



**Minerals Processing & Beneficiation Industries
Association of Southern Africa**

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**The Minerals Processing and Beneficiation (MP&B) Industry
Transformation, Growth and Development Charter 2010 –**

(optimizing the economic opportunity proposition to drive and influence localized industrial development in the mineral industry)

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Exploratory Notes

- Minerals processing – is here used relative to primary processing stages up to the mineral refinery stage – and noting that these primary mineral processing stages are collectively referred to as *mining beneficiation* which has emerged as being preferred by sectors of the mining industry.

The Minerals Processing & Beneficiation (MP&B) Industry Transformation, Development and Growth Charter 2010

1. Strategic Overview

SA's history of extractive mineral industry sectors and commodities export trade has always been subject of interrogation within and outside the mainstream public policy discourse relative to the (feasible) extent of utilizing the country 's primary mineral production to advance and sustain –

- i) Industrialization: and
- ii) industrial diversification.

Mining and post-minerals extraction processing and beneficiation industries need to be seen as inextricably linked industry sectors. This distinction between mining and mineral industries is considered as representing an effort to crystallize the ordinary and comprehensive understanding of mining, as primary mineral production, and post-mineral extraction processing and beneficiation industries – as holding out potential for the country 's de-concentrated industrial development to include and benefit mineral-rich rural economic localities. . .

South Africa's collective and combined known and multiple rich mineral wealth and deposits represent a strategic national resource in the advancement of the country's development priority on *industrialization and inclusive economic growth path* – i.e. in keeping with, in particular, government 's various high level initiatives such as the Dept. of Trade & Industry 's *Industrial Policy Action Plan* (IPAP 2), Dept. of Science & Technology (DST) 's *Technology Localization Programme* which promotes the scaling up efforts to improve SA 's long-term *manufacturing beneficiation* capacity and industrial diversification.

The multiplicity of current and forecast *mining projects* – extraction of different minerals, is identified and targeted as holding out exponential potential for the development of localized minerals processing and beneficiation (*MP&B plants network infrastructure* – i.e. as ***industrial minerals value-adding (infrastructure) backbone***.

In order to develop the country's needed MP&B plant network infrastructure as strategic backbone for localized *mineral value-adding industries* it is vital to also take into account the extent of challenges inherent in the mineral industry in the current state – and requiring industry transformation to facilitate *equitable industry participation* to include and benefit *affirmable industrialist entrepreneurs* and/or *affirmable BEE interest sector*. .

The minerals processing and beneficiation (MP&B) industry sectors are, by definition, inextricably linked to primary mineral production – of the mining industry, and hold out huge possibilities relative to the continuous advancement of the technological knowledge produced by, in particular, the (country 's) multiple (public) **scientific research institutions**.

Harnessing and harvesting this vital knowledge resource, as strategic input resource, for industrial commercialization is, arguably, a function of fostering and advancing aligned *industry knowledge sourcing and sharing network* - i.e. including the establishment of **MP&B Industry Index** - to include and benefit, in particular, affirmable interest sectors.

Tapping into the knowledge base of the country's public scientific research institutions through the forging and fostering of *knowledge-sharing networks* particularly to expose (the emerging) *cadre of industrialist entrepreneurs* who aspire to participate in the mineral value-adding industries requires mutually reinforcing industry transformative activity processes – i.e. including, for example –

Finding and configuring **equitable access model** to empower affirmable minerals processing and beneficiation industry sector to participate in and comparatively benefit from the post-minerals processing and beneficiation *project market opportunities*.

Access to the useful and organic scientific knowledge resource – as continuously produced by the country's public research and development institutions - for commercialization by the country's affirmable interest sector is identified and prioritized as a function of *entrepreneurial probity* and *industry transformation activism*.

That is, an industry transformation activism which is informed and guided by the drive to influence and foster the engendering and building of an inclusive and equitable industry participation relative to the new thinking – i.e. *inclusive and equitable economic growth path*, including and prioritizing the integrative empowerment of *affirmable organized industry interest sector constituencies* in various industry sectors of interests. .With the passing of time, over the last 16yrs, it is increasingly self-evident that meaningful industry transformation including in the post-coal extraction processing and beneficiation can *impactfully* be effected by mobilizing and harnessing the interest motive of the affirmable and organized industry interest sector constituency.

