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MONITORING REPORT

CAO Audit of IFC  
CAO Compliance

C-I-R6-Y12-F160  
January 14, 2015

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**Monitoring of IFC's Response to:  
CAO Audit of IFC Investment in Coastal Gujarat Power Limited, India**

Office of the Compliance Advisor Ombudsman (CAO)  
for the  
International Finance Corporation (IFC)  
Multilateral Investment Guarantee Agency (MIGA)  
Members of the World Bank Group

## **About CAO**

The CAO's mission is to serve as a fair, trusted, and effective independent recourse mechanism and to improve the environmental and social accountability of IFC and MIGA.

CAO (Office of the Compliance Advisor Ombudsman) is an independent post that reports directly to the President of the World Bank Group. CAO reviews complaints from communities affected by development projects undertaken by the two private sector lending arms of the World Bank Group, the International Finance Corporation (IFC) and the Multilateral Investment Guarantee Agency (MIGA).

For more information about CAO, please visit [www.cao-ombudsman.org](http://www.cao-ombudsman.org)

## Executive Summary

This report documents CAO's monitoring of IFC's response to its *Audit of IFC Investment in Coastal Gujarat Power Limited, India* (the audit). The audit was finalized in August 2013 and released publically in October 2013.

The audit relates to IFC's investment in Coastal Gujarat Power Limited (CGPL or the client), a subsidiary of Tata Power, which began development of a 4,150 MW coal-fired power plant near the port town of Mundra, in the Kutch district of Gujarat, India in 2007. The plant is located approximately 3km from the Gulf of Kutch and uses seawater for cooling (see maps below). IFC provided \$450 million in financing for the project in the form of a loan.

The audit was triggered in response to a complaint from from Machimar Adhikar Sangharsh Sangathan (MASS), the Association for the Struggle for Fishworkers' Rights, representing fisher people living in the vicinity of the project (the complainants).

The audit made a number of non-compliance findings in relation to IFC's review and supervision of environmental and social (E&S) aspects of the project. These are summarized in the table below.

<b>Findings of CAO Audit</b>	
<b>A. Consultation with fishing communities.</b>	<ul style="list-style-type: none"> <li>• IFC failed to assure itself that the client's E&amp;S assessments were based on "effective consultation" with directly affected fishing communities.</li> <li>• This lack of effective consultation with fishing communities early in the project cycle resulted in missed opportunities to assess, avoid and reduce potential adverse impacts of the project and to examine technically and financially feasible alternatives to the sources of adverse impacts in accordance with IFC Performance Standard 1 (PS 1) (Assessment and Management of Environmental and Social Risks and Impacts)</li> <li>• Shortcomings in the consultation and disclosure process hindered efforts to build and maintain over time a constructive relationship with project affected communities.</li> </ul>
<b>B. E&amp;S Assessment.</b>	<ul style="list-style-type: none"> <li>• IFC's E&amp;S review was not commensurate to risk. In particular, it did not ensure that project E&amp;S risks and impacts vis-a-vis the complainants were assessed based on "appropriate social baseline data."</li> </ul>
<b>C. Land acquisition.</b>	<ul style="list-style-type: none"> <li>• IFC did not take the steps necessary to ensure that the application of Performance Standard 5 (PS 5) (Land Acquisition and Involuntary Resettlement) in relation to the complainants was properly assessed.</li> </ul>
<b>D. Air quality requirements.</b>	<ul style="list-style-type: none"> <li>• IFC failed to ensure that its client correctly applied the World Bank Group Thermal Power Guidelines (1998) to an airshed that should have been classified as degraded.</li> <li>• The application of the Thermal Power Guidelines (1998) would have required stricter emissions limits of the client.</li> </ul>

<b>Findings of CAO Audit</b>	
<b>E. Marine impact.</b>	<ul style="list-style-type: none"> <li>• IFC's review of its client's marine impact assessments was not commensurate to risk.</li> <li>• As a result important opportunities were missed to: (a) request more detailed baseline information about the marine environment of the affected area; (b) incorporate appropriate analysis of the potential marine (and associated social) impact of the project into design considerations and the client's E&amp;S management system; and (c) develop a framework to support adequate marine impact monitoring.</li> <li>• IFC did not ensure that the marine impact of the project was assessed taking into account "the differing values attached to biodiversity by specific stakeholders" as required by Performance Standard 6 (PS 6) (Biodiversity Conservation and Sustainable Management of Living Natural Resources).</li> <li>• Cumulative non-lethal (but potentially harmful) effects of submarine noise, light, heat, and other aquatic disturbance from the project on the local marine environment were not adequately considered in marine impact assessment process.</li> <li>• IFC did not adequately assure itself that the thermal plume from the client's seawater outfall would comply with the relevant 3°C criterion at the edge of a scientifically defined mixing zone.</li> </ul>
<b>F. Cumulative impact.</b>	<ul style="list-style-type: none"> <li>• Cumulative impact and 3<sup>rd</sup> E&amp;S risk emerging from the project's association with Mundra Port and Special Economic Zone (MPSEZ) needed to be better assessed, with mitigation measures developed commensurate to the client's level of influence.</li> </ul>
<b>G. Project monitoring.</b>	<ul style="list-style-type: none"> <li>• A framework for managing E&amp;S impact that can be effectively monitored or audited has yet to be established.</li> <li>• IFC is not in a position to demonstrate either that its client's monitoring is commensurate to risk (as required by PS 1) or that its supervision allows it to meet the stated purposes of supervision as set out in the ESRPs: namely, the development and retention of information needed to assess the status of E&amp;S compliance.</li> </ul>

