

Secondary Asbestos Remediation Plan

Asbestos and Land Remediation EAP Workshop,
Sierra Burgers Park Hotel, Pretoria
Gauteng Province
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Chemicals and Waste Management



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Presentation Outline

- Introduction
- Findings of the Secondary Asbestos Remediation Plan(SARP)
- Impacts of Asbestos Exposure
- Remediation options identified in the SARP
- SARP Implementation Progress
- Challenges in Implementing the SARP
- Conclusion



Introduction

- **Asbestos** is a group of fibrous mineral silicates.
- Raw asbestos is naturally occurring, but has been exposed by mining activities.
- Asbestos has been mined in Mpumalanga, Northern Cape, Limpopo and North West Provinces.
- Due to its durability, asbestos was used in a variety of ways, including building materials, cement products, textiles, fireproofing, and several other uses.

Introduction cont.....

- DEAFF was tasked by Cabinet in 2004 to undertake a study to assess the extent of secondary asbestos contamination in SA.
- Following the 2006 study, the Department took the study further by developing (in 2008) a remediation plan & costing model for contaminated areas.
- The 2008 study (Secondary Asbestos Remediation Plan) included the social impact assessment (SIA) to assess how exposure to asbestos has affected the socio-economic aspects of relevant communities.

Introduction cont.....

- The study was completed in 2006 and showed that there are different levels of contamination in four provinces (NC, LP, MP, NW).

Asbestos contamination:

- **Primary asbestos contamination:** contamination from areas where asbestos was mined, milled, stockpiled and transported prior to processing into final product. This include areas located within the jurisdiction of the Department of Mineral Resources.
- **Secondary asbestos contamination:** any asbestos contamination (or pollution) of the general environment resulting from the transport, storage or use of asbestos as a result of historic mining operations. This include areas outside the jurisdiction of DMR.

Introduction cont.....

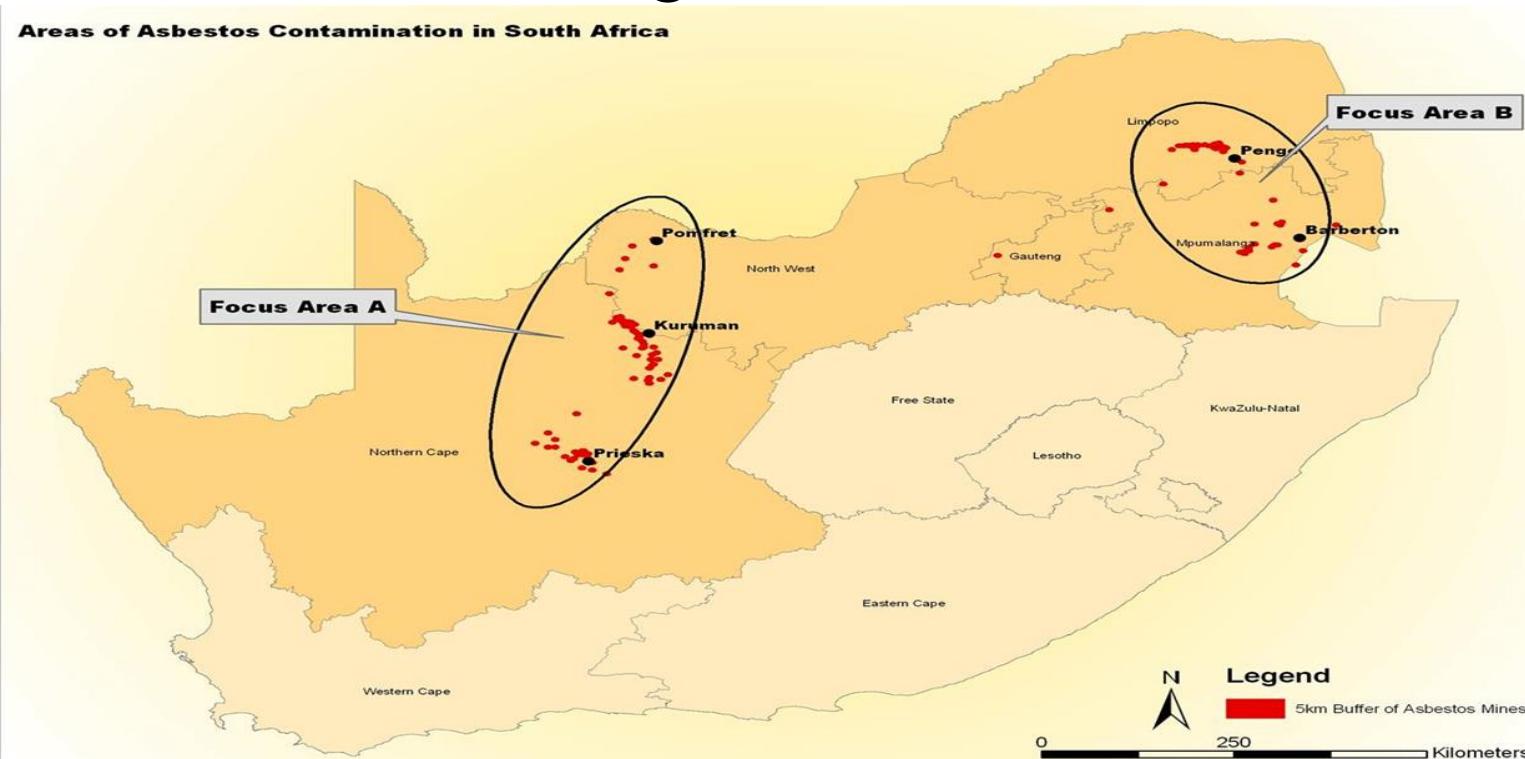
- After verifying the problem of asbestos contamination in the 4 provinces, the 2008 detailed study was aimed at developing a Remediation Plan and Costing Model for the remediation of the contaminated areas.



