

Mining, Minerals & Sustainable development

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Management and distribution of mineral revenue in PNG: facts and findings from the Sysmin preparatory study A consultant's perspective

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Caveat and Acknowledgements

The opinions reflected herein have been neither approved or disapproved by either the Papua New Guinea authorities or the European Commission. They only reflect the author's views.

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THE CONTEXT OF THE STUDY

- The 1997 « El Niño » drought and the slump of gold and copper prices caused a ~72 M€ loss of revenue for the PNG Government (7% of all 1997 government income)
- This triggered an application from the PNG government for support from the 8th European Development Fund (EDF) 575 M€ Sysmin Special Financing Facility, established under the Revised 4th Lomé Convention.
- BRGM assessed the eligibility of PNG for Sysmin support, and defined a 50 M€ programme, consisting of 10 projects, to support the further development of PNG's mineral resources sector. It included an in-depth diagnosis of PNG's mineral resources sector and of the sectoral institutions, and an economic assessment of the future programme
- This programme is complementary to the ongoing Mining Sector Institutional Strengthening Programme, supported by the World Bank

The context of Mining in PNG (1/3)

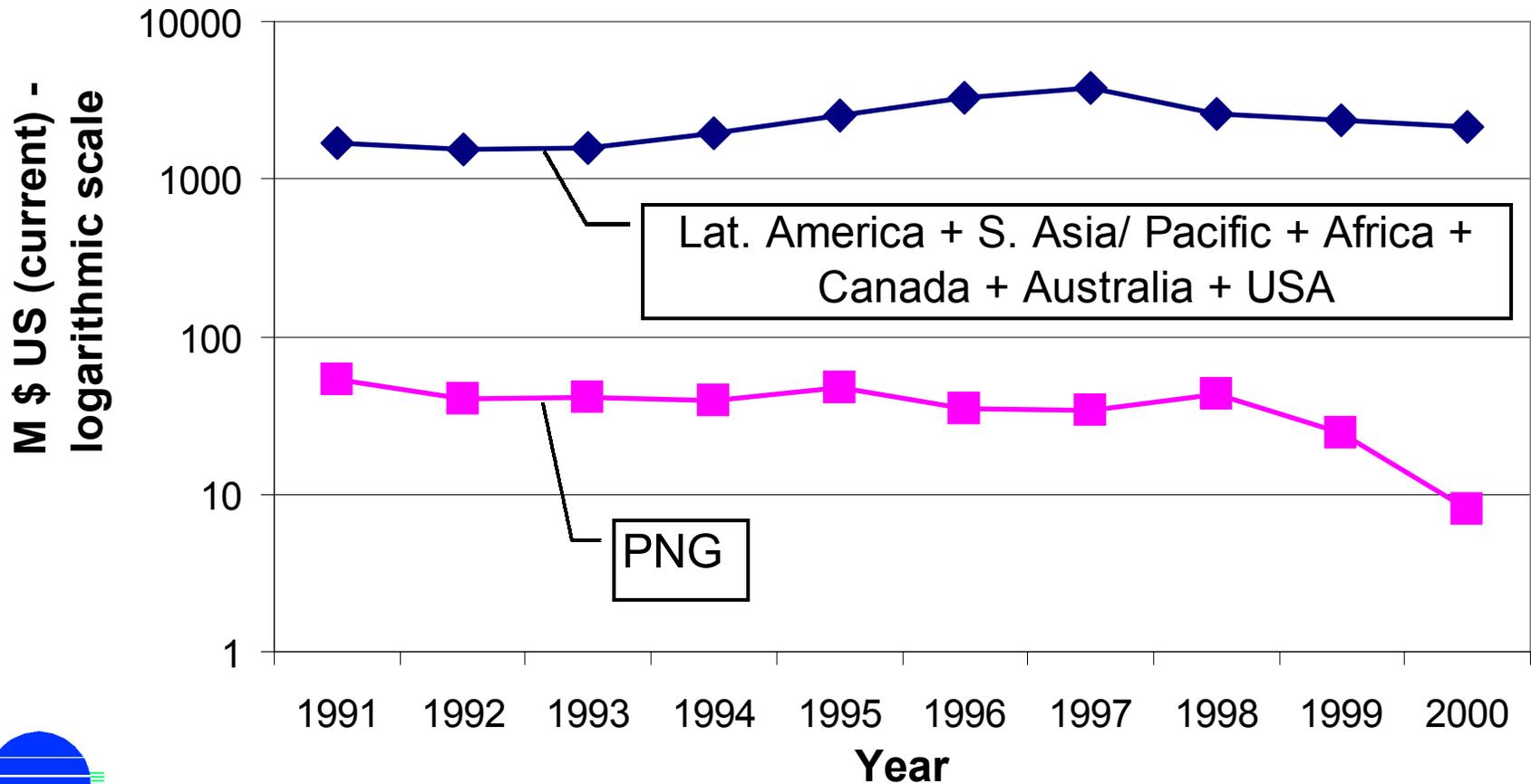
Mineral resources development in PNG faces a unique combination of challenging conditions:

