

ESKOM INVESTMENT SUPPORT PROJECT**ENVIRONMENTAL AND SOCIAL SAFEGUARDS AIDE MEMOIRE**

1. A joint African Development Bank (AfDB) and World Bank (WB) Mission visited South Africa from July 17 to 25, 2017. The Mission reviewed implementation of the Eskom Medupi Power Project (AfDB) and Eskom Investment Support Project (for WB). It visited the Medupi Power Station site from July 19 - 21, 2017. Meetings were held with officials of Eskom, Department of Public Enterprises (DPE), Department of Water and Sanitation (DWS), Department of Environmental Affairs (DEA), National Treasury and the National Energy Regulator of South Africa (NERSA). Separately, the World Bank visited South Africa on June 20, 2017 and on June 9, 2017 (for social safeguards) to review implementation of the Majuba Railway component.

A. MEDUPI POWER PLANT**Overall Performance**

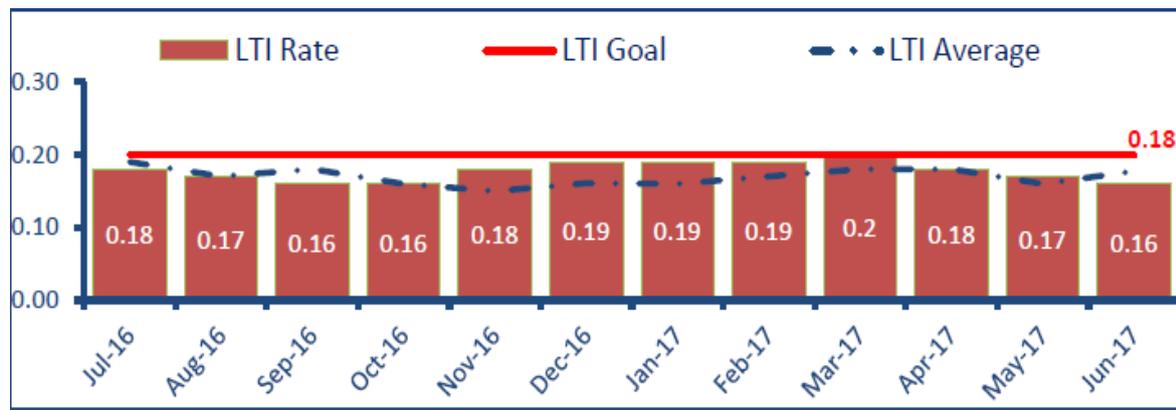
2. The environmental safeguards supervision of the Medupi Coal Fired Power Plant took place on July 17–21, 2017, in Lephalale, Limpopo. The Mission visited the construction site for the power plant, including the ancillary infrastructure – excess coal stockyard, pollution control dams for the coal stockyard, ash dump site and raw water dam. The Mission also received a report from Eskom’s site environmental manager on the progress made in implementing, monitoring and reporting on ambient air quality, stack emissions, groundwater, and safety and health issues both at the power plant and along the transmission lines. The Mission was satisfied that the project continues to comply with the regulatory requirements and conditions of authorization by the relevant Government of South Africa authorities on various aspects of ambient air quality and water quality. The Mission noted that Eskom is also undertaking appropriate remedial measures and procedures to address systemic risks resulting from implementation of Occupational Health and Safety (OHS) management system and in responding to the non-compliance/partial compliance issues raised by the environmental audit carried out in February 2017. The overall environmental performance of the Medupi Coal Fired Power Plant is, therefore, considered **satisfactory** for all safeguard policies triggered.

Occupational Health and Safety

3. In June 2017, Eskom informed the Bank of a second fatality which occurred at the World Bank financed transmission line (Masa-Ngwedi 400kV line Section B) designed to evacuate power from the Medupi Power Plant. This is the second fatality affecting the same contractor (Babcock) within a period of six (6) months. While the investigation reports on both fatalities are still pending, Eskom gave a detailed presentation of the incidence which occurred on June 19th, 2017, when the contractor’s team was installing anti-vandal bolts on a newly constructed Cross Rope Tower on the transmission line. The tower mast collapsed and fell on the contractor’s worker who eventually died. The Mission’s assessment indicates existence of a well-established robust systems, protocols and procedures to prevent injuries and accidents at the construction site for the power plant. However, from the presentation made, the Mission noted that poor supervision along the transmission lines might have likely attributed to the incidents and requested Eskom’s detailed course of action to address the issue (s). The Mission noted of the steps Eskom management has taken to reinforce health and safety procedures and requested Eskom to submit to the Banks the investigation reports once finalized.

4. Data presented to the Mission for Medupi Power Plant indicates the actual Lost Time Incidents (LTIs) to be on average lower than the projected target rates, although there was concern that the incidence rate (LTI of 0.19 compared to target of 0.2) was still significantly higher than Eskom would have desired. Similarly, to the previous data, hydrocarbon spillages from maintenance and refueling practices still account for the highest number of environmental incidents. Eskom also noted that recent fatalities at the transmission line triggered a number of actions by management to ensure that such incidents are prevented in the future. Planned actions include, among others, regular training of all Eskom supervisors and contractors on health and safety issues. The mission noted that the site maintains a good EHS record. Below is the 12-month trend of LTI from June 2016 to June 2017.