1.5 Vision

To contribute towards the *localization* of the country 's minerals processing and beneficiation industrial development and help drive expansive and distributive allocation of economic opportunities and industrial development including, in particular, minerals processing *at-source localities and diversified downstream* value chain beneficiation.

1.6 Mission Statement

There is an existence of multi-level industry sector interface and interrelations across various downstream minerals processing and value-adding stages beyond **mining** – as the primary minerals extraction industry, **minerals** – (extracted) mineral industry, and **minerals processing and value chain beneficiation** industries which identified and targeted as focus areas requiring transformation.

2. Background

In an effort to engender an economic development environment within which to cultivate and advance localization of mineral beneficiation in the country away from the *established mineral commodity export trade* requires an *organized industry-specific voice* to forge and foster collaborative alliance(s) with the local mining industry, the primary minerals producing industry – in the interest of the country's public policy vision on the development and growth of the **mineral beneficiation industry**. That is, particularly that the local mining industry's collective revenue-earnings streams are anchored in mineral commodity export trade. In the quest to bring about and facilitate development and growth of the *localized mineral beneficiation industries* the collaborative contribution of the local mining industry is essential and needs to be actively mobilized as the *key industry stakeholder*. It is in this context that MPBIASA sees the local mining industry as key partner in the development and growth of the local mineral beneficiation industry.

2.1 Statistical information from **SA Reserve Bank**, at least over 200-2009 period, and several publications from the Dept. of Mineral Resources (DMR) on *minerals export trade* show a continuous and huge outflow of the country's minerals to offshore markets – without value-addition – to benefit and sustain other countries' value chain beneficiation industries and import of finished products into the local economy. SA has untenable *export-import trade deficit* .which continues to be lopsided to the disadvantage of the local economy.

In real terms and crudely put this means that SA's long-established history of and recorded minerals export trade has always been sustaining the offshore industrialization of other countries

whilst depriving the country of an economic opportunity for its own *endogenous industrialization and downstream and diversified mineral industrial beneficiation*.

2.1.1 The number of jobs created in those countries through mineral value-adding industrialization represent the mirror digression and extent to which SA's economy is/was deprived of the economic opportunity to utilize its own locally extracted minerals to drive *endogenous industrial development*.

2.1.2 Export trading in mineral commodities sustains mining but deprives the economy of the needed occurrence of endogenous industrial development.

How does SA go about bringing down the current and forecast levels of mineral export trade emanating from the combined local mining companies' *off-take commodity supply agreements* and improving the desired utilization of its locally extracted minerals for *endogenous industrialization*? The answer to this question is no longer about what we, as country, say rather more about the extent to which industrialist entrepreneurs initiate (localized) MP&B projects.

2.1.3 Striking this balance requires more than just arguing for the export trade revenue benefits and justifying for the history of SA's mineral commodities export trade.

But it calls for the need to catalyze entrepreneurial probity and mobilization of (entrepreneurial) interests to advance the desired endogenous industrialization – i.e. in keeping with the Dept. of Mineral Resources' *Beneficiation Strategy Implementation Plan 2010/11-12/13*. .

2.2. Modern economies such as, in particular, the ASEAN and lately BRIC countries have recognized the importance of optimizing the competitive advantages of their strategic national resources to develop and grow their economies to the exhaustive benefit of their nations– and this perspective establishes the baseline of MPBIASA's strategic framework within which to advance SA's desired, namely –

2.2.1 *endogenous industrialization/industrial diversification and inclusive economic growth path.*

Increased industrial mineral beneficiation has come to be generally accepted as holding out the potential for absorptive integration of the rapidly growing *working-age of the rural population sector*.

2.3 *Mineral value-addition* is an industrial activity and the identification and pursuit of post-minerals extraction processing and beneficiation project opportunities is, by definition, a function of what is here described as *industrialist entrepreneurship* – in the mineral industry.

2.4 The development of post-minerals processing and beneficiation industries is, arguably, the natural activity space of industrialist entrepreneurs whose inherent business interests are more about exhaustive downstream mineral value addition.

Making this distinction is vital in terms of locating the industrialist entrepreneurial activity in the post-minerals extraction services industries relative to, not in competition with, mining industry as the primary source of minerals extraction.

