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Sustainable Development Goals (SDGs) and Geosciences

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September 2015 countries adopted at United Nations a set of goals to end poverty, protect the planet, and ensure prosperity for all: “Transforming our world – the 2030 Agenda for Sustainable Development”. The Agenda 2030 consisting of 17 sustainable development goals (SDGs) and 169 targets build on the Millennium Development Goals (MDGs) and complete what they did not achieve. All countries and everyone need to do their part: governments, private sector, civil society: no one will be left behind.

SDGs and geosciences relate to one another. Geosciences have the opportunity and potential to positively contribute to all 17 of the SDGs. The scope and nature of geoscience activities create opportunities to leverage some goals in particular (e.g. 1, 2, 6, 7, 8, 11, 12, 13). But geoscientific plans for contributing to the SDGs require further work. Achieving sustainable development is challenging and it is necessary to increase engagement, partnership, and dialogue with other sectors and stakeholders.

Development oriented sustainable utilization of geo-resources for prosperity of countries and their population implies:
- well-known geology and knowledge about the own resources,
- functioning (geo-)institutions and well trained expert staff,
- sustainable management of geo-resources (water, soil, mineral resources, energy resources, georisks, . . .),
- good governance and transparency.

Geosciences thus contribute to sustainable development and poverty reduction through:
- facilitation of sustainable economic development: employment, diversification, local value added,
- generation of public revenue: taxes, licenses and royalties,
- creation of infrastructure: roads, harbours, railways, energy.
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Because of the continuous population growth and the accompanied growth of consumption and production, people are increasingly using georesources. As a result, for example, water and soil are overused and are not available for major parts of the population, especially the poorest ones. To secure and improve living conditions the following steps could be used as guideline:
1. geoscientific expertise through research and development
2. application of geoscientific methods (groundwater modelling, identifying resource potentials, assessing earthquake risks, . . .)
3. evaluations and recommendations (water management plans, resource management papers, georisk maps, . . .)
4. decision level (policy advise, cooperation with decision makers, decision support, . . .)
5. impact (organisational development, awareness raising, responsible use of natural resources, . . .)

In this context the Federal Institute for Geosciences and Natural Resources (BGR) is executing several projects of technical cooperation in Africa, Asia and Latin America. The projects are targeted to generate politically relevant impacts on development, especially in support of translating the Sustainable Development Goals (SDGs) into practice.