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An updated geological map of Africa at 1/10 000 000 scale

Thiéblemont D.¹ and partners of the new Africa 10M map project

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A geological map of Africa at 1/10 000 000 scale and its major ore deposits was prepared in the frame of the 35th Colloquium on African Geology held in Orléans in June 2004. This map, co-published by the BRGM (France) and the Geological Society of Africa was realized under the scientific coordination of J.P. Milesi, J.L. Feybesse, P. Pinna, Y. Deschamps, H. Kampunzu, S. Muhongo, J.L. Lescuyer and S. F. Toteu [1]. It was provided as a paper and digital document to all participants to the congress and further distributed by the BRGM. Later this map was used as an essential input in the realization of the 2nd edition of the Tectonic Map of Africa co-published in 2010 by CGMW and UNESCO under the scientific coordination of J.P. Milesi, D. Frizon de Lamote, G. de Kock and F. Toteu [2].

More than ten years later, it appeared that many regional mapping projects and very abundant scientific publications had greatly enhanced our knowledge of African geology. In the perspective of the venue of the IGC35 in Africa, one could therefore consider that the time has come for updating the 2004 map. The project of editing an updated geological map of Africa at 1/10 000 000 was planned in consultation between the Scientific Chair of the IGC, the CGMW, the GSAF and the BRGM who accepted to assume the scientific coordination. Different partners joined the project to cover different parts of the map, either thematic or geographic. All these partners are associated as co-authors to the final document which will be presented at the Subsymbosia 1-6/CGMW of the IGC35.

This new geological map of Africa rests on a deeply reworked legend and important upgrades in large regions based on data from a number of new national geological maps published since 2004. The legend takes into account the international chronostratigraphic chart published by the International Commission on Stratigraphy. Likewise, the colors used for the different cartographic units are those recommended by the CGMW and follow a strictly chronological scheme. Superimposed symbols allow the different lithologies to be distinguished. Recent surficial formations (e.g. Quaternary desert sands) have been represented to their real geographical extension. This new map is intended to provide an updated vision of the African geology at a small scale with the aim of illustrating the main phases of the geological history of the continent.

References:

[1] J.P. Milesi, J.L. Feybesse, P. Pinna, Y. Deschamps, H. Kampunzu, S. Muhongo, J.L. Lescuyer and S. F. Toteu (2004). Geology and major mineral deposits of Africa. Map at 1/10 000 000 scale. Edited by BRGM and GSAF. BRGM Orléans, Publisher.

[2] J.P. Milesi, D. Frizon de Lamote, G. de Kock and F. Toteu (2010). Tectonic Map of Africa (2nd edition). Edited by CGMW and UNESCO. CCGM-CGMW, Paris, Publisher.