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Findings of SARP



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Impacts of Asbestos Exposure

- Asbestos can cause several lung diseases (referred to as asbestos related diseases: ARDs).

Main three types of ARDs:

- Asbestosis** : is a dust disease of the lungs.
- Mesothelioma**: a disease of the lining of the lung and abdominal cavities.
- Lung Cancer**: occurs when certain cells in the lung divide uncontrollably.

Remediation options identified in the SARP

- **No Action Alternative:** In this regard all the contaminated areas will be left the way they are (rehabilitated).
- **In-situ Remediation:** In this regard there will be a need for temporary relocation of the community while remediation is being carried out (estimated 10 yrs.).
- **Permanent Relocation:** In the regard minimal or no remediation will be applicable, but will be case specific. This can be regarded as the most reliable and permanent solution to the problem. However, this is dependent on whether the communities are willing to relocate and the extent of contamination.



SARP Implementation Progress

- Construction of 2.5km road in Penge area in 2016.
- Construction of 8km asbestos free road at Ga-Mafefe village and five asbestos free classrooms at Sealane Primary School in 2017/2018 financial year (**see next slides for the pictures**).
- Paving of Ga-Mopedi primary school and construction of asbestos free Ga-Mopedi community sports ground in Northern Cape.
- Construction of 10km roads in Heuningvlei and Mafefe.



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SARP Implementation Progress cont....



Before: Gravel road at Ga-Mafefe



After: Asbestos free road at Ga-Mafefe



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SARP Implementation Progress cont....



Before: Classrooms made of asbestos material



After: Asbestos free classrooms at Ga-Mafefe



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SARP Implementation Progress cont...

- Planned construction of 15km free asbestos road in Northern Cape, Prieska in 2020/2021 financial year.
- While acknowledging the progress, government and business still need to do more in the integrated approach to invest in this plan (SARP) which includes building homes, schools, clinics, roads, churches, government buildings, open spaces, dump sites, playgrounds, community parks and sports field, police stations and post offices, railways and stations.

Challenges in Implementing the SARP

- Funding; and
- Fragmentation/lack of integration within the government departments.



Conclusion

- Houses, churches, clinics and other infrastructure have been constructed from asbestos contaminated soils and materials exposing populations to asbestos on a daily basis and remediation of these facilities would help significantly.
- Implementation of these asbestos remediation projects will revive local economy in distressed old mining towns, promote Small Enterprises/Cooperatives and create jobs.
- Government departments and companies need to work together in order to implement the SARP so that we can have asbestos risk free country.





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