Increasingly recognized as a contributor to preserving peace and security in a world riddled with problems not limited to nuclear insecurity, the Comprehensive Nuclear-Test-Ban Treaty (CTBT) and the CTBTO Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO) offer opportunities that are beneficial to human well-being.

Beyond serving the core mandate of the Treaty, the capabilities of the CTBT verification regime can also contribute to sustainable social and economic development and yield compelling new civil and scientific benefits. Therefore exploring the ways in which CTBT verification technologies and data collected by the International Monitoring System (IMS) can be paired with emerging tools (e.g. geospatial imagery, machine learning, data visualization) can help pave the way to potentially high impact outcomes for sustainable development.

In this regard, the CTBTO Youth Group (CYG) has worked closely with Sustainable Development Solutions Network (SDSN) to investigate and draft this fact sheet with linkages between the CTBT and the Sustainable Development Goals (SDGs).
The Treaty has a unique and comprehensive verification regime consisting of three pillars:

The International Monitoring System (IMS) will, when complete, consist of 337 facilities worldwide to monitor the planet for signs of nuclear explosions. Around 90 percent of the facilities are already up and running.

The International Data Centre (IDC) at the CTBTO’s headquarters in Vienna acquires data from the IMS monitoring stations. The data are processed automatically, reviewed by human analysts and distributed to the CTBTO’s Member States in both raw and analyzed form.

On-site inspections (OSI) can be dispatched to the area of a suspected nuclear explosion if data from the IMS indicate that a nuclear test has taken place there. Inspectors collect evidence at the suspected site.

The CTBT bans nuclear explosions by everyone, everywhere:
- on the Earth’s surface,
- in the atmosphere,
- underwater underground

Since its foundation in 1996, with expansion of its network of international experts the Comprehensive Nuclear-Test-Ban Treaty Organization became capable of not only ensuring its primary purpose of preventing nuclear tests, but also contributing to the United Nation’s Sustainable Development Goals (SDG’s).
The connection between the work of the CTBTO and SDGs could be seen in that:

Violation of CTBT is a step back for the SDGs:

Nuclear weapons disrupt peace and justice (SDG16).

The testing or use of nuclear weapons can have catastrophic human and environmental consequences (SDGs 13, 14 and 15).
The CTBT and its Verification Regime pushes forward the SDGs:

The CTBT requires all member parties to work together (SDG17).

The information collected by the IMS and analyzed by IDC can be utilized for other purposes than detecting nuclear explosions. For example, the hydroacoustic network alone could be used to increase detection sensitivity of earthquake and tsunami events (SDG 11), to assess and calibrate locations and timing information of anthropogenic noise sources (SDG12), establish monitoring baselines of ocean soundscapes (SDG13), to study marine life (SDG14), etc.

The organization promotes the role of women and girls in the nuclear disarmament and non-proliferation efforts, and affirms the provisions stated by the UN General Assembly in Resolution 71/56 “Women, Disarmament and Non-Proliferation” (SDG5).
This Fact-Sheet is co-prepared by Sustainable Development Solutions Network (SDSN) and the CTBTO Youth Group (CYG) on the margins of "Building Bridges" project that served as a platform for dialogue, knowledge sharing and idea generation of collaboration among young leaders.