



MUNDRA ULTRA MEGA POWER PROJECT

A Timeline of ADB Compliance Review Processes, Remedial Action Plans, and Outstanding Issues

Project At A Glance	
Project Name	Mundra (Coastal Gujarat Power Limited) Ultra Mega Power Project
Location	Mundra, Gujarat, India
Capacity	4150 MW
Year of Approval	2006-07
Total Cost	US\$4.14 billion
Lenders	ECB – International Finance Corporation, Asian Development Bank, Export-Import Bank of Korea, Korea

	Export Insurance Corporation, and BNP Paribas. National Banks/Institutions – State Bank of India, the India Infrastructure Finance Company Ltd., Housing and Urban Development Corporation Ltd., Oriental Bank of Commerce, Vijaya Bank, State Bank of Bikaner and Jaipur, State Bank of Hyderabad, State Bank of Travancore, and State Bank of Indore.
Loan ADB Sanctioned	US\$450 million
Year of ADB Approval	2008
Project Number	41946-014
Complaint filed with CRP	17 October 2013
Year of CRP Audit Report	9 March 2015
Remedial Action Plan (RAP)	July 2015
1st Annual Monitoring Report on the Implementation of RAPs	13 September 2016
2nd Annual Monitoring Report on the Implementation of RAPs	15 August 2017
3rd Annual Monitoring Report on the Implementation of RAPs	4 September 2018
Mundra Ultra Mega Power Project: Extended Annual Review Report	November 2020

The case replay

The northern coast of the Gulf of Kutch has been witnessing large-scale industrialization for the past two decades while a very large Special Economic Zone is also situated in the vicinity. Among several polluting industries housed across the sea coordinates, the Tata Mundra Ultra Mega Power Project or Coastal Gujarat Power Ltd (CGPL) is discernible because of its continuing saga of glaring multiplicities but all in the wrong directions: from little cognizance of the area's local economic activities to disregard of the specificities of its ecology and a lack of reading of its social identity – resulting in miring the coastal communities of Mundra district in a trying and unfair predicament.

In 2007, clearance was granted to Tata Power by the Government of India to set up a 4150 MW ultra mega thermal power project (Coastal Gujarat Power Limited) on over 1,250 hectares near Tunda-Wand village, close to the port city of Mundra on the coast of the Gulf of Kutch in Gujarat. Ultra Mega Power

Projects (UMPP) are ambitious power projects India envisaged in mid 2000s, with an aim to generate 100 GW by 2022. Out of the 14 UMPPs, Tata Mundra was the first one to be awarded.

Of the total area, about two-thirds comprises the Rann of Kutch and the Banni grasslands. Owing to this, most of the rural population derives a livelihood near the coast, and Mundra, because of its topography, also happens to be home to a large number of fishing communities benefiting from the area's estuarine potential. These fishing settlements thrive for eight to nine months and then the families return to their villages for the rest of the year. The area also supports other economic activities like salt-making, animal rearing, and cash crop cultivation. The groundwater levels in this *taluka* (block) are higher than in other parts of Kutch and hence the area is suited for intensive agricultural activities. However, it is these ecological specifics that at once render the dependent population vulnerable to large-scale development projects. Hence, particular stewardship is required on a number of fronts but especially in relation to environmental and social impact.

The project, based on imported coal and the supercritical steam technology, is designed to use low-ash imported coal from Indonesia, and thus was located in the coastal area adjacent to a port. Cut to April 2008: amongst many other financiers (for a total project cost of US\$4.14 billion), the Board of Directors of the Asian Development Bank (ADB) approved a loan of US\$450 million with a 20-year tenure for five power generation units, of which three units became operational in 2012 and two in 2013.¹ Between 2006 and 2014, i.e., before and close to the years in which the complaint was made (i.e. 2013), a number of benchmark environmental and social assessments² were carried out. Needless to say, these reports also formed the basis of project clearances at multiple levels. The anomalies in these assessments are the major points of contention between different stakeholders on various outstanding issues. The case becomes even more complicated when non-compliance by the financiers is attributed to the lack of baseline data on what happens to be some of the most obvious features of the geography in question.

The project held out the promise of clean technology contributing towards the Millennium Development Goals of energy access and efficiency. But the local populations have witnessed a tumultuous ride – the promise of subsidized inclusion into the country's power grids (later jettisoned because of "unviable operations with under-recovery of fuel costs"), change in land-use patterns with callous disregard for livelihood dependencies, displacement, denial of traditional rights, and the papering over of community demands and rights through band-aid measures over the years. Needless to say, this is not the only mega-industrial project in this fragile region. In little more than two decades or so, such developments in this largely rural but thriving local economy (fishing, salt-making, animal husbandry, and agri- and horticulture being the four primary economic activities) have only paved the way for increasing trials and tribulations for the community.

