



**Asian Development Bank Accountability Mechanism
Compliance Review Panel**

REPORT ON ELIGIBILITY

**To the Board of Directors
on
Compliance Review Panel Request No. 2013/1
on the Mundra Ultra Mega Power Project in India
(Asian Development Bank Loan 2419)**

27 December 2013

ABBREVIATIONS

ADB	–	Asian Development Bank
BCRC	–	Board Compliance Review Committee
CGPL	–	Coastal Gujarat Power Limited
CRP	–	Compliance Review Panel
GPCB	–	Gujarat Pollution Control Board
MASS	–	Machimar Adhikar Sangharsh Sahatan (Association for the Struggle for Fishworkers' Rights)
MoEF	–	Ministry of Environment and Forests
PM 10	–	(respirable) particulate matter less than or equal to 10 microns
PPAH	–	<i>Pollution Prevention and Abatement Handbook</i> (of the World Bank)
SEIA	–	summary environmental impact assessment

WEIGHTS AND MEASURES

°C	–	degrees Celsius
km	–	kilometer
MW	–	megawatt

NOTE

In this report, "\$" refers to US dollars.

In preparing any country program or strategy, financing any project, or by making any designation of or reference to a particular territory or geographic area in this document, the Asian Development Bank does not intend to make any judgments as to the legal or other status of any territory or area.

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I. BACKGROUND

1. A request for a compliance review of the Mundra Ultra Mega Power Project in India (Appendix 1) was forwarded by the complaint receiving officer to the Compliance Review Panel (CRP) on 17 October 2013. In accordance with the Accountability Mechanism Policy (2012) and its operational procedures,¹ the CRP initially assessed the complaint and determined that it fell within the mandate of the compliance review function.

2. Subsequently, on 25 October 2013, the CRP forwarded the complaint to Management with a copy to the Board Compliance Review Committee (BCRC), and requested that a response to the complaint be submitted to the CRP by 26 November 2013. The CRP also informed the private sector borrower, Coastal Gujarat Power Limited (CGPL), and the Board member representing India about the receipt of the complaint.

3. This report summarizes the CRP's findings on its determination of the eligibility of the case for compliance review.

II. DESCRIPTION OF THE PROJECT

4. The project involves the construction, operation, and maintenance of a coal-fired power plant with a total production capacity of 4,000 megawatts (MW) on a build–own–operate basis near Tundawanda village, Mundra Taluka, Kutch district, in the Indian state of Gujarat. The power plant, with its five 800 MW units, is among the ultra-mega-power projects (UMPPs) planned by the Government of India to meet electricity supply needs in Gujarat, Maharashtra, Punjab, Haryana, and Rajasthan. The plant uses supercritical technology—it is one of the first private sector generators in India to do so—and is expected to be more environment friendly than conventional subcritical generating units. The \$450 million loan to CGPL from the ordinary capital resources of the Asian Development Bank (ADB) is without government guarantee and is administered in ADB by the Private Sector Operations Department (PSOD). Of that amount, \$200 million is syndicated to the Export–Import Bank of Korea (KEXIM) through a risk participation agreement. On 21 March 2013, the project was fully commissioned when the last unit reached commercial operation. Currently, the project serves 2% of India's power needs. It supports India's goal of "Power for All" by 2012. The project is located next to the Adani power plant, which at full capacity operates at 4,620 MW and was commissioned between 2009 and 2012.

III. THE COMPLAINT

5. The complaint was filed by Bharat Patel, general secretary of Machimar Adhikar Sangharsh Sahatan (MASS, the Association for the Struggle for Fishworkers' Rights) and two MASS members, Gajendrasinh Bhimaji Jadeja and Harun Salemamad Kara.² The complaint itemized the harm allegedly done by the project to the affected persons' livelihood, health, and

¹ ADB. 2012. *Accountability Mechanism Policy*. Manila; and ADB. 2012. *Operations Manual on Accountability Mechanism* (Section L1: Bank Policies and Operational Procedures), issued on 24 May). Manila.

² A similar complaint signed by Mr. Kara and three others was lodged by the same organization with the compliance advisor ombudsman of the International Finance Corporation. Though Mr. Jadeja referred to himself as a member of MASS in the complaint filed with the CRP, he told the CRP mission that he was a farmer and a directly affected person but not a member of MASS.

environment, and attributed it to ADB's failure to adhere to its operational policies and procedures on environmental and social safeguards.

6. The three complainants did not ask the CRP to keep their identities confidential.

7. The complainants alleged that, owing to ADB's noncompliance with its policies and procedures for environmental and social safeguards, the project has caused the following direct and material harm:

- (i) Failure to conduct free, prior, broad, and meaningful consultations with communities, which prevented adequate exercise of the basic right to information and participation;
- (ii) Deeply flawed social and environmental impact assessments;
- (iii) Significant and irreversible loss of livelihood of fisherfolk;
- (iv) Inaccessibility of fishing grounds;
- (v) Lack of employment of locals;
- (vi) Impact on horticulture;
- (vii) Impact on groundwater;
- (viii) Labor issues and social unrest;
- (ix) Destruction of mangroves;
- (x) Absence of cumulative impact studies;
- (xi) Ash contamination and health issues; and
- (xii) Risk to children's health.

IV. MANAGEMENT'S RESPONSE

8. In its response to the complaint on 26 November 2013 (Appendix 2), ADB Management addressed the issues raised by the complainants. The CRP considered the details provided in the Management's response in assessing the evidence of noncompliance and related harm presented in section V (A and B) below.

V. ELIGIBILITY

9. The complaint gave adequate information for determining whether the complaint is within the mandate of the compliance review function of the Accountability Mechanism Policy (2012). The CRP reviewed the complaint, the Management's response to the complaint, and relevant documents; interviewed the complainants, representatives of CGPL and relevant government officials during the eligibility mission to India; and visited some affected areas.

10. According to the Accountability Mechanism Policy (2012), para. 138(i), any two or more people in a borrowing country where the ADB-assisted project is located, can file a complaint, who are directly, materially and adversely affected. For a complaint to be considered eligible for compliance review, para. 179 of the policy states that "[the] CRP must be satisfied that (i) there is evidence of noncompliance; (ii) there is evidence that the noncompliance has caused, or is likely to cause, direct and material harm to project-affected people; and (iii) the noncompliance is serious enough to warrant a compliance review."

11. Under the Accountability Mechanism Policy (2012), a compliance review has two stages. Eligibility is determined in the first stage. A request that is determined to be eligible proceeds to

the second stage, involving a full investigation. In both stages, the CRP is required to address much the same issues enumerated in para. 10 above. The policy does not provide guidance on the weight of evidence required for an eligibility determination. But consideration of the scheme of the Accountability Mechanism Policy (2012) makes it clear to the CRP that what is required at the eligibility stage is adequate (prima facie) evidence to establish the three elements set out in para. 10 above to warrant further investigation. It is important to note that the CRP's determination of eligibility is based on prima facie evidence, as full evidence would require more extensive work during the post-eligibility investigation phase.

A. Evidence of Noncompliance

12. Prima facie evidence for noncompliance has been established for the areas listed below.

- (i) **Insufficient public consultations.** Public consultation requirements are stipulated in ADB's Environment Policy (2002), paras. 61, 63, and 64, and Operations Manual, section F1/OP, paras. 4, 9, and 11. In addition to the public hearing in Mundra to assess the project's social and environmental impact (16 September 2006), public consultations were held in some villages within a radius of 10 kilometers (km) of the power plant. But not all affected villages were consulted, as the project-affected areas had probably not been appropriately defined (see 12[ii] below). Moreover, about 80 families living in Tragadi *bander*³ (in the immediate vicinity of the current outfall channel of the CGPL plant) during the non-monsoon season (about 8–9 months in a year) were not consulted during the preparation of the environmental impact assessment.
- (ii) **Definition of project-affected area.** It is probable that the project affected area ("area of influence") has been inappropriately defined. An area within a 10 km radius of the CGPL plant was defined as the area impacted. Instead, with respect to air pollution impacts, the project's area of influence should have been defined based on a dispersion model of air emissions. With respect to marine impact, the project's area of influence should have been based on the affected areas determined based on a dispersion model of the cooling water and other wastewater discharges from the CGPL plant. The project affected area was defined without the use of dispersion modeling.
- (iii) **Environmental standards and emission levels.** For ADB-supported projects, the environmental standards and emission levels are stipulated in ADB's Environment Policy, para. 62, and Operations Manual, section F1/OP, para. 25. Both documents require the use of standards and approaches laid out in the World Bank's *Pollution Prevention and Abatement Handbook* (PPAH) of 1999.
 - (a) **Cooling water discharge.** For new thermal power plants, PPAH requires that the temperature increase of the cooling water discharge over the ambient air water temperature does not exceed 3 °C. The CGPL power plant operates with a Gujarat Pollution Control Board (GCPB) permit which allows discharge of the cooling water at a maximum temperature increase of 5 °C above the ambient water temperature. Representatives of CGPL confirmed that the increase of the discharge water temperature

³ *Bander* implies a port or harbor. In the present context, this relates to a place near the seashore where the migratory fisher people live for about 8 to 9 months in a year.

exceeds the 3 °C specified in the PPAH. The company is presently seeking an amendment of the GPCB permit for a more lenient cooling water discharge requirement which would allow a maximum discharge water temperature up to 7 °C above the ambient water temperature. The CGPL plant is currently discharging cooling water at a higher temperature increase than that allowed by ADB standards.

- (b) **Air emission standards.** The summary environmental impact assessment (SEIA) contains some irrelevant and incomplete information about the standards to be applied. Information provided to comply with India's emission standards for particulate matter, sulfur dioxide, and nitrogen oxides for power plants with a production capacity of less than 800 MW and those that burn fuels other than coal is irrelevant to this project. Information about ADB's requirements for air emissions based on the PPAH is incomplete regarding sulfur dioxide emissions and partially irrelevant for nitrogen oxide emissions. Given the confusion of information about standards, it is likely that the basis for compliance with ADB air emission requirements was not appropriately established.
- (c) **Ambient air quality standards.** Insufficient due diligence may have been exercised in the selection of pollutant parameters for air dispersion modeling. Although respirable particulate matter less than or equal to 10 microns (PM₁₀) appears to be a critical pollutant parameter in predicting harm to human health and the environment from coal-fired power plant projects, the SEIA did not include any standards for this pollutant parameter from India's National Ambient Air Quality Standards (NAAQS) (1994). Therefore, the SEIA conclusion that the CGPL plant does not significantly affect air quality may well be wrong.
- (iv) **Cumulative impacts.** The Environment Policy (2002) Policy para. 61 and OM Section F1/OP para. 4 stipulate that an *"important consideration in preparing the environmental assessment includes assessing induced, indirect and cumulative impacts and assessing their significance"*.
 - (a) **Cumulative impacts of air emissions.** The cumulative air emissions impact analysis presented in the SEIA lack consideration for (1) the most critical pollutant parameter RMP-10; and (2) the operation of the adjacent Adani power plant operating with all of its five units at full capacity of 4620 MW. The cumulative assessment only considered incremental air pollutant concentration based on the Adani power plant operating with two of its units (660 MW). Had the cumulative assessment been based on the Adani plant operating at full capacity, ambient levels of RPM-10 concentrations could have been found to exceed the NAAQS for RPM-10, indicating adverse human health and possibly environmental impacts.
 - (b) **Cumulative impact of wastewater discharge.** The cumulative impact of wastewater discharge from the CGPL and Adani power plants on marine life was not assessed.

- (v) **Evaluation of Alternatives.** The original Environmental Clearance of the Ministry of Environment and Forests (MoEF) dated 2 March 2007, stipulated that a “closed cycle (i.e. closed-loop) cooling system with cooling towers shall be adopted.” The requirement for a closed-loop cooling system was subsequently changed. The altered provision dated 5 April 2007 by MoEF required a “suitable system” which should not discharge water with a temperature that would exceed 7 °C above the ambient temperature of the receiving water body. It is not clear whether ADB conducted appropriate due diligence of the evaluation of the project’s cooling system alternatives (once through versus closed-loop), considering the impacts on the sensitive ecological terrestrial and marine biological environments as well as the livelihood of the fisher-folks living in the vicinity.⁴
- (vi) **Environmental baseline assessment.** The social and environmental impact assessment appears flawed and ADB staff appear to have exercised inadequate due diligence in reviewing the description of the project area. The project area is characterized as “not ecologically sensitive.” The ADB Rapid Assessment Checklist for screening environmentally sensitive areas includes “wetland, mangrove, estuarine, and bay” areas among other.

B. Has Noncompliance Caused Material Harm or Is It Likely to Cause Such Harm?

13. There is prima facie evidence that possible noncompliance has caused, or is likely to cause, material harm.

- (i) **Harmful effects of the cooling system on the environment and the fish harvest.** The construction of an open-discharge system, rather than a closed-loop cooling system, has substantively affected the environment. It is very likely that the discharge of a large quantity of hot cooling water at a temperature substantially above the ambient water temperature has had a negative impact on the fish population. The construction of the cooling-water outfall channel has adversely affected some fish-breeding grounds, as well as fishing activities that were previously practiced along the 250-meter width of the outfall channel and in the area of the hot cooling-water mixing zone. Fisherfolk working close to the plant say that the quantity of fish harvested has been significantly reduced. Apart from anecdotal evidence obtained by the CRP through on-site interviews, no reliable data are available to confirm this claim, but it is probable that wastewater discharged into the sea at a temperature level significantly above the 3°C permitted under the PPAH is a major contributor to the reduction in fish harvest.
- (ii) **Inaccessibility of fishing grounds.** Fisherfolk contend that the open discharge canal has cut off their access to some fishing grounds. While CGPL has constructed a paved route from villages to fishing grounds, the travel distance

⁴ The Environment Policy (2002) para. 61 and OM Section F1/OP para, 4 stipulates that an “important consideration in preparing the environmental assessment includes examining alternatives.” Moreover, PPAH indicates, “consideration of the recirculating cooling systems where thermal discharge to water bodies may be of concern” as an emission control practice that will lead to compliance with the World Bank’s Guidelines for New Power Plants.

has increased by about 4 km, adding significantly to travel expenses and travel time.

- (iii) **Health effects of power plant emissions.** There is visible evidence of fugitive coal-dust emissions in Tundawanda village, situated adjacent to the CGPL plant. Houses, trees, and terraces are noticeably polluted. The complainants assert that fugitive coal-dust emissions and fly-ash emissions from the stacks of the power plant create breathing problems and increase respiratory diseases among children. Aggregate health data available so far do not show increases in respiratory diseases. But given the degree of air pollution in the area, health impact is likely. As the CGPL plant has been in operation for less than 2 years, any health effects are likely to show up in the future. Systematic and area-specific health monitoring would be needed to demonstrate this impact. This is presently not being done. CGPL management recognizes the adverse impact of fugitive coal-dust emissions from the coal conveying system, which passes through Tundawanda, and it plans to mitigate this impact by installing a totally enclosed conveying system. Whether or not the planned mitigation measures will adequately reduce the coal-dust pollution requires further investigation.
- (iv) **Declining yields of horticultural crops.** The complainants maintain that the operation of the power plant and the resulting increase in heat and air pollution have led to a significant decline in horticulture yields. Since the CGPL plant has been operating for less than 2 years, data about this impact are not yet available. Further investigations are needed to assess whether plant operations indeed have an impact on agricultural yields, but a causal relationship between plant emissions and reductions in yields is possible.