2.5 Whilst government (DMR) 's *Beneficiation Strategy Implementation Plan 2010/11-12/13* is vital insofar as it is intended and designed to foster and advance the development of localized mineral value-adding industries, it is also important to note that it would still be difficult for, in particular –

2.5.1 the under-resourced and affirmable industrialist entrepreneur sector – in the post-mineral processing and beneficiation industries - to access minerals processing and beneficiation project opportunities from the mining industry particularly in the absence of and/or insufficient (legislative) enabling environment intended to, among others, facilitate BEE access to post-minerals extraction processing and beneficiation project opportunities.

The MP&B industries are currently and largely dominated by both established mining companies and 2nd-tier and 3rd junior minerals processors. The MP&B projects market is shared by the identified established sector interests.

2.5.2 One of MPBIASA's strategic industry transformation and development focus is to carve a niche and position the organization as an *organized voice* to facilitate and foster integrative empowerment entry of affirmable industrialist entrepreneurs into and participation in what is emerging as *sunrise mineral beneficiation industry* – including downstream and *diversified beneficiation manufacturing* to produce final value-added consumer products. .

2.6 In an effort to create an enabling environment for new venture creation, MPBIASA is aligning itself as *minerals processing and beneficiation (MP&B) projects sourcing house* – i.e.

through which to work with mining projects, mining projects of mining companies, to identify and source out MP&B projects including through the proposed license condition which is envisaged to form part of the mining license to be awarded by DMR to mining companies and that, namely –

2.6.1 Mining companies commit to make a percentage (42%) of their annual mineral extraction output available for localized mineral processing and beneficiation. .

2.7 SA's post-minerals extraction processing and beneficiation services industry is generally under-developed and also under-transformed in its current state. The salient feature of the industry is the negligible involvement of and participation by BEE business Interests sector and lack of incorporation of the interests of *local mining communities*.

MPBIASA MP&B Industry Transformation, Development and Growth Charter's proposition is based on the above summation of views which collectively -

2.7.1 establish the organization's drive to spearhead an inclusive and equitable (empowerment) business participation in the *emerging sunrise mineral beneficiation industry – going forward*.

There are multi-dimensions and strategic considerations to MPBIASA's **Minerals Processing and Beneficiation (MP&B) Transformation, Development and Growth Charter** and these include, namely –

2.8 (low capital) post-minerals extraction processing which encompasses sector as, for example –

- i) concentrate
- ii) Old mine dump processing and tailing retreatment operations – the sector which needs targeted sectoral regulatory mechanisms ;

AND

2.9 (Capital intensive) multi-tier and downstream value chain beneficiation including, among others –

- i) Smelters;
- ii) Refineries
- iii) Foundries;
- iv) Furnaces;

2.9.1 Multi-tier downstream Beneficiation Manufacturing such as, for example -

- i) Steel Fabrication ;
- ii) (Automotive) component manufacturing;

It is these collective and combined post-minerals extraction and beneficiation industry activities which are identified as establishing the diverse; and yet the mainstream, minerals processing and beneficiation sectors.

2.10 In the current make-up structure of the country's post-minerals extraction processing and beneficiation industries there exists negligible involvement of and participation by BEE business interests – including BEE entrepreneurs and local mining communities.

2.10.1 The reality is that the post-minerals extraction processing and beneficiation industries is very much dominated and controlled by the overlapping and straddled interests of, in particular, the major mining establishment sector; and

2.10.2 transformation of the *inter-industry transactional relation* between the mining – as the primary mineral extraction industry, and mineral beneficiation industries to facilitate the integrative empowerment entry of BEE interest sector into and participation in the metallurgical industry is considered as standing out as a key prerequisite if the industry is to, namely –

2.10.2.1 foster and meaningfully advance the development and sustainable BEE equity growth in this emerging sunrise industry.

2.11 The **Department of Mineral Resources (DMR)** has heralded the transformation and development of the post-minerals extraction services industries through the publication of its 'Beneficiation Strategy Implementation Action Plan 2010/11-12/13' and coupled with the stakeholder' Declaration Commitments in the Revised Mining Charter – namely, The Sustainable Growth and Meaningful Transformation of SA 's Mining Industry 20101..

2.2 The distinction and relation between mining – the primary minerals extraction activity – and post-minerals extraction services sector is considered as the fundamental policy proposition towards the transformation of the mineral industry - i.e. under the ***Minerals and Petroleum Resource Development Act (MPRDA)***, to facilitate, among others –

2.2.1.1 Mining companies to transform into 'focused mining companies by typically shedding their non-core industrial holdings' – Source:- **South Africa 's Mineral Industry Report 2008/2009'**; and

2.2.1.2 the development of the post-minerals extraction services industry and localization of the country 's minerals processing and beneficiation.

