



Ministry of Mines & Energy

"promoting Namibia's mineral, geological and energy resources"

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PROGRESS OF JOINT VALUE ADDITION COMMITTEE (JVAC

PRESENTER: Mr SIMEON NEGUMBO

**Permanent Secretary, Chairman JVAC-Ministry of
Mines and Energy**

Mining Expo & Conference 27 - 28 April, 2016 ,Windhoek show grounds,



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THE RATIONALE FOR MINERAL BENEFICIATION IS BASED ON:

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1. MINERALS POLICY OF NAMIBIA STATES THAT:

“Government will further explore opportunities for the promotion of value addition. Government will encourage and facilitate local manufacturing under the concept of “Mined and Manufactured in Namibia.”

2. NATIONAL DEVELOPMENTAL GOALS (NDP) 4

As per desired outcome 8 of NDP4 by 2017 the contribution of general **manufacturing** in constant Namibia Dollar terms is expected to have increased by **50%** over the baseline figure of the 2010 National Accounts and significant strides would have been made in identifying and **developing upstream and downstream activities in the minerals sector.**



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MINERAL BENEFITIATION CURRENT STATE

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Value addition is currently limited to:

- diamonds and semi-precious stones cutting and polishing,
- copper smelting and copper cathode production,
- electrolytic production of Special High grade Zinc,
- the production of table and fine salt. Value addition to dimension stone took place in the past, but stopped due to cheap imports and lack of ability to compete internationally



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- The Committee engaged a international company knowledgeable in value addition to produce a technical study that investigates the value chain analysis for the following metals/minerals:
 - Copper
 - Gold
 - Iron ore/steel production
 - Diamonds
 - Lead
 - Uranium
 - Zinc
 - A report titled “**Beneficiation Possibilities for Namibia’s Minerals**” was produced:
 - The report was subjected to scrutiny by the Committee, several gaps were identified.



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OVERALL CONCLUSION OF SNL METALS MINING CONSULTANCY REPORT

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Several minerals present high potential for LOCAL value addition, however it also identified **challenges** e.g. Sets of skills required, power supply and increasing electricity prices, volumes (economies of scale) etc.



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- **Phase 2** was not foreseen from the beginning however, because of the recommendations in phase 1, a resolution was taken to engage SNL Consultants to investigate possibility of adding value locally to dimension stone, salt, phosphate, fluorspar, manganese, graphite, and silica sand.



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REPORT # 2

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- Dimension stone, phosphate, salt, silica sand, graphite, manganese and fluorspar
- The focus was on completely different set of commodities, with common characteristics- the fact that they are not traded on global exchanges
- they are sold directly from a miner or traded by a middlemen to the client.
- The report focused on water, power, regional potential, i.t.o available market, supply and demand.
- The commodities are presented and ranked in order of attractiveness from the perspective of value addition potential as assessed by Consultants.



1. DIMENSION STONE

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Situation: Namibia has established, high quality producers, but highest quality stone sold as uncut blocks

Opportunity: Need to develop brand and market awareness and premium product value. This will take time, but could facilitate rejuvenation of local cutting/polishing sector. Build on existing industry reputation. Consider establishing a dedicated marketing body to promote and support the dimension stone industry. Second grade material can be used in production of tiles and slabs.

Jobs created	Water demand	Electricity demand	Capital	transport	Market outlook	Input
20 per operation	Moderate	low	N\$5 mil	no	strong	2 nd quality blocks (slabs, tiles)



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Situation: Very large offshore resources. Several projects being advanced.

Opportunity: To add value to rock phosphate by upgrading. Marine phosphates can be converted to low-grade direct application fertiliser for export;

LLNP has built a pilot plant to produce phosphoric acid, plus by-product electricity; this has real promise.

Jobs created	Water demand	Electricity demand	Capital	transport	Market outlook	Input
50-100	low	Moderate	\$350 mil	No	Strong	Imported sulphur



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3. SALT

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Situation: Established producers selling low value-add salt

Opportunity: Value add through chloroalkali chemicals production; however requires holistic strategy for development of a chemical industry in Namibia; a huge opportunity but also a very challenging proposition. Deeper investigation underway by Consultants of Ministry of Industrialization, Trade and SME Development to establish Chemical industry.

Jobs created	Water demand	Electricity demand	Capital	transport	Market outlook	Input
50-100	low	Very High	\$25 mil	No	Moderate	Imported ethylene



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4. SILICA SAND

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Situation: Silica sand is low value product; requirement for glass manufacturing industry.

Opportunity: Possibility to support local beverage and foodstuffs sector. Could be boosted by new captive supply to a glass manufacturing complex (Tses)???

Jobs created	Water demand	Electricity demand	Capital	transport	Market outlook	Input
	low	low	\$500,000	No	Weak	none



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5. GRAPHITE

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Current Situation: Graphite is a “hot” commodity; wider use in high tech applications expected

Opportunity: Several good quality mining projects being developed, but limited opportunities to add value to the graphite product, and significant uncertainty about the future of the market.

Jobs created	Water demand	Electricity demand	Capital	transport	Market outlook	Input
200-300	High	Moderate	\$20 mill	No	Strong	none



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Current Situation: Good quality resources.

Opportunity: Upgrading to higher grade concentrate relatively easy, but upgrading to ferro- or silicomanganese is extremely energy intensive and requires abundant low cost power

Jobs created	Water demand	Electricity demand	Capital	transport	Market outlook	Input
400-500	Moderate	Very High	\$50 mill	Railway	Moderate	Imported iron/silicon



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7. Fluorspar

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Current Situation: Okorusu Fluorspar operation suspended due to low grades.

Opportunity: May succeed in finding more high grade resource, of benefitting from by-products. Low potential for developing downstream production, as HF producers need to be located close to customers.

Jobs created	Water demand	Electricity demand	Capital	transport	Market outlook	Input
50-100	Low	High	\$5 mill (reopen) \$100 mill (new)	no	Moderate	Imported sulphuric acid



NOTABLE COMMENTS FROM THE WORKSHOP

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- The second stakeholders workshop was held on the **15th July 2015**.
 - Most participants recorded satisfaction on Government's initiative;
 - The workshop recommended that **Rare Earth Elements (REE)** and **limestone resources** must be included to form part of the study.
 - Limestone can be combined with salt to produce hydrochloride and chlorine is normally used to treat water which can be used all across Africa
 - A need was identified for all the bureaucrats to come together so that the red tapes can be cut across the entire sectors, **ONE STOP SHOP** required;
 - Knowledge or Existence of the **Tses Glass plant**, could be an important starting point for glass manufacturing.
 - How value addition is linked to **poverty eradication**?
 - JVAC to look into pegmatites and clays, industrial minerals (feldspar and lithium) **to encourage small scale miners to mine** because preliminary study that was done and the results are promising.



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WAY FORWARD

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- Visit selected manufacturing industries in countries where such industries have successfully been established.
- Learn what it takes to bring such investments to Namibia.
- Draft a **Mineral Beneficiation Strategy** as final deliverable – a road map of value addition for minerals in Namibia.

THANK YOU