NC PSDF TOOLKIT 3 | MINING AND MINING TOWNS

RURAL DEVELOPMENT TOOLKIT

The **Mining Development Toolkit** aims to provide a comprehensive and practical guide for planning, developing, and managing mining activities and associated settlements. It ensures that mining development aligns with sustainable, equitable, and efficient land use practices, considering environmental, social, and economic factors. The toolkit incorporates principles from the Spatial Planning and Land Use Management Act (SPLUMA) and the National Spatial Development Framework (NSDF) to foster responsible mining practices and resilient communities.

TOOLKIT INTENT

This Toolkit is to be Used to Guide:

→ Promote environmentally responsible mining practices, including pollution control, rehabilitation, and efficient resource use.
→ Ensure that local communities benefit from mining activities through inclusive planning and equitable distribution of resources.
→ Encourage economic diversification and local entrepreneurship to reduce dependency on mining and support long-term community resilience.
→ Optimise land use by promoting compact settlement development around existing service nodes and public transport facilities.
→ Foster collaboration between government entities, mining companies, and local communities to ensure transparent and accountable decision-making processes.
→ Plan for rehabilitation from the outset to minimise environmental impact and ensure post-mining land use sustainability.
→ Align mining activities with regional development priorities and enhance cross-provincial and cross-municipal cooperation.

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1 INTRODUCTION

1.1 SPLUMA AND MINING DEVELOPMENT

When planning for mining and mining towns, it is essential to align with the principles set out in the Spatial Planning and Land Use Management Act (SPLUMA). These principles ensure sustainable and equitable development while considering the social, economic, and environmental impacts of mining activities.

1.1.1 Spatial Justice

→ Ensure equitable access to mining benefits for all communities, especially marginalised and disadvantaged groups.
→ Address historical imbalances by promoting inclusive development in mining areas.
→ Prioritise land use planning that benefits local communities and integrates them into the economic activities of the mine.
→ Provide affordable housing and basic services for all residents of mining towns.
→ Ensure that the benefits of mining are equitably distributed among local communities.
→ Address socio-economic inequalities through targeted development programs.

1.1.2 Spatial Sustainability

→ Promote land use patterns that contribute to long-term sustainability and environmental protection.
→ Ensure mining activities do not compromise the ecological integrity of the area.
→ Implement rehabilitation plans to restore and improve environmental conditions post-mining.
→ Plan for the long-term sustainability of mining towns beyond the life of the mine.
→ Promote green infrastructure and environmentally friendly practices in town planning.

→ Encourage mixed-use development to reduce the ecological footprint and enhance liveability.

1.1.3 Efficiency

→ Optimise the use of existing infrastructure and services before developing new ones.
→ Encourage compact settlement development around existing regional development anchors and service nodes.
→ Promote the efficient use of land and resources, minimising waste and environmental impact.
→ Utilise existing infrastructure and public facilities effectively.
→ Develop compact, well-connected urban areas to reduce travel distances and enhance accessibility.
→ Encourage public and non-motorised transport options to reduce reliance on private vehicles.

1.1.4 Spatial Resilience

→ Enhance the capacity of mining communities to adapt to economic, social, and environmental changes.
→ Develop strategies to mitigate the impacts of mine closures on local economies and communities.
→ Encourage diversified economic activities to reduce reliance on mining. Develop economic diversification strategies to support the local economy post-mining.
→ Enhance social cohesion and community resilience through inclusive and participatory planning processes.
→ Implement disaster risk reduction measures to protect communities from environmental hazards.

1.1.5 Good Administration

→ Ensure transparent, accountable, and participatory decision-making processes in mining development.
→ Facilitate coordination between government, mining companies, and local communities.

- Enforce compliance with all relevant laws and regulations, including the Mineral and Petroleum Resources Development Act 28 of 2002 (MPRDA) and environmental protection laws.
- Foster collaboration between local government, mining companies, and community organisations.
- Ensure transparent governance and accountability in the planning and management of mining towns.
- Regularly monitor and evaluate the impacts of mining on local communities and the environment.

1.2 MINING TOWNS IN THE NORTHERN CAPE

1.2.1 Environmental Accountability and Rehabilitation

Mining companies must be held accountable for environmental cleanup as mandated by the Mineral and Petroleum Resources Development Act 28 of 2002 (MPRDA). Rigorous enforcement of these legal provisions is essential. **The following steps should be considered:**

- Ensure minimal environmental damage during mining operations to limit the extent of rehabilitation required at mine closure.
- Plan for rehabilitation before mining operations commence to address potential impacts comprehensively.
- Implement strict control measures to limit water, air, and soil pollution and land degradation in existing and new mining areas.

1.2.2 Socio-Economic Considerations

Mining and heavy manufacturing areas often face socio-economic challenges, including job losses and reduced municipal income. The following guidelines should address these issues:

- Avoid tying mining development directly to settlement development. Carefully consider settlement expansion or the formation of new settlements based on a full life-cycle analysis of mining activities and the life of settlements post-mine-closure.
- Municipalities in distressed mining areas, particularly in rural regions, must develop credible plans despite challenges such as vast jurisdiction sizes, lack of capacity, and significant service backlogs.

- For new mines with low automation and mechanisation levels, where sizable numbers of workers are required, housing provision should preferably occur in existing regional development anchors or small towns with adequate municipal and social services.
- Non-sustainable towns should be demolished should they no longer be required or sold as a whole to private ownership.

