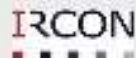


CELEBRATING
40
YEARS OF
COOPERATION
IN GEOLOGY
BETWEEN

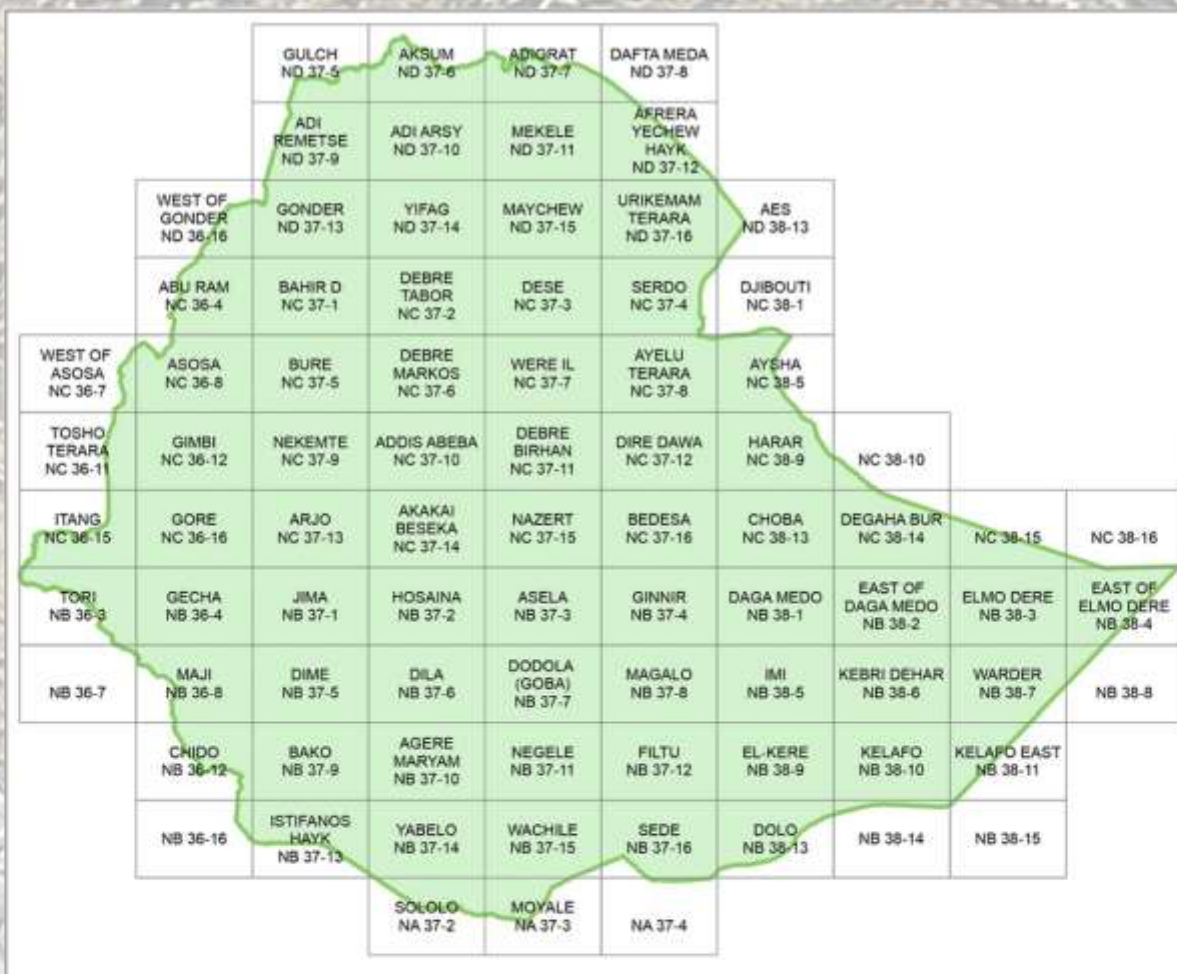
CZECH REPUBLIC & ETHIOPIA

This exhibition commemorates remarkable partnership, cooperation and friendship that have been created during the last four decades.