Table 3.1: Lost Time Incidents Trend



Environmental Audit of Medupi Power Plant

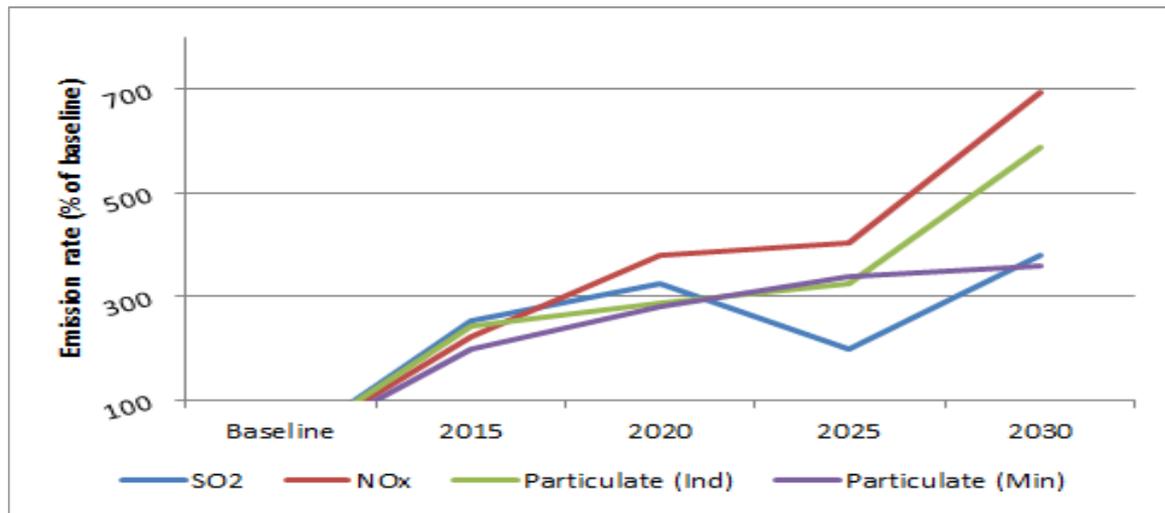
5. The Mission noted that on February 7th and 8th, 2017, DEA conducted a comprehensive environmental compliance inspection (audit) of the Medupi Power Plant and identified several cases of non-conformance/partial conformance particularly on issues related to water quality, groundwater contamination, air emissions and general housekeeping issues such as hydrocarbon spillages and solid waste management. Eskom submitted its response to DEA on July 3rd, 2017 and is currently awaiting a response from DEA. The mission reviewed both the audit report and Eskom’s response and requested Eskom to send to the Bank DEA’s response. The mission informed Eskom of the World Bank’s agreed commitment to the use of country systems for environmental and social safeguards as they were found to be equivalent to the World Bank safeguard policies/international standards during the project preparation phase. The non-conformance/partial conformance issues identified by the audit raises the question as to whether this conclusion is still valid. The Mission asked Eskom to share with the Bank DEAs response to their submission.

Air Quality Monitoring in Waterberg Area

6. DEA informed the Mission that there was no new information on air quality monitoring in the Waterberg Area since the last mission. The following information was presented during the January 2017 mission and which is still valid: Progress on the implementation of the. The overall objective of the Waterberg-Bojanala Priority Area Air Quality Management Plan (WBPA- AQMP) is to bring ambient air quality within the Waterberg Bojanala Priority area into full compliance with NAAQS by 2020 in the face of other planned strategic infrastructural developments within the region. Against a baseline obtained from air emissions monitoring inventory up to 2012, dispersion

modeling of air emissions projected an increase of all the key elements being monitored (i.e. SO₂, NO₂ and particulates) within the region for 2015, 2020, 2025 and 2030. Furthermore, DEA informed the mission that the model simulation only included documented planned infrastructural developments within the region and will need to be updated to include other potential emission sources which were yet to be documented at the model simulation. Considering that industry was responsible for a greater proportion of the emissions, there is good reason to ensure all industrial sources (documented and not) are captured as input into the AQMP implementation and that knowledge and understanding of air quality amongst stakeholders in the WBPA is enhanced.

