



APPRAISAL REPORT

CAO Appraisal for Audit of IFC

CAO Compliance

CAO Ref Code

27 July 2012

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**Coastal Gujarat Power Limited**  
**India**

**Case of**

Machimar Adhikar Sangharsh Sangathan (MASS)

***Summary***

This appraisal relates to IFC's investment in Coastal Gujarat Power Limited (CGPL), a 4000MW coal fired power station in Gujarat India. The complaint was brought by the Association for the Struggle for Fishworkers' Rights (MASS) representing fisherfolk in the vicinity of the project. The complaint relates to alleged and anticipated adverse impacts of the plant on livelihoods and environment.

Having reviewed the complaint and related documentation CAO concludes that a number of issues raised by the Complainants merit further enquiry. Thus, in accordance with its Operational Guidelines, CAO will develop Terms of Reference for an audit of IFC's social and environmental performance, in particular:

- whether the IFC exercised due diligence in reviewing CGPL's environmental and social (E&S) assessments;
- 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;
- whether Performance Standard 5 has been correctly applied with regard to the Complainants' seasonal fishing settlements and fish drying areas;
- whether IFC provided CGPL with adequate guidance on the drafting of an Action Plan that met the requirements for specificity set out in Performance Standard 1;
- whether IFC exercised due diligence in its review of CGPL'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.

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## **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.*

The CAO (Office of the Compliance Advisor/Ombudsman) is an independent post that reports directly to the president of the World Bank Group. The 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 the CAO, please visit [www.cao-ombudsman.org](http://www.cao-ombudsman.org)

## 1. Overview of the CAO Compliance Appraisal process

When the CAO receives a complaint about an IFC or MIGA project, the complaint is first referred to the dispute resolution arm of the CAO, CAO Ombudsman, which works to respond quickly and effectively to complaints through facilitated settlements, if appropriate. If the CAO Ombudsman concludes that the parties are not willing or able to reach a facilitated solution, the case will be transferred to the compliance arm of CAO, CAO Compliance for appraisal and potential audit.

In the context of a CAO compliance audit, at issue is whether:

- The actual social or environmental outcomes of a project are consistent with or contrary to the desired effect of the IFC/MIGA social and environmental policy provisions; or
- A failure by IFC/MIGA to address social or environmental issues as part of the appraisal or supervision resulted in outcomes that are contrary to the desired effect of the policy provisions.

A compliance audit is concerned with assessing the application of relevant policy provisions and related guidelines and procedures to determine whether IFC and MIGA are in compliance. The primary focus of compliance auditing is on IFC and MIGA, but the role of the sponsor may also be considered.

In order to decide whether a full audit is warranted, CAO Compliance first conducts a compliance appraisal.

A compliance appraisal, and any audit that ensues, is limited to issues related to the complaint. CAO Compliance may seek clarification during the appraisal, but will not accept an expansion away from issues related to the complaint and identified during the assessment done by the CAO.

To guide the appraisal process, the CAO applies several criteria. These are framed as a series of questions to test the value of undertaking a compliance audit.

- Is there evidence of significant adverse social and environmental outcome(s) as a result of the project now or in the future?
- Are there indications that a policy or other audit criteria has not been adhered to or properly applied?
- Is there evidence that indicates that IFC/MIGA's provisions, whether or not complied with, have failed to provide an adequate level of protection?
- Is there an argument for the value of an audit, either because a compliance audit is likely to support the realization of better social and environmental outcomes in the project under review, or because a compliance audit could yield information or findings that might better inform the application of policies (or other audit criteria) to future projects?

As part of the appraisal process CAO Compliance reviewed relevant documentation and held discussions with the IFC project team and other relevant parties to understand the validity of the concerns, which criteria IFC used to assure itself/themselves of project performance, how IFC assured itself of compliance with these criteria, and generally whether an audit is the appropriate response. In addition to providing access to project documentation the IFC team provided detailed written responses to CAO's enquiries.

After a compliance appraisal has been completed, the CAO can choose one of two options: to close the case, or to initiate a compliance audit.

The CAO will report and disclose the findings and decision of the CAO compliance appraisal in an appraisal report in order to inform the President of the World Bank Group, the Boards of the World Bank Group, senior management of IFC or MIGA, and the public in writing about its decision.