Embassy of the Czech Republic

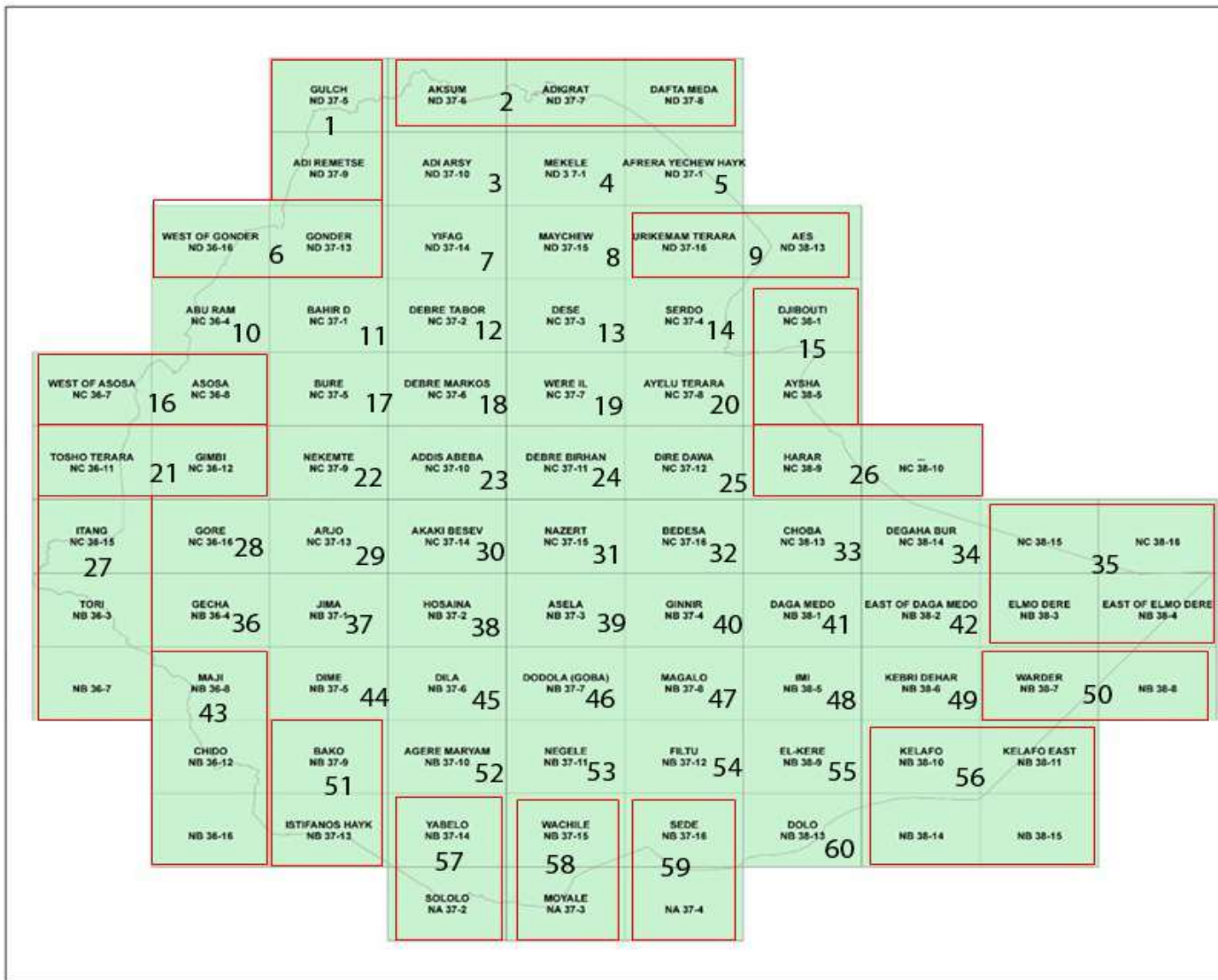




As of now, the whole Ethiopian territory is completely covered by hydrogeological and hydrochemical mapping, both of which can be accessed on http://gis.gse.gov.et/hg_maps/index.html