C. Were the Complainants Directly, Materially, and Adversely Affected by the Project?

14. The complaint was filed jointly by three complainants. They did not state that they were acting as authorized representatives. The eligibility mission verified the identity of all three. The ADB Management, in its response, questioned the fact whether all three complainants were directly, materially, and adversely affected by the project.

- (i) Mr. Jadeja is a farmer living in Navinal village, 7 km from the CGPL plant. He said that he owns 10 hectares of irrigated land and declares that pollution and heat resulting from plant operation has decreased agricultural yields on his farm. He says that the operation of the plant has accelerated groundwater depletion and increased salinity. Mr. Jadeja expects yields to decrease further. He said that the economic prospects of his family have been adversely affected by the significant fall in yields and there are some parts of his land where he has been forced to stop farming. He adds that pollution has caused respiratory diseases in his family. As there is evidence that noncompliance with ADB's environment safeguard policies may have led to fly-ash pollution and thus affected farm yields, the CRP concludes that Mr. Jadeja, more likely than not, was directly, materially, and adversely affected by the project.
- (ii) Mr. Kara, a fish trader, also states that he owns three fishing boats. He resides at a significant distance (40 km) from the plant, in Bhadreshwar village. But he has close business ties to Tragadi *bander*, which is very near the CGPL plant. He

buys significant quantities of fish from the *bander* and travels there several times a week. He says that the quantity of fish he can buy from the fishing community has been reduced and that he now spends more time and money traveling to the fishing *bander* as the access road to the *bander* is 3.5 km longer each way. The CRP therefore concludes that Mr. Kara, more likely than not, was directly, materially, and adversely affected by the project.

- (iii) The third complainant, Mr. Patel, also resides in Bhadreshwar village, about 40 km from the plant site. He is the general secretary of MASS, a trade union for fishermen, but is neither a fisherman nor a fish trader. As he lives and works at a significant distance from the CGPL site, health impact is not likely. During the meeting with the eligibility mission, Mr. Patel argued that, because of his position in the trade union, all “harm done to fishermen in the Kutch area is my harm.” But Mr. Patel filed the claim in an individual and not in a representative capacity. The CRP concludes that Mr. Patel, in his personal capacity, was not directly, materially, and adversely affected by the project.

Correspondence and previous interactions with ADB show that Mr. Patel has acted substantively on behalf of fisherfolk active in the Kutch area, which includes the fishing grounds right beside the CGPL plant. His filing of the complaint in an individual capacity appears to have been an administrative oversight. As Mr. Patel clearly intended to present the complaint as a representative of fish workers directly affected by the CGPL plant, the CRP intends to reconsider Mr. Patel’s complaint if he duly submits appropriate evidence that he is an authorized representative of such persons, provided that he submits the required authorizations from project-affected people on or before the date when the CRP presents the terms of reference for the compliance review to the BCRC for approval. The authorizations must comply with requirements laid out in paras. 138 and 151 (ii) of the Accountability Mechanism Policy (2012).

D. Exclusions

15. Exclusion provisions listed in para. 142 of the Accountability Mechanism Policy (2012) do not apply to this complaint. The ADB Management response argues that the complainants have made insufficient good-faith efforts to address all concerns raised in the complaint, and that the complaint should thus be excluded according to para. 142(ii) of the Accountability Mechanism Policy (2012). However, the issues not raised with ADB constitute only a small subset of the overall complaint. After examining the correspondence and the ensuing discussions between the complainants and the ADB Management, the CRP concludes that adequate good-faith efforts have been made to seek resolution of the core issues of the complaint.

VI. CONCLUSION

16. The CRP finds *prima facie* evidence of noncompliance with ADB policies and procedures and *prima facie* evidence that this noncompliance with ADB policies has led to harm or is likely to lead to future harm. Given the evidence of noncompliance discussed in section V(A) above, the CRP concludes that the noncompliance is serious enough to warrant a full compliance review.

17. The CRP finds that two of the three complainants have presented adequate evidence to be considered directly, materially, and adversely affected by the project. The third complainant, Mr. Patel, claims that he is acting substantively in a representative capacity, but has not provided authorization for the representation of project-affected people, as is required in paras. 138 and 151(ii) of the Accountability Mechanism Policy (2012). The CRP does not consider Mr. Patel directly, materially, and adversely affected in an individual capacity.

VII. RECOMMENDATION

18. The CRP recommends that the Board authorize a compliance review of the project in accordance with the Accountability Mechanism Policy (2012).

/S/Lalanath de Silva

Part-time Member Compliance Review Panel

/S/Arntraud Hartmann

Part-time Member, Compliance Review Panel

APPENDIX 1: REQUEST LETTER



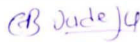


ADB Accountability Mechanism Complaint Form

The ADB Accountability Mechanism aims to provide an independent and effective forum for people adversely affected by ADB-assisted projects to voice their concerns and seek solutions to their problems, and to request compliance review of alleged noncompliance by ADB with its operational policies and procedures that may have caused, or is likely to cause them direct and material harm.

The Accountability Mechanism is a **"LAST RESORT"** Mechanism and covers only ADB-assisted projects. As such, it is encouraged that complainants first seek a fair resolution of their case with available grievance mechanisms at the project level or within the relevant Operations Department of ADB.

A. Complainants' Choice and Contact Information

1. Complainants' Choice	
a. Please forward complaint to: <i>(Please choose only one and DO NOT leave this BLANK)</i>	
<input type="checkbox"/> Special Project Facilitator <i>(Assists people directly, materially, and adversely affected by specific problems caused by ADB-assisted projects through informal, flexible, and consensus-based methods with the consent and participation of all parties concerned)</i>	
<input checked="" type="checkbox"/> Compliance Review Panel <i>(Investigates alleged noncompliance by ADB with its operational policies and procedures in any ADB-assisted project in the course of the formulation, processing, or implementation of the project that directly, materially, and adversely affects local people.)</i>	
b. Do you want your identities to be kept confidential?	
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

2. Information on the Complainants <i>(The identities of complainants will be kept confidential unless the complainants agree to disclose their identities, but anonymous complaints will not be accepted.)</i>					
Names and designations (Mr., Ms., Mrs.)	Signatures	Positions/Organizations (if any)	Addresses	Contact numbers	E-mail addresses
Mr. Gajendrasinh Bhimaji Jadeja		Member	At PO Navinal, Tal Mundra, Kutch, Gujarat, India		gajendrasinhjadeja544@gmail.com
Mr. Harun Salemamad Kara		Member	Village: Badreshwar, Taluka: Mundra Kutch District, Gujarat, India		
Mr. Bharat Patel		General Secretary, Machimar Adhikar Sangharsh Sangathan	Bhadreshwar, Mundra Taluka, Kutch District, Gujarat, India	+91.9426469803	bharatp1977@gmail.com

3. Information on Authorized Representative (If any). <i>(The identities of representatives who are not at the same time complainants will be disclosed to ensure transparency).</i>					
Please provide evidence of the authority to represent the complainants.					
Names and designations	Signatures	Positions/Organizations (if any)	Addresses	Contact numbers	E-mail addresses
NA					

B. Project Information

Project name	Tata Mundra Ultra Mega Power Project
Project Number	41946-014
Project location	Tundawanda village, Mundra Taluka, Kutch district, Gujarat, India
Brief description of the project	<p>Tata Mundra Project is the first super critical, 4,000-megawatt (5 units of 800 MW each) power plant that was approved by the Government of India and is being developed by Coastal Gujarat Power Limited (CGPL) Mundra, Kutch district in Gujarat state.</p> <p>A consortium of Banks including multilateral agencies and Export Credit Agencies invest in this project which costs US \$4.14billion. Financing comprises of equity of INR 42.50 billion, External Commercial Borrowings (ECB) of up to USD 1.8 billion and Rupee Loans of up to INR 55.50 billion. The ECBs include the Asian Development Bank, the International Finance Corporation, the Export-Import Bank of Korea, Korea Export Insurance Corporation, and BNP Paribas. National financial institutions (FIs) involved are State Bank of India, the India Infrastructure Finance Company Ltd., Housing and Urban Development Corporation Ltd., Oriental Bank of Commerce, Vijaya Bank, State Bank of Bikaner & Jaipur, State Bank of Hyderabad, State Bank of Travancore and State Bank of Indore.</p>

C. The Complaint**1. What direct and material harm has the ADB-financed project caused to the complainants?****SOCIAL****1. Failure to conduct free, prior, broad and meaningful consultations with communities prevented us from adequately exercising our basic right to information and participation**

The company failed in consulting most of the affected communities before the project started. Neither was relevant information provided, nor was it translated into local languages. Despite the significant adverse project impacts to affected communities, the consultation process did not demonstrate free, prior and informed consultation and did not facilitate informed participation. As such, our views as affected communities were never incorporated into the project decision.

2. Deeply flawed social and environmental impact assessments

The EIA of Tata Mundra UMPP says – “The project area covers 1,254 hectares (ha) of vacant land near the villages of Tunda and Wandh, including 202 ha of right of way outside the project boundary, and is about 2 km from the first-phase development area of the Mundra Special Economic Zone (MSEZ), where a 660 MW power plant project, the Adani Power Project, is being implemented by Adani Power Limited.”¹ However the areas has a high rural population density, and the land having multiple rural economic activities (fishing, fish drying, animal grazing being the main ones) for the last many decades at least. This was either a failure to recognize or an act of willful ignorance.

Far from being vacant, this land is being used for decades by the fisherfolk for various fishing related activities. They use this land for their hutments for 8-9 months a year, since they practice seasonal fishing, and also for boat landing, fish drying, net mending and a multitude of other related activities.

Apart from failing in recognizing the fishing communities as affected in the impact assessments, it also failed to recognize salt-pan workers/owners and pastoralists as affected communities.

Both the Rapid and Comprehensive Environmental Impact Assessment (EIA) reports are also questionable, as the impact assessments were carried out by TCE Consulting Engineers – a Tata-owned venture. The credibility of such documents is, therefore, highly questionable.

For us, ADB failed to analyze the multitude of risks and impacts of the project during the key stages including pre-construction, construction, operations, and decommissioning or closure.

3. Significant and irreversible loss of livelihoods of fisherfolks

The loss destruction of mangroves and creeks resulted in drastic reduction in fish availability in the region, pushing the fishing communities to extreme social and economic difficulties. The Independent Expert Fact Finding Report in 2012² shows that:

“Possible factors contributing to the drastically reducing fish catch in this area over the last few years are as follows --

- *One of the major factors identified by almost all, was the **destruction of creeks and mangroves** (with the Adanis contributing in a much larger scale) – nurseries of marine life, as described earlier in this report. Both the Kothdi and Mudhwa creeks have been badly damaged by Tata’s dredging, widening and denudation.*
- *Another major factor identified by the fishing community is the **thermal pollution from the power plants – the warm cooling water coming out of their outfall channels**. This is a very large volume of warm water mixing with the gulf water here. The CGPL claimed*

¹“Environmental Assessment Report – Mundra Ultra Mega Power Project”, prepared by CGPL for ADB, 2007.

²Full report appended

that they have permission from Ministry of Environment and Forests to discharge cooling water at 7°C above ambient, but even on request, no such permission/clearance was shown.

- **In such a sensitive area, this will have a huge negative impact. This is also a violation of their environmental clearance, which was for a closed cycle cooling system.** The adjacent Adani super mega coal power plant is building its so-called closed cycle cooling system – with an array of forced-draft cooling towers visible, reducing required cooling water volume by nearly 90%. **The failure of the Tata-Mundra plant to adopt a closed-cycle cooling system, as cleared, raises concerns as to whether they are cutting corners in order to increase profits.** Further, no cumulative impact studies were done to ascertain the impacts of warm water from all these power plants in this small area.
- **The other likely impact of warm water is de-oxygenation** – as a result of the increased temperature in the areas around the cooling water discharge, the dissolved oxygen level in the water is likely to go down, affecting all kinds of marine life very badly. This has a direct consequence for communities dependent on marine resources in these coastal areas. This has not been taken into account by the company.
- Another possibility pointed out by the marine scientist in the fact finding team, was the **possible death of large nos. of fish seedling with the pumped intake water**, unless high technology special filters are used. The fact finding team specifically asked the CGPL management about this on their meeting on 19th May afternoon, during our meeting at their office, but **the CGPL could not give any specific information, giving us the impression that in all likelihood they are not using any such screening device. It may be noted here that while in most countries IFIs insist on such safeguards – with US EPA documents indicating that any intake rate over 2 million gallons/day should follow those safeguards – no such conditions were set forth by them here.** “....2 million gallons per day intake threshold, over which facilities fall under this rule. The literature indicates that the mortality due to impingement and entrainment increase dramatically above this threshold.”³ The CGPL’s proposed intake rate at full capacity is 15.12 million M³/day, or about 3994 million gallons/day, or about 2000 times the high-damage threshold! Even with just one unit operational, this is higher than the high-mortality threshold by nearly 400 times!
- The **possibility that chemical pollution is also being discharged** along with the cooling water, causing change in the chemical property of the water, as detailed later. This is indicated, as stated, by the persistent frothiness.
- The **highly saline brine, discharged from the desalination plant** of the power project, might also be increasing the salinity / changing pH of the water, driving fish away. As the Tata EIA says, -“Rejects from the desalination plant will be discharged into the sea through the discharge channel of the cooling water system”, and this is a substantial volume of brine (reject) added to the gulf shores everyday.” (emphasis as in the original)

³“National Pollution Discharge Elimination System –Regulations Addressing Cooling Water Intake Structures for New Facilities”, US-Environment Protection Agency, <http://water.epa.gov/lawsregs/lawsguidance>

4. Fishing grounds became highly inaccessible

Access routes to fishing and grazing grounds have either been blocked or unusually lengthened by the Tata's water channels. What was once a shorter route, has become lengthier by nearly 4 KMs, and the fisher-folk are now forced to shell out Rs.450 for each trip by an auto-rickshaw, in place of the earlier Rs.150 per trip. The route is also not maintained well and the women folk often are delayed when returning from the markets after selling the fish.

5. No employment for locals

While the project is in part premised on improving the living standard of local communities, only very few locals are employed by the company. That this project is pushing people out of their fishing and other livelihood activities and who are not absorbed in the project's workforce only proves that the project failed to generate secure and sustainable employment and failed to improving the living condition of the economically-displaced local population.

6. Impact on horticulture

Since Adani and Tata power plants started (even before all units were operational), some crops like "Chiku" ('Safeda') has drastically fallen in yield (similar reports came from other locations close to coal power plants, like Dahanu in Maharashtra). Many Chiku farmers have cut down their plants and gone to other crops. Economically important Date Palms – those coming under many of the power transmission lines – withering away.

In 2012, the date production was very poor in Jarapra, Navinal, Dhrab – all within five kilo-meters from these two gigantic thermal plants. Last year the rains didn't come early to reduce any impacts that these two plants are causing – both by their heat and coal dust/ash emissions, unlike this year, when the rains came early. Even with a 'good natural climate', date farmers – as well as the local Krishi Vigyan Kendra worker we met and discussed with – said that the production is just about 60% of what it used to be earlier. Date being one of the main cash crops in many villages in the area, the huge adverse impact can easily be imagined.

7. Impact on ground water

Another impact reported is that of ground water table having gone down fast in the last few years. In an area with little rain, the gigantic construction projects, along with port & other factories, have withdrawn massive amounts of water from the precious aquifers, depleting them extensively.

8. Labour Issues and Social Unrest

The large number of stressed out migrant labour, who often indulges in alcoholic drinks and the associated ills. As a result, the illegal production and sell of liquor in the area, in a dry state like Gujarat, has sharply increased. The local men folk are now being impacted directly,

getting hooked onto this, and domestic violence has increased sharply after the entry of these two mega coal plants (and port etc) in this area. Local women's groups are forced to organize themselves and protest against this.

