

Precise height datum for Africa towards an international height datum (AFRHTD)

The IUGG support will help in the acquisition of gravity, density, and seismic Moho data for Africa and therewith the determination of the African height datum as a part of International Height Datum following the IAG Resolution No.1 at the IUGG General Assembly 2015, and the attendance of international conferences to publicize the project and disseminate its results. This will foster cooperation and provide high-level training for African geoscientists.

The specific aims include:

1. Establishing a precise height datum for Africa (AFRHTD) in 2026 that will help to unify all the existing height datums within the African continent and refer them to the new International Height Datum to be established according to the IAG Resolution. This height datum will be the only datum for which all height system should refer.
2. Supporting global and regional applications of the International Height Datum, e.g., studies of geodynamics such as monitoring global change, variations of sea level and continental hydrology, geophysical hazards, vertical crustal motions of tectonic or anthropogenic origin.
3. Train experts who will spearhead the sustained realization of AFRHTD by future versions when more data become available. This will be achieved through enabling participation of younger scholars from African developing countries.
4. Enhance the cooperation between the African geoscientists.
5. Utilization of the fast-improving GNSS technology, which is so far lacking in Africa due to the non-existence of an accurate height datum for Africa.