## Geoscience for Beyond the Agenda 2030

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The Sustainable Development Goals (SDGs) are a set of common goals that form the core of the 2030 Agenda for Sustainable Development (Agenda 2030), adopted in September 2015. It is characterized by the fact that the goals were discussed in an Open Working Group with civil society organizations and global corporations, rather than being decided by governments and international organizations alone, as was the case with the preceding Millennium Development Goals (MDGs).

Although the SDGs consists with 17 goals and 169 targets, as ironically called as "silo approach", many people and organizations can find some connection between the SDGs and their own activities, and thus have become more involved in the process.

In Japan, the SDGs tend to be emphasized their environmental aspect, but Agenda 2030 states that it is an ambitious plan to harmonize the three aspects of sustainable development: economy, society, and environment, or to harmonize respect for human rights and dignity, preservation of the global environment, and prosperity. While the environment is important, human rights, social justice, and economic development are equally important, which is the heart of the SDGs in Agenda 2030.

While the MDGs set targets that are achievable with efforts, the so-called "low hanging fruit" problem arose when targets such as "halving the proportion of the population without access to safe drinking water" were set by starting with support and investment in people and regions that would contribute to achieving them relatively easily. As a result, the SDGs declare at the outset that they will "transform our world into a better future that is sustainable and equitable," with "leaving no one behind".

At first glance, it seems that earth and planetary science is deeply related to and can contribute to the safety and environment of cities (SDG 11), in addition to climate change (SDG 13), marine ecosystems (SDG 14) and terrestrial ecosystems (SDG 15). However, when we look closely at the targets and the indicators for measuring progress, we cannot find any item that pure science can directly contribute to.

However, the International Astronomical Union has set "Promote the use of astronomy as a tool for the development of all nations" as Goal 3 of its Strategic Plan for 2020-2030, and has set a number of targets, including not only education (SDG4), but also the relationship with industrial development (SDG8/SDG9) such as astronomical tourism and instrument development, astronomical diplomacy (SDG16), and gender (SDG5) sensitive workshops, activities targeting disadvantaged and underrepresented groups (SDG10), and the realization of a dark night sky with reduced light pollution (SDG7).

In earth and planetary sciences, instead of trying to strictly follow the current targets and indicators of the current SDGs, it would be better to devise various activities in line with the heart of Agenda 2030, which is to enable all people to live a better life with dignity and self-respect.

Besides, there are many issues that are not included in the current SDGs but need to be solved. Agenda 2030, for example, does not mention demographic issues such as the rapid aging of the population and the declining birthrate, nor does it address conflicts over religion.

However, I do not think that the society in 2030, or the future world beyond that, will need the satisfaction of intellectual curiosity or the arts. It would be good to envision our future life and intellectual life as we want it to be, not as a solution to an apparent problem or as an extension of the current state of society, and to share in language explicitly how education and research in earth and planetary science will support the realization of the vision.

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