1.2.3 Regional Development Priorities

In alignment with the National Spatial Development Framework (NSDF), the following regional development priorities should guide the planning of new mining towns:

- Encourage mining companies to actively participate in developing functional rural regions that can sustain post-mining. This involves coordinated investments in key regional-rural development-focused hard infrastructure (transport and connectivity) and soft infrastructure (social services).
- Undertake collaborative, long-term regional planning that includes:
- Ensure that licensing new mining operations considers national and regional development priorities and the cumulative impacts of mining and related settlement activities on creating functional rural regions.

1.2.4 Specific Opportunities in the Arid Innovation Area

The **Arid Innovation Area** presents substantial opportunities requiring careful utilisation, such as:

- Large and varied mineral deposits and vast shale gas reservoirs
- Carefully consider the expansion and development of new settlements in very arid areas, and instead pursue and support compact settlement development around social service nodes and public transport facilities, and along taxi routes in existing regional development anchors, rural service centres, and/or villages/hamlets.
- Encourage and support the inhabitants of isolated small towns and villages/hamlets in the region to become self-sufficient and 'go off the grid' with regard to water, electricity, sanitation services, and food production.

→ The Square Kilometre Array (SKA) project significantly contributes to both local and international scientific communities.

1.2.5 Addressing Broader National Spatial Development Trends

The following trends in national spatial development should be considered:

→ Increased automation in mining, leading to fewer on-site jobs and a greater reliance on "*fly-in-fly-out*" modes of operation.
→ Automation in economic sectors, such as manufacturing and agriculture, leads to reduced employment in rural areas.
→ The potential closure of non-competitive factories and mining operations, resulting in job losses and economic contraction.

1.3 DEVELOPMENT SCENARIOS

In evaluating whether to support new or existing mines, several scenarios must be carefully assessed, guided by the NSDF principles and the Mineral and Petroleum Resources Development Act 28 of 2002 (MPRDA).

1.3.1 Support Scenarios

→ Mines demonstrating a robust plan for minimising environmental damage during operations and committing to comprehensive rehabilitation post-closure.
→ Projects offering significant socio-economic benefits, including job creation and infrastructure development in line with regional and national development priorities.
→ Mines adheres to all legal requirements, particularly the Mineral and Petroleum Resources Development Act 28 of 2002 (MPRDA), ensuring ongoing accountability for environmental and social impacts.
→ Initiatives that align with regional development frameworks, such as compact settlement growth around existing social service nodes and public transport routes.
→ Mining operations incorporate advanced technologies that promote sustainable practices and enhance operational efficiency.

→ Mines actively involve local communities, traditional leaders (where applicable), and other stakeholders in planning and decision-making processes, ensuring their needs and concerns are addressed.

1.3.2 Non-Support Scenarios

→ Projects posing significant environmental threats, including extensive water, air, and soil pollution without adequate mitigation plans.
→ Mines are likely to cause socio-economic instability, such as massive job losses or adverse impacts on local businesses and municipal revenues.
→ Projects failing to meet legal and regulatory requirements, including inadequate plans for post-closure rehabilitation and environmental restoration.
→ Mines that promote settlement development in remote, arid areas without considering the long-term sustainability and service provision challenges.
→ Operations rely on outdated practices that do not contribute to regional economic diversification or technological advancements.
→ Projects facing strong resistance from local communities and stakeholders due to unresolved grievances or inadequate consultation.

1.4 PLANNING CHECKLIST FOR NEW MINING TOWNS

No	Indicator	Yes	No
1	**Environmental Impact Assessment**		
1.1	Is there a comprehensive environmental impact assessment conducted?		
1.2	Is there a strategy to develop and implement plans for minimising environmental damage?		
1.3	Does the plan accommodate rehabilitation from the onset of operations?		
2	**Economic Viability**		
2.1	Assess the economic benefits of the mining operation.		
2.2	Is there alignment with regional and national economic development priorities?		
3	**Regulatory Compliance**		

No	Indicator	Yes	No
3.1	Is there compliance with the Mineral and Petroleum Resources Development Act 28 of 2002 (MPRDA) and other relevant legislation?		
3.2	Are there any mechanisms for ongoing accountability and monitoring?		
4	**Settlement Planning**		
4.1	Requires new settlements versus the expansion of existing ones being evaluated?		
4.2	Is compact settlement development around social service nodes and public transport facilities considered?		
5	**Infrastructure and Services**		
5.1	Is there provision of essential services (water, electricity, sanitation)?		
5.2	Has the long-term viability of settlements post-mine closure been considered?		
6	**Community Involvement**		
6.1	Have local communities, traditional leaders, and other stakeholders been engaged?		
6.2	Are there transparent and inclusive decision-making processes evident/followed?		
7	**Technological Integration**		
7.1	Has advanced technologies for sustainable mining practices been considered		
7.2	Has innovation in operational efficiency and environmental management been considered		
8	**Regional Integration**		
8.1	Is there alignment with local, district and regional development frameworks and growth compacts?		
8.2	Is there collaboration across provincial and municipal boundaries?		
9	**Self-Sufficiency Initiatives**		
9.1	Have off-grid solutions for isolated small towns and villages been encouraged?		
9.2	Is there support for local food production and self-sufficiency?		
10	**ICT and Connectivity**		

No	Indicator	Yes	No
10.1	Is there an ICT infrastructure to support distance learning and economic opportunities?		
10.2	Has connectivity to facilitate access to services and information been introduced?		

1.5 ADDITIONAL SUPPORT

Also, consider the following links for additional information and support:

Mining Toolkit

SLP Community Toolkit English updated 10 May 2022 for web.pdf (wits.ac.za)

Guidelines for Mining closures:

44607gen446.pdf (www.gov.za)