If the CAO decides to initiate a compliance audit as a result of the compliance appraisal, the CAO will draw up a Terms of Reference for the audit in accordance with CAO's Operational Guidelines.

## 2. Background

As part of the Government of India's Ultra Mega Power Project, Coastal Gujarat Power Limited (CGPL) is in the process of building a supercritical coal fired power plant<sup>1</sup> with a capacity of over 4000 MW at the port town of Mundra in the Kutch district of Gujarat, India (the Project). CGPL is sponsored by Tata Power Company Limited (Tata Power) which acquired 100 percent of CGPL on a build, own and operate basis. In March 2012, CGPL announced the successful commissioning of the first of its five 800 MW units. The second unit is scheduled for commissioning by August 2012.

The Project is being developed in the context of India's larger energy strategy which calls for a 160,000 MW increase in power generation capacity through 2017 in order to sustain a growth rate of 8 percent per annum. CGPL is one of several large power projects that are being promoted under the Government of India's Ultra Mega Power Project (UMPP). As a UMPP plant the Power Finance Corporation (a government company) selected the project site, technology and type of fuel to be used as well as obtaining required initial approvals for the plant. The Project was awarded to Tata Power through tariff-based competitive bidding in 2007. The Project is intended to generate electricity for sale to the utilities of five different states in regions of western and northern India through a long term 25 year take-or-pay power purchase agreement.

Total project cost is estimated at US\$4.14 billion out of which IFC is financing US\$450 million in the form of a straight senior loan. The Project was assigned IFC's environmental and social category A, signifying that it could have significant adverse social and/or environmental impacts that are diverse, irreversible, or unprecedented.

CAO received a complaint regarding IFC's investment in CGPL from Machimar Adhikar Sangharsh Sangathan – the Association for the Struggle for Fishworkers' Rights (MASS) representing fisherfolk in the vicinity of the project (the Complainants) in June 2011. According to its Assessment Report dated January 2012, the CAO Ombudsman determined that it was unable to facilitate a resolution to the issues raised by the complainants. The CAO Ombudsman thus referred the complaint to CAO Compliance for appraisal and potential audit on February 1, 2012.

Significant in the context of the complaint is the fact that the coastline around Mundra is undergoing a rapid industrial transformation. This involves, in addition to the construction of the CGPL power plant, the development of the the Adani Group's Mundra Port and Special Economic Zone (MPSEZ) which includes significant expansion of existing port facilities and the construction of a 4620MW coal fired power plant (Adani Power).

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<sup>1</sup> Supercritical coal fired power plants operate at higher temperatures than conventional subcritical and thus produce power more efficiently and with lower GHG emissions.

### 3. Summary of the Complaint

The issues raised by the Complainants can be summarized as follows:

- a) Failure to identify the complainants as project affected people during preparation of the project;
- b) Physical and economic displacement of fisher folk from seasonal settlements and fish drying areas in the intertidal zone;
- c) Impact of coal ash and other airborne pollution on fish drying and public health;
- d) Compliance with national regulations in relation to the decision to construct a once through cooling system;
- e) Impacts on marine environment and long term decline in fish stocks due to destruction of mangroves; and construction / operation of the plant (especially the cooling system);
- f) Failure to consider expansion of Mundra port as an associated development or to consider the investment in the context of cumulative impacts of related developments;
- g) Impacts on additional livelihood groups, namely graziers and salt pan workers, that were not adequately identified or mitigated;
- h) Social impacts of increases in the cost of power beyond that which was projected in the project documentation;
- i) Failure to consider technically and financially feasible design alternatives to minimize E&S impact;
- j) Adequacy of IFC's supervision of E&S aspects of the Project.

### 4. Discussion and Findings by Issue

- a) *Failure to identify the complainants as project affected people during preparation of the Project.*

The Complainants assert that the interests of fisherfolk were not adequately considered in the social and environmental assessment processes that accompanied project preparation. They argue that the Project's various social and environmental impact assessments overlook fishing communities living in seasonal settlements on the coast near the plant and underestimate the importance of traditional hand and gill net fishing in the intertidal areas and creeks. The Complainants identify three villages, Tragadi, Navinal/Kutadi and Modhva, and associated seasonal fishing settlements as project affected.

