GSDR as Bridge between SDGs and Scientific Communities

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How Can Science Contribute to Achieving the SDGs?

- What science can say about the challenges
- What science can say about actions that can make a difference
- What science can say about monitoring progress
- What science can contribute to new innovative solutions

2014 GSDR Prototype and 2015 GSDR

- Impressive contributions with much valuable information and insights
- Real progress in strengthening the UN sciencepolicy interface on sustainable development issues
- 2015 GSDR highlights the science policy interface, integrative perspective, inter-linkages among the SDGs, and cross-cutting issues (disaster risk reduction, countries in special situations, new data approaches for monitoring)

GSDR as Tool for Facilitating "Science Policy Interface" Enabling HLPF to:

- <u>Be a platform for science-policy dialogue</u> (create lots of two-way interaction between scientists and policy makers; create robust "science advisory ecosystem")
- Highlight trends and provide policy-relevant analysis
 (assess relevant new knowledge; identify challenges, emerging issues, and areas for policy action; highlight what has worked and might work)
- <u>Contribute to agenda setting</u> (translate outcomes of science policy debates for action; identify remaining questions and research needs)

Science Advisory Ecosystem for HLPF (via individuals and institutions)

- Science expertise inside the UN & member governments
 (UN science professionals; UNESCO and other UN agencies with science and technology expertise; scientists and science agencies in member country governments; Secretary General's scientific advisory committee; etc.)
- <u>Science expertise outside the UN and member</u>
 governments (international scientific organizations such as ICSU and InterAcademy Council; scientific professional societies, academies, and independent non-governmental scientific advisory institutions in member countries; other scientific NGO's; individual scientists; etc.)
- <u>Outreach mechanisms</u> such as commissioning independent studies, seeking crowd-sourced input, communicating via science journalism and social media, etc.

GSDR as Contributor for Making Progress on Achieving SDGs

- 2015 GSDR's focus on an integrative perspective and interconnected system of SDGs is important and valuable
- But also need more assessment of what science can contribute to each of the 17 SDGs in future versions
- Requires answering what science can say about the challenges, actions that can make a difference, monitoring progress, and new innovative solutions (Ch. 5 in 2015 GSDR is a start for SDG #8 and #9)

Role of Science & Technology in Creating New Solutions

- Science and technology (S&T) are moving incredibly fast, creating new opportunities and challenges for societies
- Every country is now seeking to upgrade its S&T capabilities to build a knowledge-based society and bottom-up "innovative ecosystem" for its economic growth, competitiveness and future prosperity
- More rapid S&T advances and more global science capabilities will create new solutions for achieving the SDGs everywhere

How Bruntland Report Might Have Defined Sustainable Development

- Bruntland Report could have signaled the important role of science & technology in achieving Sustainable Development by saying:
- Sustainable Development "meets the needs of the present while expanding the ability of future generations to meet their own needs" (instead of saying "..without compromising the ability of future generations to meet their own needs")

My Personal Perspective on the Role of Science and Technology

- Our Greatest Legacy to Future Generations, in Addition to Avoiding Wars and Conflicts, May Be Building Knowledge-Based Societies and Accelerating Expansion of Scientific Knowledge and Useful Technologies
- Post-2015 Development Agenda will be Important for Supporting the Development of Knowledge-Based and Innovative Societies as Well as Solving Our Current Global Challenges and Making Progress on the SDGs

Building a Knowledge-Based Society

- Strengthen Educational Systems from Grade School to Graduate School (SDG #4)
- Provide More Support for Students Pursuing Science and Technology Careers (SDG #8,9)
- Provide More Support for (and Link) Research and Development in Universities, National Laboratories, and Private Companies (SDG #1-17)
- Strengthen Government Policies and Investments to Facilitate Bottoms-Up Innovative Ecosystem and Compete in Globally-Connected Innovation Environment (SDG #8,9)
- Create Robust "Science Advisory Ecosystem" for Scientific Evidence To Inform Policy Decisions (SDG #1-17)