II. ENVIRONMENTAL

1. Destruction of mangroves

Large tracts of mangroves, dry-land forests and creeks, rich in biodiversity, and mud-flats were destroyed by the company in the course of its construction activities. The construction of associated facilities like port (which is being shared with that of the adjacent Adani power project), the inlet water channel (also shared with Adani project) and the outlet water channel caused irreversible damage to the fragile environment. These mangroves also serve as protection to the estuaries, which are acts as a nursery for a variety of marine animals.

2. Absence of Cumulative Impact Studies

In a small stretch of the Kutch coast there are a number of projects coming up. The real impact of the Tata Mundra can be determined only when a cumulative impact assessment is done, which was never done. In the absence of cumulative impact assessment, companies will dodge the responsibility by passing it on to the other industry while the people will suffer endlessly.

III. HEALTH

1. Ash Contamination and health issues

Fly ash emanated from the project falls on the fish put out for drying, making it inedible and non-marketable. The fish also will get contaminated with the toxic fly ash falling on it, making it highly unsafe to consume, particularly for women of child bearing age. Exposure to mercury during pregnancy can cause a range of health effects including developmental disabilities. Apart from fishes, the ash also falls on the salt pans around the project, which is one of the highest salt producing areas of India. Fly ash falling on fields and its grass consumed by the animals put them in danger of serious illness, in some cases, fatal. Exposure to such toxic particles in the air, and the high pollution resulting out of the Tata and the adjacent Adani project put the people at high health risks.

A recent study – Coal Kills – estimate about 100-120 people are killed every year within this region only because of the impact of the thermal power projects in this area.

The full operational CGPL is invading houses all around the plant with coal dust. Coal dust has engulfed all walks of life, whether food, drinking water or even their houses. Fly-ash is intense. As per their own admission, the CGPL plant is burning anything between 12-13 million tons of

coal every year, and that coal is coming in (post landing after a long sea voyage) through a nearly 15 KMs long coal conveyor from the landing jetty in Mundra. And this is creating havoc in the Tunda-Vandh village, whenever the wind blows from the conveyor side to their side (which is quite often). There are layers of coal dust covering their floors, their bodies when they sleep outside on the terrace (something which is normal in summer). Villagers from Tunda-Vandh also reported breathing difficulties, whenever the coal conveyor runs “at speed”.

2. Children’s Health at Risk

There is a roughly 20% increase in children’s respiratory diseases in the past two years, since the CGPL is functioning. It is a startling figure, never seen in “normal” change situations, but this was expected by all normal logic of exposure to heavy air pollution, where young children are impacted first. The huge injustice of the situation is that the CGPL plant is sending overwhelming part of its generated power to five states, including far off Maharashtra, whereas the health cost (totally un-compensated in any way) is being borne by the young children of this area the most.

The question of adverse health impacts due to both huge amounts of coal dust from CGPL and fly-ash from CGPL (& Adani power), is a critical one, as these two together are bringing in and burning nearly 28 million tons of coal every year in that small area. If one take a close look at the satellite image of the location of the villages Tunda, Vandh, Navinal, Mota Kandagra and Nana Bhadiya – one is struck by the closeness of all these to both the mega coal plants. In fact Tunda-Vandh is sandwiched between the two mega polluters, as has been written earlier. The huge amounts of dust and ash are spreading in the area, damaging health, crops and more.

2. Have the complainants made prior good faith efforts to solve the problem(s) and issue(s) with the concerned ADB operations department?

✓ **Yes** If YES, please provide the following: when, how, by whom, and with whom the good faith efforts were made.

On November 30 2012, a good faith letter was sent to Michael Barrow, ADB Director for Infrastructure Finance Division Fund 1. Copied in the letter were Takeo Koike, Investment Specialist and Sujata Gupta, Head of Private Sector Operations Department at ADB’s India Resident Mission. It was sent thru email by MASS representatives including Bharat Patel, Harun Sale Kara and Gajedrasinh Jadeja.⁴

Please describe any response the complainants may have received from or any actions taken by ADB

Here are the important dates of our communication with the ADB following the November 23, 2012 letter.

1. On 11 December 2012, we received an acknowledgment from Mr. Takeo Koike. He wrote “Sorry for taking a bit of time for me to

⁴Copy of the correspondence is annexed.

respond to your email below. We are currently looking into the points you have shared with us by the email, and will try to get back to you shortly. Meanwhile, we would appreciate your patience.”

2. On 15 February 2013 (more than 2 months after acknowledging), Mr. Koike wrote back asking to meet us “during the 4 week of March 2013”. Bharat Patel replied saying that since he was in Delhi on the 4th, he could meet them in Delhi. That did not materialize.
3. On 19 February 2013, Mr. Koike proposed 6 or 7th meeting in Mundra and Bharat Patel confirmed in an email dated 5 March 2013 that MASS will meet Mr. Koike on March 7 meeting. Again, that planned meeting did not materialize.
4. On 09 April 2013, we emailed Mr. Toike (Mr. Lubis and DeSilva from CRP were included in the email) expressing our disappointment with the significantly delayed and meaningless response of the ADB.
5. On 11 April. Mr. Koike replied, stating the “we continue to communicate...” and confirming that “we will visit Mundra later this [April]...”.
6. On April 14, we emailed Mr. Koike confirming our meeting with him and his team on 26 April 2013.

In the meeting people explained their concerns to the team. The team, in some cases, explained the steps taken / facilities started by the company ostensibly to improve our situation. We explained the situation developed after company’s ‘divide and rule’ policy, with some people in a village getting benefits and others left out, resulting in tension among people. The team heard the people.

Few days after this meeting we received the following letter from Michael Barrow:

From: <mpbarrow@adb.org>
 Date: May 2, 2013 9:01 AM
 Subject: CGPL
 To: "Bharat patel" <bharatp1977@gmail.com>

Dear Mr. Patel,

It was a pleasure for my colleagues and I to meet with you and fellow members of MASS last week. Takeo and our team will be following up with you on a regular basis, but I wanted to also personally assure you that we take very seriously all concerns that are raised by people from communities located close to infrastructure projects that we help to fund. We very much value the chance to interact with MASS and the very frank and detailed discussion last week helped me to better understand your concerns. We are looking into all of these, though some of the impacts relate to wider development along the coast of the Gulf of Kutch. We are working with CGPL to identify and implement additional mitigation measures which can be taken by CGPL to further address the concerns directly related to their operations. These measures are expected to include additional monitoring, design measures within the plant

and enhanced engagement with, and more focused assistance to, project affected people. These possible additional measures are being investigated now with a view to ensuring that they are realistic, optimal and well-directed. As we develop these measures with CGPL we will be communicating them to you and others close to the project. We will engage with you on a regular basis and I personally look forward to visiting Mundra and the surrounding villages very soon.

With kind regards,
Mike

Michael Barrow
Director

Infrastructure Finance Division 1
Private Sector Operations Department
Asian Development Bank
6 ADB Avenue, Mandaluyong City
1550 Metro Manila
Philippines
Tel No. [\(632\) 632-6483](tel:6326326483)
Fax No. [\(632\) 636-2347](tel:6326362347)
email: mpbarrow@adb.org

Since then we have not heard from the Operations department.

☐ No

3. Have the complainants contacted the Office of the Special Project Facilitator or the Compliance Review Panel about their concerns?

☐ Yes, Office of the Special Project Facilitator

☒ Yes, Compliance Review Panel

☐ No

If YES, please provide information on when the contact was made, how, by whom and with whom.

On the first week of December, Mr. Rusdian Lubis, Chair, Compliance Review Panel concurrently Head, Office of the Compliance Review Panel (OCR), and Mr. Geoffrey Crooks, Principal Compliance Coordination Specialist, OCRP gave a briefing session in Washington DC about the ADB's Accountability Mechanism Policy 2012. Our support organization, Bank Information Center, subsequently arranged a meeting between us (represented by Bharat Patel) and Mr. Crooks and Mr. Lubis via phone. The purpose of the meeting was to understand the updated OSPF and CRP functions and how each process works under the new policy. It was an initial presentation of the Tata project issues at the time and was an opportunity to clarify the AM guideline and requirements should a project complaint be lodged. The initial interactions of MASS and with the ADB operations team were also described, noting that we were aware of such procedural requirement before considering filing an official complaint.

Please describe any response the complainants may have received or actions taken by the Office of the Special Project Facilitator or the Compliance Review Panel.

4. Please include any other information that you consider relevant.

1. While the issues related to the Mundra Project is yet to be settled, the company is planning further expansion. Apart from this being threatening to the communities and a tactic to intimidate, if this is carried out without mitigating the damages which is already inflicted on the people, their livelihood and environment, we will be heading to an irreversible situation, if we are not there yet.

http://articles.economictimes.indiatimes.com/2013-05-28/news/39580190_1_mundra-umpp-coastal-gujarat-power-ltd-cgpl
2. While ADB classifies this as an environment category A project, having "significant adverse environmental impacts that are irreversible, diverse, or unprecedented", the involuntary resettlement category is B, assuming that the issues related to displacement of people from their land or livelihood is not significant. With thousands of families dependent on the sea and fishing for their livelihood and the project having a direct negative impact on their livelihood, this classification is erroneous.
3. Four out of a total six assessment of the Project's environmental and social impacts, mentioned in the 'Report and Recommendation of the President to the Board of Directors', were conducted by the subsidiaries of the Tata company or the owner of the project, Tata Power Company itself. Not only did ADB miss to see the conflict of interest here but ignored the fact that the promoters of the company would conceal or understate the magnitude of negative impacts. ADB failed to do any independent assessment of those documents, according to our knowledge.

4. In the above mentioned document it says: "The project area is located on marginal and barren land that is not ecologically or culturally sensitive" (Pg. 13). Kutch Coast is one of the rare ecological zones in the world having rich bio-diversity. It comprises of mangroves, coral reefs, mudflats, seaweeds, Commercial Fishes and several rare marine species. The mangroves of Kutch are the second largest after the Sunderbans in the mainland of India.

A prominent feature of the Kutch Coast is the vast intertidal zone comprising a network of creeks, estuaries and mudflats. The Kutch coast provides conducive environment for several sea based traditional occupations like fishing, salt making apart from land based occupations like agriculture, horticulture and animal husbandry.

The Kutch coast is an ecologically sensitive zone as it supports vast areas of Mangroves, Corals, mudflats and the various components of the ecology are interlinked into a fragile ecosystem. The mangroves help the ecosystem by contributing to the oxygen Budget and in Soil Conservation. Mangroves and Corals are the nursing grounds for a variety of economically important fishes, exotic coral fishes and innumerable flora and fauna. The gulf also abounds in more than 210 species of algae. These algae in combination with corals and mangroves provide a conducive ecosystem for diverse flora and fauna. Gulf of Kutch is the only place left along the Indian coast after Gulf of Mannar where live corals occur. In 1982, parts of the Gulf area were declared as a Sanctuary and Marine National Park.

Despite all these, to mention the project area as barren is bizarre.

5. Likewise, in the Social Safeguards (Pg 14) of the above mentioned document it says: "*Potential involuntary resettlement impacts were minimized by selecting a site that is uninhabited, of low and unreliable productivity, and requires minimal private land acquisition. The Project is categorized as B from the perspective of involuntary resettlement since the following impacts are expected: (i) loss of agricultural land owned by 76 families, (ii) loss of temporary structures (wells, cattle sheds), (iii) restricted access to produce such as fodder from forest and grazing land, (iv) loss of access to some of the public lands used for community activities (traditional mela [fair], cricket grounds) and (v) temporary loss of access to the coastline.*"

This is an area where thousands of fishworkers' families stay for nearly 8 months a year and do fishing and related activities. This was noted as "uninhabited". And the fishworkers were never considered as project affected, while they are the ones who are badly affected the most. Having not considered them in the Social Impact Assessment, the project and its mitigation plans are drawn on wrong premises and erroneous assessments.

6. The social and environmental monitoring agency, the SENES Consultants India Pvt Ltd did a very bad job. In a statement we issued on May 17, 2012 we said: "*The Annual Environmental & Social Performance Reports (April 2009-March 2010, April 2010-March 2011&July 2011-September 2011)* prepared by SENES Consultants India Pvt Ltd to report on Coastal Gujarat Power Limited's (CGPL – Tata Mundra

project) compliance with the Environmental and Social Performance requirements of International Finance Corporation (IFC) and Asian Development Bank (ADB) are plagued with lack of understanding of both the IFC/ADB policies and the issues, lapses in monitoring the violations, prescribing simple solutions to complex problems and taking a casual approach to these serious issues.

IFC and ADB invest a total of US\$950 million for this US\$ 4 billion project. These reports are a major source for IFC and ADB to assess the compliance of their policies by the company. The consultants were hired by the company.

The fact that most of the Report of April 2010 – March 2011 is a copy-paste job of the previous Report of April 2009 – March 2010 is hard to miss. That SENES got the Table of contents, and even the page numbers exactly the same in those two Reports, except in one or two, shows the great craftsmanship that they have in making such monitoring reports and exposes the fraudulent practice they are engaged in.

Cost of such fraudulent reports is the lives and livelihood of thousands of people who are dependent on natural resources, who are deprived of their livelihood without any process worth mentioning and encouragement for the company to continue violations of IFC/ADB policies and the law of the land."

ADB failed to independently verify the facts mentioned in the report.

D. Optional Information *(The following information is not mandatory, but would be helpful in processing your complaint)*

1. Have the complainants contacted the grievance redress mechanism of the project concerned?

✓**Yes** If YES, please provide the following: when, how, and with whom the contact was made.

Yes, we have met with the company a few times in the past.

Please describe any response the complainants may have received or any actions taken.

In 2011 we met the company representatives two times. They included Pradeep Ghosal, Public Relations Officer and Ravi Puranik, Head – Community Relations, Tata Power, We approached them on two issues – one, requesting a bridge over the channel, in lieu of taking their traditional routes in the project, to reduce the distance for fisherfolk and cattle herders to access the sea and grazing land. Two, to request to use closed cycle cooling system than open cycle. Since when the outlet channel spews water into the sea with temperature higher than the normal sea water it will adversely affect the aquatic wealth, drastically impacting the livelihood of thousands of fisherfolk. Both the requests

were turned down saying they are technically not feasible.

Some members of the NGO Vivekanand Research training Institute were also in this meeting.

☐ No If NO, why not?

2. What is the complainants' desired outcome from the ADB's Accountability Mechanism?

1. ADB uses its leverage to mitigate the impacts caused to the people and environment.
2. ADB stop the company from any further expansion of the project unless the damages already caused are mitigated.
3. ADB stop its funding to the project, until the social and environmental damages are satisfactorily mitigated.
4. ADB stop funding any more coal projects, considering the immense damages it cause and invest more on decentralized renewable projects.

3. Why do complainants believe that the alleged direct and material harm is the result of ADB's failure to follow its operational policies and procedures?

1. ADB failed to independently check the impact assessments made by the company and hence approved this project for financing on wrong assumption about impacts, which were heavily downplayed and exaggerated benefits.
2. ADB failed to put in place an independent and competent monitoring agency to monitor the impacts and recommend corrective measures.
3. ADB failed to monitor compliance of its social and environment safeguard policies.
4. ADB willfully ignored the impacts or failed to take any action even when it was alerted by an Independent Fact Finding team in July 2012 about the serious negative impacts from this project.