The IFC project file documents a range of consultations with villagers and elected officials starting in 2006. The focus of village level consultations prior to the commitment of IFC funds in April 2008 was on three Project Affected Villages as defined in the Baseline Social Impact Assessment (BSIA), Tunda, Mota Kandagara & Nana Bhadiya, however early consultations with some representatives of fishing communities are also documented.<sup>2</sup> Fishing communities are identified in the BSIA as "Project Affected Community Resource Users." The BSIA acknowledges indirect impacts of the project on fishermen but neither particular fishing communities or specific impacts

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<sup>2</sup> For example: Minutes of a public hearing in September 2006 reference two questions raised in relation to fisheries though participation from Tragadi, Navinal/Kutadi or Modhva villages is not documented; the BSIA (2007) also annexes minutes of one, two hour meeting at Kutadi Bandar (Harbor) involving seven villagers.

are identified. Corresponding mitigation measures are described generally as follows: “The project activities and community development plan will identify appropriate livelihood options for them and facilitate their transition” (BSIA (2007) p.38).

Once the location of the outfall channel was finalized, the IFC project file documents consultations between CGPL and fishing communities using the intertidal area (in particular Tragadi, and Modhva). Mitigation, compensation and livelihoods measures targeted at fishing families in Tragadi and Modhva are also documented.

IFC’s assessment of broad community support (BCS) was carried out in early 2008. The BCS memo was completed on 14 March 2008. Based on field visits and a review of documentation provided by the client, the BCS memo finds that CGPL has actively and effectively consulted with and raised the awareness of affected communities about the project’s impacts and benefits. It also references a mitigation framework that addresses key concerns of affected communities including households dependent on livestock rearing, noting that this framework is acceptable to the affected communities. Fishing communities are not specifically mentioned in the BCS memo.

Relevant IFC social and environmental requirements include: (i) Performance Standard 1 (PS1) which sets out processes that clients are expected to put in place to assess and manage environmental and social impacts; and (ii) as this is a category A project, IFC’s obligation to assure itself that the client’s community engagements involve free, prior informed consultation leading to broad community support for the project within affected communities.<sup>3</sup>

The CAO compliance appraisal process does not support a finding on whether IFC exercised due diligence in evaluating CGPL’s social and environmental assessments, in particular as to whether the assessments were “adequate, accurate, and objective ... prepared by qualified and experienced persons” and “based on current information, including an accurate project description...” as required by PS1.

CAO is similarly unable to reach a conclusion in relation to the robustness of IFC’s assessment of BCS, in particular whether the stakeholder assessment relied upon for the BCS process identified “all project-affected communities, their disaggregation (numbers, locations) in terms of different levels of vulnerability to adverse project impacts and risks, and an analysis of the effect of adverse project impacts and risks on each group” as required by the IFC’s E&S Review Procedures (ESRP, Version 2.0., p.35).

*b) Physical and economic displacement of fisher folk from seasonal settlements and fish drying areas in the intertidal zone;*

The Complainants contest the characterization of the project area as without habitation or settlement and thus not requiring any resettlement. Specific concerns relate to the construction of fences and channels that increase the length of the return trip from the village to the fishing settlement and loss of access to fish drying areas.

A review of IFC project documentation shows that Performance Standard 5 (Land Acquisition and Involuntary Resettlement) was applied in relation to the rights of land holders and users in the Project Affected Villages. Fishing families, living in seasonal settlements in the intertidal zone, however, were not considered as having been displaced by the project.

In addition to physical displacement, PS5 applies to instances of economic displacement “if land acquisition for the project causes loss of income or livelihood, regardless of whether or not the affected people are physically displaced...” (para. 20 (2006)). PS5, however, does not apply to

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<sup>3</sup> *Policy on Social and Environmental Sustainability* (2006), p.4.

“adverse economic, social or environmental impacts from project activities other than land acquisition” (para. 6 (2006)).

The CAO compliance appraisal process does not support a finding on whether PS5 has been correctly applied with regard to the complainants’ seasonal fishing settlements and fish drying areas.

