant an amendment in the CTO of M/s Adani to increase the coal handling limit from 3.9 MMT/pa to 4.8 MMT/pa. The board asked the company to take pollution control measures. The board approved "in principle" to the offside loading of vessels at Berth 7 (beneficiary: Vedanta) as MPT informed it that it was an environmentally friendly operation. But this approval was subject to a detailed plan of the pollution control measures.
6th July 2018	Fresh CTO was issued to SWPL by GSPCB after clarifications from MoEFCC. Coal handling resumed at Berth 5a 6a.
6th July 2018	AMPT applied for amendment of CTO to increase the coal handling capacity to 4.8 MTPA and the same was granted.

CLOSING THE ENFORCEMENT GAP: COMMUNITY-LED GROUNDTRUTHING OF ENVIRONMENTAL VIOLATIONS IN MORMUGAO, GOA

Closing the Enforcement Gap: Community-Led Groundtruthing of Environmental Violations in Mormugao, Goa, highlights a community-led groundtruthing exercise in relation to the operations carried out in Berth 5a 6a and 7 of the Mormugao, Goa. Through the process of groundtruthing, discussions about the impacts faced by the people living around the project area were carried out and the conditions which have been placed on the project under the environmental regulatory framework were studied. Issues were identified based on impacts arising out of non-compliance and presented to specific regulatory authorities for action. This document explains the process of groundtruthing, nature of violations and the remedies sought.

Along with Closing the Enforcement Gap: Findings of Community-led Groundtruthing of Environmental Violations in Mundra, Kutch; Closing the Enforcement Gap: Findings of a Community-Led Groundtruthing study of Environmental Violations in Sundergarh, Odisha and a methodology note on groundtruthing, this document can be used as a guide to carry out more such efforts to attain mandated compliance of such projects.