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Geological mapping and capacity building in Africa

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Africa has a presumably huge potential in geological wealth, not only in mineral resources and fossil energy, but also in industrial minerals which represent sustainable development opportunities. However, abundant literature recognises that either most part of the continent still needs to be surveyed, or and those regions that have been covered are not at an appropriate scale. Furthermore, Africa records a high rate of economic growth and this can be seeing through the vitality of building industry in major cities of the continent but we must recognise that this growth is not accompanied by the corresponding and adequate growth in surface and subsurface geological knowledge. Our experience of capacity building activity in Africa through the UNESCO's Earth Science Education Initiative in Africa has confirm that Earth sciences training in the continent is still facing important challenges, with as a consequence, geological mapping training virtually dead in many training institutions.

The negative impacts of geological mapping deficiencies in have been specifically raised by the "Africa Mining Vision in 2009. "*Africa is the world's top producer of numerous mineral commodities and has the world's greatest resources of many more, but most of Africa still lacks systematic geological mapping which could bring to light a much greater resource base*".

International organisations and donors have implemented many geological exploration programmes in Africa and most these programmes have a component to train local mapping geologists. But the fact is the transfer of skills to produce independent and confident mapping geologists has been either low or negligible in most cases.

The Africa Mining Vision and its breakdown in Country Mining Vision, the World Bank through its Country Specific Programmes, PanfGeo and others Earth science initiatives such as the UNESCO's supported African network of Earth Science Institutions (ANESI) should be an opportunity to enhance the ability of countries to develop a more sustainable approach to promote in-country geological field mapping skills that can properly assess continent's resource and advise governments. These initiatives should also be an opportunity to produce upgraded versions continental maps such the Geological Map and the Tectonic Map of Africa (below).

CARTE TECTONIQUE DE L'AFRIQUE

TECTONIC MAP OF AFRICA