*c) Impact of coal ash and other airborne pollution on fish drying and public health;*

The Complainants assert that fish drying activities are affected by coal ash/dust which diminishes the marketability of the product. Coal ash/dust is noted on roof-tops and on the bodies of villagers when they sleep on their terraces over night. The Complainants have concerns that high wind may lead to ash blowing off ash ponds; that chimneys may not be the requisite 275m and that these problems will increase as more CGPL units come on line. Possible exposure to increased radioactivity due to presence of coal ash is also raised as a concern.

The IFC Environmental and Social Review Summary (ESRS) provides that the project was expected to meet emissions standards as set out in the World Bank Group’s *Thermal Power: Guidelines for New Plants (Pollution Prevention and Abatement Handbook (1998))* and *General Environmental Health and Safety (EHS) Guidelines (2007)* (ESRS (2008), p.8). Project emissions were modeled as part of the Comprehensive Environmental Impact Assessment (CEIA, 2007). An analysis of cumulative impacts of the Project and phase one of the neighboring Adani Power plant on air quality was included in the Supplementary Environmental Impact Assessment (SEIA, 2007). Existing ambient air quality levels of the proposed project site and its surrounding villages are described as “good” and resultant pollution levels are predicted to be within the National Ambient Air Quality Standards (NAAQS) of India (*Ibid.*, p.9). Ash/dust control measures include: construction of 275m stacks as designed; transport of coal in an enclosed conveyor belt (largely) at ground level; a closed system for fly ash handling, transport and storage; slurry transport and storage of bottom ash to ash pond; provision of dust collection/suppression; additional plans to set up physical barriers (boards) along the length of the coal conveyor; construction of a wind barrier of 9m at the coal yard; use of dust suppressants based on industry best practices and installation of an ESP (Electrostatic Precipitator) “designed to ensure that particulate matter emissions are limited to 50 mg/Nm<sup>3</sup>” (*Ibid.*, p.8). Radioactivity of ash residues was not identified as a significant risk and is not currently being monitored.

CAO notes that high Particulate Matter (PM) levels have been evident at the site for some time. At baseline (CEIA, 2007) average ambient PM<sub>10</sub> level in surrounding villages over three seasons was reported at 67.9µg/m<sup>3</sup>. This measure, while below the NAASQ 24 hour standard of 100 µg/m<sup>3</sup>, significantly exceeded the annual average standard for PM<sub>10</sub> in rural and residential areas of 60µg/m<sup>3</sup>. It is also noted that annual average PM<sub>10</sub> of 50µg/m<sup>3</sup> constitutes the threshold for a degraded airshed of moderate air quality under the *EHS Guidelines for New Thermal Power Plants (1998)*. Initial indications are that CGPL stack emissions are within standards and that the company is undertaking measures to limit fugitive emissions from conveyor belts and coal piles.<sup>4</sup> On the other hand PM levels would appear to have increased significantly since the CEIA was conducted, with recent data from CGPL showing ambient PM<sub>10</sub> averaging 167µg/m<sup>3</sup> during the period October 2011 – March 2012.<sup>5</sup> In these circumstances CAO is not able to reach a conclusion on the robustness of IFC’s initial review and subsequent supervision of the Project’s impact on ambient air quality.

<sup>4</sup> Quarterly E&S Performance Report (Jan-Mar 2012), available at <http://www.adb.org/projects/41946-014/documents> (Accessed 18 July 2012).

<sup>5</sup> CGPL Half Yearly Compliance Report (18 April 2012). available at <http://tatapower.com/sustainability/pdf/CGPL-18-04-2012.pdf> (Accessed 18 July 2012).



*d) Compliance with national regulations in relation to the decision to construct a once through cooling system;*

The Complainants raise concerns that the company has not received necessary environmental clearances to construct a once through cooling system; that the environmental clearance for CGPL's intake channel was not obtained; and that publically available information in the form of studies supporting the construction of a shared intake channel with the Adani plant are absent.

Of relevance to the construction of the once through cooling system, CAO notes that a Marine Environmental Impact Assessment (MEIA, 2009) and amended environmental clearances are posted on the Tata Power website.<sup>6</sup>

Having reviewed these documents, CAO finds that IFC adequately assured itself that regulatory clearance was obtained in relation to: (i) the construction of a once through cooling system and (ii) the change in the location of the construction of the outfall channel. CAO is, however, not able to reach a conclusion on whether the IFC assured itself that required clearances for the joint intake channel were in place.

