



# **THE INDEPENDENT RECOURSE MECHANISM (IRM)**

## **FIFTH MONITORING REPORT**

**ON**

### **THE STATUS OF IMPLEMENTATION OF THE UPDATED MANAGEMENT ACTION PLAN FOR THE MEDUPI POWER PROJECT IN SOUTH AFRICA**



**SEPTEMBER 2021**

## **ACKNOWLEDGMENTS**

The Director of the Independent Recourse Mechanism (IRM) would like to thank the Bank Management and the AfDB South Africa Regional Development and Business Delivery Office (RDGS) in Pretoria for their cooperation and provision of documents during the IRM fifth monitoring of the Medupi Power Project. Special thanks go to Mr. Seaga Molepo, the Task Manager of the Project at the Bank, who provided answers to questions and information at various virtual meetings.

Their contributions and clarifications facilitated the preparation of this Fifth Monitoring Report of the Medupi Power Project.

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## ACRONYMS AND ABBREVIATIONS

ADB	African Development Bank
AfDB	African Development Bank Group
DEA	Department of Environmental Affairs
DMR	Department of Mineral Resources
DWA	Department of Water Affairs
DWS	Department of Water and Sanitation
DEFF	Department of Environment, Forestry and Fisheries
EMC	Environmental Management Committee
EMP	Environmental Management Plans
EPC	Engineering, Procurement and Construction
FGD	Flue-Gas Desulphurization
IRM	Independent Recourse Mechanism
MAP	Management Action Plan
MCWAP-2A	Mokolo-Crocodile Water Augmentation Project, Phase 2A
MES	Minimum Emission Standards
RFI	Request for Information
SO <sub>2</sub>	Sulphur dioxide

## EXECUTIVE SUMMARY

Following the fifth monitoring on the status of implementation of the Updated Management Action Plan (MAP) by the Independent Recourse Mechanism (IRM), the IRM has found that implementation of actions relating to 3 out of the 5 Issues in the Updated Management Action Plan (MAP) has been completed. The IRM has concluded that implementation of two actions relating to: (i) Risk to public Health due to Emissions and (ii) Compliance with the Integrated Water Resources Management Policy are still pending and were not completed by the Project's closure date on 30 June 2021.

The IRM has also found that: (i) the Medupi Project has continued to meet the current national minimum air quality emission standards, but a concern remains the potential for non-compliance with stringent minimum emissions standards that will come into force on 1 April 2025. Eskom has applied for postponement to compliance timeframes from 1 April 2025 to 2030 and a decision from authorities is still awaited; (ii) The retrofitting of the six generating units with Flue-Gas Desulphurization (FGD) units is now scheduled to be done between 2026-2027, based on the current information. Eskom is in the process of planning a risk mitigation strategy that will transfer completely the risks associated with efficiency of the technology to be used for retrofitting the six units to the Engineering, Procurement and Construction contractor. (iii) Moreover, the construction of the Mokolo-Crocodile Water Augmentation Project, Phase 2A (MCWAP-2A) is scheduled to begin in March 2022 and to deliver water to Medupi Project by October 2026.

Even though the implementation of the Updated MAP cannot be considered complete, the IRM considers that under the existing circumstances wherein the construction phase of the Project has now been completed and the Bank is no longer required to undertake implementation supervision missions, it would be both prudent and practical to functionally 'suspend' the case at this stage and not continue with the monitoring of the two pending action items until 2026. The IRM has been monitoring this Project for more than 7 years now, and the two pending actions will be implemented in the next 5 years (with possibility of delays due to unforeseen circumstances such as the impacts on the COVID-19 pandemic). In addition, the Project has already been fully disbursed and therefore, there is little leverage on the part the Bank to influence the borrower to implement the pending actions. These facts have led the IRM to make the decision to suspend the annual monitoring until at least 2026.

### **The IRM requests CODE to consider and approve the following two recommendations:**

1. The Bank Management will follow up with Eskom on implementation of the actions relating to the pending two issues (Issue 1 & 3) and keep the Boards of Directors regularly updated on the progress of their implementation through the Quarterly Briefing Notes on Eskom that Management submits to the Boards for information. In particular, for:
  - a) **Issue No.1: Risk to Public Health due to Emissions**, the Bank Management will ensure that Eskom will prepare and submit to the Bank a remedial and contingency plan with options and alternatives for reducing Sulphur dioxide (SO<sub>2</sub>) from 1 April 2025 until the FGD units are installed and made operational in all the six generating units.
  - b) **Issue No. 3: Compliance with the Integrated Water Resources Management Policy**. The Bank Management will ensure that:
    - i. Eskom and the Department of Water and Sanitation (DWS) will regularly update the Bank on the progress made in the construction of the MCWAP-2A and whether the current target date of October 2026 to deliver water to Medupi Project will be achieved.