- Premium geological terrain,
- Very rugged natural conditions: elevations up to 4,694 m., up to 7 m./year of rainfall, frequent natural hazards: landslides and earthquakes are frequent
- Very high biodiversity with countless endemic species
- Limited infrastructure
- A unique mosaic of cultures, with over 800 languages
- A young country, independent since 1975, facing the complex issues of development
- Large-scale mining contrasts sharply with traditional cultures

The context of Mining in PNG (2/3)

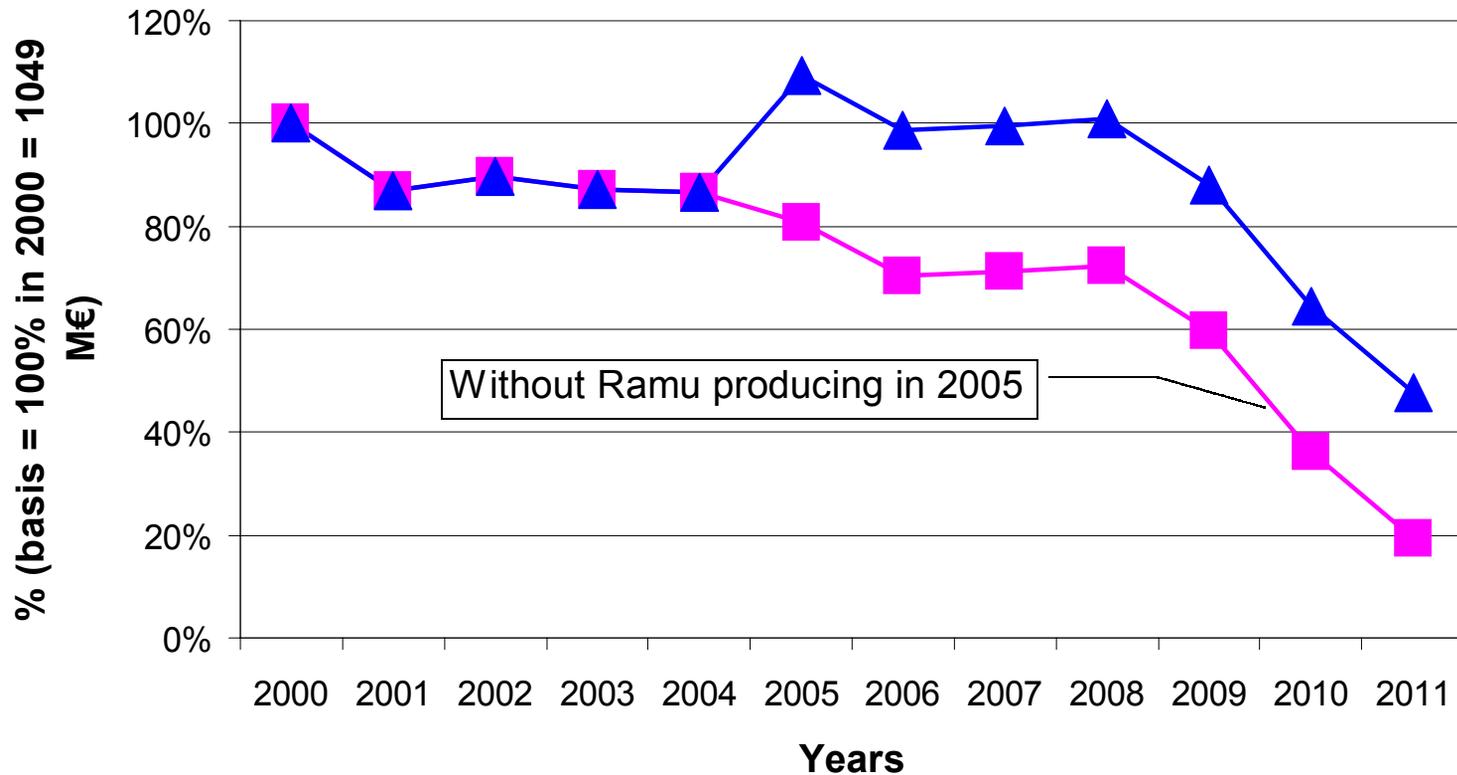
Exploration investments - PNG vs other regions