*e) Impacts on marine environment and long term decline in fish stocks due to destruction of mangroves; and construction / operation of the plant (especially the cooling system);*

The Complainants raise concerns that the operation of a once through cooling system will cause harm to marine environment. Specifically is alleged that construction of the outfall channel will affect 200-250ha of mangrove forest, and that both Kotdi and Modhva Creeks were dredged and denuded of vegetation. This is seen as an irreparable loss to the local ecology which has badly impacted fish availability, and high value lobsters.

The Complainants also highlight the finding in the Rapid Marine Environmental Impact Assessment (RMEIA, 2007) that “no large scale commercial fishing operations prevail in these shallow creeks except for minor shore based hand net and gill net operations,” (p.55) which is seen as an indication that the importance of shore based fishing activities, a significant means of livelihoods for coastal families, are being underestimated. A decline in fish and lobster catches over the three year period (2009/10 – 2011/12) is asserted.<sup>7</sup> This decline predates the commissioning of the first CGPL unit and thus is primarily attributed to the Adani Power and associated port developments. It is, however, seen as indicative of problems that will be exacerbated once CGPL comes on line. Additional specific concerns include indications of chemical contamination in the outfall channel, and the risk to fish seedlings in the intake channel.

IFC is obliged to conduct an E&S review of the project including CGPL's E&S impact assessment(s) to ascertain whether the project could be expected to meet the Performance Standards. This is undertaken as part of IFC's efforts to carry out investments “in a manner that ‘do no harm’ to people or the environment” and ensuring that negative impacts are avoided where possible and where unavoidable “reduced, mitigated or compensated for appropriately” (PSES (2006) para 8). As discussed above more specific standards are provided by the World Bank's *EHS Guidelines for New Thermal Power Plants (Pollution Prevention and Abatement Handbook (1998))* and *General EHS Guidelines (2007)*

IFC's review of the marine impacts of the project was primarily based on the two marine impact assessments conducted by the National Oceanographic Institute (NOI) RMEIA (2007) and the MEIA (2009). Based on the studies commissioned, CAO finds that it was open to IFC to conclude

<sup>6</sup> See <http://tatapower.com/sustainability/statutory-clearances.aspx> (Accessed 05 July 2012).

<sup>7</sup> *The Real Cost of Power* (2012), available at <http://www.bicusa.org/en/Article.12658.aspx> (Accessed 18 July 2012).

that - with appropriate mitigation measures in place - the project was unlikely to have significant negative impacts on the marine environment. Based on a preliminary review of available data, CAO finds the claim that the Project has led to the loss of 200-250ha of mangroves is difficult to sustain (although the RMEIA suggests that smaller areas of mangrove may be impacted). The MEIA also identifies the likelihood of “limited degradation” of a “small area around the discharge channel” (p.65) without further defining the extent or area of degradation. While such impacts may legitimately be considered minor in the context of the surrounding marine environment, CAO cannot discount the possibility that they may be socially and economically significant to households that derive part of their livelihood from in shore fishing, as is claimed to be the case here. CAO notes that CGPL commissioned a Stakeholder Engagement and Benefit Sharing study which establishes a social baseline for Tragadi Village in 2011. As set out above, CAO also notes that CGPL has put in place measures to assist the fishing communities of Tragadi and Modhva and that CGPL has supported a ‘mangrove afforestation program’ elsewhere in Gujarat. Nevertheless, it is not at this stage clear to CAO whether IFC has taken adequate steps to assure itself that the marine impacts of the Project on fishing communities have been adequately identified, mitigated and compensated for. More specifically, it is unclear to CAO, whether IFC exercised due diligence in assuring itself that CGPL’s cooling discharge water temperature would meet the thermal discharge guidelines (3° Celsius at the edge of the mixing zone) as set out in the ESRS (p.9).<sup>8</sup>

*f) Failure to consider expansion of Mundra port as an associated development or to consider the investment in the context of cumulative impacts of related developments;*

The Complainants argue that Mundra port should have been considered an associated facility and that failure to consider cumulative impacts on marine ecology and livelihoods was in breach of PS1. Developments that should have been included in a cumulative impact assessment are argued to include: expansion of the Mundra Port, Adani power station, and other infrastructure and industrial development on the Gulf of Kutch.