In November 2013 IFC published an action plan in response to the audit. Following up on this action plan IFC has reported a number of steps taken by its client. These are articulated by IFC as addressing key findings from the CAO audit and include:

- Completion of a socio-economic survey of villages and seasonal settlements within the Project's area of influence, and commissioning of a report on socio-economic changes in these villages;
- Ongoing consultation and community engagement with project-affected peoples, including a June 2014 meeting with representatives of the complainants;
- Community development activities in nearby fishing communities including the provision of drinking water, the purchase of fishing nets and support for education;

- Monitoring of ambient air quality and of coal and ash dust deposits in neighboring communities;
- Completion of phase two of a sea turtle monitoring initiative;
- The commissioning of a model confirmation study in relation to the marine impact of the project; and
- Cumulative assessment of the project's impact on air quality in the context of plans for future expansion.

A full list of actions reported as undertaken by the client and linked from the IFC website, forms Annex 1 to this report.<sup>1</sup>

While acknowledging the actions reported by IFC, CAO does not find them sufficient to address the findings of the audit at this stage. In particular, CAO notes that a number of its findings suggest the need for a rapid, participatory and expressly remedial approach to assessing and addressing project impacts raised by the complainants. Such measures are not well developed in IFC's reporting which focuses on the commissioning of technical studies as well as corporate social responsibility measures implemented by the client.

CAO also notes technical non-compliance findings regarding the application of pollution control standards that have not yet been addressed. Specifically, CAO refers here to the World Bank's Environmental, Health and Safety Guidelines in relation to: (a) new power stations in areas with degraded airsheds; and (b) the thermal emissions of the project's cooling system which releases warm water into the sea.

CAO will keep this audit open for monitoring. CAO plans to issue a follow up monitoring report in relation to this audit no later than November 2015.

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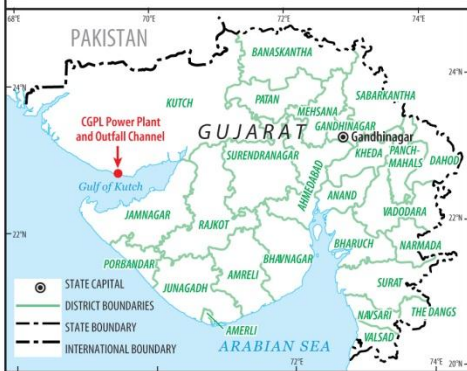
<sup>1</sup> Management and Monitoring Plan Update, Tata Ultra Mega Project, (8 October 2014). Available on the IFC website: Frequently Asked Questions: Tata Mundra Project. (<http://goo.gl/klrQjU>) Note that a subsequent Update was published on the client's website in December 2014. This document falls outside the monitoring period considered in this report, and will be addressed in CAO's next monitoring report.

## Abbreviations

AMR	annual monitoring report
BNHS	Bombay Natural History Society
CAO	Compliance Advisor Ombudsman
CGPL	Coastal Gujarat Power Limited
CRZ	Coastal Regulatory Zone
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
E&S	environmental & social
ESAP	Environmental & Social Action Plan
ESIA	Environmental and Social Impact Assessment
ESRD	Environmental & Social Review Document
ESRPs	Environmental & Social Review Procedures
ESRS	Environmental & Social Review Summary
FPIC	free prior and informed consultation
IFC	International Finance Corporation
MASS	Machimar Adhikar Sangharsh Sangathan (complainant NGO)
MIGA	Multilateral Investment Guarantee Agency
MoEF	Ministry of Environment and Fisheries (of India)
MPSEZ	Mundra Port and Special Economic Zone
MW <sub>e</sub> /MW <sub>th</sub>	megawatts electrical (output) /megawatts thermal (input)
NAAQS	National Ambient Air Quality Standards (of India)
NGO	nongovernmental organization
NIO	National Institute of Oceanography
PM <sub>10</sub>	particulate matter with a mean aerodynamic diameter of 10µm
PS	Performance Standard
SO <sub>2</sub> /SO <sub>x</sub>	sulfur dioxide/oxides of sulfur
TOR	Terms of Reference
MPSEZ	Mundra Port and Special Economic Zone

# INDIA COASTAL GUJARAT POWER LTD POWER PLANT AND OUTFALL CHANNEL

This map was produced by the Map Design Unit of The World Bank. The boundaries, colors, denominations and any other information shown on this map do not imply, on the part of The World Bank Group, any judgment on the legal status of any territory, or any endorsement or acceptance of such boundaries.