Source: Minerals Economic Group, Mining Journal and DOM



The context of Mining in PNG (3/3)

Evolution of mine production value 2001-2011
with and without the Ramu mine fully producing in 2005



Roles and responsibilities of different actors (1/2)

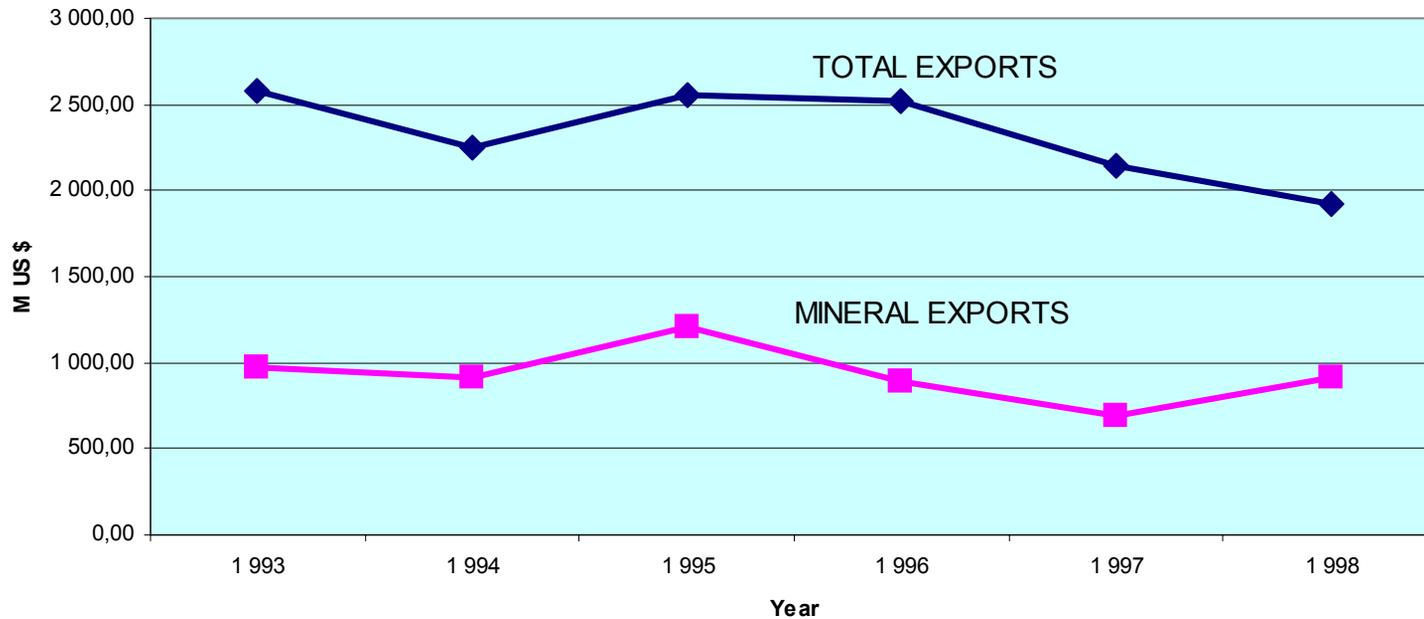
- **Private sector enterprises** explore and mine, take risks and need to make a profit, while acting in a socially and environmentally responsible way. Their role is essential to build sustainable communities
- **The State**, through its central sectoral institutions (Department of Mining and Office of Environment and Conservation) regulates and promotes the development and mineral resources

Roles and responsibilities of different actors (2/2)

