



Project Information Document/ Identification/Concept Stage (PID)

Concept Stage | Date Prepared/Updated: 26-Nov-2019 | Report No: PIDC188485



BASIC INFORMATION

A. Basic Project Data

Project ID	Parent Project ID (if any)	Environmental and Social Risk Classification	Project Name
P170743		Low	South Africa-Air Quality Management in the Greater Johannesburg Area
Region	Country	Date PID Prepared	Estimated Date of Approval
AFRICA	South Africa	26-Nov-2019	
Financing Instrument	Borrower(s)	Implementing Agency	
Investment Project Financing	South Africa National Treasury	South Africa Department of Environment, Forestry and Fisheries	

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PROJECT FINANCING DATA (US\$, Millions)

SUMMARY

Total Project Cost	1.00
Total Financing	1.00
Financing Gap	0.00

DETAILS

Non-World Bank Group Financing

Trust Funds	1.00
Miscellaneous 1	1.00

B. Introduction and Context

Country Context

The Greater Johannesburg Area (GJA) of South Africa is made up of three (3) metropolitan municipalities, (i) the City of Johannesburg, (2) the City of Ekurhuleni, and (iii) the City of Tshwane. Today, about 40% of South Africa's total Gross Domestic Product (GDP) is generated from those three cities. The area is experiencing fast rates of industrial expansion, and a greater amount of vehicle usage, all leading to increased concentrations



of air pollutants that ultimately affect the cities' ambient air quality. The area and its people are subjected to high levels of emissions from a range of sources—both outdoor and indoor—that are degrading ambient air quality while simultaneously worsening the GHG emissions particularly from short-lived climate pollutants (SLCP). Existing data indicate annual average concentrations of PM10 have been measured in the nearby Vaal and Highveld priority areas at 40–80 µg/m³ and 35–80 µg/m³, respectively, with peak concentrations occurring during winter months when there is an increased use of different energy sources for indoor heating.

South Africa's national standards for PM10 are set at 40 µg/m³ for the annual average, indicating that both areas with reported data are frequently exceeding the standards by a significant margin. PM2.5 levels have been measured in these same two locations at levels between 25–50 µg/m³ and 10–40 µg/m³, respectively. The PM2.5 standard, set at 20 µg/m³, is also frequently exceeded. While deteriorating levels of air quality are known to have serious public health impacts, there is lack of understanding of the contribution of various sources to overall air quality in South Africa. Additionally, there is lack of understanding of the health and economic benefits of options for reducing exposure to air pollutants, short-lived climate pollutants (SLCPs), and greenhouse gas (GHG) emissions in the Greater Johannesburg Area, particularly in the three metropolitan municipalities of Johannesburg, Ekurhuleni, and Tshwane.

Lack of specific equipment to measure PM2.5 in existing monitoring stations and lack of a cost-benefit analysis using the GAINS model in selecting best mitigation options are impeding the capacity of the Department of Environment, Forestry and Fisheries (DEFF) in strengthening Air Quality Management Planning of the Greater Johannesburg Area.

Sectoral and Institutional Context

Support is needed for South Africa to build on existing activities and programs to develop an integrated air quality management program for the Greater Johannesburg Metropolitan Area (GJMA). The National Development Plan (NDP), and the New Growth Path (NGP), updated Industrial Policy Action Plan II (IPAP2, 2010), and Integrated Energy Planning Report (IEP, 2013) provide a framework to put the economy on a sustainable development trajectory. This ASA's focus on integration of GHG and short-lived climate pollutant management into the country's existing AQM program is directly in line with the 2018 South Africa SCD, "An Incomplete Transition Overcoming the Legacy of Exclusion in South Africa" (125838-ZA), in priority 5 on managing climate shocks and transition to low-carbon economy.

In addition, South Africa NDC also states that the country's key challenge is to "catalyze, at an economy-wide scale, financing of and investment in the transition to a low carbon and climate resilient economy and society." It is therefore necessary to 1) understand the investment climate for energy- and carbon-intensive sectors and 2) identify policy, financing and socio-economic opportunities to facilitate South Africa's low carbon development agenda over the medium- and long-term. South Africa has launched a national climate change action plan and made international commitments to reduce greenhouse gas (GHG) emissions and



promote climate-resilient growth. Further integration of AQM planning through this pilot would align GHG/SLCP monitoring with the existing suite of AQ measurements and enhance the capacity to identify the energy- and carbon-intensive source sectors that are tied to both economic competitiveness (through efficiency or low-carbon development pathways) and social development (through public health and labor productivity associated with clean air) enabling cost-effective resource planning.