HYDROGEOLOGICAL MAPPING OF ETHIOPIA COMPLETED

Hydrogeological mapping of Ethiopia, which has been completed in 2019, is among the biggest endeavors achieved by the two countries. We would like to present the 1: 250 000 scale hydrogeological maps that cover the whole Ethiopian territory.



http://gis.gse.gov.et/hg_maps/index.html



Cable tool-drilling rig near Beseka Lake. Percussion drilling of 100 meters deep hydrogeological borehole in hard basalts of Afar Depression. It took several months to undertake this activity.



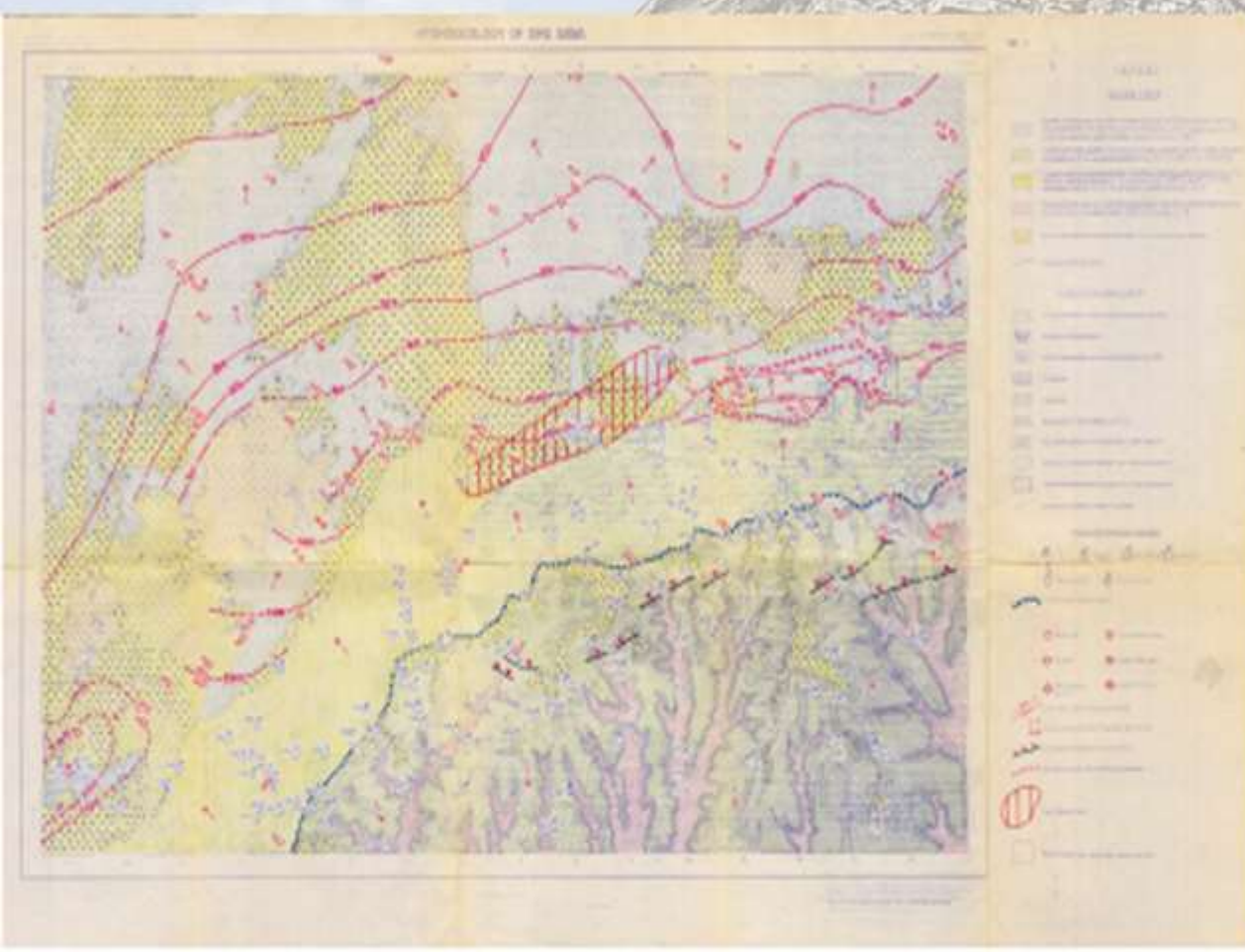
Experts undertaking a study at Adola gold mine area. Mr. Teshome (left) was a student of geology who studied at Charles University in the Czech Republic. He got married to a Czech pianist. Afterwards, they lived together in a small village in Ethiopia. In the middle is Mr. Eduard Malis Unigeo Rymarov and Mr. Gebretsadik Eshete (right), who are both hydrogeologists.



