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LEAD ARTICLE: SDGS NEED PRIORITIES AND A STRONGER SCIENCE BASE

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The Sustainable Development Goals (SDGs) are emerging as a consensus in the United Nations context. The miracle of an agreement among nations on this complex matter seems feasible only because the goals are many, and accountability for achieving them is weak. The UN Open Working Group set up a draft that begins with a clear priority: *“Poverty eradication is the greatest global challenge facing the world today and an indispensable requirement for sustainable development”*. It also refers to *“the commitment to freeing humanity from poverty and hunger as a matter of urgency”* and points out that *“poverty eradication, changing unsustainable and promoting sustainable patterns of consumption and production and protecting and managing the natural resource base of economic and social development are the overarching objectives of and essential requirements for sustainable development.”*

Although this is an appropriate emphasis, the main body of the current draft still consists of 17 goals and countless targets. All are relevant, but to different extents for different groups of people, for nations at different stages of development, and for humanity and nature on the planet as a whole. Their relevance also varies depending on a short or long-term perspective. Therefore, the Open Working Group’s draft calls for a more narrow set of goals at global level, which in fact also applies to country level, as *“...each country has primary responsibility for its own economic and social development...”*.

The draft also underlines that *“people are at the center of sustainable development ...”* and appropriately emphasizes the need *“...to strive for a world that is just, equitable and inclusive,*

and committed to work together to promote sustained and inclusive economic growth, social development and environmental protection and thereby to benefit all, in particular the children of the world, youth and future generations of the world without distinction of any kind such as age, sex, disability, culture, race, ethnicity, origin, migratory status, religion, economic or other status”. In our opinion, culture, education, and institutional arrangements are largely to be pursued at national levels in the context of internationally agreed rights and obligations. Action at the community level remains crucial for the actual implementation of the goals and the governance of everyday life.

Global priorities

Three sets of issues should be emphasized at global level: poverty, health, and environment. Ending extreme poverty and hunger: The SDGs need a clear focus on extreme poverty and hunger reduction – with an ambitious time schedule. This cannot only be a matter for those countries where large numbers of the poor and undernourished live, but should rather be a top priority for all countries. Overcoming glaring inequalities is central for ethical reasons as well as for social and economic sustainability, peace, security, and health. Rapid reduction of child mortality and improved health: The SDGs need to focus on health, giving due consideration to the diverse public health challenges burdening people in high and low income countries and to global threats of infectious diseases, as well as the growing problem of non-communicable diseases. Environmental sustainability and protection of nature: Here, the balance between short

and long-term urgencies needs careful consideration. Acute issues such as pollution of air, food, and water and loss of nature are of utmost urgency, but so are long-term problems, especially climate change, land degradation, and biodiversity loss. Fundamental economic systems changes are called for in order to deal with these challenges, i.e. a quality of economic growth that increases real income and employment in renewable- and bio-based economies that do not pollute or excessively extract non-renewable resources and link environmental with social and economic sustainability in its original meaning as stated in Brundtland 1987. Picking and choosing between protecting this environmental good versus that environmental good will not work. “Mother Earth” as a whole needs protection and that requires sustainable production and consumption modes. The science base for this agenda is still not strong enough. It lacks, for instance, modeling across scales, behavioral change analyses, and studies of the impacts of risks and uncertainties.

Lack of inter-linkages

The three above mentioned main domains of goals are linked in the current SDG agenda. Yet, the inter-linkages are underrated. Excessive goal segmentation was also a short-coming of the MDG agenda. Based on our research, we at ZEF emphasize, for instance, that important aspects of public health need to be addressed in a “one health” approach, connecting people’s health with those of the environment (soil, plants) and animals. We also note that ending extreme poverty and hunger requires sustainable economic growth in combination with targeted actions in social and nutrition policies. And we

emphasize that SDG actions need to take a trans-sectoral approach, which is at the core of a so-called NEXUS approach, especially targeting the nexus between food, water, energy and climate change for sustainable development, informed by interdisciplinary research.