CAO finds that, while CGPL is a major customer for Mundra port, it does not meet the test of being “a facility whose viability and existence depends **exclusively** on the project” (PS1 (2006) para.5, emphasis added). The newly developed Mundra West Port, or parts thereof, may come closer to being an associated facility, as according to Adani Group documents, CGPL has berthing priority at two of the three berths that are currently operating in the West Port.<sup>9</sup> Still as the West Port services a significant volume of non-CGPL cargo it is not clear that it meets the exclusive dependency test for associated facilities as set out above. On the other hand, as flagged in the IFC Investment Review Memorandum, the system for transporting coal from port to CGPL should be considered part of the project’s area of influence, either as an associated facility or as a related facility that the client controls.<sup>10</sup>

According to PS1 (2006) cumulative impacts that need to be considered in terms of a project’s area of influence are those from (i) “further planned development of the project”, (ii) “any existing project or condition”, and (iii) “other project related developments that are realistically defined at the time the E&S Assessment was undertaken.”

CAO finds that IFC acted in accordance with PS1 in considering the cumulative impact of Adani Power’s Phase I operations on the airshed while relying on the regulator to assess the cumulative

<sup>8</sup> In reaching this conclusion CAO notes that current discharge temperatures are reported as being within design parameters with an average temperature increase of +5.3°C at the point of discharge.

<sup>9</sup> Berthing Policy and Tariff Structure at APSEZ (2012). Available at [www.mundraport.com/port\\_operations/download2.php?f=33.pdf](http://www.mundraport.com/port_operations/download2.php?f=33.pdf) (Accessed 18 July 2012).

<sup>10</sup> Note at the time of the IRM (13 November 2007) it was not clear if coal would be transported from port to CGPL by rail or conveyor.

impact of subsequent phases of the development. It is, however, unclear to CAO whether the IFC gave adequate consideration of the broader environmental impacts of Adani Power or the construction of the West Port in its E&S review. It is similarly unclear to CAO whether IFC's policies and procedures provide adequate guidance to staff on how to manage E&S risks associated with projects in areas that are poised to undergo rapid industrial development with uncertain environmental and social consequences.<sup>11</sup>

*g) Impacts on additional livelihood groups, namely graziers and salt pan workers, that were not adequately identified or mitigated*

In addition to impacts on fisher folk the Complainants argue that salt pan owners and workers have been impacted by loss of access to land (mud flats used for salt panning); reduction in salt quality due to ash/dust; and associated health impacts (additional complaint). Negative impacts on households that derive their livelihoods from grazing are also raised.

In responding to these issues CAO recalls that its Operational Guidelines (OGs) define its mandate in terms of assisting 'IFC and MIGA in addressing complaints by people affected by IFC/MIGA projects' (OG 1.1). In order to ensure that complaints do in fact come from project affected people, organizations representing project affected people are required to identify the people on whose behalf the complaint is made and provide evidence of authority to represent them (OG 2.2.2). In this case the complaint was brought by an organization representing fisherfolk (MASS - Association for the Struggle for Fishworkers' Rights). The focus of the initial complaint and the CAO Ombudsman process was also on issues relating to fisherfolk. As MASS did not establish itself as representative of other livelihood groups this appraisal will not consider issues raised subsequent to conclusion of the CAO Ombudsman process in relation to salt pan workers and graziers as part of the current process.

*h) Social impacts of increases in the cost of power beyond that which was projected in the project documentation;*

The Complainants note that the Project was approved on the basis of an expected development outcome that included enhanced access to electricity through the supply of cheap and reliable power. However, given unrealistic assumptions regarding the price of coal and other project inputs, it is argued by the Complainants that CGPL will need to secure an increase in the agreed tariff in order for the project to be viable. On this basis the Complainants assert that the project will not be able to deliver the pro-poor development outcomes that were central in justifying the investment.

CAO notes that its compliance mandate is triggered in response to concerns regarding specific projects and their environmental or social impacts in order to ensure ex-post compliance with policies, guidelines, and procedures (OG 1.2). Criteria for a CAO compliance audit include IFC/MIGA policies, performance standards, guidelines, procedures and requirements whose violation might lead to **adverse** social or environmental consequences (OG 3.2, emphasis added). This issue relates to a concern that the project will not deliver an anticipated social benefit as opposed to a claim that it will have adverse social or environmental consequences. As such this issue falls outside the CAO Compliance mandate.