4. Please describe the operational policies and procedures that have not been complied with by ADB.

1. Environmental safeguards
2. Involuntary resettlement safeguards

5. Do the complainants have any other relevant matters or facts (with supporting documents) that the complainants would like to share with us?

Please refer to the following attached documents for more details of impacts:

1. Complaint to the Compliance Advisor Ombudsman (CAO)
2. Additional complaint to CAO
3. The Real Cost of Power: Report From The Independent Fact-Finding Team On The Social, Environmental, And Economic Impacts Of Tata Mundra Ultra Mega Power Project
4. Supplementary report of Fact Finding Team
5. Coal Kills: An Assessment of Death and Disease caused by India's Dirtiest Energy Source

Name of the person who completed this form: Bharat Patel

Signature: 

Date: July 12 2013

Please send the complaint to:

Complaint Receiving Officer (CRO)

Accountability Mechanism

ADB Headquarters

6 ADB Avenue

Mandaluyong City 1550

Philippines

Telephone number: +63-2-6324444 local 70309

E-mail: amcro@adb.org

Complaints may be submitted by mail, facsimile, e-mail, or hand delivery to any resident mission of ADB or to the CRO at ADB headquarters.

APPENDIX 2: ADB MANAGEMENT'S RESPONSE



Asian Development Bank

Memorandum

Office of the Vice-President
Private Sector and
Cofinancing Operations

26 November 2013

To: Rusdian Lubis
Chair, Compliance Review Panel

From: Lakshmi Venkatachalam *Lakshmi Venkatachalam*
Vice President (Private Sector and Cofinancing Operations)

Subject: **2419: IND: Mundra Ultra Mega Power Project – Forwarding of Complaint and Request for Management Response – Management Response**

With reference to your letter dated 25 October 2013 forwarding the IND: Mundra Ultra Mega Power Project complaint for our consideration, please find enclosed ADB Management's response.

cc: VPKM
DG/PSOD



ADB'S RESPONSE TO THE COMPLAINT REQUESTING COMPLIANCE REVIEW ON THE MUNDRA ULTRA MEGA POWER PROJECT IN INDIA

The Complaint

1. The Compliance Review Panel (CRP) has requested the response of the Asian Development Bank (ADB) to the ADB Accountability Mechanism Complaint Form lodged in relation to the Mundra Ultra Mega Power Project in India (the Project) dated 12 July 2013 (the Complaint). The Complaint was registered on 20 September 2013 by the Complaint Receiving Officer under ADB's Accountability Mechanism Policy 2012 (AM Policy).

2. The Complaint was lodged by Mr. Gajendrasinh Bhimaji Jadeja, a member of Machimar Adhikar Sangharsh Sangathan (MASS), Mr. Harun Salemamad Kara, member of MASS¹ and Mr. Bharat Patel, General Secretary of MASS (together, the Complainants). The Complainants are not acting as the authorized representatives for any other complainants.

Eligibility of the Complainants

3. Under paragraph 138 of the AM Policy, a complaint can be filed by any group of two or more people in a borrowing country where an ADB-assisted project is located who are directly, materially and adversely affected.

4. The information provided in the Complaint is that the Complainants are all members of, or hold position within, MASS: Mr. Jadeja is a resident of Navinal village (a village located about 7-8 km from the Project Site); while the other two Complainants, Mr. Patel and Mr. Kara, are residents of Badreshwar village (located about 40 km from the Project site). The Complaint provides no other information about the Complainants, their occupations or livelihoods, or how these individuals have been directly, materially and adversely affected by the Project. This is particularly notable since the Complaint embraces issues of concern to a wide range of people, including pagadiya fisherfolk, boat fisherfolk, animal herders, salt pan workers and crop growers. It is not apparent that the Complainants belong to any of these groups.

5. ADB queries how the Complainants have been directly, materially and adversely affected by the Project, and therefore whether the Complainants are eligible complainants under the AM Policy.

6. Under paragraph 142 (ii) of the Accountability Mechanism, complaints will be excluded from the compliance review procedure if they are about matters that complainants have not made good faith efforts to address with the operations department concerned. The Complainants have not previously raised with ADB the complaints made regarding impact on (a) horticulture, (b) labor issues and (c) social unrest. The AM Policy requires such issues to be excluded.² When considering whether the Complainants have made good faith efforts to address the remainder of the Complaints with ADB, ADB refers to Appendix 10, which sets out in greater detail the communications between the Complainants and ADB prior to submission of the Complaint.

¹ A MASS member explained to ADB that MASS is a trade union for fisher folks which was registered in 2009.

² The rationale of the Compliance review procedure is that it is a procedure 'of last resort'.

The Response

7. Notwithstanding ADB's concerns regarding the eligibility of the Complainants ADB nonetheless hereby provides a detailed response to the matters raised (the Response).

8. Since the Complaint addresses many different issues, ADB has gathered together, and responds to, the various issues in order of their subject matter, which is set out in Appendix 2 (Response Matrix). The order of the Response Matrix does not entirely replicate the order of the issues in the Complaint. For ease of reference, the Response Matrix identifies the issue and corresponding complaint paragraph and page.

9. Management considers that the Response Matrix evidences that ADB has been substantively responsive to its policies and operational procedures in relation to the Project, and does not evidence any serious failures attributable exclusively to ADB's actions or omissions in complying with its policies and procedures. ADB acknowledges the ever present need for vigilance, and particularly the need for early detection and action in relation to issues which arise during the implementation of a large and complex project. ADB has had discussions with Coastal Gujarat Power Limited (CGPL) on measures to address certain issues (as indicated in the Response Matrix) which have arisen during the operation of the Project. ADB is committed to continue working with CGPL to resolve these issues.

Defined Terms and the Appendices to this Response

10. For ease of reference:

- (i) All defined terms in the Response Matrix are set out in Appendix 3.
- (ii) The Appendices comprise the following:

Appendix 1	Project background
Appendix 2	Response Matrix
Appendix 3	Defined terms in the Response Matrix
Appendix 4	Map of the Project area
Appendix 5	Project layout
Appendix 6	Map showing original and actual location of inflow and outflow channels
Appendix 7	Information disclosure, consultations and stakeholder engagement activities
Appendix 8	Satellite pictures showing mangroves and creeks (2005 and 2013)
Appendix 9	List of environmental and social assessments and plans
Appendix 10	Chronology of communication with the Complainants

Project Background

The Project

1. The Project encompasses the construction, operation and maintenance of a 4,150 MW coal-fired power plant with five units of 830 MW each, incorporating supercritical technology, near Tunda-Vandh village in Mundra Taluka, Kutch district in the state of Gujarat.
2. The Project includes infrastructure for processing sea water to meet in-plant water requirements, including a desalination plant; outflow channel; and a conveyor belt system for transportation of the coal from West Port jetty to the Project site. The inflow channel was constructed by Adani Ports and Special Economic Zone Limited (APSEZ, formerly known as Mundra Power and Special Economic Zone).
3. The transmission lines to transmit electricity from the power plant's switchyard were constructed by Power Grid Corporation of India Limited.
4. The Project's location is approximately 20 km to the west of Mundra and 18 km to the east of Mandvi. The plant boundary is located approximately 2.5 km from the coast. Thus the Project's only direct link with the coast is through the intake and outfall channels.
5. A map of the Project area, showing the location of the Project, the surrounding villages, the fishing banders,¹ the various villages mentioned in the Complaint and the Adani Power plant (situated about 2-3 km from the Project site, is set out in Appendix 4.
6. A map of the Project, showing the coal storage stacks, the ash storage area, the intake and outflow channels, as well as the jetty, the route of transportation of the coal from the West Port jetty to the Project site and the transmission lines, is set out in Appendix 5.
7. While the Gulf of Kutch has rich biodiversity comprising mangroves, coral reefs, mud flats, and a rich eco system and is home to several rare marine species, it is noteworthy that these areas comprising the Marine National Park and sanctuary are situated on the southern shore of the Gulf, at least 25-30 km from the coast line fronting the Project site. NIO assessed the coast line fronting the Project site and concluded that it was not a sensitive area, as evidenced by the absence of any endangered species, breeding grounds of economically important fish species and crustaceans, corals and mangroves (except for a few small patches in Modhva and Kotdi creeks).

ADB's Financing for the Project

8. On 17 April 2008, the Board of Directors of ADB (the Board) approved a loan to CGPL for the Project; and subsequently, on 24 September 2010, ADB endorsed a loan to the Project by a financial institution pursuant to a multi-tranche financing facility approved by the Board on 17 November 2009.

Applicable ADB Safeguard Policies and Operational Procedures

¹ A bander is a seasonal fishing settlement where people stay from Sep to late Apr/early May.

9. The Project was reviewed under ADB's applicable environmental and social safeguards policies, namely the Environment Policy (2002),² and Involuntary Resettlement Policy (1995)³ (IR Policy) (collectively, the Policies). Disclosure of documents was subject to ADB's Public Communications Policy (2005)⁴ (the PCP Policy).

10. Relevant operational procedures include OM F2 (Involuntary Resettlement) (25 September 2006); OM F1 (Environmental Considerations in ADB Operations) (25 September 2006); and OM C3 (Incorporation of Social Dimensions into ADB Operations) (25 April 2007).

ADB's Environmental and Safeguard Classifications and Assessments

11. The Project was classified as category B for involuntary resettlement; category A for environment; and category C for indigenous peoples. None of the issues raised in the Complaint relate to indigenous peoples.

Project Design

12. Two design changes occurred:

- (i) The location of the intake and outflow channels was altered during the detailed design stage. A map showing the original and actual channels is set out in Appendix 6.
- (ii) The coal transportation arrangement altered from a merry-go-round (MGR) system to a belt conveyor system. This resulted from a change of the port development plan by APSEZ, resulting in the shifting of the location of the jetty for importing of coal from APSEZ's main port to its west port. The location of the belt conveyor system is shown in the map set out in Appendix 5.

Construction Schedule

13. The first unit of the Project was commissioned in March 2012, and commenced operation at that time; the fifth and final unit was commissioned in March 2013, at which time the Project became fully operational.

² ADB. 2002. *Environment Policy of the Asian Development Bank*. Manila.

³ ADB. 1995. *Involuntary Resettlement*. Manila.

⁴ ADB. 2005 *Public Communications Policy*. Manila.

Response Matrix

Note: all defined terms used in this Response Matrix are set out in Appendix 3.

	ADB Response	Further Details/Evidence	On-going or future actions
1.	<p>Failure to consult affected people (Section C.1. Social 1.–p.3 of the Complaint)</p> <p>CGPL consulted affected people during preparation of the Project's environmental and social assessment from Aug 2006.</p> <p>Public notifications were issued and hearings conducted in a local language (Gujarati) following national laws.</p>	<p>Details of the information disclosure, consultations and other stakeholder engagements by CGPL during project design are set out in Appendix 7.</p> <p>Information on the Project and mitigation measures was disclosed in Gujarati, and a series of local consultations was conducted involving various stakeholders, including private landowners affected by land acquisition, animal herders, fisherfolk, local government elected representatives, social workers, the NGO Kalaraksha, village elders, opinion leaders, school teachers and villagers from Tunda, Vandh, Mota Kandagra, Nana Bhadiya, and the Kotdi bander settlement.</p> <p>With respect to fisherfolk, at the public hearing in Sep 2006 and consultation with migrant fishing settlement at Kotdi bander¹ in Nov 2007, fisherfolk were involved and consulted. This was documented in the Baseline SIA and the Stakeholder Engagement Framework.</p>	

¹ A bander is a seasonal fishing settlement where people stay from Sep to late Apr/early May. Kotdi bander settlement is comprised of 50 households from Luni, Jalpara, Bhadreshwar, Navinal and Tuna.

	ADB Response	Further Details/Evidence	On-going or future actions
		Boat fisherfolk and pagadiyas ² in Tragadi and Modhva villages as well as migrant boat fisherfolks in Tragadi bander were not involved because no significant impact was expected on Tragadi bander and areas where pagadiyas fish based on the original design of the outflow channel and the assessment in the Rapid Marine EIA prepared by NIO. ³	
	These consultations during project design resulted in CGPL implementing changes and improvements in the environmental and social measures.	A couple of examples of changes resulting from consultations are the establishment of two <i>gaushalas</i> (<i>cattle shelters</i>) in Tunda and Mota Kandagara instead of the provision of an alternate grazing land; and the provision of an approach road and a culvert over the intake channel connecting to Kotadi Creek to ensure continued access of the fishing community to the coastline.	
	The location of the outflow channel changed in April 2009, such that it was close to: (a) the area where pagadiyas from Tragadi and Modhva villages fish; and (b) Tragadi bander, where migrant boat fisherfolk seasonally settle during the fishing season.	The following steps were taken by CGPL: (1) the seasonal fisherfolk in Tragadi bander and pagadiyas from Tragadi and Modhva villages were consulted and CGPL continuously engaged these communities up to the present;	CGPL is considering a request made by Modhva fisher folk to replace the fiber glass boats with motorized boats or to install an outboard motor, to make it easier for them to cross the outfall channel and reach their fishing areas.

² Pagadiyas are fisherfolks who fish by foot, using nets.

³ NIO (National Institute of Oceanography) was established in January 1966, and is an independent agency of an international repute which mainly focuses on the special oceanographic features of the North Indian basin. NIO has extensive experience of research and data in the Gulf of Kutch. In addition to basic research, NIO also carries out oceanographic data collection, environmental impact assessment, and modeling to predict environmental impact. NIO also provides consultancy on marine environmental protection and coastal zone regulations. It is one of the 38 constituent laboratories of the Council of Scientific & Industrial Research.

	ADB Response	Further Details/Evidence	On-going or future actions
	<p>This change did not result in identification of new categories of affected people, as the revised intake and outfall channels were to be located on government CRZ land. The Resettlement Plan includes an arrangement that <i>"any unanticipated consequence of the project will be documented and mitigated based on the spirit of the principles agreed upon in the policy framework."</i> For loss of access to common property resources, the Resettlement Plan requires (i) reconstruction of community structure in consultation with the community, and (ii) cash compensation at replacement value or community led initiatives for income restoration and income generation activities. Thus there was no requirement for a new Resettlement Plan to be prepared by CGPL.</p> <p>In accordance with the above requirements, CGPL:</p> <ul style="list-style-type: none"> (i) consulted with the pagadiya from Tragadi and Modhva villages and the migrant seasonal boat fisherfolk who access Tragadi bander about the change; (ii) implemented mitigation measures to address the restricted access referred to above; and (iii) provided documentation to ADB on measures taken by CGPL to address the access issue. 	<p>(2) CGPL agreed on and implemented many measures to address the concerns of the fisherfolk from Modhva and Tragadi villages and Tragadi bander. These included:</p> <ul style="list-style-type: none"> (i) a motorable road from Tragadi village and a bridge over the outfall channel to improve access to Tragadi bander; (ii) high quality fishing nets to 317 fishing households in Modhva village; (iii) a solar boat light system for fishing boats and two fiberglass boats for crossing (using oars) the dredged portion of the channel for Modhva village fisherfolk; (iv) cash compensation for any hardship caused by the increased distance of access to fishing grounds, in the form of livelihood grants to 92 fisherfolk in Tragadi village; (v) community infrastructure, livelihood and other social programs (e.g. well repair, check dams, water pond deepening, training on fish culture, horticulture demonstration, etc); (vi) CGPL water tanker and water tanks with a daily supply of fresh drinking water at Tragadi bander; (vii) a medical camp, education assistance, mobile sanitation facilities, and transportation services when requested by the seasonal fishing community at Tragadi bander. 	