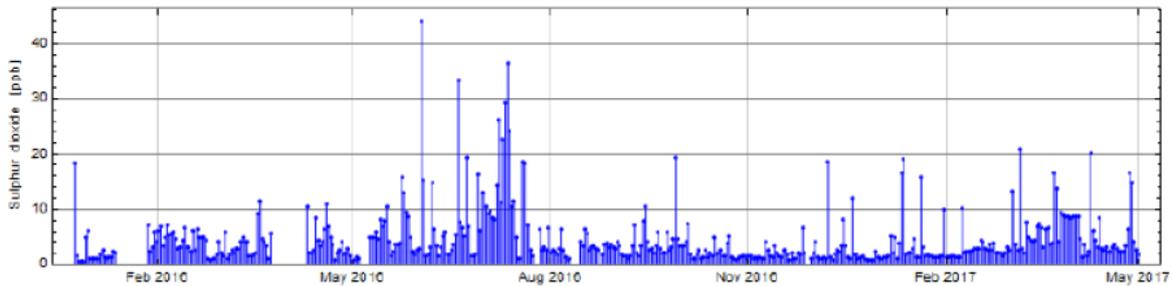
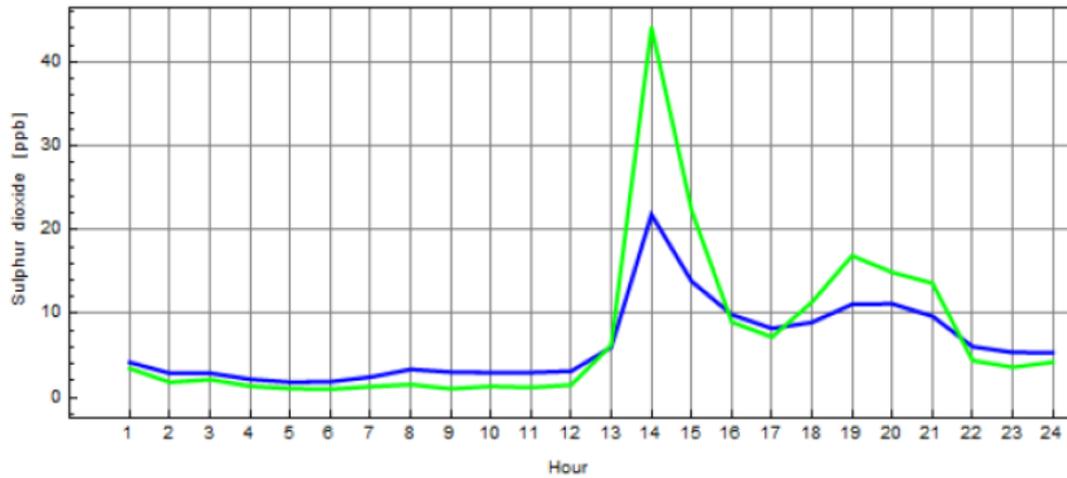
Table 4.2: Emissions Summary



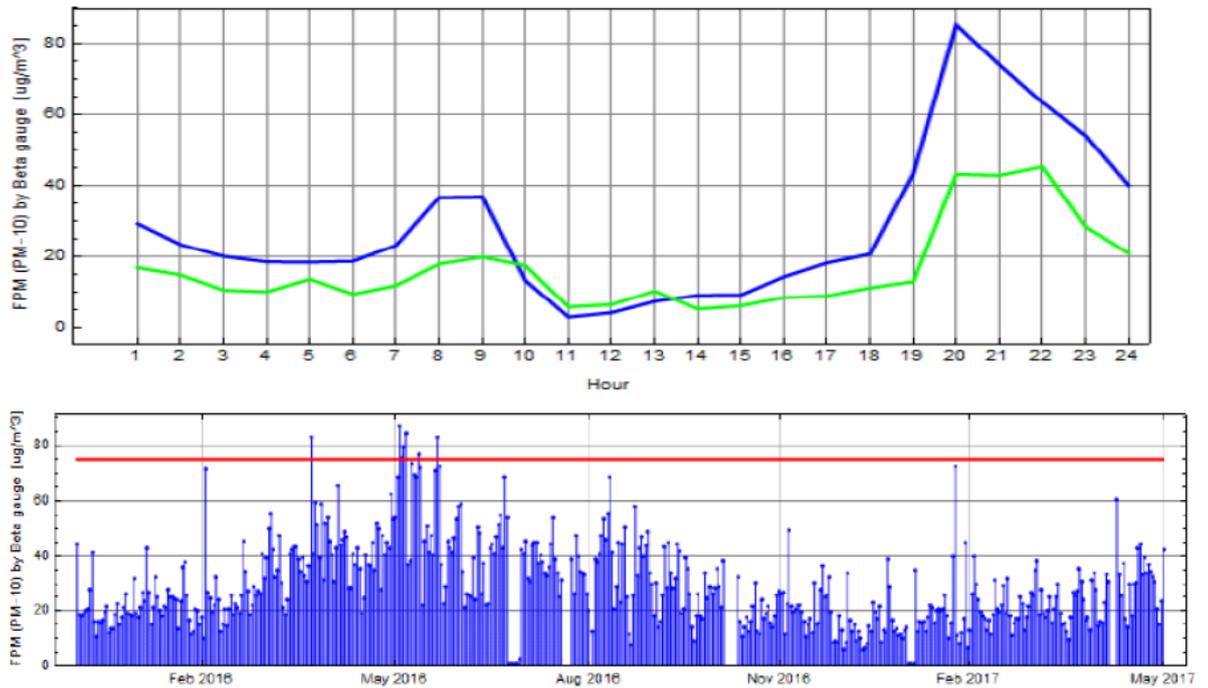
Source: DEA

Ambient Air Quality Monitoring in Marapong and Lephalale:

7. From the updates provided on site, the mission noted continued satisfactory compliance with ambient air quality standards with respect to dust emissions (PM₁₀ and PM_{2.5}), NO₂, and SO₂, CO, and O₃ although with intermittent diurnal spikes of non-compliances due to a variety of reasons. SO₂ emissions from the stack were also below the 3,500 mg/Nm³ limit, except on occasions when higher sulphur coal was used. The concentrations trend show a series of peaks throughout the period of January to July 2017.



