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## **of National Data Centres Established in Southern Africa, the case study for Zambia**

The establishment of National Data Centers by states members has really helped in the monitoring and verification efforts of the Comprehensive Nuclear Test-Ban Treaty Organization (CTBTO). The core mandate of the CTBTO is to ban all nuclear test explosions. Almost all the central and East African countries have signed and ratified the CTBT. To monitor nuclear test explosions, systems built on the principles of seismic, infrasound, radionuclide and hydro-acoustic technologies are installed around the globe to record and monitor man-made and natural events. Zambia, being is a beneficiary of the seismic data from the International Data Centre (IDC) to monitor earthquake activities in the country complementing the efforts of the government of the republic of Zambia. Earthquake activity around Zambian areas is more diffused and with surface wave magnitudes ranging from 1 to 4.9. However, depending on the site conditions, the damage to the structures may be increased due to the effects of large earthquakes emanating from the Lake Kariba area and Earthquake activity within and around the Copperbelt may sometimes be triggered (induced) by mining activities, which may also have an increased and sustained damage on the structures, because of the frequent vibrations caused by mining blasts.

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