While performing the groundwork for hydrogeological map sheet of Dire Dawa, Mr. Habteab Zeray, Hydrogeologist is compiling data from the measurements of karst Spring near, Erer village.

IT ALL STARTED IN THE LATE 1970s THROUGH THE EXCHANGE OF EXPERTS

In the late 1970s, the cooperation between the two countries commenced with the exchanging of experts. Czechoslovakia, present day Czech Republic and Slovakia, assisted Geological Survey of Ethiopia in groundwater resources mapping, mineral exploration, engineering geology and natural hazards assessment.



Dire Dawa blue print hydrogeological map coloured by pencil. The sheet was compiled between 1984 and 1985.



Hydrogeological map sheet of Dire Dawa with an updated explanatory notes compiled in 2018.



Water point inventory at the hand-dug well used for watering camels near Warder town, Somali region.

FIRST MAPS PRODUCED DURING 1980s - 1990s

During this period, studies were conducted on hydrogeology of Shakiso gold placers and Alledeghe Plain (Afar).

Researches and explorations were embarked around the Ambo mineral water springs. In addition, activities of the hydrogeological mapping with a scale of 1:250,000 were undertaken. The team has also completed the blue print–pencil coloured map sheets with explanatory notes of Dire Dawa, Aysha, Bako, Istefanos, Solo and Bure. The mapping activities were based on experience of the Czechoslovakia 1:200,000 hydrogeological and hydrochemical mapping.



Mr. Demise Alamirew, a hydrologist (middle), working with his team on sampling and measurement of temperature, acidity and conductivity of the surface water at the Birbir River near Yubdo town.