8. During the last six (6) months, the ambient air quality monitoring data indicate that $PM_{2.5}$ concentrations (against a limit of $40 \mu\text{g}/\text{m}^3$) are high in the morning and evening with peaks observed at 03:00 hours and 05:00 hours and between 20:00 hours and 22:00 hours. The concentrations are lower throughout the day, which is indicative of influence by low-level sources such as domestic combustion and agricultural farming. The NO_2 concentrations were high from the early hours of the morning and decreased from 07:00 until 09:00 hours. Concentrations then increase, peak at 15:00 in the afternoon, decrease until 19:00 and increase again throughout the evening against a standard of 106 ppb (1hr). This is an indication that ambient NO_2 concentrations at the site are influenced by both tall stack and low-level sources; however, concentrations remained relatively low. Please see the pattern for PM_{10} against a standard of $75 \mu\text{g}/\text{m}^3$.



Application for Postponement of the Sulphur Dioxide (SO₂) Minimum Emission Standards:

9. The mission noted that Eskom has applied for a postponement to comply to the Minimum Emission Standard (MES) for the existing plant’s SO₂ emission limits for Medupi and Matimba Power Stations. Eskom submitted the application to DEA on July 18th, 2017 seeking postponement of the SO₂ minimum emission standards as indicated in the Minimum Emission Standards (MES) (see table below). The request seeks a change in the maximum allowable emission limit of 3,500 mg/Nm³ for Matimba and Medupi Power Stations, to 4,500 mg/Nm³ for a period of five-years. If approved, Eskom will not be bound by the MES for a period of five years and the DEA in Limpopo will subsequently determine an allowable emission standard exceeding the 3,500 mg/Nm³ standard to which Eskom must comply for a period of five-years.

Table 4.4: Minimum Emission Standards:

Joint Source Code	Pollutant Name	Maximum Release Rate			Duration of Emission
		(mg/Nm ³)	Date to be achieved	Average Period	
Stack 1	SO ₂	3500 mg/Nm ³	01 April 2015	Daily	Continuous
		500 mg/Nm ³	01 April 2015	Daily	Continuous
Stack 2	SO ₂	3500 mg/Nm ³	01 April 2015	Daily	Continuous
		500 mg/Nm ³	01 April 2015	Daily	Continuous

10. *Air quality legislation in South Africa:* The South African National Environmental Management – Air Quality Act (Act No 39 of 2004) regulates air quality in South Africa focusing on human health (its aim is to give effect to the constitutional right to an environment that is not harmful to health and well-being). This act was promulgated in 2004. Following the promulgation of the Act, national ambient air quality standards were published by the DEA in December 2009 three years after the Record of Decision (RoD) was issued for the Medupi Power Plant. The ambient standards were followed by the publication of Minimum Emission Standards (MES) in April 2010.

The MES have two broad requirements, (i) limits for “existing plants”. (which came into effect in April 2015), and more stringent “new plant” limits, which must be complied with by April 1st, 2020. With regards to the Medupi Power Plant, both sets of standards apply. Under the regulations, Medupi is treated as an existing plant, even though it is still under construction, because the EIA process was completed and environmental authorization was given prior to promulgation of the air emission standards. In January 2017, according to the provisions of the Air Act, Eskom publicly disclosed a Background Information Document (BID) indicating its intention to seek postponement and invitation to public participation.

11. Eskom explained that its application was driven by a concern that both Matimba and Medupi coal fired power stations receive their coal from the Grootegeluk Mine and over the last year, there has been a variability and an increase in the average sulphur content of the coal, which could likely increase their respective SO₂ emission levels. Thus, while the power stations average monthly emissions are within the MES limits, there are times when the daily limits for Medupi and Matimba are being exceeded due to the high sulphur content of coal. Considering Eskom’s concern about coal of higher sulphur as the cause of spikes in SO₂ emissions, the mission suggested that Eskom could, in the interim, consider the option of lime injection before installation of the FDG to help realize the desired emission levels. Eskom explained that at the moment, the Medupi plant is unable to undertake blending at the stock yard but steps are being taken to finalize commissioning of the coal re-claimer to enable coal blending. Eskom further informed the Mission that the Grootegeluk Mine has since adopted a blending strategy to try and mitigate the peaks. The Mission expressed concern on the new application which raises the question as to whether the application of the country systems for environmental and social safeguards is still valid. The Mission asked Eskom to share with the Bank DEAs response to the its submission.