*i) Failure to consider technically and financially feasible design alternatives to minimize E&S impacts of the project;*

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<sup>11</sup> CAO notes that changes to PS1 effective January 1, 2012, while not applicable in the present case, include less restrictive definitions of associated facilities and cumulative impacts which may go some way to addressing these issues.

The complainants allege failures to consider technically and financially feasible design alternatives to minimize the E&S impact of the project at a number of levels. These include specific decisions regarding the design of the cooling system chosen and more general concerns that alternatives to what is seen as a socially and environmentally harmful project were not adequately considered. In relation to the design of the cooling system the complainants argue that the once through design chosen is outdated and cite a California Energy Commission study that finds that this technology is harmful to marine life.<sup>12</sup> At the more general level it is argued that Tata's CGPL bid significantly underestimated its fuel and construction costs which weakened the argument for the competitiveness of what otherwise might have been feasible (and less environmentally damaging) alternative sources of power.<sup>13</sup>

PS1 and PS6 specifically require consideration of alternatives to the source of impacts in the case of "projects with potential significant adverse impacts that are diverse, irreversible or unprecedented," (PS1) or where a project is expected to "significantly convert or degrade" a natural habitat (PS6). In addition, in case of projects that are required to produce significant quantities of GHGs, PS3 requires IFC clients to "evaluate technically and financially feasible and cost effective options to reduce or offset project related greenhouse gas (GHG) emissions...."

The RMEIA (2007) includes consideration of both once through and recirculation cooling systems, finding the once through design preferable from a marine environment perspective. It also considers variants on the once through design concluding that the release of effluent through a channel would be preferable to pipes. The SEIA (2007) also outlines reasons why alternative sites and cooling system designs were not chosen (p.48). As mentioned above, according to the MEIA (2009) and the RMEIA (2007), the project was not expected have significant impacts on the marine environment with appropriate mitigation measures in place. Thus, assuming IFC exercised due diligence in its evaluation of CGPL's environmental impact assessments as discussed under (a) above, CAO finds that no further consideration of alternative designs for the cooling system was required.

The broader question on design alternatives turns on whether IFC's acceptance of what are alleged to be flawed costing assumptions prevented due consideration of cleaner sources of power. This argument is difficult to make as IFC appraised the project after Tata Power had won the bid for CGPL. That CGPL should be a 4000MW power station using super critical coal fired technology was decided by the Government of India's Power Finance Corporation. It is thus not to be expected that the client, in its E&S assessments, should have been required to consider alternative designs at this level. The question then becomes whether IFC acted in accordance with its policies in deciding to finance the project.<sup>14</sup>

IFC considered the project's GHG emissions, its costing assumptions (including coal prices), and the viability of alternative sources of energy as part of its review process. The ESRS acknowledges that the Project will produce significant GHG emissions but places this fact in the context of the thermal efficiency of the planned plant which is estimated to be better by 70%, 30% and 20% than

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<sup>12</sup> Californian Energy Commission (2005) *Issues and Environmental Impacts Associated with Once-Through Cooling at California's Coastal Power Plants*, available at <http://www.energy.ca.gov/2005publications/CEC-700-2005-013/CEC-700-2005-013.PDF> (Accessed 18 July 2012).

<sup>13</sup> According to the complainants, the CGPL' assumed coal prices were \$15/mt and \$25/mt over the relevant market price for coal at the time of the bid and award respectively, and \$74/mt over the February 2012 benchmark price for Indonesian coal. Construction costs (\$1.05 million per MW) are also argued to have been under estimated in comparison to similar plants in India and to have increased due to weakness of the Rupee and other factors.

<sup>14</sup> Note unlike World Bank Operational Policy 4.01, the IFC E&S requirements do not require IFC to consider the 'without project' alternative.

the average thermal efficiency of coal based power plants in India, across the globe and in OECD countries. On this basis IFC argues that the project will result in a reduction of average carbon emissions of India's electricity generation system per unit of electricity supply. CGPL's costing assumptions were also the subject of analysis by IFC prior to approval of the project. While estimates of fuel costs were seen to be low, IFC found that CGPL had taken reasonable measures to mitigate the risk of increasing coal prices by securing a long term contract for Indonesian coal as well as a significant equity stake in the Indonesian mines from which coal was being sourced. As part of its review of the project, IFC also considered alternative sources of power but found these to be either significantly more expensive, or involving technical, social and environmental hurdles, which meant that they were not viable substitutes for a significant increase in coal fired capacity.

