Mineral & Energy Economics

Chamber of Mines – ZIMBABWE

Leveraging Mineral Resources for Socio-Economic Development – Key Imperatives and Best Practice

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Presenter Attributes

- Dr Eric Lilford:
  - Professor: Minerals & Energy Economics
  - Mining Engineer
  - Ex-Investment Banker (South Africa)
  - Managing Director & Chairperson
  - Current Director (ASX) and Researcher
  - International resources expert
  - Through DFAT (Australia), provide Minerals and Energy Economics for Africa delegates
- Educated at Gifford High School, Bulawayo

Socio-Economic Upliftment Through Economic Growth

Economic Growth - **an increase in the capacity of an economy to produce goods and services, compared from one period of time to another**

Impediments to Economic Growth

- Sovereign risk
- Instability (war, poverty, political)
- Inadequate capital formation (infrastructure including electricity, water, ports, roads and airports)
- Policies and regulations (taxes, royalties, participation, expatriation, expats)
- Inadequate public institutions (banks, primary industry, service providers, hospitals & clinics, etc)

Socio-Economic Imperative: Aim for Sustainability

"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains:

- the concept of **needs** - the essential needs of the country's poor, to which overriding priority should be given (water, electricity, education, housing, employment); and
- the idea of **limitations** - imposed by the state of technology and social organization on the environment's ability to meet present and future needs."

Leveraging Natural Resources for Socio-Economic Development

Natural Resources:

- Minerals endowment is a national, natural asset – the endowment belongs to the nation;
- While the corporeal rights typically belong to the State as caretaker, the rights to benefits belong to the nation;
- Governments aim to reclaim national value through taxes, royalties and other means including:
  - duties, VAT, GST, equity participation, skills development, education, skills transfer, environmental contributions, health & well-being, etc;
- The accrual of the associated benefits from the minerals and energy industries must be used for the betterment of the specific country (eg. Zimbabwe and all Zimbabweans)
  - In turn, the above propagates growth

Socio-Economic Leverage to achieve:

- **Sustainable Development:**
  - Meeting human needs while preserving the environment, for now and future generations;
- **Efficiency:**
  - Required to be efficient in energy & water usage, incorporating recycling measures;
- **Precaution, Accountability and Transparency:**
  - Governments hold the right to prevent development of natural resources opportunities – but this may impact socio-economic development;
- **Polluter Responsibility:**
  - Corporations and individuals held responsible for pollution (penalties apply);
- **Community Consultation and Involvement:**
  - Community-focused (not project-focused) approach is required;
  - Social, environmental and economic aspects to be agreed with community;
  - However, the community must not hold the company to ransom;
- **Equity and Equality:**
  - Fair distribution of income and reinvestment (communities, women, education, other social).

Socio-Economic Development

- **Infrastructure -** necessary to support domestic growth and attract FDI:
  - electricity
  - water
  - education and skills (STEM)
  - Rule of Law (safety, security and stability)
  - employment
- **Natural Resources** – security of tenure
  - regional upliftment
    - jobs (income and skills)
    - knock-on benefits (inter-generational)
  - equity participation?

Supporting Socio-Economic Development

Premised on:

- skills upliftment/transfer
  - bursaries, trades, entrepreneurship, job-specific skills
- meaningful participation
  - committees, management, specific tasks
  - equity, but cannot be a free ride (no benefit)
    - no motivation if something is “free”
- ownership
  - sustainability (skills for future application)
  - community benefits (local & regional upliftment)
  - alternative land use (reparation after mining)

Government Equity Participation

- Can achieve significant socio-economic benefits through equity participation, but no tat Govt level.
- Governments may require a free carried (FC) equity stake (non-participative) in an operation:
  - **Free carry:** the Govt does not contribute to equity capital (development) and cannot be diluted if equity is raised;
  - Company sources 100% of capital development expenditure to receive, say, 90% benefit (if the FC is 10%);
- Some Governments require the right to hold, through an equity contribution, a participative equity stake. This may be in addition to a free carried stake;
  - The Government would need to follow its rights or contribute equity capital on capital raisings to avoid dilution;
  - Governments don't always have the capital necessary to contribute and often source shareholders' loans to ensure non-dilution.
- **FC - There is no benefit to socio-economic development and probably no benefit to the Govt.**

Community Equity Participation

- Local participation (non-Govt) may be legislated or offered by Company:
  - Socio-economic benefit accrues to the local community.
- However:
  - Local, legislated participation is often unfundable (<u>cannot access finance</u>) by the participant, so loans have to be made;
  - These shareholder's loans are made on "commercial" terms;
  - Commercial terms are seldom at an equity return rate and are more often at a lower, pseudo-equity rate;
  - Loan tenures, by necessity, must be long otherwise loans are never fully repaid:
    - examples: BBBEE in South Africa, Gecamines in DRC, Zambia, Mali, etc.
- Desire is an unencumbered equity stake:
  - Equity holding free from encumbrance/liability. Slides follow….