Ground Water Quality Monitoring:

12. Data from some of the ground water monitoring wells continue to indicate water quality remains within acceptable limits. Eskom informed the mission that a number of old monitoring boreholes were rehabilitated in April 2015 due to blockages or obstructions in the boreholes. Special attention was paid to borehole MBH04S, which was flushed with clean water to see if it has any influence on the water quality. The rehabilitation of the boreholes did not have a marked effect on the water qualities. Even in MBH04S that was flushed with water and cleaned out with compressed air there was little or no change in the water quality. Point source pollution has therefore been ruled out. The Ground Water assessment monitoring concluded that groundwater quality conditions varied significantly within relatively short distances, because of compartmentalization caused by groundwater flow barriers (geological structures) as well as varying aquifer host rock. Eskom still need to investigate the issue and inform the Bank.

Water supply arrangements for Medupi

13. While Phase 1 of the Mokolo Crocodile Water Augmentation Project (MCWAP Phase 1) has made 30.5 million m³/year of water available, the Mission is still concerned with continued delays in finalizing the financing and construction plan for the MCWAP Phase 2. The Department of Water and Sanitation (DWS) informed the Mission that MCWAP – Phase 2 was more than two years behind schedule, and would only supply water in June 2023 (from November 2022 communicated during the previous mission of January 2017). The Mission noted that the remaining lead time was then only 8 month, as the remaining three units are planned to be operational with FGD by March 2024. The Mission noted that any further delay would jeopardize timely operation of the last three units with Flue Gas Desulphurization (FGD).

14. DEA informed the Mission that in November 2016, the Minister of Water and Sanitation (MSS) approved a revised borrowing limit for a project of 75 million m³/a, taking cognizance of a Cabinet resolution in September 2016 of reducing the capacity to 75 million m³/a, and informed the Minister of Finance. Accordingly, the EIA has been initiated. The Mission noted that the MSS must obtain concurrence from the MoF in terms of the Public Finance Management Act (PFMA) for borrowing limit approval, precedent to consideration by the Fiscal Liability Committee. The Mission was informed that a draft Guarantee Framework Agreement (GFA), Water Supply Agreement (WSA) and Implementation Agreement (IA) is ready. It was also noted that a confirmation of availability of fiscal funding is required for the social component before disbursement from loans for the commercial component can commence. DWS presented a detailed milestones of the project to track progress (Gantt Chart), which continues to indicate the concern over the reduction in the “float” between when water is required for Medupi Unit 4 onwards and water supply through MCWAP II. DWA informed the Mission that it will be able to confirm the milestones once the borrowing limit is confirmed.

Flue Gas Desulphurization System for Medupi

15. The Medupi power station with annual coal consumption of 17,117,436 tons, will contribute CO₂, N₂O and sulphur dioxide emissions to the atmosphere. These emissions represent an increase in the energy sectors emissions by 9.2% and an increase in Eskom’s CO₂ contributions by 7.3%. SO₂ minimum emission limits are now legislated and Eskom has made the decision to employ flue gas desulphurisation (FGD) technology for power stations being constructed. Eskom reaffirmed its commitment and plan to install an FGD system for abatement of SO₂ emissions from the six generation units will each be retrofitted with an FGD unit sequentially. The mission expressed continued concern over a slipping schedule to meet first operational FGD for U#6 by 2021. The current schedule has U#6 FGD construction starting by April, 2020, leaving an impractical 1.5 years for final construction and commissioning, by August 2021. It was agreed that Eskom would have internal discussions regarding availability of financing (required by May 2018) and commencement.

16. Eskom further informed the Mission that the development funding has been approved by Eskom Treasury and Ministry of Finance and project development and the conceptual design work are underway. Eskom indicated that the project is in the approved budget but had not yet been allocated funds. Eskom has now firmed up the design and a revision on the development budget was approved in November 2016.

17. The Mission expressed concern that Eskom expects that Medupi will at brief times not be able to comply with the existing plant standard of 3,500 mg per NM³. This could be a serious issue because future seams of coal from Exxaro mine are likely to have sulphur content higher than 1.7 percent, which will result in possible exceedance of SO₂ emission levels. Eskom informed the Mission that blending of coal could in the interim help realize the desired emission levels that meet the emission standards. However, this measure cannot be implemented until the end of 2017 when the coal re-claimer is fully operational and the delivered coal is being systematically delivered and stored with accurate records on sulphur content. The Mission again suggested that Eskom seriously consider an interim strategy to control SO₂ emissions for the next six years before the SO₂ scrubbers (FGD) are operational. Previous suggestions have included the consideration to adopt a direct furnace limestone injection program which has been tested in the USA and in Europe and shown to reduce SO₂ emissions by up to 50%. A field testing program with this technology on Unit #6 or

5 to obtain technical confidence had been suggested earlier, which the Mission reiterated for Eskom's serious consideration.

18. Eskom will continue to refine and improve the schedules to allow the normal minimum of 24-30 months for the first unit completion to Commercial Operation. Detailed designs of buildings and civil works are scheduled for 2017, while all EIA approvals should be obtained by 2018. Budget confirmation for the actual works should be achieved by end 2018. Eskom will be seeking funding for these works from the market and DFIs.