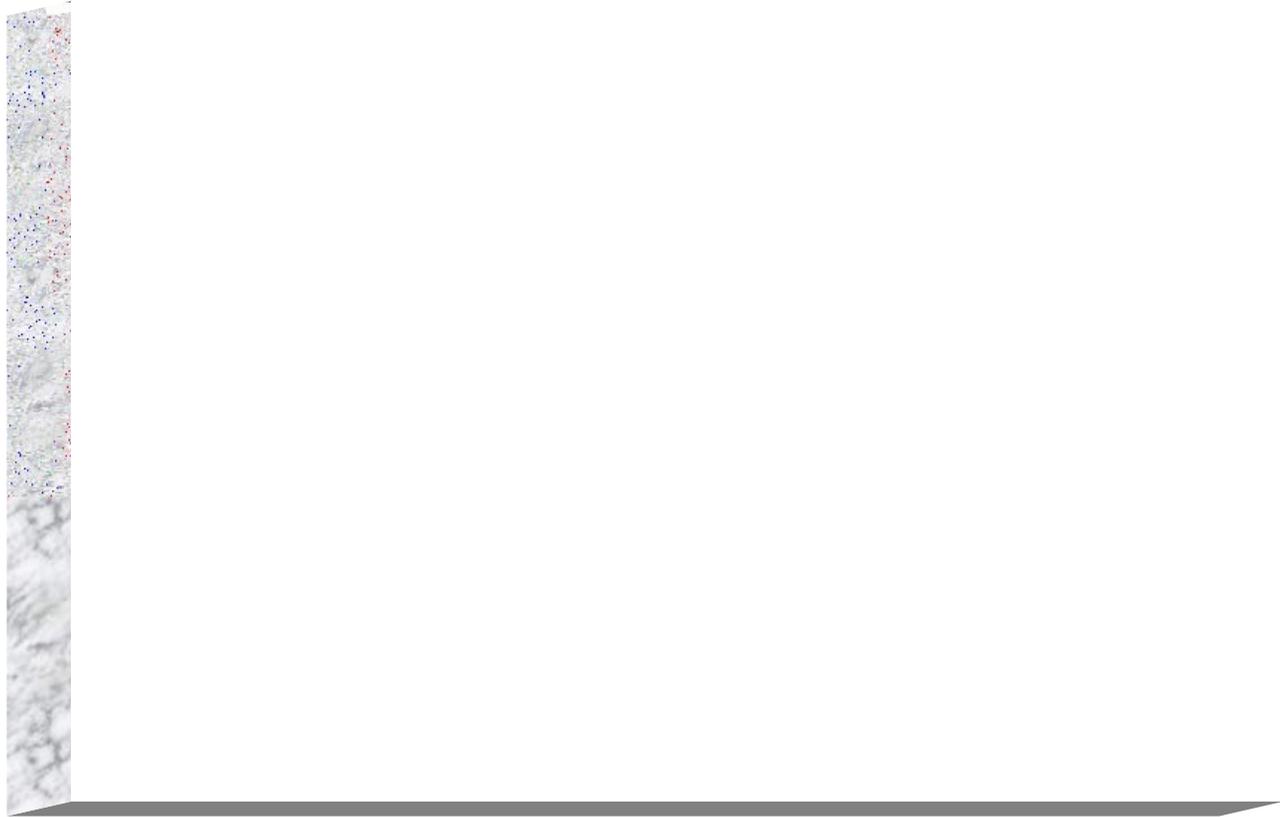
- **Local populations and landowners:** the Bougainville drama stressed the essential role of this complex group of actors
- **NGO's:** again a complex group of actors with diverging agendas and numerous actions i.a. in supporting local communities and identifying environmental issues. Their role is important in support of the social and environmental pillars of sustainable development
- **Development partners:** EDF, the World Bank, AusAid, the Asian Development Bank, JICA and other bilateral development aid programmes play a central role in support of mining/ environmental policy development, institutional capacity building, mineral resources promotion and environmental protection.