Socio-Economic Equity Overview

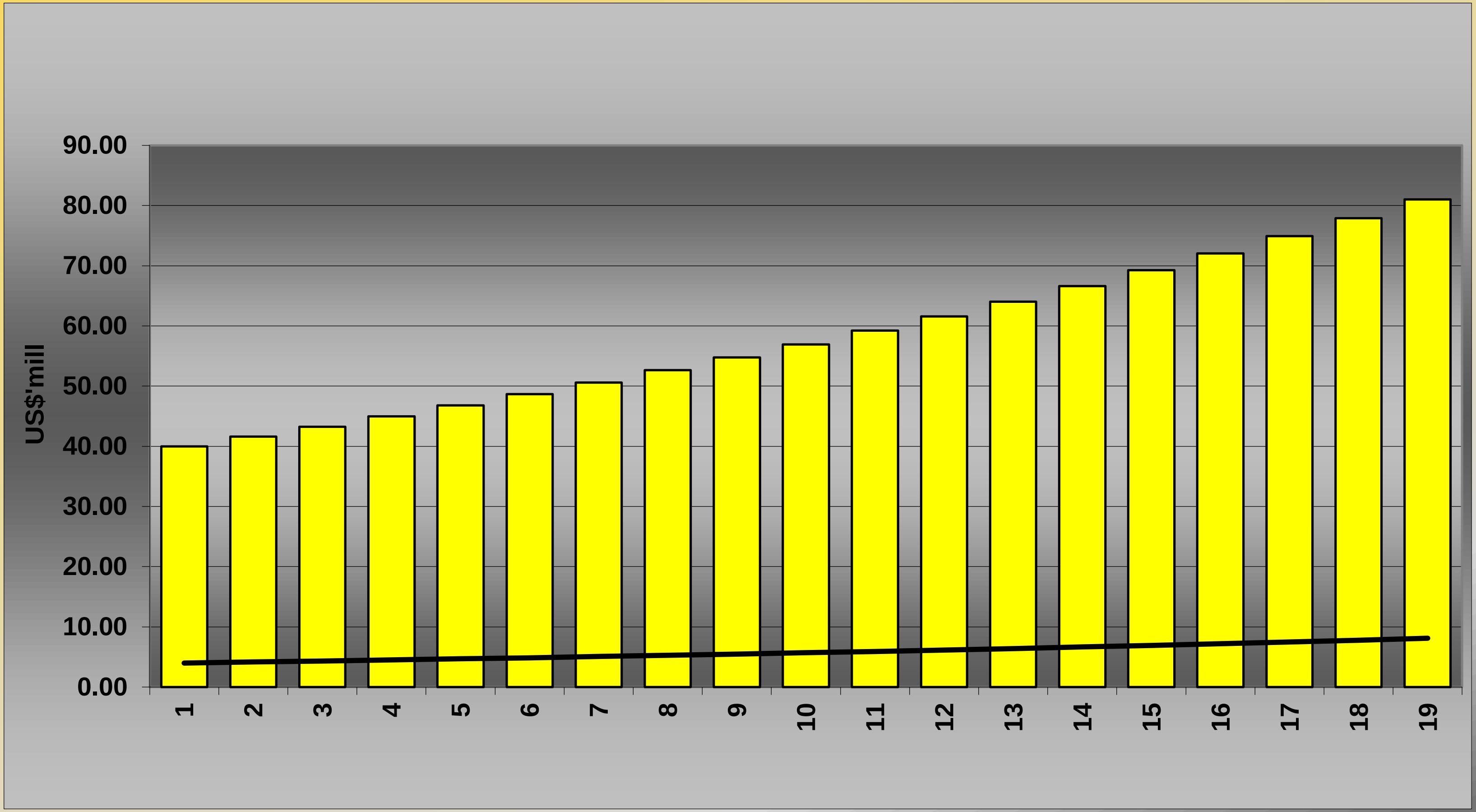
	Government	Local Community
Free Carry (Non-Participative)	**Pros**	**Pros**
	• Retains an equity stake • No payments required • No dilution possible • Feels like ownership	• As for Government
	Cons	**Cons**
	• Provides no benefit (no income, no input) • Disincentive to FDI • Creates structuring incentive to bypass	• As for Government
Carried (Participative)	**Pros**	**Pros**
	• Deemed acceptable for FDI • Does not dilute investors • Benefit as a shareholder • Treated as a shareholder	• As for Government, plus • Can include active input • Creates skills development • Ownership is real
	Cons	**Cons**
	• Requires pro-rata funding at all stages of development • Can be diluted if funding not provided • Alternatively requires expensive borrowing or shareholder's loan • Still has no meaningful input	• Requires pro-rata funding at all stages of development • Can be diluted if not funded • Alternatively requires expensive borrowing or shareholder's loan