Social Aspects

Heritage Management

19. The mission learned that despite holding the, “Final Symbolic Cleansing Ceremony on Saturday 14 May 2016”, in which closure was officially brought to the exhumation and reburial of graves located within the project site and identified in 2007, indications are that there are potentially new cases which need to be investigated. In terms of next steps ESKOM’s environmental team is awaiting National Treasury endorsement to re-hire the independent heritage consultants (involved in the investigation and resolution of the original cases). The mission requests that ESKOM provide periodic updates on: the status of the hiring of the consultant; the nature and extent of additional cases identified and; and next steps.

Grievance Redress Mechanism

20. ESKOM appraised the mission of the roles and responsibilities of the Environmental Monitoring Committee (EMC), mandated with environmental oversight, as well as serving as the link between the Project and the public. The EMC mandated to only handle environmental related grievances through the Environmental Authorisation including those associated with heritage legislation such as the graves. A review of the EMC’s TOR’s indicates that their mandate is strictly environmental. The TORs are silent on social aspects such as land acquisition and broader social impacts. Nor is mention made in the TOR of it having a grievance redress function. Additionally, materials shared indicate that the EMC serves to, ‘provide feedback to the local communities and stakeholders’ – and missing from this formulation would appear to be the two-way transfer of information from the communities in turn to the EMC.

21. The mission requested a copy of the project-wide grievance log and an “ECO Complaints registry” was provided by ESKOM during the mission representing complaints from 2007 to date. The mission was informed that in a general sense the concerns of the local community relate to opportunities for employment and improved infrastructure (housing, community infrastructure) and less about the environment and other issues. Nevertheless, in total 15 complaints have been lodged, all of which were deemed to be “closed” although the issue of the exhumation and reburial of graves is still on-going. The complaints include issues of both an environmental (run-off, erosion, wildlife trapping and wildlife aggression, sand-mining, lighting along the roadway) as well as social nature (alleged destruction of property etc.).

22. Depending on the nature of the issue, in some cases relevant Eskom departments would be responsible to follow up matters and in case of contractor disputes, Medupi Project External Relations Management (PERM) which provides oversight on contractors is the right department to ensure that matters or employee grievances are fully addressed and or correct alternative dispute resolution mechanism were implemented. All logs are registered and signed off by Community

Liaison Officers (CLOs) and kept at the main Information centre in town. In most instances, community members visit satellite centres as they are situated within their reach to report any issue, some issues are dealt with immediately while majority are escalated to relevant departments since CLOs are not necessarily subject matter experts. CLOs only record issues and submit such to the main centre manager for further intervention.

Community Engagement

23. In a bid to better understand the efforts ESKOM is making to reach out to the surrounding communities the mission requested, and was provided with, information regarding: their community engagement strategy; the locations, roles and functions of the 6 Medupi Central Information Centers (MCIO's) and; associated roles and responsibilities of community liaison officers. The mission was advised that the then Medupi Stakeholder Forum agreed to establish Medupi satellite offices in 5 areas within Lephalale municipality in 2011, to enable the project to reach all parts of Lephalale town. The offices are mandated to assist in the facilitation of local recruitment and serve as the conduit for information between the project and Lephalale communities (construction progress updates, general project enquiries etc.)

24. A "Community Issue Log" is kept at the Medupi Central Information Centers (MCIO's) to keep track of community concerns including issues such as appointments of Community Liaison Officers (CLO's) and to provide information on local recruitment and training. It is not clear from the information provided if the log serves to capture and address broader grievances. The log's focus seems more narrowly focused on the roles and responsibilities of the MCIO's (information sharing and recruitment). "Community Issue Log" provided by the Project was a snapshot of some of the issues that the MCIO is engaging the community on. It is not focused on recruitment only, but also on skills development, procurement opportunities, Corporate Social Investment, etc.

Corporate Social Responsibility

25. The mission was updated on the corporate social responsibility activities of ESKOM including recent initiatives to; equip and upgrade local schools and health care centers; provide school uniforms and donate spectacles and launch a career expo aimed at promoting interest in the sciences for local youth. In total ESKOM indicated that the project (ESKOM and contractors) has spent approximately R 141.25 million on these activities benefitting approximately 80,000 people. In addition, the Transmission Line-related activities have also been involved in the donation of equipment to Early Childhood Development Centers as well the donation of soccer kits.

Civil Society Organization (CSO) Outreach

26. The mission met with four members of the local Waterberg Environmental Justice Forum (WEJF) at Medupi. In general, the members noted that they had learned a lot about environmental issues from ESKOM and their relationship with ESKOM was "healthy". In terms of their impressions of the general social impacts of the MEDUPI project they were of the impression that the main challenges came from the influx of people into the area and associated challenges such as increased crime rates and accidents on the roads. They further noted their concerns with the uncertainties surrounding demobilization and associated job losses once ESKOM retreated and the plant construction phase was over. They indicated that ESKOM has tried its best to mitigate current negative impacts through their CSI activities. Eskom is encouraged to hold regular consultations with other CSOs as well.

Land Acquisition under the Mokolo and Crocodile River (West) Water Augmentation Project Phase 2A (MCWAP II)

27. An update on the implementation status of the sub-project by a representative from the Department of Water and Sanitation (DWS) (Mr. Ockie van den Berg) indicates that there will be land acquisition as well as impacts on Rights of Way and associated impacts.