Implementation plan for the SDGs

The SDGs need an implementation plan which gives the Goals sufficient focus in the diverse country contexts. On the large global issues, this calls for accountability and an ambitious but realistic time schedule. Otherwise, the SDGs will not serve the purpose of accelerating the achievement of sustainable development pathways. The three dimensions of sustainability – social, economic, ecological – are the conceptual basis. They remain critical for a balanced agenda. Moreover, the SDGs require local ownership globally. Ongoing discussion processes on their contents are thus crucial in developing and assuring such buy-in.

The UN draft underlines *“Each country has primary responsibility for its own economic and social development and the role of national policies, domestic resources and development strategies cannot be overemphasized”*. We think that overemphasizing the national role can actually lead to neglecting trans-border issues and to lost opportunities for collective actions among communities and nations.

“Developing countries need additional resources for sustainable development. There is a need for significant mobilization of resources from a variety of sources and the effective use of financing, in order to promote sustainable development”. Implementation plans need to entail the actual mobilization of actions, not just of financial investments. This means mobilizing governance and political actions for peace and security, for science, and for behavioral changes on the part of both people and stakeholders. The draft emphasizes further that *“the implementation of sustainable development goals will depend on a global partnership for sustainable development with the active engagement of governments, as well as civil society, the private sector, and the United Na-*

tions system.” While partnership may be important for elements of goal achievement, banking on partnership alone may not be most efficient. The SDGs need ‘Ordnungspolitik’, i.e. the functioning of markets; competition in corporate sectors and across segments of civil society is required. And the role of states is essential for much of public goods delivery. Sound data are needed for the independent monitoring of goal and target achievements.

Realization of the SDGs requires a considerably more significant role for science

In the list of 17 goals contained in the current draft report, only the proposed goal no. 17 mentions science: *“strengthen the means of implementation and revitalize the global partnership for sustainable development”*. Leaving aside the fact that science should be considered an instrument and not a goal, it is surprising how the emerging SDG agenda attributes such a small role to science. Research is mentioned in the context of some agenda items, such as increasing investment in agricultural research, the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, access to clean energy research and technologies, and scientific research to upgrade the technological capabilities of industrial sectors. Apart from an unspecific target *“by 2030 encouraging innovation and increasing the number of R&D workers per one million people by x% and public and private R&D spending”*, the report remains very vague in this area, stating *“... support domestic technology development, research and innovation in developing countries...”* and *“...enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation, and enhance knowledge sharing on mutually agreed terms”*.

Somehow, the international science community has not engaged sufficiently with the UN process to bring the essential role of research into the SDG discourse. In view of the fundamental challenges for human devel-

opment such as the sustainable use of natural resources and protection of nature, sustainable development cannot be achieved without science and the science-based rethinking of given production and consumption patterns. Solutions to the sustainable development problems are not just sitting on the shelf ready for use. On the contrary, it will only be possible to achieve the SDGs by means of significant innovations – technological and societal – which largely depend on inter- and trans-disciplinary scientific research. Specific and durable arrangements are needed that facilitate access by emerging economies and low income countries to science capacities in the richer world, whilst at the same time these countries must scale-up their own science spending and proceed with introducing science policy reforms. An SDG science policy agenda comprising industrialized countries and emerging economies must be developed, based on mutual respect, considering countries’ interests and comparative advantages. Germany with its strong science system is particularly challenged. Commendable steps were recently taken in this regard, i.e. a strategy launched by the German Government for the internationalization of science, a large initiative for innovation in agriculture and food security in Africa, and broad-based consultations towards a Charta for the Future focusing on sustainable development from a one-world perspective. Nevertheless, science policy and development cooperation must become increasingly integrated in the coming years. In sum, the SDG agenda needs to become more focused through an implementation concept that also connects the main goals to an inter-linked agenda and that has a strong science base, devoting a lot of attention to local realities in a global context.

For more information see:

Open Working Group: <http://sustainabledevelopment.un.org/focussdgs.html>

SDSN Website: <http://unsdsn.org/what-we-do/national-and-regional-networks/national-sdsn/germany-sdsn/>

Zukunftscharta Website: <https://www.zukunftscharta.de/zukunftscharta/de/home>