AUGUST 2013

## Introduction

1. The CAO compliance function oversees investigations and audits of IFC and MIGA with a view to improving the environmental and social (E&S) performance of the institutions.
2. Following a CAO compliance investigation or audit, CAO may determine that it is necessary to monitor actions taken by IFC of MIGA until such actions assure CAO that its compliance findings are being addressed.
3. This report documents CAO's monitoring of its *Audit of IFC Investment in Coastal Gujarat Power Limited, India* (the audit), which was finalized in August 2013.<sup>2</sup>

## Background and Complaint

4. In 2007, Coastal Gujarat Power Limited (CGPL or the client), a subsidiary of Tata Power, began development of a 4,150 MW coal-fired power plant near the port town of Mundra, in the Kutch district of Gujarat, India (the project) (see map at page 7). The plant is located approximately 3km from the Gulf of Kutch and uses seawater for cooling in a once through system. The project's total cost was estimated at US\$ 4.14 billion, of which IFC has financed \$450 million in the form of a loan.
5. In June 2011, CAO received a complaint regarding IFC's investment in CGPL from Machimar Adhikar Sangharsh Sangathan (MASS), the Association for the Struggle for Fishworkers' Rights, representing fisher people living in the vicinity of the project (the complainants). More specifically, the complainants are identified as local fisher people belonging to the minority Wagher community of Muslims. The fisher people migrate from often distant home villages to *bunder* (fishing harbors) where they live during a fishing season of eight to nine months per year. Two of these bunders, Tragadi and Kotadi, are situated on the coast between CGPL's cooling water intake and outfall channels (see the map at page 7).
6. CAO issued terms of issued Terms of Reference (TOR) for the audit in October 2012. The TOR required CAO to address the following issues:
  - Whether IFC exercised due diligence in its Environmental and Social (E&S) review of the project;
  - Whether IFC gave adequate consideration to the cumulative impacts of Adani power and the construction of the Mundra West Port in its E&S review;
  - Whether IFC's assessment of community support for the project was adequate;

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<sup>2</sup> The CAO audit IFC's response to the audit and related materials are available on the CAO website: [www.cao-ombudsman.org/cases/case\\_detail.aspx?id=171](http://www.cao-ombudsman.org/cases/case_detail.aspx?id=171)



- Whether PS 5 has been correctly applied with regard to the Complainants' seasonal fishing settlements and fish drying areas;
- Whether IFC provided its client with adequate guidance on the drafting of an Action Plan that met the requirements for specificity set out in PS 1;
- Whether IFC exercised due diligence in its review of its client's reporting on regulatory and lender E&S requirements;
- Whether IFC has been sufficiently proactive in engaging with the client to remedy E&S issues that have been identified in project supervision;
- Whether IFC policies and procedures provide adequate guidance to staff on how to manage E&S risks associated with projects in areas that are in the process of undergoing rapid industrial development, with environmental and social consequences to be defined.

### Key Audit Findings

7. The Audit set out key findings which are summarized in the table below.

<b>Findings of CAO Audit</b>	
<b>A. Consultation with fishing communities.</b>	<ul style="list-style-type: none"> <li>• IFC failed to assure itself that the client's E&amp;S assessments were based on "effective consultation" with directly affected fishing communities.</li> <li>• This lack of effective consultation with fishing communities early in the project cycle resulted in missed opportunities to assess, avoid and reduce potential adverse impacts of the project and to examine technically and financially feasible alternatives to the sources of adverse impacts in accordance with PS 1 (Assessment and Management of Environmental and Social Risks and Impacts).</li> <li>• Shortcomings in the consultation and disclosure process hindered efforts to build and maintain over time a constructive relationship with project affected communities.</li> </ul>
<b>B. E&amp;S Assessment.</b>	<ul style="list-style-type: none"> <li>• IFC's E&amp;S review was not commensurate to risk. In particular, it did not ensure that project E&amp;S risks and impacts vis-à-vis the complainants were assessed based on "appropriate social baseline data."</li> </ul>

<b>Findings of CAO Audit</b>	
<b>C. Land acquisition.</b>	<ul style="list-style-type: none"> <li>IFC did not take the steps necessary to ensure that the application of PS 5 (Land Acquisition and Involuntary Resettlement) in relation to the complainants was properly assessed.</li> </ul>
<b>D. Air quality requirements.</b>	<ul style="list-style-type: none"> <li>IFC failed to ensure that its client correctly applied the World Bank Group Thermal Power Guidelines (1998) to an airshed that should have been classified as degraded.</li> <li>The application of the Thermal Power Guidelines (1998) would have required stricter emissions limits of the client.</li> </ul>
<b>E. Marine impact.</b>	<ul style="list-style-type: none"> <li>IFC's review of its client's marine impact assessments was not commensurate to risk.</li> <li>As a result important opportunities were missed to: (a) request more detailed baseline information about the marine environment of the affected area; (b) incorporate appropriate analysis of the potential marine (and associated social) impact of the project into design considerations and the client's E&amp;S management system; and (c) develop a framework to support adequate marine impact monitoring.</li> <li>IFC did not ensure that the marine impact of the project was assessed taking into account "the differing values attached to biodiversity by specific stakeholders" as required by PS 6 (Biodiversity Conservation and Sustainable Management of Living Natural Resources).</li> <li>Cumulative non-lethal (but potentially harmful) effects of submarine noise, light, heat, and other aquatic disturbance from the project on the local marine environment were not adequately considered in marine impact assessment process.</li> <li>IFC did not adequately assure itself that the thermal plume from the client's seawater outfall would comply with the relevant 3°C criterion at the edge of a scientifically defined mixing zone.</li> </ul>
<b>F. Cumulative impact.</b>	<ul style="list-style-type: none"> <li>Cumulative impact and 3<sup>rd</sup> E&amp;S risk emerging from the project's association with Mundra Port and Special Economic Zone (MPSEZ) needed to be better assessed, with mitigation measures developed commensurate to the client's level of influence.</li> </ul>
<b>G. Project monitoring.</b>	<ul style="list-style-type: none"> <li>A framework for managing E&amp;S impact that can be effectively monitored or audited has yet to be established.</li> <li>IFC is not in a position to demonstrate either that its client's monitoring is commensurate to risk (as required by PS 1) or that its supervision allows it to meet the stated purposes of supervision as set out in the ESRPs: namely, the development and retention of information needed to assess the status of E&amp;S compliance.</li> </ul>