- Nature of impacts: At this stage the *full* nature and extent of impacts (land acquisition, resettlement, economic impacts) is unknown although an initial assessment anticipates that “most” of the affected project affected persons (PAPs) are on the pipeline route.
- In terms of land ownership: it was noted that, all the affected land belongs to “commercial farming operations” on privately owned properties and none of the anticipated impacts are on communal land.
- The main land use activity is cattle farming and “some” grazing.
- Duration of impacts: In some cases, there will be permanent occupation of the land, for example the abstraction works, pump station and dam. In these cases, the DWS will acquire and purchase the land. For the pipeline route servitudes, will be “registered” – for Right of Way (ROW). The land owners will be able to use the ROW land, albeit under restricted circumstances. The land owners will also be offered the option of having the impacted lands fenced (often a preference for game farmers).
- Negotiations: The process will involve individual negotiations with the PAPs, led by a land valuer.
- Avoidance if possible: The mission was informed that DWS’ strategy for the alignment of the pipe and infrastructure is to ensure the alignment is close to the properties’ boundaries to minimize the impact on the land-use practice. Since the project is still in planning phase, the final alignment will be decided by the Authority, in this case, Department of Environmental Affairs (DEA) as part of the Environmental Authorization of the project. They are currently working on proposed alignments with few alternatives. Based on the proposed alignments, the mission was informed that no relocations or resettlements are envisaged. However, this contradicts what was initially shared by DWS which is that resettlement impacts are possible.

28. **Next Steps:** The Bank requested a full update on the status of the land acquisition and resettlement activities as the information becomes available.

Status of Social impacts along the Transmission Lines

29. The mission was informed of a series of social-related impacts that have occurred on the Masa-Ngwedi 765 / 400kV Transmission power lines including – Medupi Borutho – Section A (400kV line). These issues relate to denied/compromised access to the project site/servitudes leading to construction delays.

30. **Issues Log:** The mission was provided with 2 excel spreadsheets detailing the social-related issues that are being followed for (Medupi-Ngwedi and Medupi-Borutho respectively). In Borutho issues relate generally to the need to ensure the integrity of irrigation systems during construction; the placement of towers and the need to liaise with the land owners; the need to ensure that game don’t escape during construction; the need to ensure security of owner’s properties during construction, the restriction of access during certain periods/months etc. Most of the entries were written in Afrikaans and not in English. For Witkop the issues related to: the need to contact the

land owners prior to accessing the land; precautions to be taken when servitude runs through a game farm; special provisions for tree clearance.

31. **Ostriches:** This issue has been followed up and addressed in previous supervision missions. In sum, construction activities were disturbed by ostriches that were attacking the construction workers. The landowner was requested to transfer the ostriches to an enclosed area. In September 2016, the landowner reported that his dogs had attacked one ostrich, badly injuring the animal. The landowner filed a claim against ESKOM for the ostrich injury. An amount of R26,000 was settled by ESKOM for the veterinary bill and subsequent claims for veterinary check-ups were also settled by ESKOM. Construction on this farm has been completed.

32. **Access to project site:** Medupi Borutho Section A 400kV line. A farmer denied access to his farm for an extended period claiming that he is in hunting season. A resolution was reached involving the fencing of the servitude in his farm to partition the servitude from his farm so that construction activities can continue without disruption to hunting. A quote for 1.8M rand has been received (but has yet to be paid) for the fence installation.

33. **Relocation:** Borutho Witkop 2 400kV line. One family has been relocated due to their house being in the servitude (tower 34). An amount of R130,680 was paid for the relocation. The World Bank is seeking additional information on the processes and procedures followed including: consultations with the affected party; negotiations to determine value of property; what additional costs were covered (beyond the value of the property) for example relocation assistance etc. Documentation relating to this specific case is requested.

34. **Presence of new properties in the servitude:** Medupi Borutho Section B 400kV line: A new house and three empty fenced stands are situated under the servitude. This occurred after the servitude was finalized and the project start date was confirmed with the contractor. Decisions have been taken to: relocate the family in the house prior to the line being energized; negotiate with the community leaders to move the empty stands to another location.

35. **Next Steps:** The World Bank requested a report/write-up on each of these cases as well as an explanation of the processes and procedures followed in their resolution/follow up including mechanisms for community engagement and grievance redress. The log of cases was provided however more information is requested on the processes and procedures, including institutional arrangements, for handling these cases.

Majuba Railway

36. The mission focused on the resettlement issues associated with the construction of the Majuba rail.

37. The Ermelo-Majuba railway line is a 67km railway line that will transport coal from Richards Bay Coal Terminal (RBCT) to the Majuba Power Station. The acquisition of the servitudes for the Majuba Coal Transport System was completed in 2008. Following several delays, the rail is expected to be operational by December 2018.