	ADB Response	Further Details/Evidence	On-going or future actions
		community at Tragadi bander. The issue of access to the coast by boat fisherfolk from Tragadi bander and pagadiyas from Tragadi and Modhva Villages was resolved and final settlement was reached in 2011.	
	ADB did not require a revised Resettlement Plan to be prepared by CGPL to address the impact on fish catch and livelihood. ADB considers that this is justified since both the Rapid Marine EIA and the Marine EIA concluded that there would be no significant impact on the surrounding marine environment. Therefore, there was no reason to suppose that there would be any livelihood impact on boat fisherfolk and pagadiyas as a result of the changed location of the outflow channel (other than impacts related to access to the coast, which are considered above).		Following the start of full operation of the Project, ADB asked CGPL to: (i) validate thermal modeling results through field monitoring (to be carried out by NIO); and (ii) assess the impact of the Project on the marine ecology and fish yield in the receiving water body. If the results indicate a negative impact on the marine ecology, fish yield and the livelihood of fisherfolk, ADB will require CGPL to implement corrective measures and provide livelihood restoration assistance to the affected fisherfolk.
2.	Failure to classify the Project as Category A for Involuntary Resettlement (Section C.4.2.–p.11 of the Complaint) ADB's initial classification of the Project under OMF2 was correct in 2008. ⁴	ADB initially classified the Project as category B for IR on the basis that the involuntary resettlement involved:	Dependent on the results of the NIO study and the follow-up fish yield survey referred to in # 1 above, ADB

⁴ IR Policy 1995 does not have a provision of classification of IR impacts. OMF2 provides the guidance and procedural requirements in the matter.

	ADB Response	Further Details/Evidence	On-going or future actions
	When the outfall channel location changed, this classification remained unchanged. ADB considers that this is justified in light of: (i) the assessment of the Marine EIA that there would be no significant impact on the surrounding marine environment, and (ii) the fact that the same resettlement issue arises i.e. of temporary loss of access to the coastline (although for a different set of persons).	<p>(i) the loss of agricultural land owned by 95 land owners, of which only 10% were involved in cultivation whereas the rest were involved in non-agricultural labor and the service sector, among other occupations;</p> <p>(ii) the loss of temporary structures (wells, cattle sheds);</p> <p>(iii) restricted access to produce such as fodder from forest and grazing land;</p> <p>(iv) the loss of some public lands used for community activities; and</p> <p>(v) temporary loss of access to the coastline.</p> <p>Compensation for the above involuntary resettlement was noted in #1 and #5.</p>	may reclassify the Project as Category A. ⁵
3	Fishing grounds have become highly inaccessible (Section C. Social 1.4.–p.6 of the Complaint)		
	The issue of access to the coast by boat fisherfolk from Tragadi bander and pagadiyas from Tragadi and Modhva Villages is addressed in #1 above, and was resolved and a final settlement was reached in 2011.	<p>CGPL agreed on and implemented many measures to address the concerns of the fisherfolk from Modhva and Tragadi villages and Tragadi bander, as noted above. These included:</p> <p>(i) a motorable road from Tragadi village and a bridge over the outfall channel to improve access to Tragadi bander;</p> <p>(ii) two fiberglass boats for crossing the dredged portion of the channel for Modhva village fisherfolk;</p>	

⁵ Under OMF2, a classification of A (for significant involuntary resettlement) applies where 200 or more people will experience major impacts, which are defined as (i) being physically displaced from housing; or (ii) losing 10% or more of their productive assets (income generating).

	ADB Response	Further Details/Evidence	On-going or future actions
4.	<p>Failure by the SEIA to understand the nature of the Project area which was not vacant but has a high rural population density and the land has multiple rural activities (Section C.1. Social 2.–p.4 of the Complaint)</p> <p>The SEIA (quoted in the Complaint) categorized the land identified for acquisition and use by the Project as vacant (not used for salt pan operations nor was it inhabited by seasonal fishing settlements). All such activities took place <u>outside</u> of the Project site.</p> <p>The description of the land identified for acquisition and use by the Project in the SEIA is correct.</p>	<p>(iii) cash compensation for any hardship caused by the increased distance of access to fishing grounds, in the form of livelihood grants to 92 fisherfolk in Tragadi village;</p> <p>(iv) transportation services when requested by the seasonal fishing community at Tragadi bander.</p> <p>An onsite assessment carried out by TCE (and documented the Socio-Economic Assessment Report and Comprehensive EIA) confirms that the Project site is free of habitation and is vacant i.e. free from any permanent residential structures, with no commercial use such as salt pan operations and without any temporary fishing settlements.</p> <p>The Baseline SIA identified that acquisition of grazing land and government wasteland would affect households engaged in charcoal making and animal rearing. ADB's due diligence supported this view, and required a resettlement plan to be prepared to address these impacts. The Baseline SIA confirms there are no settlements or salt pan operations.⁶ All such activities took place outside of the Project site.</p>	

⁶ This is evidenced by the fact that villagers requested the Government to shift the Project site to the land leased by the Government for salt production.

	ADB Response	Further Details/Evidence	On-going or future actions
5.	<p>Failure to consider salt pan workers and animal herders (Section C.1. Social 2--p.4 of the Complaint)</p> <p>The land originally identified for acquisition and use did not affect any salt pan lands.</p> <p>When the location of the outfall channel changed, it passed through lands leased by the Government to two salt pan operators, namely, Radhaswami Salt Works and Balaji Salt Works.</p>	<p>In addition to the land allotment costs and non-agricultural taxes paid to the Government, CGPL paid compensation for renunciation of lease which was freely agreed by the leaseholders based on a negotiated settlement. The Baseline SIA did not identify any salt pan workers from Tunda, Mota Kandagara and Nana Bhadiya.</p>	
	<p>Animal herders were identified as affected people in relation to involuntary resettlement. Measures were agreed with the villagers and included in the Resettlement Plan to address the social impacts of the Project on animal herders.</p>	<p>To replace lost grazing land, the Resettlement Plan required CGPL to construct <i>gaushalas</i> in Tunda and Mota Kandagara and implement fodder distribution and milk collection centers and provide a drinking water supply for the village cattle. CGPL has provided 2,555 metric tons of fodder which is a continuing activity under CGPL's <i>gaushala</i> initiative.</p>	<p>The external safeguards monitoring consultant and ADB continue to monitor the on-going livelihood measures under the Resettlement Plan.</p>
6.	<p>Thermal water discharge from outflow channel causes huge negative impact; made worse by failure to implement closed cooling system (Section C.1. Social 3--p.5 of the Complaint)</p> <p>The Environment Policy⁷ requires ADB to follow the environmental standards set out in the WB PPAH. This prescribes that effluent should result in temperature increase of no more than 3°C at the edge of the zone where initial mixing and dilution takes place. Where the zone is not defined, WB PPAH prescribes 100 m from a point of discharge when there is no sensitive aquatic ecosystem</p>	<p>The monitoring results indicate that temperature elevation at the point of discharge is always below 7°C.</p>	<p>CGPL is monitoring the temperature of seawater at the outfall channel. The monitoring results are reported to ADB.</p> <p>With the help of technical institutes and fisherfolk organizations, CGPL is currently implementing programs to</p>

⁷ Paragraph 62.

	ADB Response	Further Details/Evidence	On-going or future actions
	<p>PPAH prescribes 100 m from a point of discharge when there is no sensitive aquatic ecosystem within this distance.</p> <p>The Environment Policy further states that the environmental assessment for any individual project may recommend adoption of alternative emission levels and approaches to pollution prevention and abatement. This flexibility is required to best reflect national legislation and local conditions in determining the appropriate standards and emission levels.</p> <p>The SEIA adopted the use of national thermal discharge standard permitting temperature elevation up to 7°C above ambient at the point of discharge.</p> <p>Though the SEIA does not provide justification alternative emission levels (as is required by the Environment Policy), ADB considers that the use of the national thermal discharge standard was justified, based on the assessment of the Rapid Marine EIA that:</p> <p>(i) no ecologically sensitive region existed within the zone of elevated temperature above the ambient, due to the absence of endangered or rare species, corals, breeding grounds for economically important fish species and crustaceans, and mangroves (being limited to small patches); and</p> <p>(ii) the elevated temperature in the receiving environment will not adversely affect the</p>		<p>and fisherfolk organizations, CGPL is currently implementing programs to improve livelihoods of fisherfolk by</p> <p>(i) providing fishing equipment and solar boat lights; (ii) providing skills training on aquaculture, horticulture and handicraft making to diversify livelihood resources; and</p> <p>(iii) strengthening and scaling up cooperatives institution of fisherfolk.</p> <p>Following the start of full operation of the Project, ADB has asked CGPL to:</p> <p>(i) validate thermal modeling results through plant and field monitoring (to be carried out by NIO); and (ii) assess the impact of the Project on the marine ecology and fish yield in the receiving water body.</p> <p>If the results indicate a negative impact on the marine ecology, fish yield and livelihood of fisherfolk, ADB will require CGPL to implement corrective measures and provide livelihood restoration assistance to the affected fisherfolk.</p>

	ADB Response	Further Details/Evidence	On-going or future actions
	marine biota.		
7.	Thermal water discharge from an open cycle cooling system violates the Project's environmental clearance (Section C.1. Social 3.-p.5 of the Complaint) The Project was permitted to use a suitable system (which could be an open cycle cooling system) to reduce the water temperature at the discharge point to no higher than 7°C above the ambient temperature of the receiving water body.	The MOEF environmental clearance dated 2 March 2007 ⁸ mentioned a closed cycle cooling system, but it was amended by corrigendum by MOEF on 5 April 2007 ⁹ to allow a suitable system to reduce water temperature at the final discharge point so that the resultant rise in the temperature of receiving water does not exceed 7°C over and above the ambient temperature of the receiving water body. MOEF also issued a CRZ clearance dated 25 April 2007, on " <i>drawal and disposal of sea water facilities in the coastal regulation zone</i> " based on the proposed once through cooling system.	As indicated in # 5 above, CGPL is monitoring the temperature of water at the outfall channel. The monitoring results are reported to ADB. ADB requires CGPL to confirm the thermal discharge conditions through the thermal plume validation study (referred to above) to be carried out by NIO.
8.	No cumulative impact studies (Section C.1. Social 3.-p.5 of the Complaint, and Section C. Environmental 2.-p.7 of the Complaint) Assessment of cumulative impact on air quality was conducted incorporating Adani Power's installed capacity of 660 MW and this was included in the SEIA. No assessment of cumulative impact on thermal discharge on marine water was carried out. ADB considers that this was justified because:	Assessment of cumulative impact considers past, present and reasonably foreseeable future activities in the project area. Based on these criteria, 660 MW of Adani power project's capacity was included for assessment of cumulative impact on air quality. At that time, although the owners of the Adani power project started approaching banks for the	

⁸ Ministry of Environment and Forest. 2007. No. J-13011/41/2006-IA.II(T). Environmental Clearance. 2 March. New Delhi.

⁹ Ministry of Environment and Forest. 2007. No. J-13011/41/2006-IA.II(T). Environmental Clearance (Corrigendum). 5 April. New Delhi.

	ADB Response	Further Details/Evidence	On-going or future actions
	<p>(i) Adani Power adopted a closed cycle cooling system and the volume of its discharged cooling water was small compared to the Project's; and</p> <p>(ii) the location of Adani power plant's outfall channel was too remote from the location of the Project's outfall channel to require assessment of cumulative impact of thermal discharges from the two plants.</p>	<p>proposed future capacity expansion, no permits had been obtained. . It was therefore not sufficiently certain that such expansion plan constituted a 'reasonably foreseeable' future activity, and therefore such capacity expansion was not required to be included in an assessment of cumulative impacts.</p>	
9.	<p>No account of deoxygenation resulting from thermal</p> <p>The Impact of thermal power plants on the oxygen level in the ambient waters is indirect and relates primarily to elevated temperature of cooling water discharge. The maximum temperature permitted for the Project is 7°C above the ambient. Such elevation of the ambient sea water temperature could lower the oxygen saturation level in the sea water by 15% at most.¹⁰ This decrease (of up to 15%) of dissolved oxygen saturation may lower the dissolve oxygen of sea water in close proximity of the outfall channel by an equal measure. The impacts at longer distances will be much lower and will approach nil as the discharge water temperature reaches the ambient. Such reduction in dissolved oxygen in relatively clean marine water is not considered to be detrimental to biota.</p> <p>Furthermore, WB PPAH does not prescribe any standard for dissolved oxygen in the receiving</p>	<p>water discharge (Section C.1. Social 3.–p.5 of the Complaint)</p> <p>The expected deoxygenation of up to 15% is likely to be significantly offset by aeration in the cooling water channel and the discharge weir before the cooling water mixes with the sea water.</p>	<p>ADB requested CGPL to include monitoring of the deoxygenation level in the fishing zone near the outfall channel in the study (referred to above) to be undertaken by NIO to assess the potential impact of cooling water discharge on the marine ecology and the follow on study on fish yield.</p>

¹⁰ Based on the table which presents the saturation level of dissolved oxygen as a function of temperature and salinity.

	ADB Response	Further Details/Evidence	On-going or future actions
	marine waters for thermal power plants.		
10.	<p>Possible chemical pollution from discharged cooling water (Section C.1. Social 3.–p.5 of the Complaint)</p> <p>The Project uses biocide to prevent biofouling of the heat exchanger surface. Sodium hypochlorite, the only chemical used for cooling water, does not have a harmful effect on fish as it dissipates quickly.</p> <p>The Rapid Marine EIA identified residual chlorine in the discharged water as part of potential marine environmental impacts, and mentioned that the use of biocide should be kept at a minimum, and regulated, if required.</p> <p>WB PPAH prescribes a level of total residual chlorine in effluents from thermal power plants of no more than 0.2 mg/l.</p>	<p>CGPL is ensuring that the level of free residual chlorine (FRC) is no more than 0.5 mg/l at the outlet of the condenser by adjusting the dosage of sodium hypochlorite. CGPL is also monitoring the FRC levels at the first bridge in the outfall channel (which is located about 3.7 km upstream of the discharge weir and 0.8 km downstream of the condenser outlet). These levels have been below detection limit.</p> <p>ADB observed small patches of frothiness on the water surface at the pre-cooling channel. According to CGPL, these comprise salt and suspended solids and not chemical pollutants.</p> <p>ADB has asked CGPL to confirm the chemical composition of the foam through a laboratory analysis.</p>	<p>The FRC levels are reported to ADB regularly. ADB has also requested CGPL to monitor the total residual chlorine.</p>
11.	<p>Highly saline brine, discharged from the desalination plant of the power project, might also be increasing the salinity/changing pH of the water, driving fish away. (Section C.1. Social 3.–p.5 of the Complaint)</p> <p>The environmental assessment reports assessed the salinity of the discharged water, and no adverse impact was identified. The Rapid Marine EIA estimated an increased salinity of 2-3 parts per thousand (ppt), and concluded that the level of change is within the natural variability in the area. The monitoring results are consistent with the assessment, and do not indicate any noticeable rise in salinity in the receiving seawater near the outfall channel.</p> <p>The Policies require ADB to follow the WB PPAH which does not contain any requirements in</p>		<p>CGPL is monitoring the level of salinity.</p>