While the conclusions reached are no doubt open to debate, CAO is reluctant to review IFC management decisions on project selection unless there is a clear lack of conformance with relevant policies. The key requirement here is that IFC will "not finance new business activity that cannot be expected to meet the Performance Standards over a reasonable period of time" (PSES, para. 17). In this case (again assuming IFC exercised due diligence in its evaluation of CGPL's environmental impact assessments as discussed under (a) above), CAO finds that it was open to the IFC to reach the conclusion that the project could be executed in accordance with the PSs and thus to move forward with the investment. While the CAO is not clear that the policies in place at the time provided adequate guidance to staff on how to realize the institution's commitment to "do no harm" principles (PSES (2006/12), paras.8/9) in relation to GHG emissions from coal fired power projects, subsequent developments in this respect are noted.<sup>15</sup>

*j) Adequacy of IFC's supervision of E&S aspects of the project*

The Complainants raise concerns that IFC supervision of the Project has been inadequate, in particular in its reliance on reports prepared by the external E&S Consultant.

IFC is required to monitor clients' E&S performance throughout the life an investment. Project supervision is conducted on the basis of annual monitoring reports submitted by the client and site visits as required by the IFC's E&S Review Procedures. In this case, the CGPL's reporting is supplemented by that of an external E&S consultant. The external E&S consultant reports exceptions/deviations from requirements, provides/recommends corrective actions and follows up on implementation of the recommended corrective action.

As required by the IFC's E&S Review Procedures, IFC and CGPL agreed on a reporting format for an 'Annual E&S Performance Report'<sup>16</sup> and the contracted consultant has produced quarterly and annual performance reports as required. Additional reporting and monitoring is conducted by CGPL.

CAO, however, wishes to seek clarification on three issues related to the way in which IFC structured and monitored CGPL's E&S responsibilities.

Firstly, the client's E&S commitments are expressed in terms that are difficult to monitor. This is a point made in the 2009/10 Annual E&S Performance Report in which it was noted that "...most of the provisions of the EMP are too generic to be actually implemented and tracked".<sup>17</sup> While these

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<sup>15</sup> See *Operational Guidance for World Bank Group Staff: Criteria for Screening Coal Projects under the Strategic Framework for Development and Climate Change* (March 2010), available at: [http://siteresources.worldbank.org/EXTENERGY2/Resources/CGN\\_20100331.pdf](http://siteresources.worldbank.org/EXTENERGY2/Resources/CGN_20100331.pdf)

<sup>16</sup> Exhibit 5.5(c)(B) to the Loan Agreement

<sup>17</sup> See Annual E&S Performance Report (2009/10) p.6. available at <http://www.adb.org/projects/41946-014/documents> (Accessed 18 July 2012). A similar comment is made in the 2008/9 Annual E&S Performance Report.

concerns may have been subsequently addressed, it is not clear to CAO that IFC provided CGPL with adequate guidance on the drafting of an Action Plan that meets the requirements for specificity set out in PS1. Secondly, CAO is unclear as to whether IFC exercised due diligence in its review of CGPL's E&S reporting obligations (both regulatory and lender). Finally, CAO is unable to reach a finding as to whether IFC has been sufficiently proactive in engaging with the client to remedy E&S issues that have been identified in project supervision.

## **5. CAO Decision**

Having reviewed the complaint and related documentation CAO concludes that a number of issues raised by the Complainants merit further inquiry. Thus, in accordance with its Operational Guidelines, CAO will develop Terms of Reference for an audit of IFC's social and environmental performance, in particular:

- whether the IFC exercised due diligence in reviewing CGPL's environmental and social (E&S) assessments;
- 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;
- whether Performance Standard 5 has been correctly applied with regard to the Complainants' seasonal fishing settlements and fish drying areas;
- whether IFC provided CGPL with adequate guidance on the drafting of an Action Plan that met the requirements for specificity set out in Performance Standard 1;
- whether IFC exercised due diligence in its review of CGPL'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.