- ii. DWS will inform the Bank when it makes a decision to proceed with investigation of contingency measures for supplementary water supply options for the Medupi Project in case the MCWAP-2A cannot deliver water by Medupi FGD water requirement date for the last three retrofitted generating units.
- 2. The IRM to suspend the annual monitoring of the Medupi Power Project, until 2026 with this Report being the penultimate monitoring report. The compliance review process of the complaint relating to the Medupi Power Project will remain dormant until 2026.

## 1. Introduction

1. This is the Fifth IRM Monitoring Report of the Medupi Power Project (“the Project”) reflecting the implementation status of the Updated Management Action Plan (MAP), which the IRM has been monitoring from 2015 to 2021. Its purpose is to update the Board of Directors of the African Development Bank (ADB) through the Boards’ Committee on Operations and Development Effectiveness (CODE), on Bank Management’s implementation of the Updated MAP, which was approved by the Boards on 13 February 2013. On the same date, the Boards authorized the IRM to conduct annual monitoring of the Updated MAP, which would normally include a desk review of relevant documents and a field visit. This year however, the monitoring was based solely on a desk review of relevant documents (Back-to-Office-Report and Aide Memoires) provided by Management and virtual meetings with the Bank Management to clarify factual issues in this Report. The IRM could not conduct a field mission to South Africa due to the travel restrictions arising from COVID-19 pandemic.
2. The Updated MAP was prepared by the Bank Management to address the recommendations made by the IRM following IRM’s findings of Bank’s non-compliance with the Bank policies and procedures applicable to the Project.
3. IRM is recommending that this Fifth Monitoring Report be the penultimate monitoring report on the implementation of the Updated MAP, and that the annual monitoring of this MAP be suspended indefinitely or at least until 2026 when the mitigating actions are expected to be in place. Therefore, the compliance review of the Medupi Power Project will remain open but inactive until 2026. The Report provides an overview of:
  - a) The background and context of the Medupi Complaint;
  - b) The monitoring activities undertaken by the IRM from 2015 to 2020;
  - c) The fifth monitoring findings in 2021;
  - d) Conclusion; and
  - e) Recommendations

## 2. The Background and Context of the Medupi Complaint

4. This section gives a summary of the Project, the complaint and the compliance review process including the findings and some of the recommendations made by the IRM in the Compliance Review Report.

### 2.1. The Project

5. The Medupi Power Project is a 4,764 MW coal-fired power plant in Lephalale, Limpopo Province, South Africa. It uses direct dry-cooling systems due to the water scarcity in the Lephalale area and is the fourth largest coal-fired plant and the largest dry-cooled power station in the world.<sup>1</sup> On 25 November 2009, the Board of Directors of the African Development Bank (ADB) approved a loan not exceeding the aggregate sum of EUR 930 million and South Africa Rands (ZAR) 10.63 billion for the supply and installation of six boilers and turbogenerators for the Medupi Power Project. The Project is co-financed by the World Bank. At the time of the Board’s approval, the total project cost was estimated at EUR 11.2 billion.

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<sup>1</sup> Information obtained from Media Statement issued by Eskom on 2 August 2021 titled “Eskom Medupi’s last unit achieves commercial operation, marking completion of the Project.”

6. The construction of the Project started in May 2007 and is currently 100% complete and operational. The Project closed on 30 June 2021. All the six units that make up the Project are in commercial operation, with the last one (unit 1) entering operation on 31 July 2021.

## *2.2. Complaint Submission and the Compliance Review Process*

7. On 28 September 2010, two South African nationals submitted the complaint relating to the Medupi Power Project to the Director of the Compliance Review and Mediation Unit (CRMU) (now the Independent Recourse Mechanism (IRM)). They asked the Director to keep their identities confidential throughout the processing of their Complaint and the Director granted their request. The Complainants raised a number of concerns including: (i) the adequacy of social and environmental studies conducted regarding the assessment of cumulative impacts, and the Project's contribution to climate change; (ii) risk to public health due to air pollution resulting from emissions, constrained access to water and livelihood and degradation of land and water; (iii) inadequate public consultation with communities and violation of cultural rights, and (iv) desecration of graves and land claims.
8. Following an eligibility assessment process, the IRM recommended the Project be subjected to compliance review that was authorized by the Board on 15 July 2011. The IRM conducted a compliance review from September 2011 until January 2012. In its Compliance Review Report, the IRM established several instances of non-compliance with the Policy on Involuntary Resettlement (2003), Policy on the Environment (2004), Policy for Integrated Water Resources Management (2000), and the Environmental and Social Assessment Procedures for African Development Bank Public Sector Operations (2001), and their related harm. These instances are summarized in the following paragraphs:
  - i. **Climate Change and related environmental issues:** Although the Project Appraisal Report noted that South Africa was already the 11<sup>th</sup> largest emitter of greenhouse gases in the world and was likely to rise in this global ranking as a result of the Medupi and other planned coal-fired power stations, the report did not describe any steps that the Bank had taken to ensure that this large coal-fired project was compliant with the full range of applicable Bank policies.
  - ii. **Local environmental issues related to air and water:** The IRM acknowledged compliance of Bank with the policies and procedures regarding air pollution. This notwithstanding, the Bank would have to ensure that the proposed installation of Flue-Gas Desulphurization (FGD) equipment is implemented during the operational phase. With regard to constrained water access, the Bank failed to comply with all applicable policies, particularly the Bank's Integrated Water Resources Management Policy (2000). Concerning land and water degradation, the IRM concluded that it is critical that issues of land and water degradation become an important indicator to monitor during supervision at operational phase.
  - iii. **Consultation with the community and violation of cultural rights:** The IRM found that the Bank failed to comply with its own policies on the Environment, Involuntary Resettlement, and the Environmental and Social Assessment Procedures for AfDB Public Sector Projects. The Bank also failed to follow the procedures on stakeholders' consultation as stipulated in the Bank Handbook on Stakeholder's Consultation and Participation.
  - iv. **Desecration of ancestral graves:** The IRM found that no sufficient assessment was conducted to determine the existence of graves, and insufficient consultations with the communities were conducted. The IRM determined that the Bank failed to establish the gravesites and significances attached to cultural and religious heritages.