2.3 Mining, as primary mineral ore extraction activity in the mineral value chain, is by definition a source of supply of raw minerals to metallurgical and value chain beneficiation industries.

It is this dependence by the minerals processing and beneficiation industry on mining production output (extracted mineral ore) for the sourcing and supply of extracted minerals which is identified as requiring the need to, namely –

2.3.1 come up with regulatory mechanisms intended and designed to establish quantifiable and sustainable sourcing and supply of extracted minerals – as input feedstock to keep up minerals processing and beneficiation.- i.e. as an industrial activity.

2.3.2 Facilitate the development of *new venture creation* including, in particular, integrative empowerment entry and advancement of multiple and affirmable economic interests at various *value chain stages* of post-minerals extraction processing and beneficiation industries.

3. Notable Industry Focus Points - Perspective

3.1 The inter-industry sector interfaces between the following, in particular, is considered helpful in at least distinguishing, yet inextricable, inter-dependence relations and these are –

3.1.1 Mining **and minerals** on one hand; and

3.1.2 **Minerals and beneficiation** on the other

The focus of this Industry Transformation Charter is on and about the industry sector interface between *extracted and on-the-surface mineral ore output* and *post-minerals extraction services sectors*.

3.2 Minerals sourcing and supply on one hand and minerals processing and value chain beneficiation industry sectors needs to be practically expressed in terms of industry transformation to facilitate integrative empowerment into and the advancement of the affirmable interest sector.

- 3.2.1 **localization** of minerals processing and beneficiation, as an emerging industry, ought to be effected through the overarching inter-industry harmonization relations and business-to-business transactional relations.
- 3.2.2 The **post-minerals extraction (PME)** treatment processing and beneficiation industries are here defined as any and/or diverse industrial minerals processing activity extending across the various stages of value chain beneficiation including manufacturing production of final consumer products.
- 3.2.3 If the minerals processing and beneficiation industries were to be developed relative to the country's current mining output, it is estimated, in the absence of verified industry statistics, to outstrip the mining industry in terms of comparative market capitalization.

Industry experts in the post-mineral extraction processing and beneficiation industries are generally of the view that the mineral processing and beneficiation industry has exponential potential, if developed relative to the country's annual mining production output levels, to outstrip the mining industry.

- 3.3 Again, if primary mineral extraction output levels were to be matched with localized industrial mineral processing and beneficiation activity, majority of industry experts estimate that the MP&B industry would outstrip the mining industry, the primary minerals extraction industry – i.e. in terms of market capitalization.

The cardinal question which needs to be posed becomes, namely –

- 3.3.1 How much of *lost opportunity* in terms of current under-localization of minerals processing and beneficiation activity is depriving the country of economic development benefits?

There is an (acute) need to make a determination, through focused research study, in relation to establishing, in particular –

- 3.3.2 how much of the country's compounded (annual) extracted mineral output is exported – without value-adding beneficiation - to offshore markets as feedstock to sustain foreign beneficiation industries?; and
- 3.3.2.1 also how much is available to supply to and sustain *local multi-tier and downstream* MP&B industries?

3.4 **MP&B projects origination and initiation** in the post-mineral extraction processing and beneficiation industry sectors is entirely reliant on the accessibility to *extracted mineral output* of mining companies - involved in the primary minerals extraction production -

3.5 The current situation, which has established itself over the years as the standard business practice in the history of SA's mining industry continues to be about that mining companies operate on the basis of, namely –

3.5.1 off-take agreement contracts which, among others, lock local mining companies into pre-determined period of mineral commodities supply..

Based on such off-take supply contracts, primary mining companies are able to project their revenue income performance – i.e. relative to R/D exchange.

3.5.2 It makes it a prudent business management and profit projection for the local mining companies, as primary minerals producers and suppliers, to mine and extract minerals proportional to market demand – i.e. in an effort to manage extractive minerals production. Based on this baseline understanding, as it relates to the ordinary make-up of the currency of the off-take supply contracts, it begs a fundamental question as to what of the extractive production is available to feed and sustain localized mineral value chain beneficiation industries?.

