# Tech4Good Project Assessment Guide

## Overview

Proposals must clearly articulate the impact of the project and how it will be measured. Applicants are encouraged to take the free online course from IEEE Humanitarian Technologies on the IEEE Learning Network IEEE Learning Network (ILN), "Monitoring and Evaluation" for how to implement monitoring and evaluation best practices at all stages of a project.

Tech4Good Project impact assessment is based on the **Sustainable Development Goals (SDGs)** and their associated indicators. A full list of seventeen (17) SDGs are at the heart of the United Nations' 2030 Agenda for Sustainable Development, which "provides a shared blueprint for peace and prosperity for people and the planet." (*Read more about the SDGs here.*) The SDGs selected for the Tech4Good projects are most relevant to the IEEE Humanitarian Technologies mission and scope of work.

All SDGs include a list of "targets," which are specific desired outcomes that support their corresponding goal. For example, **SDG #7: Affordable & Clean Energy** includes five targets, including: **Target 7.1:** By 2030, ensure universal access to affordable, reliable and modern energy services. **Target 7.2:** By 2030, increase substantially the share of renewable energy in the global energy mix.

*Click here to view the full list of SDG 7 Targets.*

All SDG Targets include a list of "indicators," which are specific, observable, and measurable characteristics that can be used to show changes or progress made towards the overall target. For example, **SDG #7, Target 7.1** includes the following two indicators:

**Indicator 7.1.1:** Proportion of population with access to electricity.

**Indicator 7.1.2:** Proportion of population with primary reliance on clean fuels and technology.

## Primary Impact Assessment

First, teams submitting a proposal must select one of the following Technology Impact Categories, depending on the project's scope:

1. Smart agricultural technology (SDG 2: Zero Hunger)
2. Technology to facilitate and promote education (SDG 4: Quality Education)
3. Water, Sanitation, and Hygiene (WaSH) technology (SDG 6: Clean Water & Sanitation)
4. Clean Energy and Sustainable Power (SDG 7: Affordable & Clean Energy)
5. Technological upgrading and innovation to achieve higher economic productivity (SDG 8: Decent Work & Economic Growth)
6. Information and Communications Technology (ICT) and Digital Connectivity (SDG 9: Industry, Innovation, and Infrastructure)
7. Technological solutions to reduce waste (SDG 12 - Responsible Consumption and Production)
8. Technology to strengthen resilience to climate-related natural disasters (SDG 13 - Climate Action)
9. Technological solutions to reduce marine pollution and the sustainable use of marine resources (SDG 14 - Life Below Water)
10. Technology to reduce the degradation of natural habitats (SDG 15 - Life on Land)

Depending on the selected Technology Impact Category, each proposal must then specify **one** specific indicator that is relevant to the project context, outcomes, and scope. Examples include:

**Agricultural technology** (SDG 2: Zero Hunger)

- **Indicator 2.1.2:** Prevalence of moderate or severe food insecurity in the target population, based on the Food Insecurity Experience Scale (FIES)
- **Indicator 2.3.1:** Volume of production per labor unit by classes of farming/pastoral/forestry enterprise size
- **Indicator 2.3.2**: Average income of small-scale food producers, by sex and indigenous status

- **Indicator 2.4.1:** Proportion of agricultural area under productive and sustainable agriculture

**Water, Sanitation, and Hygiene (WaSH) technology** (SDG 6: Clean Water & Sanitation)
- **Indicator 6.1.1:** Proportion of target population using safely managed drinking water services
- **Indicator 6.2.1:** Proportion of target population using (a) safely managed sanitation services and (b) a hand-washing facility with soap and water
- **Indicator 6.3.1:** Proportion of domestic and industrial wastewater flows safely treated

**Clean Energy and Sustainable Power** (SDG 7: Affordable & Clean Energy)
- **Indicator 7.1.1:** Proportion of target population with access to electricity
- **Indicator 7.1.2:** Proportion of population with primary reliance on clean fuels and technology
- **Indicator 7.2.1:** Renewable energy share in the total final energy consumption, within target population

**Information and Communications Technology (ICT) and Digital Connectivity** (SDG 9: Industry, Innovation, and Infrastructure)
- **Indicator 9.c.1:** Proportion of target population covered by a mobile network, by technology

For the selected indicator, the applicants must specify the following:

1. First, proposals must provide information about the baseline. A **baseline** is the value before the project has started (it is the value in the indicator that you want to change). For example, if a proposal aims to provide solar electricity to a community, the applicants would select "**Indicator 7.1.1: Proportion of target population with access to electricity**." Then, their baseline could be the number of households currently without electricity. In addition to providing the current baseline value, applicants must also describe how they determined this value either by measuring (e.g., counting or surveying the community) or their method for estimating the value. Applicants will be asked:
    a. What is the current baseline value for this indicator?
    b. Briefly describe how you determined this value.
2. Next, proposals must provide their target outcome related to their selected indicator, i.e., what is the goal after the project is completed? Continuing the solar electricity example, the applicants would specify the number of households that are expected to receive electricity from the project. The applicants must also specify how they plan to determine this value. Applicants will be asked:
    a. What is the target value for this indicator?
    b. Briefly describe how you will plan to estimate this value.

3. Lastly, proposals must specify how their target will be maintained after the project is concluded. For example, how can the team justify that the same number of households will retain their access to solar electricity? This involves planning for maintenance and management of the implemented technology. The applicants will be asked:
    a. At the conclusion of this project, who will be responsible for ensuring the indicator remains at its achieved level? And, what will they do to ensure the project is sustainably managed?

## Secondary Impact Assessment

Are there any other impacts or outcomes the project would have in the community? Secondary impacts are indirect impacts that are caused by a project that occur later in time or are farther removed in distance, but are still reasonably foreseeable. For example, providing internet connectivity to local businesses could have the secondary impact described by SDG 8: Decent work and economic growth, or improving agricultural production that leads to improved nutrition could have the secondary impact described by SDG 3: Good health and well-being.

If applicable, applicants should describe how the project will have this secondary impact, using the SDGs and their targets to determine the most **reasonable and foreseeable** secondary impact. *View the full list of SDGs and indicators*.