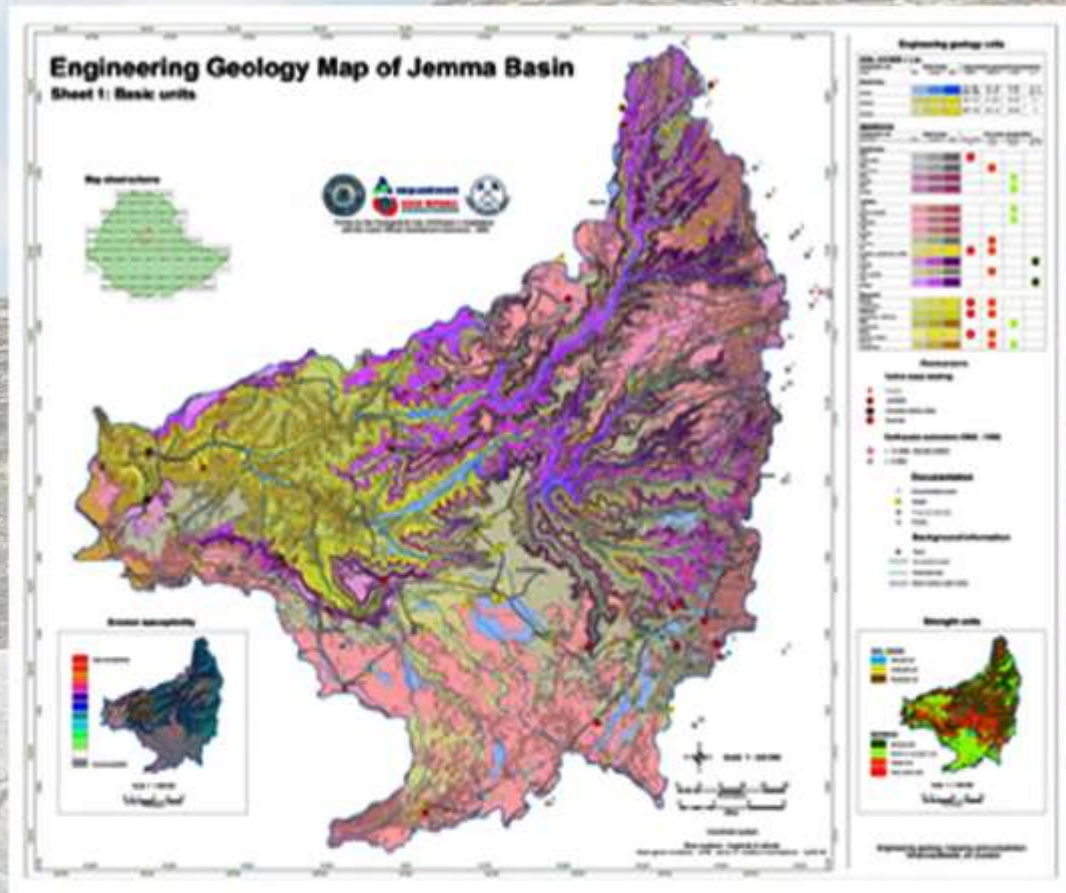
Technicians of GSE measuring the depth of a well at Humera, while supervised by Mr. Martin Hrubec from the Czech Ministry of Environment.



MOU signing ceremony between the Ministry of Mines and the Embassy of the Czech Republic in Addis Ababa. In the picture above, H.E. Sinkinesh Ejigu (Left) and H.E. Mr. Jaroslav Koralka (right), the representative of the Czech Republic Embassy in Ethiopia.

DEVELOPMENT COOPERATION OFFICIALLY BEGAN IN 2001

The first project implemented soon after the signing of the Memorandum of Understanding (MOU), was named: “Hydrogeological Mapping in Western Highland and Adjacent Lowland Areas of Ethiopia.” The area coverage of the maps was 100,000 square kilometers with a population of 10 million.



Engineering geology Map sheet of Jemma Basin.



Mr. Jiri Zvelebil, Czech geologist (middle) working on the mapping of the massive landslides in Debre Sina area with the help of local guides.



Photo taken while searching for dead bodies buried in the sands of the Wadi Detchatu after the occurrence of the massive flood at Dire Dawa. The devastating flood occurred during the process of designing a database of geohazards.

JEMMA RIVER BASIN MAPS 2009 - 2010

In 2009, a complex-mapping program was launched for Jemma River Basin. The mapping project was focused on the water resources management and environmental protection of the Jemma River Basin, which was key for improving the food security in the area. This was the last project financed by the Ministry of Environment before the establishment of CzechAid in 2010 and the first contribution of the Czech Geological Survey to the mapping project based in Ethiopia. The types of produced maps covered 20,000 square kilometres, were hydrogeological, hydrochemical, engineering geology-basic units, engineering geology, geo-risk susceptibility.



Ethiopian geologists that participated in the mapping training, organized by Geotest in 2018.



Training in river flow measurements for postgraduate students of the Addis Ababa University at Holeta River in the upper Awash basin.