¹ ADB Private Sector (Nonsovereign) Loan No. 2419: Mundra Ultra Mega Power Project with approval number 7276. Details of this project are at http://adb.org/projects/details?proj_id=41946-014&page=overview

² [https://lnadbg4.adb.org/dir0035p.nsf/attachments/Mundra-CRPFinalReport-7Apr2015.pdf/\\$FILE/Mundra-CRPFinalReport-7Apr2015.pdf](https://lnadbg4.adb.org/dir0035p.nsf/attachments/Mundra-CRPFinalReport-7Apr2015.pdf/$FILE/Mundra-CRPFinalReport-7Apr2015.pdf)

Formally, the following complaints were lodged by the stakeholder groups and individuals:

- Failure to conduct free, prior, broad, and meaningful consultations with communities prevented us from adequately exercising our basic right to information and participation.
- Significant and irreversible loss of livelihood of fisherfolks because of the drastic decline of fish catch as a result of
 - (i) thermal pollution from the water discharged from the outfall channel, discharge up to 7°C above ambient temperature;
 - (ii) destruction of creeks and mangroves;
 - (iii) deoxygenation of warm water;
 - (iv) death of large numbers of seedlings with the pumped intake of water;
 - (v) chemical pollution of the discharge water.
- High-saline brine discharged from the desalination plant.
- Fishing grounds became highly inaccessible because of the enclosure, resulting in longer travel routes to fishing grounds.
- No employment for locals.
- Fly ash from the project falls on the fish put out for drying, making it inedible and non-marketable. The fish gets contaminated with toxic fly ash.
- Children's health at risk: roughly 20% increase in children's respiratory diseases.
- Impact on groundwater: In an area with little rain, these gigantic construction projects, along

with the port and other factories, have drawn massive amounts of water from the precious aquifers, depleting them extensively.

- Some crops like chiku (safeda) have

drastically fallen in yield. Economically important date palms – those coming under power transmission lines – wither away.

- Deeply flawed social and environmental impact assessments have failed to analyze the multitude of risks and impacts of the project during the key stages including pre-construction, construction, operation, and decommissioning or closure, and have failed in recognizing the fishing communities as affected in the impact assessments. They have also failed to recognize salt-pan workers/owners and pastoralists as affected communities. There is also an absence of



cumulative impact studies.

After the complaint against the project on environmental and social issues was lodged with the Compliance Review Panel (CRP) in October 2013, the CRP considered the following ADB policies and operational procedures that were in effect when the project was processed and approved:

- (vi) Environment Policy (2002);
- (vii) OM Section F1: Environmental Considerations in ADB Operations (issued on 25 September 2006);
- (viii) OM Section F2: Involuntary Resettlement (issued on 25 September 2006);
- (ix) OM Section L3: Public Communications Policy (issued on 1 September 2005); and
- (x) OM Section C3: Incorporation of Social Dimensions into ADB Operations (25 April 2007).

In March 2015, the following points on non-compliance were identified in the compliance review report of the CRP³:

- Failure to conduct adequate and comprehensive consultations with fisherfolk early in the project design phase and to consider their views to assess project impacts. Lack of comprehensiveness in socio-economic studies. No evidence that adequate information has been made available to project-affected people as required. Fisherfolks were not considered project-affected people.
- Discharging water above 3°C is not in compliance with the standards described in the “Thermal Power: Guidelines for New Plants” (effective July 1998) of the Pollution, Prevention and Abatement Handbook (PPAH) of the World Bank. No justification for deviation from the PPAH to Indian standards was provided.
- Non-compliance with OM Section F2/Bank Policies (BP) and OM Section C3/Operational Procedures (OP) and harm has been done. CGPL constructed a new road around the plant which allows access, but the longer travel routes increase expenses for people traveling regularly to the fishing areas. No consultations have been held with people at Tragadi bander who travel regularly to the coastal area in front of the plant or to establish whether people from other villages regularly travel to the fishing grounds for foot fishing.
- CRP found that the PPAH standards were not complied with, as PM-10 values were measured prior to the construction of the plant. Threshold standards have been defined based on empirical evidence which indicates when pollution levels become harmful to human health and well-being. Hence, likely harm is partially attributable to non-compliance.
- Assessments took a narrow focus on marine impacts and argued for low impacts in the area around the outfall channel. No argument can be good enough for not assessing impacts on fish yields.