Economic, Social and Environmental impacts

PNG - Mineral exports and total exports



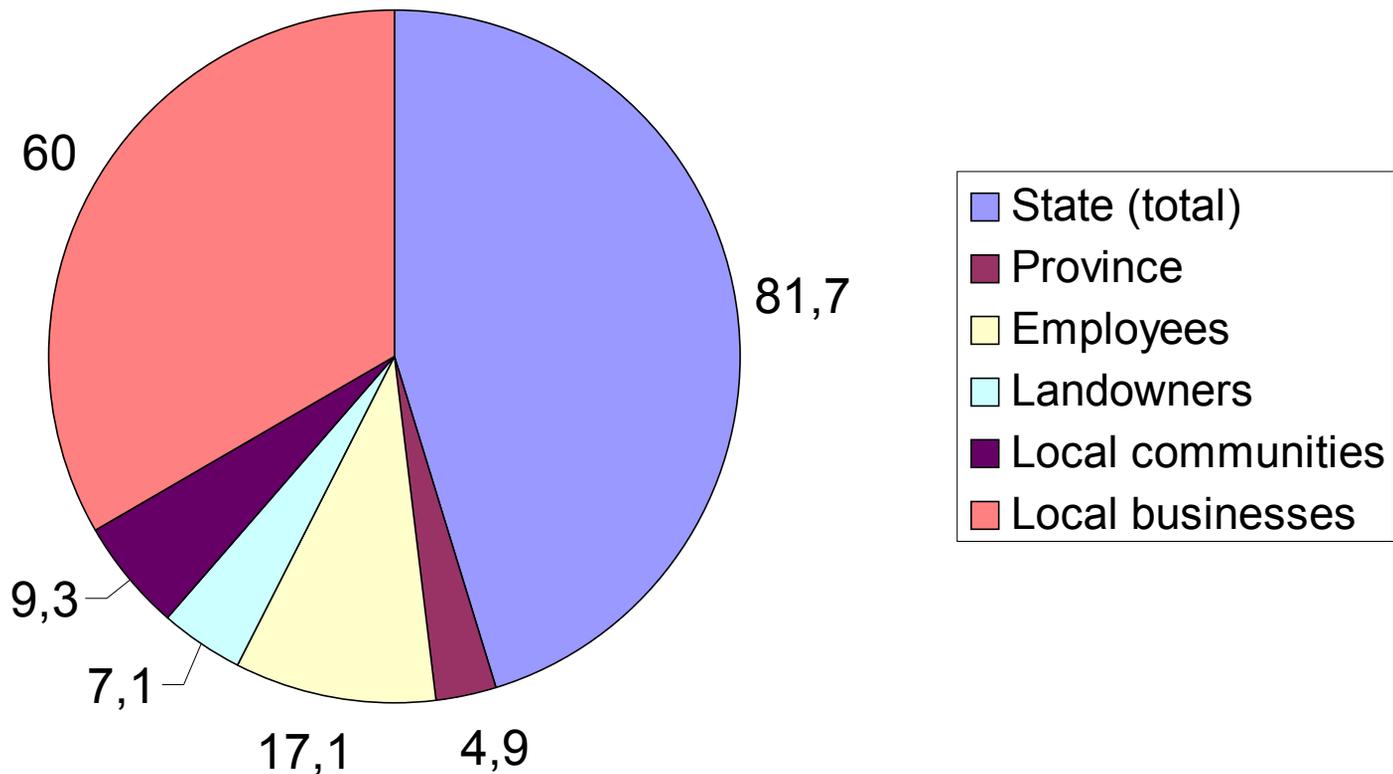
Economic, Social and Environmental impacts (2/6)



Economic, Social and Environmental impacts (3/6)

PORGERA - Main contributions to the PNG economy in M PGK (1999)

Total: 180 M PGK (34,8% of the production value)



Economic, Social and Environmental impacts (4/6)

- There is a need for more, detailed, easily accessible economic data, to fully measure the flows from the mining sector towards the different economic actors of PNG, including through injection of wages into the local economy, spin-off activities and development of local added-value. Multiplier effects should be documented.
- There is a need for more economic, social and environmental data, organised in a structured manner, to base solid analysis of the impacts of mining on a country such as PNG.

Economic, Social and Environmental impacts

5/6

The social impacts are manifold and complex:

- at OK Tedi life expectancy in mining areas has increased by 20 years, from 30 to 50 years, and infant mortality decreased from 27% to 2%.
- Access to education and infrastructure has much improved
- OK Tedi employs 91% nationals, Porgera 85%. A large spectrum of skills develops, employable in other economic sectors. This is a pillar for the future of the country
- The culture clash with foreign companies, and their employees, has deep-reaching destabilising effects on traditional Papua New Guinean cultures

Economic, Social and Environmental impacts (6/6)

Environmental impacts:

- They are numerous, especially due to the tailings disposal problem, the presence of larger human communities in rain-forest areas and their change in life styles.
- There is a need for environmental guidelines, and the human and material means to implement them
- Mine closures, and their long-term effects (especially due to ARD), may be a problem, unless properly managed
- It remains unclear what would be the environmental and social

impacts of a comparable magnitude



Small-Scale Mining

- The oldest form of mining in PNG, with gold rushes in Wau and Bulolo in the late 20's and early 30's
- Yearly production: 4 – 5 tons of gold, 3% of the GDP
- 60,000 persons are engaged in small-scale mining + 420000 dependents, i.e. about 8% of PNG's population
- Mercury use is widespread and a problem
- The sector requires specific support actions

Need for further information and research

Where the mining industry can help:

- Assist in making easily available well structured data, documenting the complex relation between mining and the three pillars of sustainable development are necessary to prepare factual cost/ benefit and economic analyses, needed i.a to convince development donors to provide further support to help PNG, and other developing countries governments, to promote/ regulate their mineral sector
- Support the drafting of cost/ benefit analysis
- Support the rational development of small-scale mining
- Support research and communication in sectoral issues, associating all stakeholders