### *2.3 Compliance Review Recommendations*

9. As a result of the non-compliance conclusions, the IRM included the following recommendations in the Compliance Review Report:
- i. The Bank Management needed to include in its supervision, close monitoring of economic, social, and environmental changes in the air and water quality in regions around Medupi to ensure that the results of follow-up studies and outreach exercises such as the Environmental Management Plans (EMPs) were fully incorporated into the criteria for monitoring.
  - ii. The Bank needed to pay close attention, during its supervision missions, to the question of how Eskom, Department of Environmental Affairs (DEA) and Department of Water Affairs (DWA) resolve the water availability issue and decide on the ultimate installation schedule for the FGD units.
  - iii. The Bank should ensure that there is adequate participation by appropriately qualified technical experts in future supervisory and monitoring missions to conduct discussions with appropriate counterparts on the water availability. This issue must be resolved by early 2012 if Eskom is to meet the deadlines for installing their SO<sub>2</sub> scrubbers.
  - iv. The Bank should review the pending Environmental Management Plans, particularly for the operational phase, to ensure that the emission monitoring plans reflect the latest findings about mercury, and if necessary, bolster the tracking of such emissions that source from Medupi, and on a cumulative basis for the Waterberg region.
  - v. To comply with the applicable Bank policy on consultation, the Bank should require the borrower to ensure that there is adequate representation from all sectors of the affected community on its Environmental Management Committee (EMC). The proactive sharing of all environmental information, and particularly monitoring data from air and water sources, with the EMC and the public will ensure that the borrower, all parts of the affected community, and the Bank are informed about all relevant environmental and social impacts and issues related to the Project. In addition, in all future supervision missions, the Bank staff should ensure that they communicate to all relevant sectors of the Lephalale community in a timely and culturally and socially appropriate way that they would be visiting the Lephalale community and invite the community to meet with them to discuss the Project or to communicate any information they deem appropriate to the Bank staff.
  - vi. The Bank should take steps to determine, consistent with the requirements of its own policies on participation and consultation, that either there are no graves that have been or are vulnerable to desecration during the construction and operation of the Medupi Project or that appropriate compensatory measures have been taken by the borrower to deal with any graves that have been or could be desecrated during the construction and operation of the Project. In addition, the Bank should establish that the affected communities do not have any outstanding historical land claims that could be adversely affected by the Medupi Project. The implementation of these actions should be monitored and reported on by the Bank staff who participate in future Bank monitoring missions to this Project.

## *2.4 Management Action Plan*

10. To address the IRM recommendations, the Bank Management prepared an Action Plan with 14 action items to address 5 main issues of concern that had been raised by the Complainants as follows:
  - i. Risk to public health due to emissions.
  - ii. No regional impact assessment conducted.
  - iii. Compliance with the Integrated Water Resources Management Policy (to address water quality, access and water risks).
  - iv. Inadequate public consultations with the communities.
  - v. Desecration of graves and other heritage issues.
11. The Board of Directors of the ADB approved the IRM Compliance Review Report on 19 September 2012. The Board directed the Bank Management to update its Management Action Plan to make it more responsive to the findings and recommendations of the IRM Compliance Review Report. The Board approved the Updated Management Action Plan on 13 February 2013 and authorized the IRM to conduct annual monitoring on the status of its implementation and submit monitoring reports to the Board for discussion.