### **IFC Response**

8. In November 2013, IFC published a statement and action plan in response to the CAO audit. The action plan set out steps that the IFC client would take "to respond to and address the concerns of affected communities, including the migrant fishing communities." The key points of this action plan were:

- Reviewing and updating of CGPL’s management and monitoring program;
- Commissioning several studies, to be prepared in consultation with experts and in accordance with the IFC PSs including:
  - Household-level socio-economic survey of communities in the project area;
  - Model confirmation studies in relation to the marine impact of the project;;
  - Sea turtle monitoring and broader biodiversity monitoring;
  - Collection of fish catch data and experimental fishing data;
  - Ambient air quality monitoring in villages at in the fish drying areas sued by seasonally resident fishing communities;
  - Health status and needs survey in neighboring communities;
  - Testing of ash residue for radioactivity and heavy metals;
  - Validation of certain ambient air quality monitoring parameters; and
  - A full environmental and social impact assessment for a proposed expansion of CGPL (through the addition of 2 x 830MW units).
- Preparation of a comprehensive document detailing each E&S requirement under the client’s obligations to lenders;
- Ensuring appropriate consultation with fishing communities; and
- Where adverse impact is found from these studies and in the opinion of experts, to develop appropriate mitigation measures in accordance with the PSs.

### **Methodology**

9. This report is based on a review of documents available to CAO as of October 2014. This includes:
- IFC’s November 2013 Action Plan (the IFC Action Plan);
  - Updates and client documentation provided to CAO by IFC in October 2014; and
  - Updates provided to CAO by the Complainants in October 2014.

10. The information referenced in this monitoring report is that received by CAO as of October 2014. A planned field visit by CAO to the project site in Mundra could not be organized during the monitoring period.
11. A full list of actions reported as undertaken by the client and linked from the IFC website, is attached (See Annex 1).

## **Discussion of Actions by Key Finding**

### **A. Consultation with fishing communities.**

12. The CAO audit found that IFC failed to assure itself that the client's E&S assessments were based on "effective consultation" with directly affected fishing communities. It found that "a lack of effective consultation with fishing communities early in the project cycle resulted in missed opportunities to assess, avoid and reduce" potential adverse impacts of the project. It also found that shortcomings in the consultation and disclosure process hindered efforts to "build and maintain over time a constructive relationship" with project affected communities.
13. The IFC action plan stated that the client was in the process of reviewing and updating its management and monitoring program in light of inputs received in the course of its ongoing engagement with affected communities (including fishing communities). It also stated that CGPL would ensure that relevant stakeholders, including fishing communities, were appropriately consulted in relation to future E&S studies.
14. In October 2014, IFC reported that the client had prepared a plan to undertake consultations based on the findings of each of the E&S studies and surveys described in its action plan. IFC also noted that the consultation plan needed to be amended to reflect "additional studies" proposed, and to reflect the later dates when commissioned reports were expected to be received.
15. CGPL's 2012-2013 reporting to IFC indicated that representatives of various local villages were aware of the project and were engaging with the company.<sup>3</sup> The report also noted that CGPL had hired a third party to work with the fishing communities to address their concerns. Minutes of a meeting between CGPL and representatives of the complainants on June 12, 2014 note agreements in relation to development initiatives, including a pilot fish farming project, and activities to be undertaken at Tragadi bunder such as providing drinking water, a medical camp and mobile sanitation. IFC's review of the client's report noted that measurement of impact and documentation of client corporate social responsibility activities need to be strengthened, and stated that CGPL has commenced work toward this.

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<sup>3</sup> Client E&S reporting documents are available on the Tata Power website.  
<http://www.tatapower.com/sustainability/statutory-clearances.aspx>

16. IFC also referred CAO to a 2014 publication, *Turning the Tide*, which outlines a range of activities which CGPL is conducting in the fishing villages near the plant.<sup>4</sup> The *Turning the Tide* report identifies the fisher people of the villages of Tragadi, Modhva and Tragadi Bunder as project stakeholders owing to their close proximity to the outfall channel for the plant. The report describes CGPL's support to the fisher people of these villages as well as a range of community engagement activities initiated by the company. In relation to Tragadi Bunder the report describes the establishment of a Village Development Advisory Committee with which CGPL staff meet monthly to discuss and decide on development work that needs to be done on the bunder.
17. In an October 2014 update to CAO (see para 9 above), the Complainants reported that any consultations conducted by IFC or by CGPL have been inadequate and have not engaged them in a meaningful way. They emphasize that consultation was required to explore changes in project design and minimize negative impacts on the fishing community.

#### Monitoring Status

18. CAO acknowledges reports by IFC and its client that consultation, community engagement, and disclosure processes are ongoing, both as part of its operations and in relation to the possible expansion of the project as referred to above (see para 8).
19. On the basis of available information, however, CAO is not able to verify that IFC has engaged adequately with its client in relation to the key issue identified in this finding – namely that deficits in early consultation and disclosure led to missed opportunities to assess, avoid and reduce potential adverse impacts of the project, as well as to build and maintain a constructive relationship with project affected communities.
20. This item remains open for monitoring.

