

Knowledge for sustainability action

The independent group of scientists (IGS) behind the forthcoming Global Sustainable Development Report (GSDR) have joined the ongoing negotiations in the lead-up to the September 2019 SDG Summit in New York. IGS co-chair Peter Messerli and IGS member Eeva Furman speak to *Nature Sustainability* about writing the report.

■ Tell us briefly how the idea of the GSDR emerged. Who's behind it and what is the main goal?

EF: The implementation of the 2030 Agenda is proving challenging to governments, given the links across the Sustainable Development Goals (SDGs) and the number and variety of actors who need to be engaged in the process. In the summer of 2016, concerns about the difficulty of implementing the SDGs were voiced by the UN High-Level Political Forum (HLPF) — the body responsible for effective implementation of the 2030 Agenda, which includes representatives from all of the UN member states. It was then agreed that a more solid understanding of where the problems and opportunities exist was needed in order to identify the most promising actions at various locations that would bring societies on a sustainable development path. Against this backdrop, the GSDR was produced to support the implementation of the 2030 Agenda, by synthesizing and communicating scientific understanding through an effective science-policy interaction.

PM: Two important sources of evidence are foreseen to guide the deliberations of the HLPF. One is the UN Secretary General's report on progress towards the SDGs. It has been published annually and provides a detailed assessment of which SDG targets are on-track, which ones are off-track, and for which other targets negative trends are observed. The other is the GSDR, which has been mandated by UN member states to the IGS and will be published every four years. Both reports aim to assess progress towards implementing the SDGs, but in the GSDR authors bring together the kind of scientific knowledge that can guide the implementation of the 2030 Agenda. In this sense, the report contributes to achieving the transformations towards sustainable development.

■ What kind of research was reviewed and what was missing?

PM: There is a huge and rapidly growing body of knowledge produced by the scientific community that is relevant, but it is often dispersed, fragmented, and refers to



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specific contexts or different scales. In order to connect the fragments and build cohesive knowledge, we have reviewed a number of international scientific assessments and UN flagship reports, which offer an advanced level of synthesis and consensus. The GSDR is essentially an assessment of assessments. However, there are gaps. Although scholarly knowledge about human-environment systems and their dynamics is growing rapidly, research is still focused on describing the challenges and developing future scenarios. Research that takes the SDGs — politically defined — as a starting point and investigates how transformation can be achieved in practice, and what can be learnt from past experiences, remains limited.

■ What is the overall emphasis in the GSDR and why?

EF: The emphasis is to bring together existing scientific understanding from all continents and with consideration of all disciplines from social to natural sciences, from technology studies to humanities and to synthesize it into a solid, understandable corpus through a societal lens. Also, we have

elaborated the findings together with the decision makers and other non-academic actors. Although there is plenty of research today that can inform the implementation of the 2030 Agenda, the report points to the need of changing the science-policy-society interface both over short and long timespans in order to strengthen the contribution of academic research to sustainable development. This includes strengthening joint efforts in the form of co-production of transformational activities among researchers and non-academic stakeholders.

PM: In line with the UN Secretary General's report on progress towards the SDGs and recent international scientific assessments, the GSDR rings a strong alarm bell. Only a few SDG targets are on track; many targets such as eradicating poverty or ending hunger are off-track and for numerous targets such as reducing inequality, conserving biodiversity or reducing CO₂ emissions, trends are negative. Hence, business as usual is not an option anymore and efforts to implement the 2030 Agenda need to be scaled up significantly and rapidly.

The solution is not addressing each single goal individually, but tackling the systemic interactions across goals and among the goals and their targets. Enhancing human wellbeing while ensuring environmental stewardship presents significant trade-offs that need to be addressed and managed in light of the principle 'leaving no one behind' and the meta-goals of peace, partnerships and equality. In order to accelerate action, we need to transform the systems connecting nature and people.

■ When did the IGS gather together to start working on the report? Can you tell us about the approach and the challenges encountered?

PM: Although this report appears four years after the endorsement of the 2030 Agenda, the IGS was only able to start working in early 2017 and has only collaborated for slightly more than two years. Over such a short period, the diverse members of the IGS had to first define their mandate and the procedures of collaboration. This was achieved through a series of face-to-face

and virtual meetings and numerous regional consultations across Europe, Africa, Latin America, Asia, Middle East and North Africa. Additionally, expert workshops were held on specific topics and IGS members participated in regional UN fora on sustainable development.