## **3. IRM Monitoring**

### *3.1 Monitoring Activities Undertaken by the IRM from 2015 to 2020*

12. In accordance with the IRM Operating Rules and Procedures of 2015, the IRM monitors progress on MAP implementation until it is determined that all actions in the MAP have been completed and monitoring is no longer needed. The final monitoring report will conclude the compliance review process.
13. From 2015 to 2020, the IRM conducted 4 monitoring exercises for the Medupi Project. The resulting monitoring reports<sup>2</sup> were considered and approved<sup>3</sup> by the Board of Directors of ADB. A summary of the conclusions of the previous monitoring reports is included in **Annex 1** to this Report.
14. As a result of the monitorings conducted from 2015-2020, the IRM in its Fourth Monitoring Report of June 2020 concluded that 12 actions had been completed, leaving only two pending actions requiring compliance.
15. This Fifth Monitoring Report follows up on the implementation of the outstanding two actions in the Updated MAP. That is, Management actions addressing the following two issues:
  - Issue No.1 on Risk to Public Health due to Emissions.
  - Issue No. 3 on Compliance with the Integrated Water Resources Management Policy.

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<sup>2</sup> First IRM Monitoring Report, November 2015, Second IRM Monitoring Report, July 2017, Third IRM Monitoring Report, February 2019, Fourth IRM Monitoring Report, June 2020.

<sup>3</sup> First IRM Monitoring Report was approved by the Board on 26 November 2015, the Second IRM Monitoring Report was approved by the Board on 6 September 2017, the Third IRM Monitoring Report was approved by the Board on 20 February 2019 and the and the Fourth IRM Monitoring Report was approved by the Board on 15 July 2020.

### 3.2 IRM Fifth Monitoring Findings in 2021

16. During the fifth monitoring period from August 2020 to August 2021, the Bank informed<sup>4</sup> the IRM that the Project would be closing on 30 June 2021. Concerning the two pending issues which were being monitored, the IRM made the following findings after reviewing three Aide Memoires<sup>5</sup> provide by the Bank Management and holding virtual meetings with the Bank Task Manager of the Medupi Project:
17. **Issue No.1: Risk to Public Health due to Emissions:** This issue has two components: (i) Medupi's compliance with the national minimum air quality emission standards, and (ii) installation of FGD units in the six generating units of the Medupi Project.
18. Concerning component (i), the IRM found that Eskom has continued to diligently monitor the incidences of the pollutants (PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, and O<sub>3</sub>)<sup>6</sup> in order to comply with the standards set forth by the Department of Environmental Affairs (DEA), which for SO<sub>2</sub> is 3,500 mg/Nm<sup>3</sup> per month, until 31 March 2025. The Aide Memoires provided by the Bank Management indicate that in November 2019, Eskom submitted an application to the Department of Environment, Forestry and Fisheries (DEFF) for another five-year postponement to meet the *new plant's* minimum emission standards (MES) of 500mg/Nm<sup>3</sup> for SO<sub>2</sub> from April 2025 until 2030. In addition, for the period 2025-2030, Eskom also requested to increase the *existing plant's* MES to 4,000 mg/Nm<sup>3</sup> for SO<sub>2</sub> averaged monthly and the *new plant* MES to 1,000mg/Nm<sup>3</sup> for SO<sub>2</sub> averaged monthly.<sup>7</sup>
19. The Bank mission of February 2020 was concerned because it was informed by DEFF that there is no provision in the national legislation that provides for the additional postponement beyond March 2025. Eskom noted this concern and committed to follow up with the relevant authorities to discuss this critical issue.<sup>8</sup> The application for postponement to the compliance timeframes was updated by Eskom in October 2020.<sup>9</sup> As of May 2021, the application was under final review and decision had not been made.<sup>10</sup>
20. Concerning component (ii) on installation of FGD units, the IRM found that Eskom is committed to ensuring that the six generating units will be retrofitted to reduce SO<sub>2</sub> emissions. Following a proposal by the World Bank (co-financier of the Medupi Project) that Eskom should explore other alternative cost-effective technologies to reduce Medupi SO<sub>2</sub> emissions, Eskom issued a Request for Information (RFI) designed as a market testing exercise to refinement of SO<sub>2</sub> emissions abatement strategy for Medupi Power Plant on 11 September 2020.<sup>11</sup> Following evaluation of the proposals received, the results showed that apart from the Wet FGD, the technology originally intended for the retrofit, other proposed technologies that can reduce SO<sub>2</sub> emissions are the Dry Sorbent Injection, and Sulfacid. However, the Wet FGD stood out as the best capable technology for the emission reduction at Medupi Project.<sup>12</sup>
21. Eskom is planning to adopt a contracting strategy of an Engineering, Procurement and Construction (EPC), since this strategy will allow for appropriate risk allocation, where the risks associated with

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<sup>4</sup> Specifically, on a meeting held on 30 June 2021 with Task Manager of the Project to clarify some information.

<sup>5</sup> Management Aide Memoires for February and November 2020 and May 2021.

<sup>6</sup> Pollutants: particulate matter including dust (PM<sub>10</sub>), Sulphur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), and ozone (O<sub>3</sub>).