3.5.3 If MPBIASA is to be in an empowered position to ably and competitively generate MP&B projects, it is incumbent on the organization to find strategic perspective and approaches – including, namely –

3.5.3. Influencing public policy and legislation regarding, for example –

3.5.4 Coming up with regulatory framework to regulate such post-mineral extraction services sectors as, in particular –

3.5.4.1 Minerals sourcing and supply including through **(minimum) quota system**;

3.5.4.2 (old) mine dumps and tailings processing industry sector; and

3.5.4.3 focus on relaxing such off-take supply contracts to make it possible for supply of locally extracted minerals to feed and sustain localized mineral processing and beneficiation industry.

Accordingly, MPBIASA 's **MP&B Projects Origination & Initiation Programme** is focused to cultivate and engender a pipeline of MP&B projects by way of, in particular, identifying, tracking and profiling possibilities and opportunities arising out of (multiplicity) of mining (mineral extraction) projects wherever they take place. It is also noteworthy to point out that MP&B projects origination and initiation cannot happen without, in particular –

- 3.6 sufficient effort aimed at creating an *enabling (regulatory) environment* within which to foster and catalyze the initiation of localized and multiple MP&B project ventures.

It is out of the contemporary transformation exigencies including in the emerging sunrise MP&B industries that MPBIASA is focused on lining up its efforts to engender and create space within which to cultivate and harness project opportunities in the post-mineral extractive production space value chain beneficiation to facilitate the entry of BEE interest sector into the emerging sunrise industry - and along side the extractive minerals industry in general and actual mining projects in particular.

4. Industry Transformation, Development and Growth

- 4.1 Advancing the integrative empowerment entry into and participation in the MP&B industries by the affirmable BEE business interests including cultivating the development of the co-operative local community empowerment interests is at the core of MPBIASA's MP&B Industry Charter.

- 4.1.1 Transformation, development and growth of the minerals processing and beneficiation industries Is envisaged to be made possible by the following and these are, among others –

- 4.1.2 The **Mining Charter 2004**'s item 4.8 – Beneficiation which states –

- i) *'Mining companies will be able to offset the level of beneficiation achieved (11%) by the company against its HDSA ownership commitments', and*
- ii) the Revised Mining Charter July 2010 (***The Sustainable Growth and Meaningful Transformation of SA 's Mining Industry***) 's **Commitment NO. 5** provide for possibilities and opportunities for origination and development of mining beneficiation offset projects.

- 4.2 Dept. of Mineral Resources' **Strategic Plan 2010/11 – 2011/13** – Programme Focus Area on –
Beneficiation Strategy – **Beneficiation Strategy Implementation Plan**

There are identifiable key strategic considerations which stand out as requiring transformative and developmental interventions and these are –

4.2.1 access to primary sources and security of supply of extracted mineral for primary processing (mining beneficiation) and as feedstock down the various stages of value chain beneficiation ; and

4.2.1.1 To ensure continuous sourcing and supply of minerals feedstock from primary mineral extraction down the mineral value chain beneficiation , it is hereby posited that, NAMELY –

- i) the DMR 's issuing of mining licenses incorporates a conditional (license) requirement for mining companies to comply with Commitment N0.5 – i.e. the revised mining charter –
- ii) **annual minimum quota** of mineral ore supply – as feedstock to supply and sustain the market need for localized (at-source), in particular, minerals processing plants.

The quota is envisioned to be reviewed and scaled up every three years.

4.3 The Charter's opening quota proposition is **42%** of mining companies' annual mineral production output to be processed and beneficiated locally – i.e. reviewable over 3yrs. – i.e. with the exemption of junior mining companies making less than R5 million per annum.

4.3.1 The same **42%** is proposed to be effected throughout the post-minerals extraction processing and downstream value chain beneficiation - and also reviewable over three (3) years.

The collective and combined prescriptive annual quota contributions by mining companies on the supply is envisioned to add up to and accumulate into building up an **inventory of mineral stock** to both, namely –

4.3.2 justify and increase investment attraction for the development of localized minerals processing and beneficiation (MP&B) plant infrastructure including, in particular, the possibility of developing **co-operative owned processing facilities** such as, for example, co-operative smelting facilities which will source from junior minerals processing companies; and

4.3.3 supply and sustain the localization of the country's mineral processing and beneficiation industries.

4.3.4 access to globally competitive technologies – i.e. in the minerals processing and beneficiation industries.

MPBIASA is focused on forging and fostering – through this Industry Charter - strategic growth partnerships with local and publicly funded research and development institutions such as, for example, MINTEK, CSIR and etc– in terms of access to minerals processing and beneficiation technologies.