Community Equity Participation

- Company provides a shareholders' loan to the Participant. Banks will be more expensive and will attempt to take the asset as security (do not want a small %'age collateral stake);
- The loan attracts a mixed debt / equity rate of funding;
- Repayment terms are agreed, being typical of normal funding terms (7 to 10 years);
- Repayment occurs for capital and interest from distributed free cash flows (dividends) derived from the producing asset;
- If there's excess distributions, a cash sweep mechanism is usually agreed (excess distributions arise due to commodity price increase, exchange rate depreciation, grade/production improvements, etc);
- Typically the Participant will want some of the distribution to **NOT** be used for repayment.

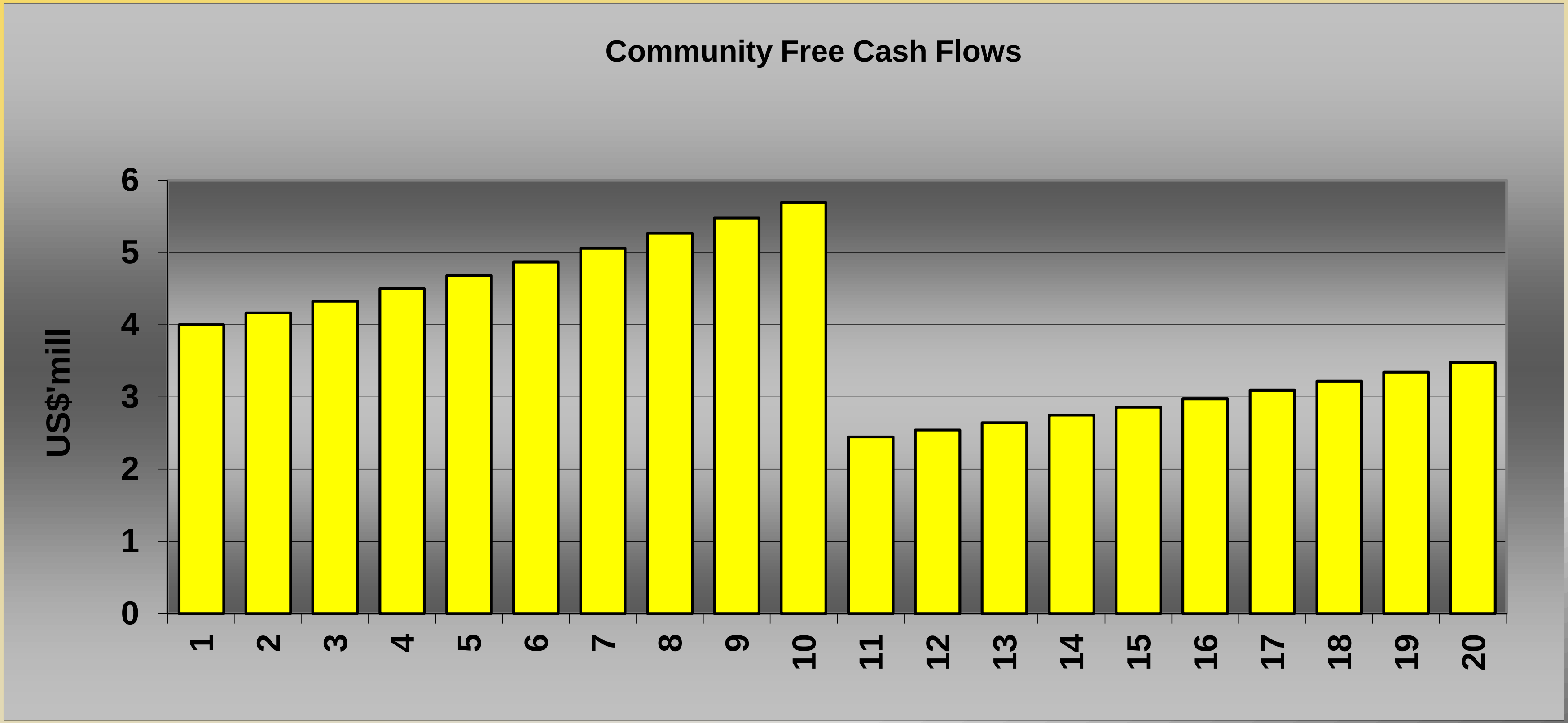
Unencumbered Participation

an example cntd: 100% of free cash flows (10% line)



