Geophysical Research Abstracts
Vol. 21, EGU2019-11944, 2019
EGU General Assembly 2019

Ontology of the U.N. Sustainable Development Goals, Targets, and Indicators

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The UNSDG_Ontology models the semantics of the targets and indicators of the 17 Sustainable Development Goals (SDGs) of the United Nations' 2030 Agenda. The knowledge model maintains the formal link between each SDG and its targets and indicators using the original IDs that , were assigned in the UN document (e.g., SDG1 hasTarget some Target1.1; Target1.1 hasIndicator min 1 SDGIndicator). The embedded IDs in the labels of the targets and indicators help users of the ontology and its underlying knowledge base to efficiently differentiate data related to the various indicators of each SDG target. The ontology is designed to enable annual submission of the indicator data by the U.N. member countries, persistent storage of data in a knowledge base, and query and extraction of the status of each country in meeting the requirements of the UN SDG targets. Each instance of the Country class (e.g., Belgium, Kenya) can submit values for different instances of the SDG indicators (e.g., Indicator10.11). Annual data submission can be made by each country for 10 years, starting in 2020 and ending by the 2030 U.N. target year. For instance, submission of a value for Indicator 1.4.1 by Belgium for the year 2020 is specified by the following triple (SPO) statement: Belgium submits2020ValueFor 1.4.1.ProportionOfPopulationLivingInHouseholdsWithAccessToBasicServices. The ten-year data for each country can be tracked and viewed from the SDG knowledge base through an interface.