## **B. E&S Assessment**

21. The CAO audit found that the IFC's E&S review of the project was not commensurate to risk. In particular, it found that its E&S review did not ensure that the impacts of the project on the complainant fishing communities were assessed in a manner that was "adequate, accurate and objective" and based on "appropriate social baseline data."
22. In response, the IFC action plan stated that the client had contracted with third parties to undertake two new surveys. First, a household level socio-economic survey of 21 villages/hamlets, which included seasonal settlements within the project's area of influence. As of October 2014, IFC informed CAO that the socio-economic survey was in

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<sup>4</sup> CGPL (2014), *Turning the Tide: Molding the Lives of Fishermen on the Coastal Belt of Kutch, Gujarat*. [www.tatapower.com/cgpl-mundra/pdf/turning-tide.pdf](http://www.tatapower.com/cgpl-mundra/pdf/turning-tide.pdf). Note, the second fishing settlement on the foreshore in front of the plant, Kotadi bunder, is not mentioned in this report or other materials on stakeholder engagement provided by IFC.

progress (with 17 of 21 villages covered), and that an organization had been engaged to collect fish catch data directly from the seasonally migrant community at Tragadi Bunder.

23. The IFC action plan also referred to a health status and needs survey of seven neighboring villages as well as the seasonal settlement of fisher folk on the coast near CGPL.
24. Further, IFC has advised that its client commissioned a report on the socio-economic changes in the surveyed villages, based on the survey and fish catch data, and on earlier assessment material (the "Socio-economic Assessment"). IFC has advised that it provided feedback on the proposal for the Socio-economic Assessment, referring specifically to the villages in close proximity of the outfall channel (including Tragadi and Modhva villages and Tragadi bunder), and noting the need to "develop and establish a socio-economic baseline for the villages not covered in any of the earlier surveys/reports." IFC has noted that it envisages this report will effectively address the gaps of earlier studies and enable an effective environmental and social assessment.
25. In this context, CAO notes IFC's view, as set out in its most recent supervision report for the project, that its client has adequate processes in place to monitor and mitigate identified risks and impacts.<sup>5</sup> CAO also notes that the client has publicly stated that no adverse impact of the project has been demonstrated in relation to the livelihoods of fisher people and that there has been no loss of livelihood in the surrounding areas.<sup>6</sup>
26. Nevertheless, IFC and the client report various development initiatives that have been undertaken at Tragadi bunder. These include a pilot fish farming project, providing drinking water, purchase of fishing nets, medical camps, support for a teacher in the school, and mobile sanitation.<sup>7</sup>
27. The complainants state that they have not been consulted on socio-economic and health surveys mentioned in the IFC action plan. They report that they are unclear whether the client considers them to be "project affected people" entitled to remedies for physical and economic displacement. They also question the value of conducting "baseline" surveys after the project has been fully completed and IFC's loan disbursed. They assert that this method of operating is disempowering, and reduces their bargaining power vis-à-vis the client, leaving them with no choice but to accept the remedial measures offered.

#### Monitoring Status

28. CAO notes the measures reported by IFC in relation to the E&S assessment of the project. In particular, CAO notes that additional socio-economic surveys are being conducted, but that analysis of the new data is pending. CAO also acknowledges IFC's

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<sup>5</sup> IFC, Recordable Supervision Activity (Jan. 2014).

<sup>6</sup> CGPL Environmental Impact Assessment for Proposed Expansion of CGPL (December 2013). Annex XXIX. p. 513.

<sup>7</sup> For further details of CGPL supported development activities in relation to the fishing communities near the plant see: CGPL (2014), Turning the Tide: Molding the Lives of Fishermen on the Coastal Belt of Kutch, Gujarat.

reports that the client is undertaking a range of development initiatives in fishing communities near the project site.

29. CAO notes that construction of the project was completed in 2013. In this context, CAO is unclear how IFC intends to assure itself that the client adequately assesses and responds to the impacts of the project on the complainants in comparison to their pre-project situation. CAO is concerned that, over time, IFC's capacity to ensure that project impacts on the complainants are assessed on the basis of robust baseline data is diminished.
30. CAO also notes that, in the absence of baseline data and impact assessment, IFC lacks a framework to assess the adequacy of development initiatives undertaken to date by the client.
31. CAO notes IFC's view that the Socio-economic Assessment recently commissioned by the client is intended to bring together existing data and address CAO's findings.. However, has questions as to proposal for the Socio-economic Assessment adequately reflects the challenges of conducting a retrospective assessment of the impact of the project absent robust baseline data. CAO also has questions as to whether the approach outlined in the proposal meets IFC requirements for effective participation (PS 1, para 21), given these challenges. In this context, CAO notes that the completion of studies that were required prior to construction of the project may not be sufficient to remedy this finding of non-compliance. Rather, CAO suggests that a rapid, participatory and expressly remedial approach to assessing and addressing project impacts on the complainants is indicated.
32. On the basis of the information available, CAO is unable to confirm that IFC has taken adequate measures to address this finding. As such the finding remains open for monitoring.