Unencumbered Participation

an example cntd: attributable (10%) cash flows, 4.13% unencumbered + yr10



Participation Solution

- Community participation can be legislated at, say 20% long term;
- Initial stake may be compelled at 40%, understanding that the whole 40% is initially geared (encumbered);
- Appropriate refunding term > 8 years;
- Unencumbered portion after refunding term-debt and sale of 20% equity stake leaves around 20% interest, unencumbered;
- Future capital raisings require pro-rata contributions;
- Community to be represented on management committees and in the labour force.
- Mechanism to convert asset holding into ListCo level to realise equity value. However, once empowered, a;lways empowered must prevail

Alternative Socio-Economic Solutions

Community receives (from mining company):

- bursaries or education payments (for youth);
- entrepreneurial upskilling (agriculture, livestock, manufacturing, other skills);
- Specific infrastructure (schools, clinics, roads, electricity, water, etc)
- managed guidance from equipped trainers;
- a royalty from sales of commodity;
  - occurs elsewhere with local communities, and is fraught with difficulties (drugs and alcohol)

Conclusion

- Natural Resources are finite in nature, so must be optimised for all
- Benefits must be sustainable (life beyond mining – infrastructure, education, skills, employment opportunities)
- Equity must be meaningful and beneficial
- FDI supports socio-economic development and well-being

Give a man a fish, you feed him for a day
Teach a man to fish, you feed him for a lifetime

Thank You

Appendix

Coming Soon…..

Mining Taxation: Reconciling the Interests of Government and Industry

- Authors: Professors Eric Lilford & Pietro Guj
- Publisher: Springer
- Expected publication: September 2019

This book will delve into the details around fiscal policy in the minerals industry, highlighting preferred and less effective economic policies in the industry, worldwide. It will detail royalty rates, duties, participation (carried and free carried) and taxes and consider impacts to both Government and Industry.

Sustainable Development (natural resources)

Finite nature of commodities

- Value realisation (one chance only)
  - Governments (should) want to **Optimise**: Company taxes, royalties, employment (and personal taxes), skills development, forex on sales (currency impacts), Government relations, protectionism (tariffs and trade barriers), longevity, infrastructure development, etc;
  - Companies (do) want to **Maximise**: Higher grades, higher mining rates, lower costs (mechanisation, but capex is higher), offshore processing if local costs and taxes are higher, offset taxes, max returns (ROI, IRR), max value (NPV), tax structuring, corporate growth, access to capital.

The solution is a compromise

Unencumbered Participation

an example

- Consider a company **C** with operating assets in a country that legislates local participation of 10% (not to be confused with "free carry");
- The local participant may be a local company or a local community, **L**;
- **L** does not have access to finance (balance sheet or bank debt or equity) and requires a loan from **C**;
- **C** lends **L** 10% of the acquisition price (determined as 10% of the NPV of the asset at a suitable discount rate);
- The lending rate is assumed to be at a rate of *4%*;
- Generously, **C** has agreed to a repayment term of 10 years;
- ALL pro rata cash flows due to **L** will be swept for interest and capital repayments to **C**;

Unencumbered Participation

an example - explanation

- First 10 years sees attributable free cash flows being 10% of total free cash flows;
- At the end of year 10, **C** calls for a full repayment of the outstanding loan (unless it is prepared to roll over and renegotiate the terms);
- **L** does not have the money to repay the final outstanding capital portion of the loan;
- **L** is forced (either as original security or as agreed to in the terms sheet) to sell back to **C** that number of shares not paid for under the repayment tenure (*5.87%* of the 10% in our example);
- **L** is left with an unencumbered equity stake in the asset of *4.13%*

Unencumbered Participation

an example - conclusion

- Firstly, **L** received an equity stake for “zero” consideration, a consequence of legislation / Government policy;
- It is likely that **L** hosts no skills or expertise to add value to **C** or the asset;
- This example assumes **L** gives up 100% of its due flows to repay capital and interest. This is seldom the case, as **L** wants to have some cash for itself;
- The final unencumbered stake will (nearly) always be less than the initial participation stake.