It is also important to note that some pointers from the complaint were left unactionable by the CRP due to a range of reasons. The CRP did not count non-compliance regarding the inlet channel of the project

³[https://lnadbg4.adb.org/dir0035p.nsf/attachments/Mundra-CRPFinalReport-7Apr2015.pdf/\\$FILE/Mundra-CRPFinalReport-7Apr2015.pdf](https://lnadbg4.adb.org/dir0035p.nsf/attachments/Mundra-CRPFinalReport-7Apr2015.pdf/$FILE/Mundra-CRPFinalReport-7Apr2015.pdf)

because it is adjacent to the Adani power plant, this renders irrelevant the basic point in the complaint about cumulative assessment based on extant factors and to what extent changes would affect the area. This also relates to the fact that the impact of coal dust and fly ash pollution was attributed to more factors than one in the review report and that it said the ADB staff took due diligence in putting mitigating measures in place.

After the CRP found the project non-compliant (on the environment and public communications policies), which aligned with several complaint pointers, the ADB Board approved the Remedial Action Plan (RAP) prepared by ADB's Private Sector Operations Department in 2015. This would bring the project in line with ADB's operational policies and procedures.

In a scene where non-compliance is established, under the 2012 Accountability Mechanism Policy (AMP), the mandate of the CRP was to monitor remedial actions of ADB staff and management to ensure that the project was brought into compliance with ADB policies and procedures and that it does not monitor the borrower (in this case CGPL), the Government or other agencies involved in the implementation of the project.

What were the results of the engagement?

The Remedial Action Plans (RAP) that the ADB management came up with in July 2015, to ensure that the Tata Mundra plant was made compliant with ADB policies and procedures, was rejected by the community as it lacked sincerity, intent, and imagination. In a press statement⁴ by the Machimar Adhikar Sangharsh Sangathan (Association for the Struggle for Fishworkers' Rights, who had filed the complaint with CRP along with fish workers), it was clearly stated that the RAP was not based on the findings of the CRP, and what was presented as RAP was a "Studies Plan", with very little scope for action. There were serious concerns regarding the RAP design and what it offered the affected community. Firstly, the RAP was formulated without any consultation with the affected community. The lack of consultation ultimately led to a poorly designed RAP which was rejected by the community.

Secondly, despite the CRP listing violations of policy enjoining consulting affected communities at various stages of impact assessment studies, no efforts were made to complete a proper assessment of impacts and environmental and social damage to the fishing community. The point however remains that if the Environmental and Social Impact Assessment had been properly conducted at the outset the project would not have received clearance.

Thirdly, the proposal to undertake a study to assess the impacts of thermal discharge was handed over to the National Institute of Oceanography (NIO) and the mitigation plan was to be based on the findings of the study. That the study was commissioned to an institute whose initial reports had misled ADB by incorrectly and insufficiently assessing the impacts is reflective of ADB's lack of seriousness. Fourthly,

⁴ <http://masskutch.blogspot.com/2015/07/#5352623638949185112>

even though the RAP did mention temperature monitoring devices at the outflow channel which would be accessible to the public, the issue of non-compliance was not taken into consideration at all.

Lastly, even the livelihood improvement plan was limited to people who practised foot fishing despite the CRP findings recognizing the large-scale impact on the fishing community. The most important aspect the RAP missed out on was the failure to have consultations with the affected community, which should have been its starting point.

In the end, the RAP hardly addressed the CRP findings and also demonstrated a lack of genuine effort to mitigate the impacts of the project. A striking contrast is provided by looking at the People's Action Plan⁵ prepared by local organizations, based on the very same CRP findings.



According to the CRP instructions, between September 2015 and September 2018, 13 quarterly progress reports and three annual monitoring reports (in 2016, 2017, and 2018) on the implementation of the RAP have come out, each publishing updates in relation to the RAP implementation process. From the first quarterly report to the 13th one, the following developments have been claimed in terms of the RAP as per the last quarterly update:

- On non-compliance in relation to CRP's findings on disclosure of information and conduct of consultations, ADB management has claimed to have engaged through tangible means and plans listed below.
- On CRP's findings on thermal discharge from the outflow channel and loss of livelihood of fisherfolk
 - ADB shared the NIO assessment reports with CRP for review and comments in October 2017. CRP comments on the assessment were received in November 2017 and shared with CGPL. The summary of the NIO report in Gujarati was prepared and key findings of the report shared with the stakeholders in April 2016.
 - CGPL has installed automatic temperature sensors in the outfall channel near the outfall weir. The results are displayed at the plant gate and accessible to the public. These

⁵https://drive.google.com/file/d/0B3yMQWiyeBH8QVI2NTItQUZuUFk/view?resourcekey=0-ZubyiJJVbKcaN6M1DNY_pQ

results will be discussed with the public during consultations on findings on thermal dispersion and ecological impacts of cooling water discharge.