### **C. Land Acquisition**

33. The CAO audit noted that a significant portion of the sand bars that constitute Tragadi and Kotadi bunders was used for the construction of the intake and outfall channels for CGPL. CAO also noted that the project acquired land used as rights of way to access the bunders. In the absence of a baseline study or impact assessment that paid detailed attention to the circumstances of the people living in these settlements, the audit found that IFC had not assured itself of the proper application of PS 5 (Land Acquisition) in relation to the Complainants.
34. CAO notes IFC's view that there has been no displacement of households from the bunder as a result of construction of the project and therefore that PS5 does not apply. The IFC action plan did not address the issues of the application of PS 5 to the complainants, but noted that the client had contracted a third party to undertake the

socio-economic survey discussed in relation Section B. E&S Review, above. IFC has not provided any further specific information in relation to the application of PS 5 for the purposes of this monitoring report.

Monitoring Status

35. CAO acknowledges the activities initiated by the client to survey the socio-economic impact of the project on neighboring villages.
36. On the basis of available information, it does not appear that IFC has addressed the issues raised by the audit in relation to the application of PS 5 to the complainant fishing communities. At the heart of these issues is the requirement to ensure that the impact of the project on the complainant fishing communities is assessed in a robust and participatory manner, and that the application of PS 5 is considered on the basis of appropriate baseline data. As discussed above, over time, IFC's capacity to ensure that project impacts on the complainants are assessed on the basis of appropriate baseline data is diminished.
37. This item remains open for monitoring.

**D. Air Quality Requirements**

38. The CAO audit found that IFC did not ensure that its client correctly applied the World Bank Group Thermal Power Guidelines (1998) to an airshed that should have been classified as degraded. The correct application of these Guidelines would have required stricter emissions limits for the plant. The CAO audit also made a number of observations regarding good practice, including independently verifying air quality measurements, conducting regular monitoring for both ambient particle concentrations and deposited dust on or near the complainant fishing communities, and testing of ash residue for radioactivity and heavy metals. Further, CAO noted that it may be appropriate for the client to consider additional emissions and dust control measures on site.
39. The IFC action plan outlined monitoring and studies to be undertaken by the client, including ambient air quality monitoring, an inspection program to assess coal and ash dust deposits in neighboring communities, laboratory analysis of dried fish samples to assess ash and coal dust contamination, testing of ash residue for radioactivity and heavy metals, and validation of selected ambient air quality monitoring parameters that have changed significantly from the baseline.
40. In October 2014, IFC confirmed that ambient air monitoring had been undertaken in the fish drying area used by seasonally resident fishing communities. Documents provided to CAO indicate that 12 pollutants were monitored at 18 sites within and outside the plant. IFC also confirmed that the client had commenced an inspection program to assess coal and ash dust deposits in neighboring communities. This took place at five



village locations for one month each. Due to the limited time periods monitored, IFC acknowledged that compliance with standards and guidelines cannot be assessed on the basis of this data.

41. IFC noted that the client will continue to carry out ambient air quality monitoring at Tragadi bunder on a monthly basis for one year, followed by regular monitoring on a seasonal basis. IFC confirmed that the client has carried out testing of ash residue for radioactivity and heavy metals. IFC also confirmed that the client has contracted to enclose its conveyor belt in order mitigate the escape of coal dust.
42. The client's monitoring of ambient air quality indicates compliance with Indian National Ambient Air Quality Standards (NAAQS) with the exception of Particulate Matter (PM<sub>10</sub>) which was significantly exceeded at all monitoring sites. Reported ambient PM<sub>10</sub> concentrations in the villages surrounding the plant ranged between 122.5-133.8 µg/m<sup>3</sup>, which is significantly higher than the NAAQS 24 hour standard of 100 µg/m<sup>3</sup>, the NAAQS annual average standard for 60µg/m<sup>3</sup>, and the World Bank threshold for a 'degraded airshed' of 50µg/m<sup>3</sup> (annual average).<sup>8</sup> CAO notes the client's position that these levels of PM<sub>10</sub> is typical for coast locations in the region.<sup>9</sup>
43. The client's monitoring of stack emissions indicates compliance with World Bank Group requirements with the exception of PM<sub>10</sub> which was exceeded for two units for one three month period and SO<sub>2</sub> which was exceeded for one unit for one three month period.<sup>10</sup> Reporting against the World Bank's 500 ton per day overall cap on SO<sub>2</sub> emissions in not provided.
44. The complainants state that they have not seen evidence of air quality monitoring systems in their villages or the fish drying areas. The complainants also query the purpose of testing and monitoring, and ask what actions will be taken.

#### Monitoring Status

45. CAO acknowledges that the monitoring and studies described in the IFC action plan begin to address several of the good practice areas identified in the audit. In particular, CAO recognizes IFC's report of plans to continue ambient air quality monitoring at Tragadi bunder. At this stage, however, CAO notes that the limited amount of air quality data available mean that it is not possible to reach conclusions as to whether ambient air quality requirements at specific locations are being met.
46. CAO acknowledges steps taken by the client to assess coal and ash dust deposits in neighboring communities (though analysis of this data was not available at the time of writing). CAO also acknowledges steps taken by the client to test its ash residue for radioactivity and heavy metals. While the levels of radioactivity found are reported as being below the Indian clearance levels for bulk solid materials (Atomic Energy

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<sup>8</sup> CGPL, Annual E&S Performance Report 2012-13.