Training organized by Geotest, a Czech company, for Ethiopian Geologists.

CZECH AID SUPPORTS MAPPING AND DEVELOPMENT PROJECTS 2010 - 2023

CzechAid was established in 2010 and became the official implementing body for the ODA (Official Development Assistance). Meanwhile, the Czech Geological Survey has continued its support to Ethiopia in the form of compilation of maps and analyzing the natural risks affecting agricultural production in selected areas of Southern Nation, Nationalities and People (SNNPR). From the year 2016 to 2018, geological, hydrogeological, pedological and geo-risk maps of 1:50,000 scale were published. Trainings were provided to young experts from the Geological Survey of Ethiopia, Addis Ababa and Arba Minch Universities in the areas of field work, mapping, data analysis and applied geological research. The regional and zonal bureau officials were trained on the application of these maps.



The drilling of borehole at Hamesho Kebele in Sidama Zone, SNNPR.



Mrs. Meron Wubshet from People in Need is testing the water point constructed at Bargo Kebele, Sidama Zone through the WASH project supported by CzechAid.



The teams of People in Need and CzechAid are celebrating the successful borehole drilling at the site in Hamasho Kebele, in Sidama Zone, 2018.

COMPLEX WATER, HYGIENE AND SANITATION PROGRAM BY CZECHAID 2010 - 2023

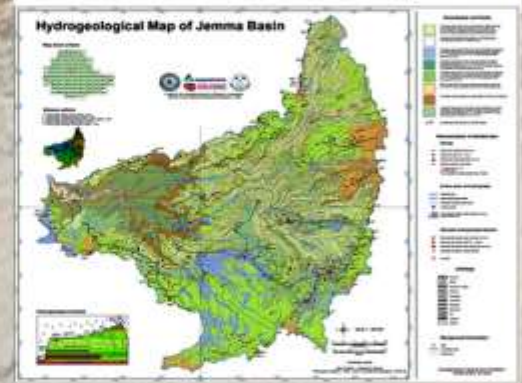
Czech Development Cooperation continues to work in parts of SNNPR, mainly on the provision of potable water supply in remote areas, infrastructure development, hygiene and sanitation promotion through capacity building of local health community volunteers. The interventions further include setting up water users associations at Woreda level and training of officers in water schemes maintenance. More than 75,000 people have already benefited from our interventions that were implemented in the past 10 years.



Mr. Yohannes Belete from the Geological Survey of Ethiopia (left), Mr. Jan Kropacek from the Czech company, Aquatest (middle) and Mr. Jiri Zvelebil from the Czech Geological Survey (right) working on the field application of remote sensing for the Jemma River Project.



Mrs. Wubanchi Fekadu (middle) and Mr. Zewdu Joseph (right) both of whom are hydrogeologists, collecting data for a study on thermal and mineral water mapping of a hot spring near Hawassa.

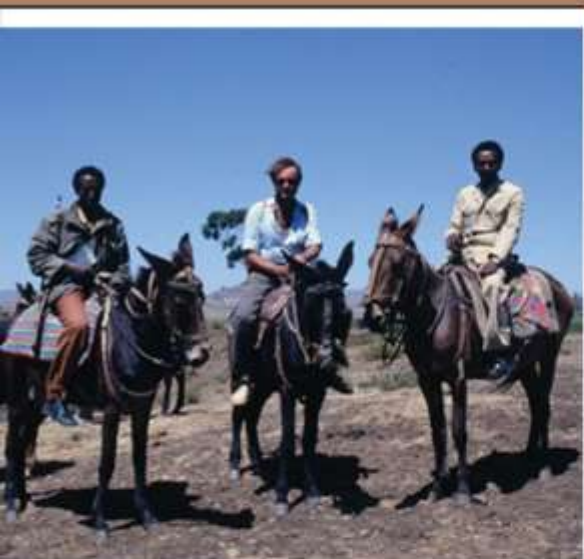


Hydrogeological map sheet of the Jemma Basin showing water bearing horizons and types of rocks.