- On action to address ADB's non-compliance in relation to the CRP's findings on sludge treatment and disposal, Gujarat Pollution Control Board (GPCB) confirmed to the CRP that disposal of iron-bearing sludge into the discharge channel is acceptable in accordance with national environmental legislation and regulations.
- On action to address ADB's non-compliance in relation to the CRP's findings on access restrictions, ADB will continue to carry out visits to the access road to the Tragadi bander and engage with CGPL on continued maintenance of the access road and provision of undisrupted access.
- On the non-compliance with regard to the CRP's findings on ambient air quality, after the technical study report, ADB's discussions with CGPL on these observations are underway. ADB will continue to monitor the implementation of the study recommendations and control measures during the supervision missions. CGPL has reported to ADB that the recommendations of the technical study report are being implemented.

On-ground resolution and current situation

- **For fishing community:**

Twelve years after the project started, and with 10 years of its operations, there has been a consistent decline in fish catch due to hot water discharge from the outlet channel, destruction of mangroves and creeks, and the fish workers are struggling to maintain basic living standards. Most of them are in huge debt which they find extremely difficult to pay. Most have to resort to daily wage work on days they are not fishing. Fishing alone is no longer a sustainable livelihood option as fish catch has declined considerably.

Foot fishing (*pagadia fishing*) has been totally destroyed due to the project-induced damage to the creeks and mangroves. Prawns and lobsters, that were earlier found close by in the creeks and mangroves have declined drastically; these were also lucrative for their high market value. Even boat fishermen don't find much catch near the coast now. In 2010 they did not need to venture beyond two to three kilometers into the sea. Today, they have to travel at least eight to 10 kilometers to find fish. This has increased the input costs and the risk.

The decline in catch has left the women of fishing families economically and socially disempowered. Women were mostly engaged in sorting, grading, and drying the fish once the men brought in the catch. They would also sell the small fry in the local market, which would contribute to their personal income. This has stopped completely.

- **Farmers and cattle rearing community:**

Farmers are in an equally precarious position. The many years of operation of the plant, with the intake channel bringing seawater deeper inland, has resulted in a drastic increase in water salinity, severely affecting agriculture in the area. This has not only made farming undependable because of the uncertainty of rain but has also altered traditional agriculture. Many farmers have just quit farming, as it is no longer bringing in income. Many have just left their fields unattended and now seek work as daily wage labor. Apart from that, the coal dust and fly ash that settles on the crop affects its quality. This is especially so with cotton which becomes black and with dates (coal dust and fly ash allow water to settle which ruins the fruit). This has resulted in a steep decline in the market value of these crops.

Animal husbandry has suffered to the same extent. With grazing grounds having been acquired for the project, cattle owners are left with no option but to buy fodder for their animals. But the fodder, which is bought from local farmers and comes from a few pastures, is covered with coal dust and cattle fall ill. Premature births, increase in mortality rate and skin infections in cattle have become common. Now, desperate cattle rearers have started migrating with their animals to other *talukas* in Kutch for grazing.

- **Air pollution:**

The operations of the project have resulted in a perceptible increase in air pollution in the region. Respiratory disorders have become common. The air pollutant display machine outside the plant is always switched off despite it being mandatory for the plant authorities to display pollution levels at all times. Fish workers also suffer severe skin infections due to the chemical effluents discharged.

11 years of operation of the Tata Mundra Project have resulted in the once self-sustaining fishing community living in abject poverty, their livelihoods are depleted and destroyed, the marine environment damaged, pollution levels soaring like never before and the economic independence of women diluted.

The CRP and ADB engagement and outstanding issues

After eight years of engagement with the CRP and ADB, the failures are positively glaring. ADB, whose claims of empowering communities came to naught, failed to accept the CRP findings and formulate an action plan in consultation with the affected community. On the other hand, whatever little was provided for in the RAP was not implemented and in five years, the community's position has deteriorated even more. In the third monitoring report, very little progress has evidently been made in the implementation of the RAP. Meanwhile, on the ground, the situation of fish workers and other affected communities continues to worsen.

The CRP process, for all its novelty, has been rendered meaningless by the remedial actions proposed by the ADB management because the processes since the beginning have been erroneous. It takes a proactive attempt to bring all stakeholders to the table to deliberate on the corrective course of action. In the name of the consultation process, the community has been treated as passive recipients of the corrective measures, where they are informed rather than accorded a seat at the decision-making table and in deliberations.