<sup>7</sup> African Development Bank Aide Memoire on Eskom Medupi Power Project - Implementation Support Mission; 3-12 February 2020; p. 3, Paragraph 10 (a). (herein after "Aide Memoire of February 2020")

<sup>8</sup> Ibid.

<sup>9</sup> African Development Bank Aide Memoire on Eskom Implementation Support Mission; 30 October -12 November 2020; p. 3, Paragraph 2.1.5. (e). (herein after "Aide Memoire of November 2020")

<sup>10</sup> African Development Bank Aide Memoire on Eskom Implementation Support Mission; 30 October -12 November 2020; p. 4, Paragraph 2.1.9. (herein after "Aide Memoire of May 2021")

<sup>11</sup> Aide Memoire of November 2020, p.4, Paragraph 2.1.6.

<sup>12</sup> Aide Memoire May 2021, p. 4, Paragraph 2.1.10.

efficiency of the technology will be transferred completely to the EPC contractor. The supplier contract will be based on the current Medupi operating conditions. This strategy is yet to be approved by Eskom Board of Directors. Based on a high-level implementation program, that takes into consideration the supplier with the longest lead time, the first unit will be commissioned in quarter 1 of 2026, and the last unit will be commissioned in the second quarter of 2027.<sup>13</sup>

22. ***Issue No. 3: Compliance with the Integrated Water Resources Management Policy:*** The Bank Management updated the IRM that the appeals that had been filed by farmers, property owners, and NGOs with the Minister for DEFF against the Department of Water and Sanitation (DWS) for granting an Environmental Authorization for the construction of the new pipeline for the Mokolo-Crocodile Water Augmentation Project, Phase 2A (MCWAP-2A) were dismissed by the Minister of DEFF in October 2020 and none of the 8 Appellants appealed against the decision of the Minister during the appeal window, which closed on April 2021. In addition, the construction tender process for MCWAP-2A is scheduled to be concluded in March 2022 and the envisioned water delivery to Medupi is October 2026. The water from MCWAP-2A will be needed to operate the last three generating units of the Medupi Project once they are retrofitted with FGD units.
23. Regarding the process to investigate contingency measures for supplementary water supply options to Medupi Power Station to mitigate any risk that may delay the MCWAP-2A's water delivery date beyond the Medupi FGD water requirement date, the DWS has finalized the Terms of Reference for the Planning Investigations. The supplementary water supply options include the mining of Mokolo Dam, which is currently 98% full compared to 44% the previous year. At present the water delivery is on schedule with Mokolo Dam providing the necessary contingency.
24. The Task Manager also shared a Media Statement issued by Eskom on 2 August 2021 in which Eskom announced that the last of the six generating units of the Medupi Project entered commercial operation on 31 July 2021, marking the end of the construction phase of the 4 764MW Medupi Project.
25. The fifth monitoring by the IRM has established that the installation of the FGDs to the six generating units is still pending and is projected to take place between 2026 and 2027 according to the current information. The MCWAP-2A water project is projected to deliver water to Medupi Project by October 2026 to the last three generating units retrofitted with FGD units.

## 4. Conclusion

26. Based on the information analyzed above, the IRM concludes that the two outstanding issues, which were being monitored by the IRM during the fifth monitoring were not completed by the project's closure date on 30 June 2021. In particular, the IRM found that: (i) the Project has met the current national minimum air quality emission standards, but Eskom has requested for a postponement of the application of the minimum emission standards from April 2025; (ii) the retrofitting of the six generating units with FGD units has been postponed until 2026-2027, based on the current information. Eskom is in the process of planning a risk mitigation strategy that will transfer completely the risks associated with efficiency of the technology to be used for retrofitting the six units to the Engineering, Procurement and Construction contractor. (iii) Moreover, the construction of the MCWAP-2A is scheduled to begin in March 2022 and to deliver water to Medupi Project by October 2026.
27. Even though the implementation of the Updated MAP cannot be considered complete, the IRM considers that under the existing circumstances wherein the project has now officially closed, and the Bank no longer has a contractual relationship with the entity (Eskom), it would be both prudent and practical to functionally 'suspend' the case at this stage and not continue with the monitoring of the two pending

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<sup>13</sup> Ibid.

action items until 2026. The IRM has been monitoring this Project for more than 7 years now, and the two pending actions will be implemented in the next 5 years (with possibility of delays due to unforeseen circumstances such as the impacts on the COVID-19 pandemic). In addition, the Project has already been closed and therefore, there is little leverage on the part the Bank to influence the borrower to implement the pending actions. These facts have led the IRM to make the decision to suspend the annual monitoring until at least 2026.