<sup>9</sup> *Ibid.* p.7.

<sup>10</sup> *Ibid.* Annex 9.

Regulatory Board Directive 01/2010), analysis of any environmental or health implications from the dispersion of these ash particles was not available.

47. CAO notes that the airshed around the plant should be considered “degraded” according to the World Bank Group Thermal Power Guidelines (1998) which apply to this project. Following the Thermal Power Guidelines, plants greater than 500 MW<sub>e</sub> in degraded airsheds, are required to apply offset provisions to ensure that there is no net increase in the total emissions of particulates or sulfur dioxide within the airshed (p.417). CAO finds no indication that this requirement is being supervised by IFC, or in the alternative, that it has been waived with appropriate justification from the client.
48. This item remains open for monitoring.

## **E. Marine impacts**

49. The CAO audit found that IFC’s review of its client’s marine impact assessments was not commensurate to project risk. As a result, CAO found that important opportunities were missed to: (a) establish more detailed baseline information about the marine environment of the affected area; (b) incorporate appropriate analysis of the potential marine (and associated social) impact of the project into design considerations and the client’s E&S management system; and (c) develop a framework to support adequate marine impact monitoring.
50. Further, CAO found that IFC did not ensure that the marine impact of the project was assessed taking into account “the differing values attached to biodiversity by specific stakeholders” as required by PS6 (Biodiversity Conservation and Sustainable Management of Living Natural Resources). In this context, the audit noted that none of the assessments carried out as part of project due diligence (the Rapid Marine Environmental Impact Assessment (EIA) (2007), the Comprehensive EIA (2007) and the Marine EIA (2009)) engaged with the livelihoods of the complainant fishing communities in any detail.
51. Finally, CAO found that IFC did not adequately assure itself that the thermal plume from CGPL’s seawater outfall would comply with the relevant 3°C criterion at the edge of a ‘scientifically defined mixing zone.’
52. The IFC action plan noted that CGPL had contracted Bombay Natural History Society (BNHS) to undertake sea turtle monitoring (presence and nesting), and that it would require BNHS or another reputed third party agency to follow up with broader biodiversity monitoring of the area impacted by the cooling water discharge from the plant.
53. The IFC action plan also stated that the client had commissioned the National Institute of Oceanography (NIO), the author of the original marine EIA, to collect experimental fish

catch data as part of a marine impact ‘model confirmation study,’ and that this study would be validated by another independent or government agency.

54. In October 2014, IFC reported that BNHS had completed sea turtle monitoring for 2013-2014 and that a report had been produced.
55. In October 2014, IFC also confirmed that the data collection for the NIO model confirmation study had been completed, and that the study was expected to be submitted by the end of November. IFC stated that, based on these studies, it would determine whether additional actions were required to meet its PSs. Terms of reference for further studies on marine biodiversity in the project area were reported as being under preparation.
56. The complainants assert that they have not been engaged with or notified about the progress of these studies. They express concern at the delay taken to complete the studies and to take any remedial action. Further, the complainants state that they have previously opposed NIO carrying out such studies because they view it as discredited. They also query how IFC intends to ensure the independence of the verifying agency.

#### Monitoring Status

57. CAO acknowledges the ongoing turtle monitoring studies which CGPL has commissioned as part of its assessment of the project’s impact on biodiversity and endangered species. The work on turtle monitoring to date suggests that endangered green turtles (*Chelonia mydas*) are present in the area in low numbers. However, CAO notes that sea turtle monitoring was not conducted as part the project’s original baseline studies and that an assessment of project impact on the local sea turtle population appears to be outside the scope of the ongoing studies.
58. In relation to the broader marine impact of the project, it is unclear that IFC is addressing the essence of CAO’s findings. The NIO marine impact model confirmation study was not available as at the time of writing and the additional marine biodiversity monitoring study mentioned in IFC’s November 2013 action plan had yet to be procured. While IFC has noted that it has provided feedback on the terms or reference for the marine biodiversity mapping study, the precise scope of the advice provided remains unclear, particularly whether this included adequate guidance on the requirements of PSs, including PS6.
59. This item remains open for monitoring.

#### **F. Cumulative impact and third party risk**

60. The CAO audit found that IFC’s E&S review paid inadequate attention to issues of cumulative impact and third-party risk emerging from the project’s proximity and relationship with neighboring facilities including:

- i) the Adani power plant (with which CGPL shares a cooling water intake channel, and which impacts the same airshed); and
  - ii) the Mundra Port and Special Economic Zone (MPSEZ), in particular the West Port (which is used to unload coal for the two power plants).
61. The audit found that effects of submarine noise, light, heat, and other aquatic disturbance from the project on marine life was not adequately reviewed as part of the marine impact assessment process. The audit also found shortcoming in terms of the manner in which IFC considered cumulative impact of CGPL's emissions on the airshed.
62. In response to the audit, IFC maintained that only thermal discharge and emissions to air were required to be assessed, as these were the cumulative impacts "generally recognized as important on the basis of scientific concern or concerns from the Affected Communities".<sup>11</sup> The response also stated that IFC "recognized CGPL's lack of influence and control" in relation to impacts related to broader development of the coastal zone near the plant.
63. The IFC action plan referred to the client's plans to expand the existing 4150MW plant with two new 830 MW supercritical units. It stated that, although the expansion was not itself an IFC project, the client would upgrade the ESIA for this project in accordance with IFC PSs. This would include assessment of third party risks and cumulative impacts. IFC committed to review the findings of this assessment in light of the current baseline ambient particulate matter levels and "take a view on application of the stack emission requirements...". The action plan does not make any specific commitment in relation to other potential cumulative impacts.
64. IFC has provided CAO with the final EIA report for the proposed expansion prepared by Tata Consulting Engineers Ltd., dated December 2013.<sup>12</sup> The 2013 EIA contains cumulative impact analysis in relation to air quality but not in relation to marine impact. IFC has advised CAO that it intends to review the 2013 EIA, however, no documentation of a review was available at the time of writing.
65. The complainants assert that there has been no action taken to address the cumulative impact of the client's operations. They recommend that IFC establish an independent body to assess the cumulative impact of the project and develop a mitigation plan to address the impacts.

