



Thematic Geological Maps of East African Mobile Belts: Research enhancement and capacity building in geosciences.

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The East African Mobile Belt stretches along the entire East African Coast and continues to the Antarctic. Actually two types of geological maps exist from this region. Orogen scale maps are largely compilations that include necessary simplifications. On regional scale maps, geological contiguities remain frequently hidden and, in addition, mapping done by different working groups over reasonable time with different background hamper consistent interpretations. Our intention is to compile computer based thematic maps in cooperation with African and European institutions from the entire East African orogen. Together with the maps, spread sheets are elaborated that contain additional data. The map project is meant as an initial ignition of a self-organizing process. Members of the African Science Community are expected to overtake and to expand this project by implementing new challenges. To ensure this, regularly meetings and training courses are planned in African countries and free flow of scientists will be promoted. As a testing ground we studied the East African mobile belts of Tanzania where two orogens, the Usagaran and Mozambique Belts have been accreted onto the Archean Tanzania Craton (Fritz et al., 2005). Terrane maps were extracted to define continental units and oceanic slivers. Lithological units are translated into geodynamic settings (e.g., suture zones, active and passive continental margin sediments and magmatics, etc.). Structural maps define major tectonic lineaments and motion along these boundaries within different time segments. Metamorphic maps, drawn for different time slices, provide information of prevailing metamorphic grade and relate with geodynamic setting (e.g., continental collision, subduction, extension, erosion, etc.). Spread sheet contain additional data and references. Work on these type of maps ensures to

figure out the key points of the East African orogen, to make problems visible that have not even been recognized and to encourage future research on such key areas. Work was supported by FWF: P15599

References H. Fritz, V. Tenczer, C. A. Hauzenberger, E. Wallbrecher, G. Hoinkes, S. Muhongo, A. Mogessie 2005: Central Tanzanian tectonic map: A step forward to decipher Proterozoic structural events in the East African Orogen.- *Tectonics* 24, doi:10.1029/2005TC001796.