## 5. IRM Recommendations to CODE

28. The IRM requests CODE to consider and approve the following two recommendations:

- A. The Bank Management will follow up with Eskom on implementation of the actions related to the pending two issues (Issue 1 & 3) and keep the Boards of Directors regularly updated on the progress of their implementation through the Quarterly Briefing Notes on Eskom that Management submits to the Boards for information. In particular, for:
  - a. **Issue No.1: Risk to Public Health due to Emissions**, the Bank Management will ensure that Eskom will prepare and submit to the Bank a remedial and contingency plan with options and alternatives for reducing SO<sub>2</sub> from 1 April 2025 until the FGD units are installed and made operational in all the six generating units.
  - b. **Issue No. 3: Compliance with the Integrated Water Resources Management Policy**, the Bank Management will ensure that:
    - i. Eskom and the Department of Water and Sanitation (DWS) will regularly update the Bank on the progress made on the construction of the MCWAP-2A and whether the current target date of October 2026 to deliver water to Medupi Project will be achieved.
    - ii. DWS will inform the Bank when it makes a decision to proceed with investigation of contingency measures for supplementary water supply options for the Medupi Project in case the MCWAP-2A cannot deliver water by Medupi FGD water requirement date for the last three retrofitted generating units.
- B. The IRM to suspend the annual monitoring of the Medupi Power Project, until 2026 with this Report being the penultimate monitoring report. The compliance review process of the Complaint relating to the Medupi Power Project will remain dormant until 2026.

**ANNEX 1: A Summary of the Findings of the Four Monitoring Reports Prepared by the IRM from 2015 to 2020 on the Status of Implementation of the Updated Management Action Plan for the Medupi Power Project**

IRM Implementation of MAP Update from 2015 to 2020					
Action No.	Map Action	IRM First Monitoring Findings in 2016	IRM Second Monitoring Findings in 2017	IRM Third Monitoring Findings in 2019	IRM Fourth Monitoring Findings in 2020
<b>Issue No. 1: Risk to Public Health due to Emissions</b>					
1.1	<p>Monitoring of the Construction Phase Environmental Management Plan (CEMP) Implementation (Air Quality Monitoring)</p> <p>Continuous monitoring of the CEMP and compliance with the requirements of the various licenses to be issued under the CEMP.</p>	<ul style="list-style-type: none"> <li>- Key steps remain to meet the requirements of the Action and broad concerns remain about the quality and comprehensiveness of the air monitoring systems.</li> <li>- The real test of this action element would come with the onset of actual operations at the plant, projected to start with the first unit later in 2015.</li> </ul>	<ul style="list-style-type: none"> <li>- Air quality monitoring was being conducted. The IRM recommended (i) data collection through an additional monitoring station to be established at another location where impacts can be measured; (ii) the approved CEMP needed to be supplemented by further operational details during operational phase; (iii) health baseline data should be established and a monitoring system for PM 10 and PM2.5 related diseases should be established; (iv) timely operation of FGD equipment (starting 2021 for first unit) was a key concern and essential for ensuring control of air quality and compliance with AfDB policies and national law requirements.</li> </ul>	<ul style="list-style-type: none"> <li>- Air quality monitoring is being conducted. Timely operation of FGD equipment (starting 2021 for the first unit) is a key concern and essential for ensuring control of air quality standards and compliance with AfDB policies and national law requirements.</li> </ul>	<p><b><u>This item is still outstanding.</u></b></p> <ul style="list-style-type: none"> <li>- Air quality monitoring is being conducted.</li> <li>- The initial plan prepared by Eskom indicated that the first generating unit would be retrofitted with FGD unit by 2021.</li> <li>- A revised schedule showed that this unit will be retrofitted in 2032, while retrofitting of all the six units will not be completed before 2031-2032, with delays from the initial installations plan ranging from 6 to 12 years.</li> </ul>
1.2	<p><i>Reporting on the status of implementation of the Project:</i></p> <p>1.2.1: Project Quarterly Progress Reports submitted to the Bank</p> <p>1.2.2: Frequency of Bank supervision missions</p>	<ul style="list-style-type: none"> <li>- Eskom submitted regular quarterly progress reports to the Bank and to the DEA.</li> <li>- Supervision of implementation of the Updated MAP on an annual basis by Management should be</li> </ul>	<ul style="list-style-type: none"> <li>- Eskom submitted regular quarterly progress reports to the Bank and to the DEA.</li> <li>- The Bank Management continued to supervise the Project on a six-</li> </ul>	<ul style="list-style-type: none"> <li>- Eskom submitted regular quarterly progress reports to the Bank and to the DEA.</li> <li>- The Bank Management continued to supervise the Project on a six-monthly basis</li> </ul>	<p><b>Action completed.</b></p> <ul style="list-style-type: none"> <li>- Eskom submitted regular quarterly progress reports to the Bank and to the DEA.</li> </ul> <p><b>Action completed.</b></p> <ul style="list-style-type: none"> <li>- Project supervision has been conducted on a six-</li> </ul>