#### Monitoring Status

66. CAO notes additional analysis in the 2013 EIA in relation to the cumulative impact of the project on air quality. This data confirms that the airshed around the plant should be

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<sup>11</sup> IFC, Response to CAO's Audit Report on IFC's Investment in Coastal Gujarat Power Limited (CGPL) India (September 12, 2013), pp. 8-9.

<sup>12</sup> Tata Consulting Engineers, Final Environment Impact Assessment Report for Proposed Expansion of CGPL.

considered degraded under the World Bank Group Thermal Power Guidelines (1998) on the basis of elevated PM<sub>10</sub> levels, though the EIA states that this is a natural phenomenon. The 2013 EIA also predicts that the cumulative impact of the expansion project will lead to significantly increased ambient SO<sub>2</sub> levels in locations including the bunders where the complainants live. In some locations these are predicted to exceed the World Bank's degraded airshed threshold of 50 µg/m<sup>3</sup> as a result of which no net increase requirements for emissions of particulates and sulfur dioxide would be required. At the same time CAO notes that CGPL's current reported ambient SO<sub>2</sub> remain well below this level<sup>13</sup>.

67. On the basis of information provided by IFC it is not evident that IFC has taken action to address CAO's findings regarding cumulative impact and third party risk as they relate to the potential marine and associated social impacts raised in the complaint to CAO.
68. This item remains open for monitoring.

## **G. Project Supervision**

69. The CAO audit found that IFC had dedicated significant resources to project supervision and was in regular communication with its client regarding E&S issues. However, it also found that a framework for effectively monitoring the E&S impact of the project had not been established. The lacking element was noted as being a consolidated statement of the requirements against which performance was monitored, using verifiable data.
70. In its action plan, IFC stated that its client had committed work to prepare a comprehensive document detailing each E&S requirement under its obligations to its lenders, including for the operation phase. This comprehensive document, it was stated, would help to ensure efficient monitoring of compliance.
71. In its October 2014 update, IFC informed CAO that the client had required its E&S advisor to prepare such a document, and that work was currently in progress. IFC noted that the client was following up with the consultant to expedite this process, and that IFC would engage with the client once the document was received.
72. The Complainants note that they are not aware of any mechanism put in place by CGPL to efficiently monitor E&S impacts, and that neither an E&S management plan or additional monitoring data had been disclosed to them.

### Monitoring Status

73. As reported by IFC, the client has not yet prepared a comprehensive, consolidated statement of its E&S requirements for the purpose of project monitoring. CAO

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<sup>13</sup> CGPL (April 2014) Half Yearly Compliance Report. <http://www.tatapower.com/sustainability/pdf/CGPL-6-mthly-EC-compliance-H2FY14.pdf>

acknowledges IFC's report that the client is working on developing such a document. This item will remain open for monitoring.

## **Conclusion/Next Steps**

74. Since the release of the CAO audit in October 2014, IFC has reported a number of steps taken by its client. These are articulated by IFC as addressing key findings from the CAO audit and include:
- Completion of a socio-economic survey of villages and seasonal settlements within the Project's area of influence, and commissioning of a report on socio-economic changes in these villages;
  - Ongoing consultation and community engagement with project-affected peoples, including a June 2014 meeting with representatives of the complainants;
  - Community development activities in nearby fishing communities including the provision of drinking water, the purchase of fishing nets and support for education;
  - Monitoring of ambient air quality and coal / ash dust in neighboring communities;
  - Completion of phase two of a sea turtle monitoring initiative;
  - The commissioning of a model confirmation study in relation to the marine impact of the project; and
  - Cumulative assessment of the project's impact on air quality in the context of plans for future expansion.
75. While acknowledging the actions reported by IFC, CAO does not find them sufficient to address the findings of the audit at this stage. In particular, CAO notes that a number of its findings suggest the need for a rapid, participatory and expressly remedial approach to assessing and addressing project impacts raised by the complainants. Such measures are not well developed in IFC's reporting which focuses on the commissioning of technical studies as well as corporate social responsibility measures implemented by the client.
76. CAO also notes technical non-compliance findings regarding the application of pollution control standards that have not yet been addressed. Specifically, CAO refers here to the World Bank's Environmental, Health and Safety Guidelines in relation to: (a) new power stations in areas with degraded airsheds; and (b) the thermal emissions of the project's cooling system which releases warm water into the sea.
77. CAO will keep this audit open for monitoring. CAO plans to issue a follow up monitoring report in relation to this audit no later than November 2015.