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Historical perspective, role and challenges in the use of geosciences information in mineral resources exploitation and in planning for social-economic development in Zambia.

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Zambia, by virtual of its geological evolution, is endowed with a variety of world class mineral resources which have enabled the country to rank among the top large-scale mining nations for nearly a century. Over the years a large amount and wide variety of geo-scientific information and data has been generated, analysed and documented. This information has played a key role in mining development in Zambia especially during the earlier days of minerals discovery. In early 1920's the British South African Company (BSAC), which had earlier acquired exclusive mineral rights over most of modern day Zambia from local chieftains, handed over Northern Rhodesia (the precursor name for Zambia) to the British Government. Since the interest of both BSAC and the British government in the territories or protectorates was primarily minerals and other natural resources it was by law that any mineral occurrence information is carefully documented and reported to Authority. By late 1920's two major companies, Roan Selected Trust (RST) Company and Anglo-American Corporation (ACC), acquired vast exclusive mining concessions over most of Northern Rhodesia and dominated both mining and exploration activities [1]. Since then RST and ACC continued to participate, with various stakes, in Zambian mining industry till recently when the industry was re-privatized in 2000. Notable however is how well geo-information and mineral resources data generated by these two main players and a few others, in forms of various company reports, was well documented and achieved both locally and abroad. Today this information provides an invaluable source of base data to both government and private prospectors.

For any country the need for comprehensive geo-information and mineral database as a basis for sound policy direction and decision making in resources governance, cannot be over emphasised. In Many countries national geological surveys are custodians of basic minerals and other geo-information systems. Zambia like many other African countries lack basic geo-information/data governance systems which will ensure effective capture and analysis of geo-information to required standards in order to enhance its effective usability [2]. This is to a large extent due to lack of recognition of the importance role of geo-information in development planning and lack of a deliberate policy to invest in geosciences information collection and analysis systems and infrastructure. Most geosciences institutions including Geological Surveys, Universities and geosciences research institutions in many African countries are underfunded and poorly resourced [3]. This paper looks at some of the gaps identified in the usability and management of geo-information for economic development in Zambia and examines some suggested possible practical solutions.

References:

[1] Ndulo M (1986) *Mining Legislation and Mineral Development in Zambia*. Cornell International Law Journal: Vol 19: iss 1, Article 1: 3-11

[2] Scott M (2013) *Developing Effective Mineral Resources Policy for Sustainable Livelihood through Geosciences*.
IM4DC Action Research Report: 17

[3] AMDC (2014) *A country Mining Vision Guidebook: Domesticating the African Mining Vision*: 75 - 77