IRM Implementation of MAP Update from 2015 to 2020					
Action No.	Map Action	IRM First Monitoring Findings in 2016	IRM Second Monitoring Findings in 2017	IRM Third Monitoring Findings in 2019	IRM Fourth Monitoring Findings in 2020
		reconsidered as the power plant enters the operational phase. Issues that have not been fully resolved during construction would require much more rapid responses given the impact on people and the environment from an operating plant. - IRM urged Management to pay greater attention to addressing all the action items in the Updated MAP.	monthly basis and should be continued.	with adequate attention given to the implementation of the Updated MAP.	monthly by the Bank basis and this should be continued.
	1.2.3: Update of the Operational Phase Environmental Management Plan (OEMP).	- The IRM was concerned that the OEMP was not finalized despite the impending full operation of unit 6.	- The OEMP approved in 2016 was very general and lacked specific environmental measures to be applied during operational phase. The IRM was informed by Eskom that environmental measures will be specified as part of operational implementation guidelines.	- The OEMP guidelines had been completed to the satisfaction of the IRM.	<b>Action completed.</b>
Issue No. 2: No Regional Impact Assessment					
2.1	Conduct further Regional Assessment of Coal Based Energy Projects between South Africa and Botswana to build on the work already done.	- This task was delayed by several years and has not been completed because the results of the consultant who conducted the assessment had not been publicized.	- Regional Environmental and Social Assessment (RESA) was completed in 2015. - The RESA findings are to inform the revision of the Integrated Resource Plan.	<b>This item was completed.</b>	<b>This item was completed.</b>
Issue No. 3: Compliance with the Integrated Water Resources Management Policy					
3.1	Follow up with the Department of Water Affairs (DWA) on status of the Mokolo-Crocodile Water Augmentation Project and (MCWAP-2)	- It was not clear how much progress had been made on MCWAP-2, given the need to identify long-term users and the Phase 2 water link with the timing of FGDs installation.	- Significant work has gone into the planning and the technical design for the MCWAP-2 project. However, the MCWAP-2 project is more than two years behind schedule, which means it would only provide water in June 2023.	- Significant work has gone into the planning and the technical design for the MCWAP-2A. However, the MCWAP-2A is more than two years behind schedule, which means it would only provide water for the last	<b><u>This item is still outstanding.</u></b> - Construction of MCWAP-2A was scheduled to start in 2021. However, this was likely to be delayed because of appeals filed by farmers, property owners, and NGOs against the Department of

### IRM Implementation of MAP Update from 2015 to 2020

<i><b>Action No.</b></i>	<i><b>Map Action</b></i>	<i><b>IRM First Monitoring Findings in 2016</b></i>	<i><b>IRM Second Monitoring Findings in 2017</b></i>	<i><b>IRM Third Monitoring Findings in 2019</b></i>	<i><b>IRM Fourth Monitoring Findings in 2020</b></i>
	development of the effluent re-use and groundwater use.		- Timely implementation of MCWAP-2 project is of utmost importance as operation of three (3) out of the six (6) units with FGD equipment will depend on water provided under MCWAP-2 Project.	three FGD units by 2024 or 2025. - Timely implementation of MCWAP-2A is now of utmost importance as operation of three out of the six units with FGD equipment will depend on water provided under the MCWAP-2A.	Water and Sanitation (DWS) for granting an Environmental Authorization for the construction of the new pipeline for MCWAP-2A.
3.2	Follow up on the Department of Environmental Affairs (DEA), Department of Mineral Resources (DMR), Department of Water Affairs (DWA) and the Department of Agriculture, Forestry, and Fisheries (DAFF) Task Team decision on the sand mining issues.	- After unnecessary delays, sand mining in the Mokolo River was suspended. The community was waiting to receive answer with regard to rehabilitation of the damaged areas of the river and of stronger analysis/planning for long-term sustainability of sand mining.	- Key actions remain to be done. An environmental assessment as part of an application for a sand mining license was been conducted, which the IRM concluded it could not substitute for an independent assessment of the damage done to Mokolo River and the rehabilitation requirements by previous legal and illegal sand mining operations. Decisions need to be communicated to the stakeholders and rehabilitation measures need to be conducted.	<b>This item has been completed.</b> - An environmental assessment has been conducted. Eskom has modified its contracts to require its contractors and suppliers to comply with environmental licenses, permits, and authorizations. Eskom has agreed to conduct due diligence to ensure that this is the case. The DMR has investigated and closed the matter.	<b>Action completed.</b> - The issue about rehabilitation of sand-mined areas along the Mokolo River was handled and closed by the Department of Mineral Resources, which concluded that Eskom could not be responsible for the rehabilitation of all mined areas.
3.3	Develop a monitoring program of surface and ground water for the operation phase based on the conditions of the water use licenses and include it in the Operational Phase Environmental Management Plan (OEMP).	- The construction phase appeared to have been a success in avoiding damage to the underlying water quality in the Medupi area. The operational phase is pending and will require much stronger oversight, given the massive storage and disposal activities just launched at the site. - Fulfillment of this action will be tested by the final OEMP, with augmented groundwater test sites,	- Water quality appears not to have been affected by the construction of the Medupi Plant. Water quality is being adequately monitored by Eskom.	- Water quality appears not to have been affected by the construction of the Medupi Plant. Water quality is being adequately monitored by Eskom.	<b>Action completed.</b>