5. The Strategic Objectives –

5.1 Unlocking project opportunities in both minerals processing (mining beneficiation) and value chain beneficiation industry sectors on one hand and exposing, in particular, affirmable BEE interest sector to and facilitating access to organic pipeline mix of projects opportunities stands out as MPBIASA 's overarching objective.

The following are identified and prioritized as establishing the baseline from which to advance the organization's founding ethos And perspective of the transformation and growth of the minerals processing and beneficiation industries and these are - .

5.1.1 There are identifiable set of strategic objectives which continue to inform and establish MPBIASA 's Charter and these are, in particular, to –

5.1.2 Use the Charter as the (practical) basis to champion and advance the transformation objectives and economic empowerment interests;

5.1.3 Influence public policy and legislation for the transformation and development of the emerging sunrise MP&B industries – of affirmable (organized) industry sector interests.

5.1.4 Influence the development of the legislative framework to regulate various levels of multi-tier and downstream post-minerals extraction processing services sector such as, in particular –

5.1.4.1 Old mine dumps and tailings processing sector – to unlock value and empower local mining communities on whose surface land these dumps/tailing are located.

5.1.4.2 engender an industry environment within and through which stimulate and yield an equitable access to post-minerals extraction supply opportunities;

5.1.4.3 encourage and facilitate the entry of affirmable local mining communities and BEE entrepreneurs/industrialists into the MP&B projects sectors.

6. MP&B Projects Identification and Initiation Framework:-

6.1 MPBIASA 's *value-add proposition* to potential members and sector affiliates is about utilizing its organized lobbying advantage to perform *developmental and empowerment function* through, in particular –

6.1.1 positioning itself as (MP&B) ***projects sourcing services organization*** to identify, track and profile a mix of project opportunities to the benefit of its members, affiliate members and facilitate local community empowerment through advancing community-based co-operative empowerment formations/groupings.

6.1.2 Engage organized mining industry and individual mining houses in an effort to negotiate and elicit possible minerals processing and beneficiation projects;

6.1.3 Use its organized lobbying advantage to access *opportunity information (OI)* on variety of projects either emerging out of the multiple new mining projects or new technological advancements from the scientific research sector including, for example –

6.1.4 Use such OI as the baseline viability of (identifiable) projects is fundamental in building a pipeline of MP&B projects – i.e. across the mineral-specific streams.

6.2 Again, access to extracted minerals, as feedstock input, to sustain the continuous supply to keep up and/or to justify investment for the development of localized MP&B industrial plants stands out as a key consideration in the investment decision-making processes.

(In an effort) to ensure and guarantee the ***security of supply (minerals)*** from localized mining operations – i.e. owned by mining companies, it is MPBIASA 's considered view that such a security of supply MUST be cultivated and harnessed through, namely –

- 6.2.1 making it an enforceable mining license condition for mining companies to make commitment to make available minimum of annual mineral production output to supply local MP&B plants;
- 6.2.2 need for government to come up with regulatory mechanisms including, in particular, Quota System which would require yearly revisable *Minerals Supply (MS) Quotas*;
- 6.3 Government come up with monitoring and evaluation methodologies– including some form of Inspectorate – to ensure compliance by mining companies in relation to availing minimum MS quotas.

Exposure to minerals supply inventory by the multiple and affirmable MPBIASA's member companies and co-operative community empowerment groups establishes the strategic possibilities and opportunities through which to facilitate entry into and participation in the emerging sunrise MP&B industries..

7. Local Community Economic Empowerment

- 7.1 Development of multiple local community empowerment beneficiary groups is envisaged to happen through working with community structures and MPBIASA's value-add contribution and proposition would be through its organized and developmental capacity to, namely –
 - 7.1.1 *Lobby for and source out* project opportunities; and
 - 7.1.2 mobilizing project financing through (its envisaged) both private equity fund and **MP&B Linkage Hub Facility**.
- 7.2 Development facilitation of local economic/community empowerment is targeted to be effected through special vehicle purpose – namely, **MPBIASCor**, to drive and stimulate (community-based) **co-operative empowerment groupings** - as discussed below.
 - 7.2.1 Mining operations – minerals extraction activity - in and around affirmable local communities are identified as offering attractive possibilities for productive capital formation with regard to localization of establishment of, for example, minerals processing plants and through which to, namely –
 - 7.2.1.1 incorporate equity ownership participation by community-based economic empowerment interests.

