AbstractCrystalline basement rocks, with a mantle of weathered alternation products, occur beneath very extensive areas of tropical Africa. Low-productivity aquifers are widely, but rather unpredictably, present in this formation. They yield small water supplies vital to the rural population for domestic purposes and for livestock watering. On a more localised basis, a potential may exist to develop larger supplies that are adequate for small towns or for small-scale irrigation. This paper reviews advances in the understanding of this extensive hydrogeological system, resulting from British research and experience since 1980.