Across multiple monitoring reports, the CRP in its comments has made clear that the attempt of the ADB management to bring in compliance has not been sufficient or substantial enough for them to be counted as remedial measures. In multiple instances, the CRP has mentioned a conflict of interest in auditing processes. The so-called dissemination exercises have been insufficient, to say the very least. The complainants have, in multiple instances, stated that important stakeholders were not informed prior to official visits taking place.

During the period when the remedial action plan was being implemented, the ADB management's comments on the CRP findings were also dismissive. On reading the explanation provided, we can see that the redressal mechanism or CRP findings were not taken seriously throughout the period of implementation. The main point of contention, i.e., the livelihoods of the affected community, has still not seen substantial or genuine attempts at redressal. In fact, proxy elements like good roads are presented to mollify those affected. What was required was a complete reassessment of the impacted community and environs, especially the marine environment.

Even after continual emphasis of the need for a cumulative impact assessment, the RAP conveniently lumped the blame on the other industries in the nearby Special Economic Zone and took only partial responsibility for the damage caused.

Long-term ecological impacts remain to be accounted for by the processes taking place at the Tata Mundra UMPP.

The iron-bearing sludge is still being disposed of through the outflow channel and is heavily diluted by the warm water to achieve permissible standards. In several other instances, lack of data or a short history of the project is often cited for not being 'able' to account for long-term impacts.



The fact remains that very limited or no field visits and meetings have taken place during the monitoring phase of the RAP. Having only the company on the ground for implementing the RAP with no external checks and balances hardly constitutes monitoring.

Lessons learnt

One of the most crucial lessons has been the importance of ensuring a fair and scientific environment and social impact assessment. The fact that ADB failed to implement its own safeguard policies which mandate a thorough environment and social impact assessment and framework. The due diligence process was flawed, which allowed for such a massive failure on ADB's part. The project was accorded clearance based on this flawed assessment. Later, despite the CRP findings establishing the flawed assessment, ADB's response was limited to corrective action in a very narrow sense. The failure to implement its own safeguard policies cannot be rectified simply with a CRP process as it exists.

The studies undertaken as part of the fact-finding efforts or impact/damage establishing process should be robustly designed and thoroughly checked for benchmarks and methodologies so that the results are not misleading, especially as there are vulnerable communities at the receiving end of the outcome. It is also important that the studies be outsourced to creditable agencies/institutions and are verified by other experts as well.

Another important learning has been the need to provide for genuine consultation of and participation by the community in the process. The community needs to have an active and empowered role in the process of drafting the RAP, in the monitoring process, and in the implementation process. Excluding those affected by these processes makes for a recipe for failure of the accountability process, as has happened in this case. The community's consent has to be mandatory before finalizing RAP. Its feedback and consultation through the implementation process has to be mandatory.

Also, the CRP is limited to compliance and review, there is a very limited role for it in the process of remedial action. The decision-making powers rested with the ADB management and board. The fact that the management undermined the CRP findings established the futility of the engagement. What followed was a half-baked RAP and a monitoring process whose implementation ADB and the CRP have not been able to ensure. Six years after the RAP was supposed to be implemented, every monitoring report is a testament to the failure of its implementation, leaving the community without any remedy. This is also because of the absence of any punitive action for the borrower company for non-compliance with the RAP, and the lack of any role and space for the community in the monitoring and implementation phase.

It is also important that as a lender ADB be held accountable for failure to implement its policy safeguards and then later its own RAP. ADB needs to pay reparation/compensation to the community for the damage caused due to the operations it has funded, especially when it has not been able to mitigate it.

It is important that the remedial actions or steps towards mitigation of impacts under such a project are seen from a social justice viewpoint rather than the current remedial approach. Unless the action plan addresses the fundamental findings of the CRP, with the affected being a part of the planning, implementation, and monitoring processes, it will continue to be an exercise in futility with no benefit for the affected community.

The Tata Mundra UMPP has proven to be a complete failure. From the violation of ADB's safeguards policy to the environmental and social destruction caused by the project and a flawed accountability mechanism process, this project is a case study of what ought not to be done. ADB and the CRP have failed to provide the community either justice or remedy even eight years after the people's engagement with ADB and over a decade-long struggle. Rather, in this decade of engagement, the affected community has been pushed into poverty and economic and social disempowerment. There are important lessons for ADB here and, if they are not taken seriously and if drastic reforms and changes in these processes are not implemented, this will serve as a searing establishment of ADB's lack of intent regarding its own commitment of "achieving a prosperous, inclusive, resilient, and sustainable development, while sustaining its efforts to eradicate extreme poverty".

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