	ADB Response	Further Details/Evidence	On-going or future actions
	relation to salinity.		
12.	<p>Destruction of mangroves and creeks (Section C.1. Social 3.–p.4 of the Complaint and Section C.1. Environmental 1.–p.7 of the Complaint)</p> <p>A comparison of the satellite pictures which were taken in 2005 and 2013 does not evidence any destruction of mangroves.</p> <p>Based on the satellite pictures, destruction of creeks by the Project is limited to the area of 10-12% in Modhva creek. In the course of construction activity, CGPL (i) used a cutter suction dredger by which the dredged material was discharged through a floating pipeline to the shore; (ii) minimized the dredging period to the extent possible, thereby minimizing impacts on the creek.</p> <p>The SEIA identified the potential impact of dredging and recommended the use of excavated materials for filling the project area as a mitigation measure. A capital dredging plan and a maintenance dredging plan were prepared by CGPL, and submitted to MOEF before start of dredging work.</p>	<p>The satellite pictures are attached as Appendix 8.</p> <p>The volume of dredged spoil was approximately 2.1 million m³. The dredged material was used in the pre-cooling channel bund and bund protection. The remaining dredged material was utilized for site grading up to plant grade level beyond the CRZ area.</p>	<p>Tragadi village fisherfolks have noticed sedimentation opposite Tragadi bander and have requested maintenance dredging at the creek and stone pitching of the embankment between Tragadi bander and the weir. ADB has requested CGPL to incorporate this into its CSR program.</p>
13.	<p>Possible loss of fish seedlings; the Project exceeding by 2,000 times the threshold set by US EPA. (Section C.1. Social 3.–p.5 of the Complaint)</p> <p>The findings of the Rapid Marine EIA indicate that the coastal waters adjoining the Project area have limited marine productivity. It is largely sandy and devoid of vegetation except for small patches of mangroves, and is not known as a breeding and spawning area for economically important fish species and crustaceans. This assessment implies that any significant impingement of fish seedlings in</p>		<p>ADB has asked CGPL to undertake biological monitoring through a reputed independent agency in the intake channel to confirm whether fish seedlings are being captured in the intake channel; and, if so, to take corrective actions.</p>

	ADB Response	Further Details/Evidence	On-going or future actions
	<p>the intake channel is unlikely. However, to minimize the risk of fish impingement, the SEIA limits the velocity at the intake channel to 0.8m/s;¹¹ and requires the use of a screen at the inlet of the pumping station.</p> <p>WB PPAH standards, required to be followed pursuant to the Environment Policy,¹² do not impose any restrictions on the volume of intake water or require the use of any special technologies in relation to intake structures, such as those prescribed by the US EPA. Neither does WB PPAH prescribe any limit for intake velocity in an intake channel.</p>		<p>CGPL is carrying out studies to assess the feasibility of other preventative and mitigation measures, e.g., to:</p> <ul style="list-style-type: none"> (i) install a travelling water screen in front of the channel; (ii) install water jet curtains in front of the intake channel; and/or (iii) install air blasters to create mild air blasts. <p>CGPL and ADB will further discuss the result of the study to ascertain the implementation of feasible measures.</p>
14.	<p>Coal dust has engulfed food, drinking water and houses, creating havoc in the Tunda-Vandh village (the Complaint)</p> <p>There are two sources of coal dust that affect Tunda-Vandh village: (i) the conveyor belt system and (ii) the coal storage yard.</p> <p>At the time of Project appraisal, a merry-go-round (MGR) system was proposed for transportation of coal. Appropriate mitigation measures were provided in the SEIA.</p> <p>When the MGR system was changed to a belt conveyor passing close to Tunda-Vandh village, a new set of mitigation measures were required,</p>		<p>ADB has required CGPL to follow a systematic approach to address the coal dust impacts on Tunda-Vandh village. This includes greater control of both identified sources of coal dust –</p> <ul style="list-style-type: none"> (i) the conveyor belt system; and (ii) the coal storage yard. <p>To address the first concern, CGPL is currently preparing for the construction and installation of a tube conveyor. Before installation of the</p>

¹¹ The SEIA later refers to an intake velocity of 0.3 m/s which is considered to be a typographical error.

¹² See footnote 7.

	ADB Response	Further Details/Evidence	On-going or future actions
	<p>including a hood covering the conveyor belt and wind guards. These measures were designed to adequately control coal dust emissions from the conveyor system.</p> <p>During the operation, coal dust impacts due to operation of the conveyor system have been observed at Tunda-Vandh village.</p> <p>To control fugitive emissions of coal dust from the storage yard and autogenous combustion, the SEIA required a number of mitigation measures, including a covered storage yard, restriction of the height of the coal piles to 6m, and installation of water sprinklers.</p> <p>ADB acknowledges the need to control coal dust emissions, and has requested CGPL to take the measures detailed in the right hand column.</p>		<p>tube conveyor, CGPL has agreed to implement additional temporary mitigation measures, including installation of a wash box on the return conveyor and a scrapper below the return conveyor for improving cleanliness of the conveyor.</p> <p>To address the second concern, CGPL is reducing the requirement for coal inventory at the Project to meet the coal pile height restriction, and is installing additional water sprinklers to ensure the coal pile is wet to suppress coal dust formation.</p> <p>ADB has also asked CGPL to determine, by targeted air quality monitoring, which parts of Tunda-Vandh village are affected by coal dust and to implement remedial measures until the coal dust issue has been resolved..</p> <p>ADB acknowledges the need for CGPL to resolve this issue as a matter of priority. ADB will therefore monitor these additional measures, with the objective of ensuring their implementation as soon as practicable.</p>
15.	Fly ash emanating from the Project falls on the fish put out for drying, on the salt pans and on the fields (Section C.1. Health 1. and 2.-p.7-8		

	ADB Response	Further Details/Evidence	On-going or future actions
	<p>of the Complaint)</p> <p>The Project complies with the emission standards for suspended particulate matter required under the Environment Policy, which is 50 mg/Nm³ based on the WB PPAH.</p>	<p>Measures adopted by CGPL to control and minimize fly ash generation from the boiler stack include:</p> <ul style="list-style-type: none"> (i) using imported coal with contents not exceeding 10% for ash, and 1% for sulfur; (ii) installation and continuous use of a high efficiency electrostatic precipitator for each power generating unit, (iii) installation of two-275 meter stacks for dispersion of particulate matter and gaseous emissions; (iv) use of a closed system for ash handling, transport and storage; (v) slurry transport and storage of bottom ash to the ash pond; and (vi) installation of an online opacity meter and continuous emission monitoring system from the date of operation of the first unit to monitor compliance with emission standards. 	<p>It is necessary to identify the source of any fly ash contamination, given the close proximity of the Adani Power plant. In view of the measures adopted by CGPL, the likelihood of fly ash impact due to the Project in the fish drying area and salt pans is low.</p> <p>The only way to quantify the impact of fly ash from the Project is through an air dispersion modeling study which ADB has asked CGPL to undertake (such a modeling study is being carried out by consultants specializing in industrial air pollution modeling).</p>
	<p>No potential risks of radiation are identified.</p>	<p>The radioactive test certificate issued by the Department of Atomic Energy reveals that concentrations of radionuclides from fly ash samples collected from ash ponds within the Project are within the safe limit specified by the Atomic Energy Regulatory Board. The concentration of Potassium-40 is 100.3+/-6.6 Bq/Kg and is within the safe limit set at 4000 Bq/Kg. The concentration of Radium-226 is 58.13+/-5.0 Bq/Kg and is within the safe limit set at 1000 Bq/Kg.</p>	

	ADB Response	Further Details/Evidence	On-going or future actions
16.	<p>Deterioration of air quality impacting public health, in particular children (Section C.1. Health 1. and 2.–p.7-8 of the Complaint)</p> <p>SEIA requires the Project to follow WB PPAH emission standards and ensured, through air dispersion modeling, that the national ambient air quality standards are complied with.</p> <p>A comparison of the ambient air quality observations in the SEIA with the WB PPAH guidelines for a degraded air-shed indicates that air quality levels are below the threshold for a degraded air-shed.</p>	<p>A key reason for ADB supporting the Project was because it was one of the first private sector power projects in India using supercritical technology, which can achieve higher efficiency compared to subcritical technology, and thereby reduce specific emissions such as CO₂, NO_x, SO₂, and particulates per unit of power generation. In addition, adherence to WB PPAH emission standards required the Project to introduce measures and technologies such as high efficiency electrostatic precipitators, low NO_x burners, 275 m high stacks, which further reduces the ambient levels of SO₂, NO_x and particulates, etc.</p>	<p>In relation to CGPL's ongoing assessment of its proposal to use low calorific value coal, ADB has asked CGPL to undertake advanced air dispersion modeling taking into account an air-shed that has other significant sources of air pollution. This modeling will ascertain the Project's contribution to air pollution and also help fine tune CGPL's ambient air quality monitoring effort.</p>
17.	<p>Impact on ground water (Section C.1. Social 7.–p.6 of the Complaint)</p> <p>The Project's water demand is being met by desalinated water processed through the reverse osmosis plant (sea water), water from Narmada river, and purchased bottled water. According to CGPL, the Project has never withdrawn ground water within its site, but it was reported earlier that the Project purchased water locally, and it was sourced from groundwater. It is noted that water supply from the Narmada river through pipes became available in June 2009, and the reverse osmosis plant became operational in Aug 2010.</p> <p>Any ground water impacts during the construction phase (due to abstraction of ground water supplied</p>		

	ADB Response	Further Details/Evidence	On-going or future actions
	<p>by tankers) are not likely to persist, considering the ground water recharge during the subsequent years. In addition, CGPL has taken several measures to increase ground water recharge through creation of check dams in the adjoining villages. In addition, CGPL has also prepared a rainwater harvesting plan to recharge the ground water aquifer and this plan has been approved by the Central Ground Water Board of the Central Government.</p>		
18.	<p>Effect on horticulture: crops have fallen drastically in yield and date palms are withering under many of the transmission lines (Section C.1. Social 6.-p.6 of the Complaint)</p> <p>The impact zone of coal dust could not extend beyond 1.5 to 2 km from the coal storage yard and the conveyors. Since this impact zone does not extend to Jarapra, Navinal and Dhrab, a reduction in yield is not expected due to coal dust.</p> <p>Fly ash deposition on plants and SO₂ could affect the yield in these villages as both of these pollutants are likely to travel a significant distance from the Project.</p> <p>The Project complies with strict emissions standards for particulates (also representing fly ash) and SO₂. The Project therefore is unlikely to have a significant impact on horticulture.</p> <p>Power Grid owns and operates the transmission lines. Any potential impact on crops and trees by the transmission lines is the responsibility of Power Grid.</p>		<p>Since the Project complies with the required WB PPAH emission standards, no additional mitigation measures are contemplated. Apart from the Project, there are other sources of fly ash and SO₂ emissions that impact the air-shed of Jarapra, Navinal and Dhrab villages; and a detailed study would be required that considers impacts of all major sources of air pollution – to ascertain the causes of any lower horticulture yields in these villages.</p>

	ADB Response	Further Details/Evidence	On-going or future actions
19.	<p>No local employment (Section C.1. Social 5.-p.6 of the Complaint)</p> <p>CGPL has provided employment for locals consistent with anticipated project benefits as stated in the SPRSS and the SEIA.</p> <p>The SPRSS states: <i>"Plant construction and operation will provide employment opportunities to qualified local population"</i> as part of CGPL's engagement with the local people to improve their livelihood.</p> <p>The SEIA states <i>"workers will be recruited mainly from adjacent villages to the extent possible"</i>.</p> <p>Under the Resettlement Plan, CGPL agreed to provide <i>"direct and indirect project employment opportunity during construction phase and operation phase on a priority basis guided by skill sets of the eligible person."</i> To comply with this requirement, CGPL prepared a Local Hiring and Purchasing Plan.</p>	<p>During construction, in accordance with the Local Hiring and Purchasing Plan, CGPL publicized employment opportunities widely in local communities. At the peak of construction, about 30% of the 7,000 workers on site were Gujarati. To increase the employment of local workers and the involvement of local villagers as contractors, CGPL established a Community Information Centre (CIC) in the Tunda-Vandh village through which information on the availability of opportunities for vendors and for employment were easily obtained by the villagers. CGPL also put up notices detailing work availability and procurement/contracts were translated into Gujarati and put up in these three villages. Furthermore, CIC receives applications and forwards these to the concerned CGPL department.</p> <p>CGPL has provided jobs and small contracts:</p> <p>(i) During construction, to at least 850 local people; while an additional 152 persons from project affected households have been employed through contractors during construction and up to March 2012.</p> <p>(ii) During operations, as of September 2013, 394 (23%) of 1,744 workers employed by the Project are from 21 local villages including Tunda, Vandh, Nana Bhadia,</p>	

	ADB Response	Further Details/Evidence	On-going or future actions
20.	<p>Alcohol and associated ills brought by 'stressed out' migrant labor led local men to become 'hooked' on alcohol which has resulted in domestic violence (Section C.1. Social 8.-p.6 of the Complaint)</p> <p>Community health and safety is not covered in the Environment Policy. However, CGPL procured an Influx Management Plan prepared by IL&FS Ecosmart Limited.</p> <p>In accordance with Influx Management Plan, CGPL implemented measures to manage labor influx and enforce its workers' camp rules and regulations, which include zero tolerance for alcohol at the Project site and at the workers' accommodation. Security guards inspect all workers at the gates and disallow any alcohol from being brought to site. However, CGPL cannot control the sale of alcohol by private entities outside the CGPL premises.</p>	<p>Tragadi and Mota Kandagra. 106 workers are from other villages in the Kutch district, and 223 workers are from other districts in Gujarat.</p> <p>CGPL engaged Akaar Charitable Trust and introduced a program for all the migrant workers to increase awareness on safety and health related habits, including the ill effect of tobacco and alcohol.</p>	
21.	<p>Failure to independently check the impact assessments made by CGPL; Failure to realize the conflict of interest inherent in environmental and social impacts being carried out by subsidiaries of TATA; failure to carry out any independent assessment (Section C.4.6.-p.12-13 of the Complaint; Section C.4.3.-p.11 of the Complaint; Section D.3.1.-p.14 of the Complaint)</p> <p>ADB carried out due diligence; reviewed the environmental and social impact assessments; and observed that the assessments met ADB's requirements under the Policies.</p> <p>The Policies require the borrower to carry out the environmental and social assessments reports. The Policies do not prohibit ADB's borrowers from</p>	<p>TCE is a wholly owned subsidiary of Tata Sons Limited, and conducted environmental impact assessments for the Project.</p>	