To address the needs in South Africa and other low- and middle-income countries (LMICs), the World Bank and development partners have created a multi-donor trust fund to actively drive the Pollution Management and Environmental Health Global Business Line (PMEH GBL) and ensure strong collaboration between implementing and supporting countries in making important progress to solve pollution-related issues. PMEH provides technical assistance to strengthen environmental management and planning capacity in LMICs and has the following overall objectives:

- To support client countries to significantly reduce air (including pollutants impacting climate through both SLCP and GHG), land and water pollution levels through pollution management planning and investment to improve health;
- To generate new knowledge on pollution and its health impacts in urban/rural/marine areas;
- To promote awareness on these issues among policymakers, stakeholders and the public.

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Relationship to CPF

The proposed project is aligned with the South Africa's Strategic Country Diagnostic (SCD) prepared by the World Bank in consultation with the Government of South Africa. The SCD explores key development challenges and opportunities for the country and identifies five binding constraints to tackling poverty and inequality: (i) insufficient skills; (ii) skewed distribution of land and productive assets, and weak property rights; (iii) low competition and low integration in global and regional value chains; (iv) limited or expensive spatial connectivity and under-serviced historically disadvantaged settlements; and (v) climate shocks: the transition to a low-carbon economy and water insecurity. The proposed project is in line with the SCD by reducing the greenhouse gas emission particularly black carbon which is a Short Lived Climate Pollutant (SLCP).

The proposed project contributes to World Bank's corporate goals and initiatives. Specifically, the project aligns with the following: i) Climate Change Action Plan 2016-2020 and the Africa Climate Business Plan (ACBP), which aims to raise awareness and accelerate resource mobilization for pollution management and environmental health.

C. Project Development Objective(s)

Proposed Development Objective(s)

The project's development objective is to improve South Africa's capacity to address air pollution levels and support



development of full-scale Air Quality Management (AQM) plans in the Greater Johannesburg Area (GJA) through provision of specific equipment to measure PM2.5 and other air pollutants, SLCPs and GHGs at existing monitoring stations to expand the capacity of the Department of Environment, Forestry and Fisheries (DEFF) to improve Air Quality Management Planning going forward.

Key Results

The project performance toward the PDO will be measured through a key outcome indicator -- Number of monitoring stations installed (number).

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D. Preliminary Description

Activities/Components

The RETF will focus on procuring capital goods for Air Quality Monitoring Stations in the Greater Johannesburg Area, which will serve as a pilot for future scaling up to other geographical areas of South Africa. This will include monitoring equipment for existing monitoring stations to measure PM2.5 and short-lived climate pollutants (SLCP), such as black carbon, as well as laboratory and field equipment necessary for conducting a source apportionment analysis.

Environmental and Social Standards Relevance

E. Relevant Standards

ESS Standards		Relevance
ESS 1	Assessment and Management of Environmental and Social Risks and Impacts	Relevant
ESS 10	Stakeholder Engagement and Information Disclosure	Relevant
ESS 2	Labor and Working Conditions	Relevant
ESS 3	Resource Efficiency and Pollution Prevention and Management	Relevant
ESS 4	Community Health and Safety	Not Currently Relevant
ESS 5	Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Not Currently Relevant
ESS 6	Biodiversity Conservation and Sustainable Management of Living Natural Resources	Not Currently Relevant
ESS 7	Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Not Currently Relevant
ESS 8	Cultural Heritage	Not Currently Relevant



ESS 9	Financial Intermediaries	Not Currently Relevant
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Legal Operational Policies

Safeguard Policies	Triggered	Explanation (Optional)
Projects on International Waterways OP 7.50	No	
Projects in Disputed Areas OP 7.60	No	

Summary of Screening of Environmental and Social Risks and Impacts

The project will finance installation of Air Quality Management equipment in the DEFF or partner organizations' premises. No tangible negative environmental and social impacts are expected from these interventions. If any occur, impacts will be local and of a minor scale. The Operations Manual will be prepared for the purposes of this project and will include guidance for screening eligibility of the proposed activities, a brief stakeholder mapping and description of planned stakeholder engagement activities, a Labor Management Procedure, and GRM.

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CONTACT POINT

World Bank

Contact :	Ruma Tavorath	Title :	Senior Environmental Specialis
Telephone No :	202-458-8996	Email :	

Borrower/Client/Recipient

Borrower : South Africa National Treasury

Implementing Agencies

Implementing Agency :	South Africa Department of Environment, Forestry and Fisheries		
Contact :	Dr. Thulie Khumalo	Title :	Chief Air Quality Officer
Telephone No :	27-12-399-9188	Email :	TKhumalo@environment.gov.za

FOR MORE INFORMATION CONTACT

The World Bank
1818 H Street, NW



The World Bank

South Africa-Air Quality Management in the Greater Johannesburg Area

Washington, D.C. 20433

Telephone: (202) 473-1000

Web: <http://www.worldbank.org/projects>

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