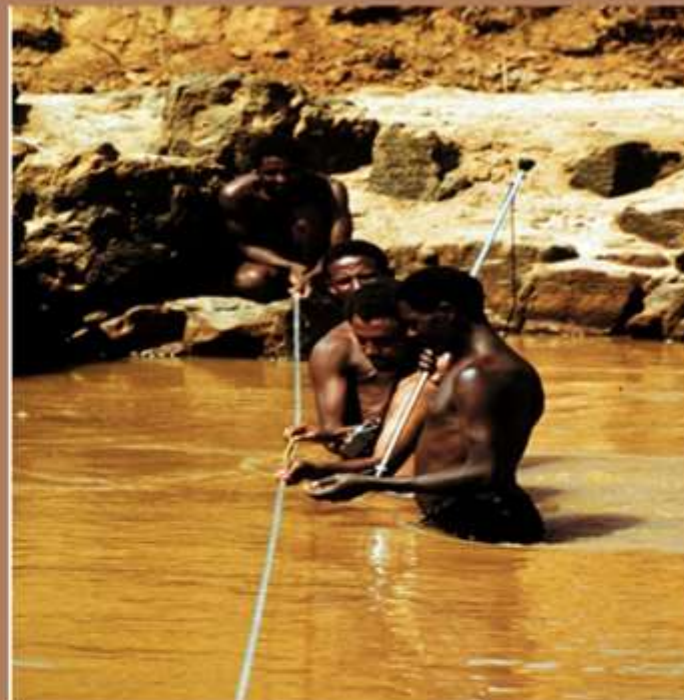
SMALL-SCALE STUDIES

The interventions supported by CzechAid include investigation of the thermal and mineral water resources in Southern Ethiopia. And producing handbook of geo-hazards, construction of seismic station in Shashemene, strengthening the capacity building in management of environmental data, manual and database design for geo-hazard identification and risk assessment for infrastructure and human protection.

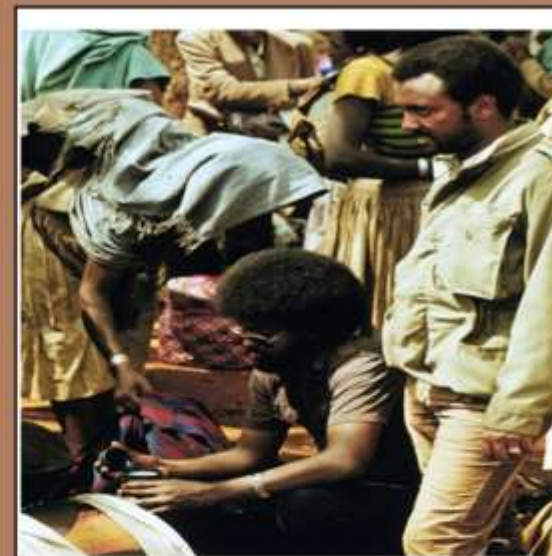
40 YEARS OF COOPERATION IN GEOLOGICAL MAPPING IN PICTURES



The hydrogeological team riding on mules while mapping the oil occurrence in Dessie area. Mr. Jiri Sima (middle) Czech hydrogeologist, who has been working in Ethiopia for almost 4 decades.



Mr. Gifa Wossen (middle) and his team working on the river flow measurement at the Dawa River. In the late 1970s, flow measurements were used for surface and groundwater resources assessment.



Hydrogeologists, Mr. Gifa Wossen (left) and his colleague at Sunday market in the late 1970s.



Training on mapping for Ethiopian geologists organized by Mr. Krystof Verner (middle) from the Czech Geological Survey, 2018.



Training on mapping for Ethiopian geologists organized by Geotest in 2018.



Czech and Ethiopian geological survey teams working on mapping at Mojo, Oromia Regional State, Ethiopia.