In order to guide our ambitious work, we developed early on a framework for knowledge-based transformation to sustainable development. This framework identifies six systemic entry points that need to be addressed in view of transforming dysfunctional relations between people and nature and at the same time offers a strong potential to make significant progress towards achieving multiple SDGs. Examples comprise building sustainable food systems and nutrition patterns, achieving energy decarbonization and access, or promoting sustainable urban and peri-urban development. Furthermore, it was important to agree on the normative framing of our work. The GSDR puts human wellbeing at centre stage with a commitment to equity and 'ensuring no one is left behind'.

Unlike well-honed international scientific assessments, we had limited time and resources to establish how to pursue in-depth assessment and synthesis of primary scientific literature and so develop the GSDR. Yet, we are confident that this independent assessment of assessments will add value to inform evidence-based actions to move the 2030 Agenda forward. It points to systemic opportunities and trade-offs that sectoral perspectives may have overlooked, and proposes sensible actions in light of the current state of knowledge.

EF: When people from different disciplines, cultures and expertise join up efforts, it takes time for everyone to find their place in the group and the way they can best contribute to the work. It was thanks to the experience of the co-chairs that we managed to find our way through the process over a very limited period of time. GSDR 2019 is the first of these reports and we couldn't do justice to the complexity of all the issues we wanted to cover, but we laid the foundations for the work that the coming groups will develop.

■ **A central tenet of the work is defining 'transformation towards sustainability'. Why is it such a challenging task? What was the emerging narrative?**

PM: The transformations we need are not simple or painless, and we need them fast. But rapid change is possible. The tools to achieve it are available. Governance, economic and financial instruments,



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individual and collective behaviour change, and science and technology will all be critical levers for change. But bold action is needed to reconfigure partnerships to take advantage of those levers in innovative and effective ways.

The GSDR recognizes that each country and each region face particular systemic challenges, have divergent needs and priorities, and needs to design specific policy responses and pathways to sustainable development. The report speaks directly to those specific needs by identifying context-specific combinations of levers of change.

In the report, we also emphasize that we cannot wait for irreversible societal and environmental crises before triggering transformations. To this end, decision-makers at all levels need to act based on current knowledge and understanding of human–environment systems and their trajectories. Furthermore, they need to pay attention to the roles of powerful groups who try to de-legitimize science and maintain the status quo.

EF: Enabling transformations is difficult if they are conceived individually for each of the 17 SDGs. It is important to distinguish the SDGs as goals of the 2030 Agenda from their implementation, which aims to transform structures and processes we experience as unsustainable in our societies. The narrative in the report is meant to serve the implementation of 17 SDGs by using the six entry points and four levers Peter

mentioned, in various combinations optimal to each country or setting.

■ **The official launch will be in September this year, at the UN summit in New York. What will happen then? And after the launch?**

PM: The formal launch of the GSDR will indeed be during the UN General Assembly in September. Nevertheless, the negotiations among UN member states and major groups started in mid-May and will continue through the HLPF in July. Therefore, a preliminary draft of the GSDR has been released to the various parties of these negotiations and members of the IGS are strongly involved in these deliberations. In fact, the process in the run-up to the autumn summit represents a key window of opportunity for a stronger science–policy–society interface, which the GSDR is meant to influence.

It is our hope that the GSDR can provide guidance on how efforts towards implementing the 2030 Agenda can be scaled-up in the remaining 11 years. For this purpose, the IGS will undertake further efforts to communicate and discuss our findings in regional dissemination workshops after the UN summit.

These workshops are aimed at not only decision-makers from all societal sectors, but also scientists. In particular, the findings of a specific chapter in the report point to the need of transformative change in science for sustainable development. This concerns not only how researchers produce and communicate knowledge, but also how we become relevant partners in finding solutions to wicked sustainability problems. Also, scientific knowledge, capacity and resources have to be better distributed globally so that low-income countries facing the most immediate global challenges can design their own pathways to sustainable development.

EF: To follow on Peter's point, we hope that the discussions around the findings of our report are debated far beyond the research domain. We hope to observe deliberative processes taking place in different parts of the world, in a constructive way, as a result of our efforts with the report. These processes will ideally lead to evidence-based transformations in the spirit of the 2030 Agenda — the agenda for a safe and just planet for all.

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