7.3 MPBIASCor

7.3.1 MPBIASCor is envisioned and positioned to be developed as a *projects sourcing house* through which to expose, in particular, affirmable BEE interest sector to project pipeline of MP&B projects including, for example, advancing and incubating community-based co-operative empowerment groupings – i.e. to, namely –

7.3.1.1 advance the collective and combined economic empowerment interests of the multiple and affirmable grassroots communities; and

7.3.1.2 Advance and facilitate the development of *co-operative owned MP&P plant facilities*.

MPBIASCor is also envisioned and aligned to operate as projects sourcing on one hand and projects feeder to the envisaged and *dedicated private equity fund* as captured and outlined in **item.9**.

7.2 MPBIASACor is to have in-house capability or systems to identify, track and profile opportunities in the minerals processing and beneficiation project sectors.

Harnessing and sourcing out such identifiable opportunities is envisaged to be a function of specialized team of deal-makers through which to both –

7.2.1 unlock value of local mineral assets such as, for example, old dumps and tailings by way of partnering with local mining communities; and

7.2.2 investment contribution by way of availing required capital equipment and investment funding.

Furthermore, MPBIASCor is envisioned to play a leading role in identifying opportunities for downstream beneficiation manufacturing through, ideally, *community-based beneficiation value-adding co-operatives* and also perform, namely –

7.2.3 strategic marketing function in terms of identifying and pursuing global export trade opportunities and/or even –

7.2.4 facilitating the promotion and positioning of SA as the *preferred outsourcing destination* for *contract manufacturing* – final consumer product manufacturing – of various value-added products,

In keeping with its founding ethos of advancing integrative empowerment interests of the affirmable BEE industrialist interest sector into the MP&B industries, MPBIASA is to utilize its organized lobbying advantage to, namely –

7.2.4.1 *source out* MP&B project opportunities in the (extracted) mineral industry sectors on one hand;
and

7.2.4.2 mount up *facilitated access* to benefit its member companies, including members of its sector affiliates, in general and BEE business sector in particular.

That is, MP&B project opportunities are to be sourced out through, amongst others, the proposed *minerals quota system* and *housed under one-roof* for managed distributive allocations and/or match-making purposes.

8. Sourcing and Harnessing New Opportunities

8.1 To further carve a niche (industry) opportunity and enhance its strategic positioning as MP&B *projects sourcing services organization*, MPBIASA is geared to set up *MP&B Projects Linkage Hub Facility* – i.e. as a facility through which to, in particular –

source out MP&B projects and house such project opportunities under one-roof,

8.1.2 expose MPBIASA member companies to and enhance access to listed MP&P project opportunities; and

8.1.3 attract both domestic and foreign investors to the Linkage Hub's projects offering market. .

The sourcing out of MP&B project market opportunities and the mobilization of capital investment funding (projects finance) are to form the key aspects of the envisaged MP&B Linkage Hub Facility.

8.2 In an effort to facilitate the growth and development of the MP&B industries there exists an intent to come up with certain amendments and regulatory mechanisms including, in particular-

8.2.1 Identifying and harnessing new opportunities for industrial development in relation to investing in the development of localized mineral processing and beneficiation plants is considered to require the (research) capability to, namely –

8.2.2 track, interpret and profile the country 's mineral reserve deposits through, for example, the Council for Geoscience and also new *mining development projects* – i.e. **minerals extraction production (MEP)** through which to source out minerals/ore supply – for the establishment of *localized at-source MP&B plants*.

8.3 Supply of extractable minerals, as feedstock, localized minerals processing and beneficiation plants is dependent on the primary mineral producers – i.e. the collective and combined annual MEP outputs of local mining productions.

8.4 Whilst there are multiple post-mineral extraction sector opportunities, there exists some identifiable set of challenges in relation to accessing such opportunities.

These sectors include, for example –

- i) Crushing, washing and Screening;
- ii) Tailings Retreatment;
- iii) (Old) Mine Dumps reclamation;
- iv) Concentrate

And other capital-intensive and opportunities for setting up complex plants requiring huge amounts of electricity such as, for example –

- i) Smelters,
- ii) Refineries;
- iii) Furnaces;
- iv) Foundries

Further downstream value chain beneficiation sectors such as, for example –

- i) diversified beneficiation manufacturing to produce different final value-added products.