IRM Implementation of MAP Update from 2015 to 2020					
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		and the actual, expanding operations of the plant.			
Issue No. 4: Inadequate Public Consultation with the Communities					
4.1	Expand the functions of the Medupi Central Information Office (MCIO) to also serve as a center where grievances can be reported and where Eskom can gain feedback from communities on the project activities.	- MCIO had turned out to be an ineffective local grievance mechanism thus far.	- MCIO was performing the function of grievance mechanism but the population seems reluctant to use it as a grievance center since its main function has become a labor recruitment center for Eskom. The functions of grievance mechanism and labor recruitment are incompatible. An additional and independent grievance redress process needs to be established. At present, environmental concerns are expressed through the Environment Monitoring Committee (EMC), and the EMC process should be maintained.	<b>This item is completed.</b> - MCIO was performing the function of a grievance mechanism but the population seems reluctant to use it as a grievance center since its main function has become a labor recruitment center for Eskom. Environmental concerns are expressed through the EMC. The IRM Monitoring Team was informed by Eskom that the EMC will continue to operate during the operational phase of the Project.	<b>Action completed.</b>
4.2	Enhance participation of Ward Councilors in Environment Monitoring Committee (EMC) meetings by assisting them with transportation to the meetings.	- A positive step had been taken by choosing meeting sites for the EMC closer to the people, but this had not solved the challenge of non-participation by the Councilors.	- The IRM recognized the efforts made by Eskom and the EMC to involve Ward Councilors. However, in spite of these efforts, Ward Councilors have not become engaged in EMC meetings.	<b>This item has been completed.</b> - The IRM recognized the efforts made by Eskom and the EMC to involve Ward Councilors. Not all Ward Councilors are interested in attending Eskom meetings.	<b>Action completed.</b>
4.3	Develop a mechanism for Councilors to report back to communities and vice versa.	- The use of Environmental Monitoring Committee (EMC) meetings had offered an avenue for Councilors to report back to communities and vice versa. This effort should be continued even while maintaining the long-term goal of developing a bridge-	- The original design of this measure has not been successful, but alternative approaches have been adopted by Eskom. For instance, it has invested significantly in improving the relationship with the municipality and communities through a corporate social responsibility	<b>This item has been completed.</b> - The original design of this measure has not been successful, but alternative approaches have been adopted by Eskom. For instance, it has invested significantly in improving the relationship with the municipality. In addition, a	<b>Action completed.</b>

### IRM Implementation of MAP Update from 2015 to 2020

<b>Action No.</b>	<b>Map Action</b>	<b>IRM First Monitoring Findings in 2016</b>	<b>IRM Second Monitoring Findings in 2017</b>	<b>IRM Third Monitoring Findings in 2019</b>	<b>IRM Fourth Monitoring Findings in 2020</b>
		building function for the Councilors to the communities.	program. However, there was need to establish at the community level, a systematic communication and consultation practice on issues of interest to the community members.	corporate social responsibility program with communities has been launched to improve relationships with communities.	
4.4	The EMC to finalize and implement its Communications Strategy to create awareness about its functions and activities.	- The EMC was improving its communications strategy and the IRM urged it to continue doing so.	- The EMC has improved its communication with the communities. However, it needs to continue its outreach among local communities. It should develop a better system for tracking information on how it has carried out its operations and plans to do so in the future.	<b>This item has been completed.</b> - The EMC has improved its communication with the communities. Eskom has a stakeholder engagement officer as part of the environmental management team. It will continue its outreach among local communities.	<b>Action completed.</b>
<b>Issue No. 5: Desecration of Graves and other Heritage Issues</b>					
5.1	Engage Marapong community to reach an understanding and closure on the issue.	- Eskom had hired qualified consultants to carry out a Phase 2 analysis of graves and heritage issues. Closure, however, would only come with the development of mutually agreed and tailored resolutions for affected families along with expeditious implementation. Future Bank supervision missions should pay attention to this issue to ensure progress will continue to be made.	- The Bank Management and Eskom put on considerable efforts and developed the process for following up and in reaching an understanding with affected families on the issue of graves. The process included conducting a heritage assessment, identifying graves on the Medupi site, conducting cleansing and appeasement ceremonies with the affected families and for constructing a memorial site. - Further measures needed to be taken to secure access of the affected families to the memorial site.	<b>This item has been completed:</b> - A protocol of regular engagement had been agreed upon between Eskom and the affected families to facilitate access of the families to the memorial site.	<b>Action completed.</b>