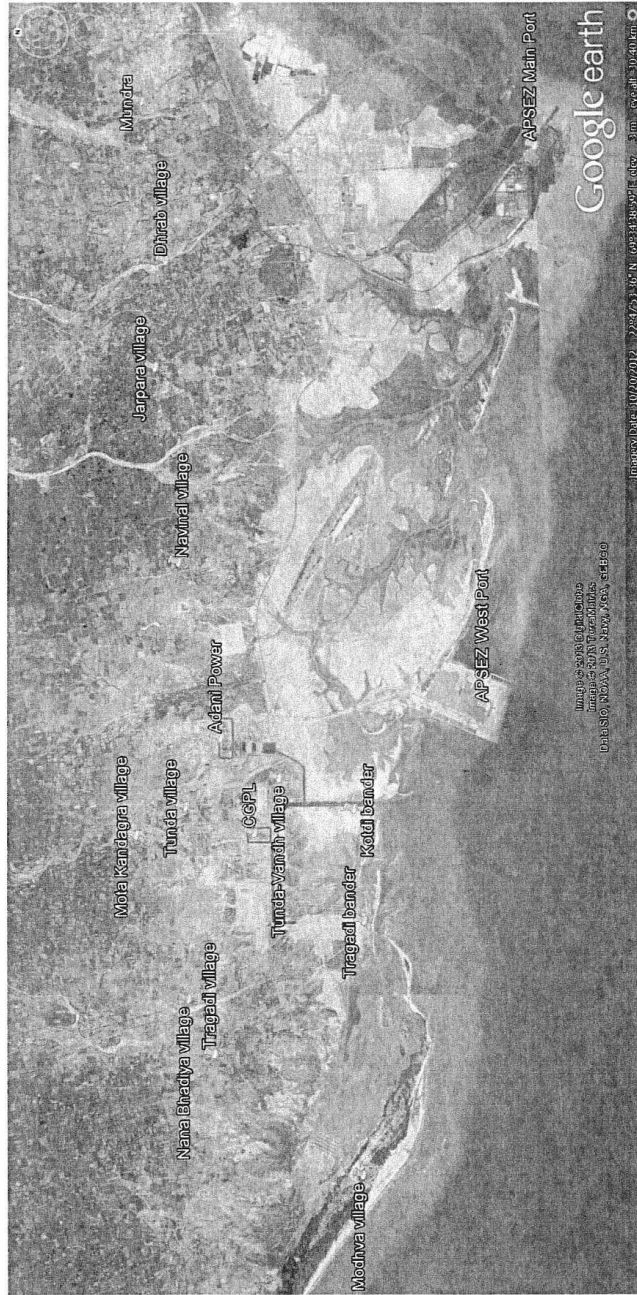
	ADB Response	Further Details/Evidence	On-going or future actions
	<p>carrying out the relevant environmental and social impacts internally.</p> <p>ADB's concern is always to ensure that the consultants are appropriately qualified and experienced. ADB had no reason to doubt that this was the case for TCE.</p>	TCE is one of the MOEF accredited agencies for conducting EIAs for environmental category A projects.	
22.	<p>Failure to put in place an independent and competent monitoring agency to monitor the impacts and recommend corrective measures; and failed to monitor compliance of its social and environment safeguard policies; SENES did a bad job; Failure to independently verify the facts mentioned in its report; (Section D.3.2.-p.14 of the Complaint; Section C.4.6.-p.12-13 of the Complaint)</p> <p>In accordance with the Policies, ADB required CGPL to submit quarterly and annual monitoring reports for review. ADB carried out annual review missions to the Project site, which were conducted in 2009, 2010, 2011, 2012 and 2013 (twice). ADB reviewed CGPL's safeguard performance and monitoring, and provided feedback.</p> <p>The Policies do not require an independent monitoring agency to be engaged (this requirement was introduced by ADB in its Safeguard Policy Statement in 2009 in relation to Category A projects).</p> <p>SENES' reports have improved over time, following input from the lenders (including ADB).</p>		ADB will continue to review SENES' monitoring reports, with heightened diligence.
23	<p>Willfully ignoring the impacts and failure to take any action even when it was alerted by an Independent Fact Finding Team in Jul 2012. (Section D.3.4.-p.14 of the Complaint)</p> <p>ADB took prompt action in August 2012 to investigate the concerns raised by the Independent Fact Finding Team, as evidenced in Appendix 10.</p>		ADB is committed to continue working with CGPL to address concerns of the local communities.

	ADB Response	Further Details/Evidence	On-going or future actions
24.	<p>Failure to analyze the multitude of risks and impacts of the Project during the key stages, including pre-construction, construction, operations, decommissioning and closure. (Section C.1.2.-p.4 of the Complaint)</p> <p>ADB's analysis during the pre-construction, construction, and operation phases of the Project has been addressed above.</p> <p>With regard to the risks and impacts during decommissioning and closure, there is no requirement in the Policies for ADB or the borrower to analyze them in the context of a new project. Infrastructure projects typically have a long project life with regular maintenance and rehabilitation. Decommission and closure can be assessed effectively when such a plan appears to be foreseeable based on the detailed information available at that time.</p>		

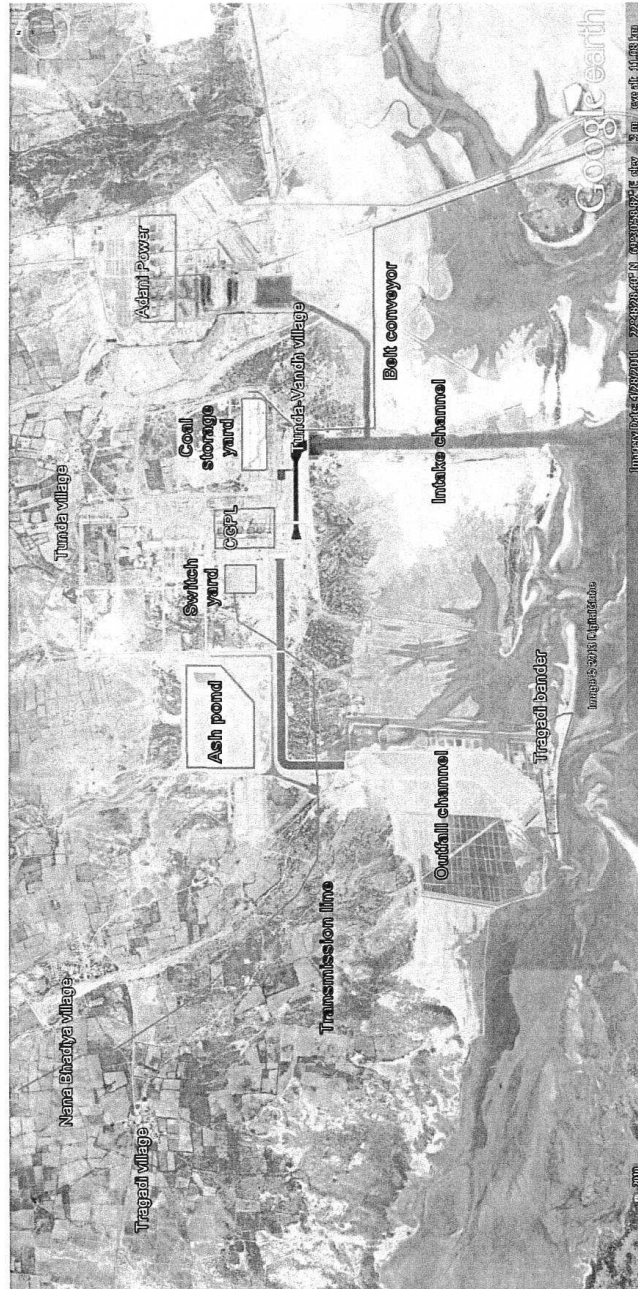
Defined Terms

ADB	Asian Development Bank
AM Policy	ADB's Accountability Mechanism Policy 2012
Baseline SIA	The Baseline Social Impact Assessment prepared by SAVE
CGPL	Coastal Gujarat Power Limited
CRZ	Coastal Regulation Zone
Complaint	The complaint lodged by the Complainants against ADB dated 12 July 2013
Complainants	Mr. Gajendrasinh Bhimaji Jadeja, a member of MASS, Mr. Harun Salemamad Kara, member of MASS and Mr. Bharat Patel, General Secretary of MASS
Comprehensive EIA	The Comprehensive Environmental Impact Assessment prepared by TCE
Environment Policy	ADB's Environment Policy (2002)
Policies	The IR Policy and the Environment Policy
IR Policy	ADB's Involuntary Resettlement Policy (1995)
Influx Management Plan	The Influx Management Plan prepared by IL&FS Ecosmart Limited
Local Hiring and Purchasing Plan	The Local Hiring and Purchasing Plan prepared by IL&FS Ecosmart Limited
PCP Policy	ADB's Public Communications Policy (2005)
Marine EIA	The Marine Environmental Impact Assessment prepared by NIO
MASS	Machimar Adhikar Sangharsh Sangathan
MOEF	Ministry of Environment and Fisheries
NIO	National Institute of Oceanography
Project	Mundra Ultra Mega Power Project
Rapid EIA	The Rapid Environmental Impact Assessment prepared by TCE
Rapid Marine EIA	The Rapid Marine Environmental Impact Assessment prepared by NIO
Resettlement Plan	The Resettlement Plan prepared by CGPL and reviewed by ADB dated September 2008
Socio-Economic Assessment Report	The Socio-economic Assessment Report prepared by TCE dated August 2006
SAVE	Saline Area Vitalisation Enterprise Limited
SEIA	Summary Environmental Impact Assessment
SENES	SENES Consultants India Pvt. Ltd.
SPRSS	Summary Poverty Reduction and Social Strategy prepared by ADB
Stakeholder Engagement Framework	The Stakeholder Engagement Framework prepared by CGPL
TCE	TCE Consulting Engineers Limited
WB PPAH	The World Bank's Pollution Prevention and Abatement Handbook dated April 1999

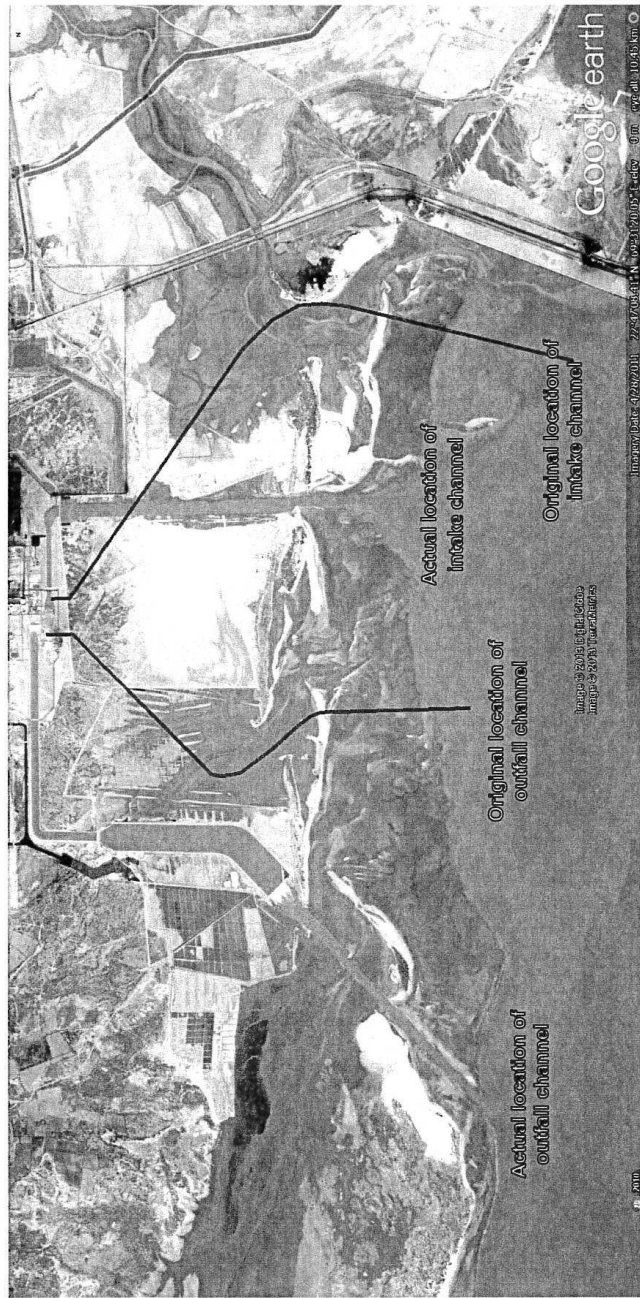
Map of the Project Area



Project Layout



Map showing original and actual location of inflow and outflow channels



(Note) The original locations of the intake and outfall channels are superimposed and may not be exactly to scale. Includes copyrighted material of DigitalGlobe, Inc., All Rights Reserved.

Information Disclosure Consultations¹ and Stakeholder Engagement Activities during Project Design

Date	Activity
2006 Jun 8	CGPL(PFC) applied for acquisition of land to the district collector
2006 Aug 14, 18	Notice of EIA public hearing published in Gujarati (local newspaper "Kutch Mitra") and in English (Times of India) in compliance with Schedule-I of the Environmental Impact Assessment Notification No:60 (E), 27 January 1994)
2006 Sep 19	EIA Public Hearing held at Government Rest House (Circuit House) in Mundra. The hearing was attended by CGPL (PFC) CEO, Environmental Public Hearing Committee, comprised of 11 officials from state government agencies; 65 people from industries and villages surrounding the project area
2006 Sep 20	Public notices under Section 4 of Land Acquisition Act (LAA) issued by the District Collector in Gujarati (with Ref. No. AM/2006/190/MLKU/162006/1551/GH)
2006 Oct 2	LAA Section 4 Notification published in the daily newspaper Chanchal in Gujarati and in Indian Express in English.
2006 Oct 10	Village Assembly (Gram Sabha) held at Tunda, Village. Following the village assembly, Tunda villagers submitted a letter to the Deputy Collector and Land Acquisition Officer on 12 Oct 2006.
2006 Oct 17-19	Villagers from Tunda protested about land acquisition by sitting in front of District Collector's office for 3 days.
2006 Oct 19	Deputy Collector informed the villagers that alternate land could not be provided and issued notification number 6 for acquisition of land under which 92 land plots belonging to 76 families of Tunda village were acquired.
2007 Jan 23	After meeting with scheduled caste families losing their land to the project, Social Welfare Officer, District Panchayat Bhuj informed the District Collector that 3 out of 9 owners were not willing to sell their land.
2007 Mar 21	After examining the proposal from Tunda village about providing alternate land to the project, Deputy Collector informed Tunda Village that alternate land could not be provided, hence the Government decided to issue section 6 notification for acquisition of land.
2007 Mar 28	Publication of notice under section 6 of the LAA (No-AM/2007/190/M/LKU/162006/1551/GH, Reference Government of Gujarat Gazette) to acquire private land measuring 181.70ha from 92 land plots belong to 76 families of Tunda village.
2007 Apr	CGPL established office in Bhuj to facilitate initiation of the project, respond to queries and complaints, provide general information to communities and complete the land acquisition process. Project staff fluent in Gujarati assigned at the Bhuj project office.
2007 Apr 07	Transfer orders for grazing land issued by District Collector, Kutch for village Tunda
2007 Apr 13	Notification under Section 6 of Land Acquisition act - Public notices to Sarpanch of surrounding villages including Tunda, Mota Kandagra and Nana Bhadiya received notification through district collector through Mamlatdar and Talati.
2007 May 14	Transfer orders for grazing land issued by District Collector, Kutch for village Mota Kandagra
2007 July 10	Transfer orders for Government land and 12 ha of Grazing land issued by District Collector, Kutch for village Tunda
2007 Aug 27	CGPL/Tata Power Project Director and staff met with Tunda village discussed the project details and issues related to acquisition of private land and grazing lands. About 300 men and women including Sarpanch and political leaders of the District (Village Tunda) attended.
2007 Sep 10	CGPL and villagers discussed price for private land to be acquired. 30 persons from Tunda