Coming up with downstream and diversified beneficiation manufacturing ventures speaks to the Dept. of Trade & Industry (The DTI) 's Industrial Policy and Plan (IPAP) – in th form of, namely

- iii) Steel fabrication;
- iv) (automotive) component manufacturing

9. Establishment of Private Equity Fund

- 9.1 The generally known difficulty of access to capital investment to fund projects needs to find expression in how MPBIASA is to put up developmental effort to initiate activity processes designed to and focused on mobilizing identifiable sources of capital funding to capitalize the pipeline of MP&B projects – i.e. as a MP&B project sourcing house.
- 9.2 The envisioned establishment of a private equity fund is intended and designed to serve a dedicated capital funding stream targeted at capitalizing localized MP&B industrial plants – i.e. aligned to cater for a pipeline of MP&B projects.
- 9.3 The minerals supply quotas, as envisaged above, hold out and establish the basis for demand for investment capital funding – i.e. to fund origination and initiation of MP&B projects across mineral streams.

The country 's known, and still to be discovered, mineral deposits are considered to establish the generic baseline feasibility for MPBIASA to source out projects pipeline out of which to develop MP&B plant network infrastructure in and around mining localities.

10. (Potential) Strategic Technology Partners

- 10.1 South Africa has established publicly funded scientific research and development institution sector with leading, mandatory functions and mutually reinforcing research and specializations in various industry fields and these include, for example –
 - 10.1.1 Council for Geoscience (CGS) – database of the locations of mineral deposits;
 - 10.1.2 MINTEK – which is at the forefront of minerals and metallurgical research and technological development; and
 - 10.1.3 CSIR – focusing on industrial research and development.

And including other such institutions such as, among others, **Pelchem**. MPBIASA is geared to forge strategic alliances with these institutions in an effort to expose its member community to what to industry is aptly described as, namely –

10.2 *opportunity information and competitive knowledge.*

10.3 The existing access gap to industry sectors' (advanced) opportunity information and competitive knowledge is identified as the major impediment and contributing factor to the current under-participation by the affirmable interest sector in industry in general and minerals processing and beneficiation industries in particular.

Unlocking such knowledge resource which is resident in the country's scientific research institution sector is a function of (organized capacity and) entrepreneurial probity to elicit, mobilize and harness such a strategic resource to empower affirmable interest sector, in particular, through integrative empowerment to enter and participate in the emerging sunrise mineral beneficiation industry. . .

10.4 *Facilitated access to a mix of **opportunity information (OI) and technologies** is considered as key determinant factor – in the transformation and growth of the minerals processing and value chain beneficiation industries.*

10.5 It is the collective, combined and specialized streams of organic (and repository) knowledge which is identified and targeted by MPBIASA to be harnessed and utilized as strategic input resource for the integrative empowerment of, in particular, affirmable interest sector at various stages of minerals value chain – i.e. including sites of various mineral deposits, post-mineral extraction processing and downstream and diversified beneficiation manufacturing. .

10.6 Advancing and fostering strategic partnerships with, in particular, publicly funded scientific research institutions mandated to research and develop (diverse) minerals processing and beneficiation technologies is considered critically vital to catalyze the emergence of *entrepreneurial industrialists* in the post-mineral extraction processing and beneficiation industries.

Exposure and access to competitive minerals processing and beneficiation technologies is considered to hold out strategic advantage which needs come about a consequent of industry transformation activity processes.

11: Skills Training and Development

That SA has developed skills training and development establishment is identified as an existential advantage to, in particular, come up with tailored skills training and development programmes in the minerals processing and beneficiation industries.

12. Job Creation

MPBIASA 's strategic positioning as (MP&B) *projects sourcing services organization* along side the multiplicity of mining projects – wherever these mining projects take place - throughout the country is forecast to, namely –

12.1 spearhead localized and fixed productive capital formation – in terms of investing in the development of MP&B plant network infrastructure.

It is out of the origination and initiation of such post-mining minerals processing and beneficiation *network plant infrastructure* that it is envisioned that absorptive employment opportunities will be created – to include and benefit the targeted empowerment beneficiary groups particularly rural youth and women sectors.

13. Conclusion

The geographical spread of MP&B projects is considered as a function of entrepreneurial probity and organized pressure group to champion the needed *localization equity* of minerals processing and beneficiation in and around localities of primary minerals extraction source.