38. *Context:* National legislation and Bank safeguard policies are broadly similar and country systems have been applied. The one area where South African legislation and Eskom practice differ from Bank practice is the absence of a specific requirement for public disclosure of a stand-alone RAP or RPF prior to resettlement. However in the context of this project these gaps have been addressed. In all other respects, Eskom's published 'Procedure for the Involuntary Resettlement of

Legal and Illegal Occupants on or from Eskom Procured Land', issued in July 2009 is explicitly aligned with the requirements of OP 4.12 – and therefore consistent with the principles of OP 4.00 with respect to Involuntary Resettlement. This applies especially in the context of transparency in consultations with PAPs, fairness of compensation and the widely known availability of appeal mechanisms. Focus on the poor is highlighted through a requirement for significant improvement in living quarters and opportunities for livelihood improvements. South African law also goes beyond market value compensation to include all costs needed for the affected land owner to re-establish economic livelihoods, including any losses incurred during the transition period. National law also guarantees that all people living on an acquired property, such as tenants, employees and even squatters, are entitled to resettlement and assistance to improve their economic well-being.

39. Field visits: The mission visited the resettlement site and informal consultations were held with persons that had been physically resettled. We were also invited in to take a closer look at the houses. Following site visits and consultations with PAPs, the mission drove along the entire service road next to the new rail to get a better sense of the area affected.

40. A total of 14 families have been affected. Eskom has made a distinction between two types of PAPs, namely persons who have been resettled on new land and those that have been relocated within the farm on which they work. On-farm relocations are in the process of being carried out for 11 families while three families are being physically resettled to a new location.

Off-farm resettlement

41. Following a consultative process resettlement agreements were reached with the three directly impacted families and signed by the respective parties in 2007. As a result of extensive delays experienced with regard to construction the resettlement of the families did not proceed as originally planned. Thus, it became necessary to re-enter into negotiations with the three households in order to determine a new resettlement package and ensuing agreements. Three households were required to be resettled and suitable land was identified following further consultations with the concerned families. Five houses were constructed based on the size of each household and the families were resettled in August 2013.

42. The mission visited the resettlement site which is located about 15 km away from the original residences. This location was preferred because of its proximity to services in Amersfoort, the nearest town. The houses seemed to be of very good quality and all basic services had also been provided. The concerned families had originally lived close to each other and since they were resettled next to each other, important social networks were maintained.

43. In addition to the housing the resettlement packages for the three families included electrical power supply, boreholes for the supply of sufficient water to the houses and assistance with moving household items. Each household also received a once-off relocation allowance of R20 000. Finally grazing and arable land will be allocated to each household and Eskom is currently in the process of subdividing approximately 60 ha of land which will be transferred to the three resettled families. A training program to assist family members of each household in developing relevant income-generating skills has been initiated and post training assessments will be initiated once the land has been subdivided.

44. The mission was informed that the standard of both housing and services were much better than prior to resettlement and PAPs also indicated that they were very satisfied with the outcome of the resettlement process.

On-farm relocation

45. While the above off-farm resettlement has been very successful, several challenges have been encountered with regard to the on-farm relocation process. Relocation agreements were entered into between Eskom, the concerned land owners and the occupiers/workers in order to relocate the latter to a different area within the farm. However, follow-up on the part of the land owners has in some cases been inadequate.

46. Eleven families resided too close to the railway line and needed to be moved further away from the servitude area. While some of the moves have been completed there are still two cases where families for different reasons have not yet moved and altogether six cases have not for various reasons not been closed. (Specific information on each of these six cases are included in the project file.

47. In all these cases there is little or no impact on the existing livelihoods of the households. Relocation agreements were reached with the existing landowners to relocate the affected households and the land owners were paid by Eskom to build new houses for the occupiers/workers. Not all of the land owners have effected the relocation of their occupiers, and in some cases where the move has taken place the housing provided by the land owners has been sub-standard. This has led to a detailed investigation and ensuing litigation against some defaulting landowners and some of these cases are still ongoing.

48. It should be noted that the provision of electricity is not seen as a basic service whereas water and sanitation is. Where the concerned families previously lived (and in two cases are still living), there is no proper sanitation nor potable water. Further, the standard of the houses where they previously lived did not follow any building regulation standards. The houses provided by the farmers to the affected families have not followed any set standards either, but they are at least constructed from brick and mortar which is a considerable improvement from the mud houses that they previously occupied.

49. As indicated above there are still six outstanding cases and details are provided in the project file.

50. Monitoring: Within a year after the completion of the RAP implementation the borrower shall carry out an audit to be conducted by an independent qualified resettlement expert to monitor the outcome of the RAP. Consultations will also be carried out and any necessary actions to address shortcomings in RAP implementation must be implemented and carefully documented.

51. Lessons learned and next steps: The resettlement issues associated with the Majuba rail are manageable but some important lessons have been learned:

52. The agreements signed between Eskom and the land-owners should have been more detailed and payments should have been made in instalments based on progress rather than providing the full amount prior to the start of construction.

53. The agreements should be more specific on the housing standard required in order to minimize the difference between houses provided for on-farm relocations and off-farm resettlement.

54. Next steps: In an effort to solve the remaining cases, Eskom is convening a number of meetings with land owners and lawyers planned for July and August to address the shortcomings of the infrastructure for the proposed relocations.

Contact. Reynold Duncan, Task Team Leader, World Bank, rduncan1@worldbank.org