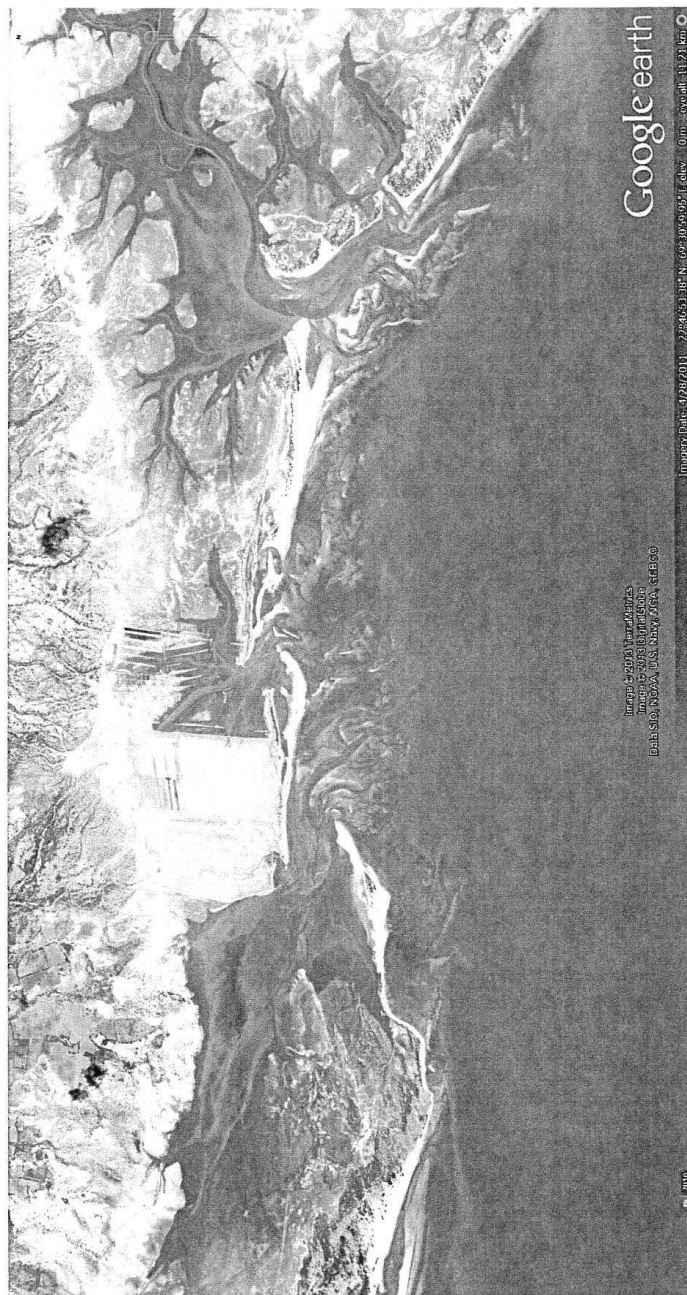
¹ Consultation and engagement by CGPL with local villagers in communities were done using Gujarati, the official language of Gujarat and with help of project staff who are fluent in Gujarati. CGPL had 9 staff at the Tunda office who can read, speak and write Gujarati. At present, CGPL CR department has 10 staff of which are 9 Gujaratis. Local institutes and civil society organizations who were contracted to undertake studies and surveys hired field staff who were either Gujaratis or are fluent in Gujarati.

Date	Activity
	Village with representatives of district level revenue department of government, and political leaders of district were present.
2007 Oct 30	CGPL met with 18 people from Tunda Village to discuss price per acre of privately owned land plots, grazing lands and requirement for employment with the company, skills training and livelihood programs and request for water supply.
2007 Oct 31	CGPL met with 48 villagers from Tunda-Vandh to discuss compensation for grazing lands, work opportunities from the project, potential pollution impacts to their village.
2007 Nov	CGPL met with 12 persons from Nana Bhadiya and discussed project's land requirements, environmental and social impacts and impacts on local economy.
2007 Nov	CGPL met with 14 persons from Mota Kandagra and discussed project impacts on grazing lands, health, livelihoods and local economy.
2007 Nov	CGPL met with 7 persons from Kotdi bander and discussed the project environmental and social impacts.

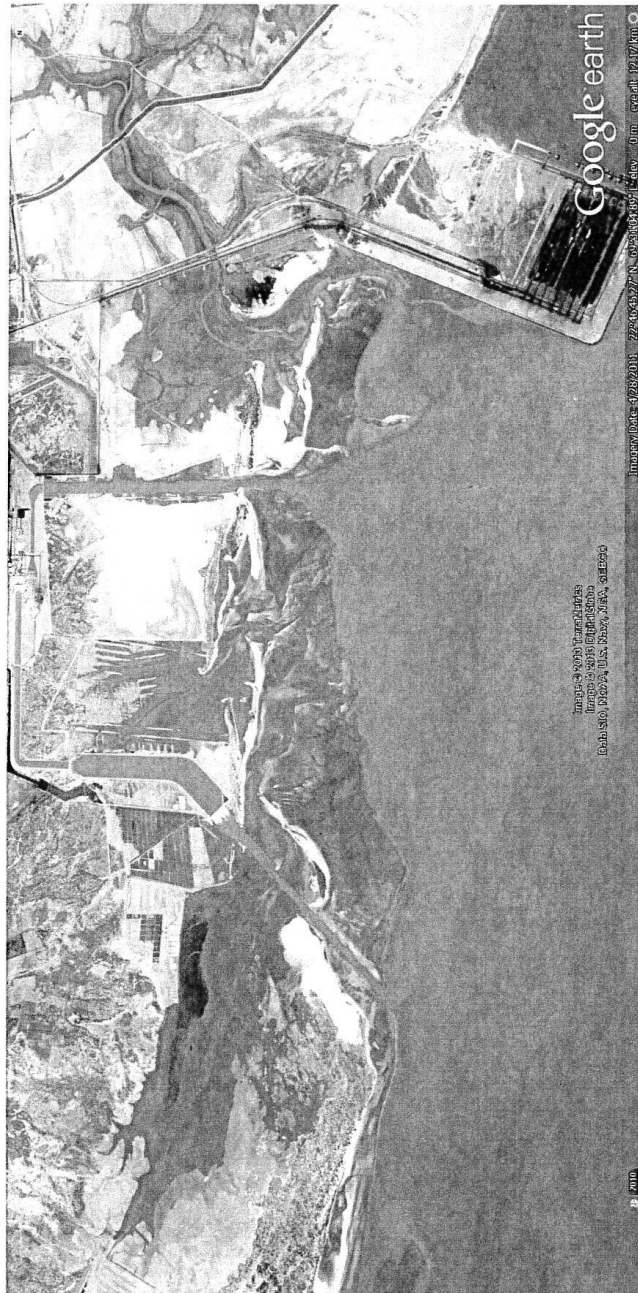
Source: Saline Area Vitalisation Enterprise Limited. 2007. *Baseline Social Impact Assessment*. November. Ahmedabad.
Costal Gujarat Power Limited. 2008. *Stakeholder Engagement Framework*.
Costal Gujarat Power Limited. 2008. *Final Compensation Framework*.
IL&FS Ecosmart Limited. 2008. *Household Survey and Needs Assessment Study*. May. Mumbai.
Costal Gujarat Power Limited. 2008. *Resettlement Plan*. September. Mumbai.

Satellite pictures showing mangroves and creeks – 2005 and 2013

March 2005



April 2013



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List of Environmental and Social Assessment Reports and Plans

Environmental and Social Assessment Reports			
Document Date	Full Title	Other Title used in the Response	Author
2006 Aug	Rapid Environmental Impact Assessment Study Report	Rapid EIA	TCE Consulting Engineers Limited
2006 Aug	Socio-Economic Assessment Study Report	Socio-economic Assessment Report	TCE Consulting Engineers Limited
2007 Jan	Rapid Marine Environmental Impact Assessment	Rapid Marine EIA	National Institute of Oceanography
2007 Aug	Comprehensive Environmental Impact Assessment Study Report	Comprehensive EIA	TCE Consulting Engineers Limited
2007 Oct	Report on Rapid Social Impact Assessment	Rapid SIA	Saline Area Vitalisation Enterprise Limited
2007 Nov	Report on Baseline Social Impact Assessment	Baseline SIA	Saline Area Vitalisation Enterprise Limited
2007 Nov	Summary Environmental Impact Assessment Report	SEIA	Coastal Gujarat Power Limited
2007 Nov	Supplementary EIA, including cumulative air quality assessment	Supplementary EIA	Coastal Gujarat Power Limited and Vishuddha Envirotech
2008 May	Household Survey and Needs Assessment Study		IL&FS Ecosmart Limited
2009 Feb	Marine Environmental Impact Assessment for Discharge Channel	Marine EIA	National Institute of Oceanography
2009 Sep	Hydraulic Design and Modeling Studies (Release 1)		HR Wallingford

Environmental and Social Management Plans			
Document Date	Full Title	Other Title used in the Response	Author
2008 Jan	Stakeholder Engagement Framework		Coastal Gujarat Power Limited
2008 Jan	Final Compensation Management Framework		Coastal Gujarat Power Limited
2008 Jan	Short Resettlement Plan (Draft)		Coastal Gujarat Power Limited
2008 Mar	Influx Management Plan		IL&FS Ecosmart Limited
2008 May	Local Hiring and Purchasing Plan		IL&FS Ecosmart Limited
2008 Sep	Short Resettlement Plan (Final)	Resettlement Plan	Coastal Gujarat Power Limited
2008 Oct	Environmental Management Plan - Construction Phase		Coastal Gujarat Power Limited
2010 Apr	Environmental Management Plan - Construction Phase		Coastal Gujarat Power Limited
2010 Jul	Dredging Plan of Outfall Channel		Coastal Gujarat Power Limited
2010 Sep	Environmental Management Plan - Operational Phase		Coastal Gujarat Power Limited
2012 Jul	Environmental Management Plan - Operational Phase		Coastal Gujarat Power Limited
2012 Dec	Maintenance Dredging Plan for Intake Channel		Coastal Gujarat Power Limited

Appendix 10

Prior good faith efforts to solve the problem(s) and issue(s) by the Complainants

- 1 Jul 2012 The report by the Independent Fact Finding Team (IFFT), prepared at the request of MASS¹ and dated Jun 2012 (the IFFT Report) was received by ADB's operational department. The IFFT invited ADB to a panel discussion which was scheduled for 3 July 2012 in New Delhi to respond to the findings of the IFFT Report.
- 2 Jul 2012 ADB responded to the IFFT, stating that ADB was unable to participate in the panel discussion due to the short notice. ADB expressed its intention to review the IFFT Report and look into its findings.
- 3 Jul 2012 ADB received a letter in Gujarati which was signed by fisherfolk in Tragadi bander and Salaya village, sent by e mail (with an English translation) by Ms. Komala Ramachandra, Attorney of the Accountability Counsel (based in San Francisco, USA). The letter was dated 25 Jun 2012, and requested ADB to respond to Ms. Komala Ramachandra, with a copy to Mr. Bharat Patel (the Secretary of MASS and one of the Complainants). ADB acknowledged receipt to Ms. Komala Ramachandra within the day and copied its response to Mr. Bharat Patel.
- 11 Jul 2012 ADB sent an email to Ms. Komala Ramachandra indicating a plan to meet the concerned people (copied to Mr. Bharat Patel).
- 17 Jul 2012 Ms. Komala Ramachandra responded to ADB indicating her hope to suggest possible dates by the following week. ADB responded the same day (copied to Mr. Bharat Patel) and expressed its preference for 7-8 Aug 2012.
- 30 Jul 2012 ADB sent a reminder email to Ms. Komala Ramachandra requesting confirmation on the concerned people's availability to meet ADB on 7-8 Aug (copied to Mr. Bharat Patel).
- 31 Jul 2012 Ms. Komala Ramachandra responded to ADB by email (copied to Mr. Bharat Patel) that the concerned people would not be able to meet the ADB team on 7-8 Aug due to Ramadan, which would continue until late Aug. She expressed her intention to consult with the concerned people and get back to ADB as soon as possible. Since then, Ms. Komala Ramachandra has not made any further contact with ADB.
- 6-10 Aug 2012 ADB fielded a mission to Mundra to discuss the concerns raised by (i) the IFFT Report and (ii) the letter sent by the Accountability Counsel. ADB contacted Mr. Ahmed Iliyas (MASS President) to arrange a meeting between MASS and ADB.
- 8 Aug 2012 ADB mission met MASS representatives including Mr. Bharat Patel and Mr. Ahmed Iliyas at Bhadreswar.
- 30 Nov 2012 Mr. Bharat Patel sent an email to ADB expressing concerns on the Project. The email was sent jointly by Mr. Bharat Patel, Mr. Harun Sale Kara and Mr. Gajedrasinh Jadeja. The email text was dated 23 Nov 2013.
- 11 Dec 2012 ADB responded to Mr. Bharat Patel indicating that ADB was looking into the points raised, and would get back to him shortly.
- 15 Feb 2013 ADB sent an email to Mr. Bharat Patel suggesting a meeting during the week of 4 Mar 2013 to discuss the concerns raised.
- 18 Feb 2013 Mr. Bharat Patel responded, confirming that he would be able to meet the ADB mission on 4 Mar in Delhi.
- 19 Feb 2013 ADB replied to Mr. Bharat Patel that the mission would not be able to come to Delhi and requested a meeting in Mundra either on 6 or 7 Mar.

¹ Page 5 of the IFFT report.

23 Feb 2013	ADB sent a reminder to Mr. Bharat Patel, requesting confirmation of the meeting on 6 or 7 Mar.
4 Mar 2013	Since ADB had not received a response from Mr. Bharat Patel, ADB sent a further email to Mr. Bharat Patel asking a possible alternative date for meeting (it being impractical for 5 ADB staff to attend a mission at short notice).
5 Mar 2013	Mr. Bharat Patel replied saying "7th March is final for Meeting". ADB responded that due to a lack of feedback from Mr. Bharat Patel, ADB needed to cancel the mission, since it would not be possible to meet on 7 Mar as a result of the short notice.
2 Apr 2013	ADB sent an email to Mr. Bharat Patel suggesting meeting in Mundra on 25 Apr 2013.
9 Apr 2013	Mr. Bharat Patel responded expressing his extreme disappointment at ADB's response. He stated that "We do not think there is any point in taking this process ahead. Hence we request you to transfer the complaint to CRP as soon as possible."
11 Apr 2013	ADB explained that the ADB mission was not able to meet him on 7 Mar since Mr. Bharat Patel had not confirmed the meeting in sufficient time (despite ADB's reminders). ADB further informed Mr. Bharat Patel that the ADB mission (including an ADB director) would visit Mundra on 26 Apr 2013.
15 Apr 2013	Mr. Bharat Patel confirmed a meeting in Mundra on 26 Apr. ADB responded expressing gratitude, and asked about preferred venue and time.
23-27 Apr 2013	ADB fielded a mission (including an ADB director) to Mundra.
23 Apr 2013	ADB sent a reminder to Mr. Bharat Patel to fix the time and venue for meeting.
25 Apr 2013	Mr. Bharat Patel confirmed the meeting time and venue on 26 Apr. ADB responded with acknowledgement and gratitude.
26 Apr 2013	ADB mission met MASS representatives at Bhadreswar, including Mr. Bharat Patel. On the same day, Mr. Bharat Patel sent a report by MOEF on the Adani Port to the ADB mission.
27 Apr 2013	ADB replied to Mr. Bharat Patel expressing gratitude.
2 May 2013	ADB sent a further email to Mr. Bharat Patel thanking him for attending the meeting, and promised more regular engagement with him.
20 Sep 2013	ADB Accountability Mechanism Complaint Receiving Officer registered the complaint from MASS (Mr. Bharat Patel, Mr. Harun Sale Kara and Mr. Gajedrasinh Jadeja).
21 Sep 2013	ADB sent an email to Mr. Bharat Patel informing him of ADB's next planned mission to Mundra, during the week of 21 Oct or 27 Oct 2013.
27 Sep 2013	ADB informed Mr. Bharat Patel that ADB would like to meet him around 24-25 Oct 2013. Mr. Bharat Patel confirmed his availability within the day.
17 Oct 2013	Complaint Receiving Officer forwarded the complaint to the CRP.
22-28 Oct 2013	ADB fielded a mission to Mundra.
26 Oct 2013	ADB mission met Mr. Bharat Patel at Bhadreswar.