

Expert group meeting on the science-policy interface

Summary

New York, 5 September 2013

The Division for Sustainable Development, Department of Economic and Social Affairs (DSD/DESA) organized an expert group meeting on the science-policy interface on 5 September 2013 at the UN Headquarters in New York. The meeting was attended by about 40 participants including representatives of Member States, United Nations system organizations and non-state actors, including from the nine major groups.

The meeting addressed four topics in order to reflect on the various aspects related to the science-policy interface in order to make policy decision-making more evidence-based. Each topic was introduced by panelists (see programme) followed by interactive discussions. At the closing session, the chairs of the various sessions summarized the key points from each topic.

This report highlights key points from the discussions.

Opening session

The meeting was opened by the Assistant-Secretary General for policy coordination and interagency-affairs, Mr. Thomas Gass. At the outset he underlined that science-policy interface is very relevant to achieve better policy decisions that are implementable and relevant to make change on the ground. He also underscored that the high-political forum on sustainable development (HLPF) that was established last year in Rio needs to build its work on solid evidence and scientific findings and analysis. It is important to bear in mind that what we mean here is not only science in the area of the environment. Given the breadth of sustainable development, the forum also has to draw from the latest analysis and findings in the economic and social area. This expert group meeting is very timely in order to discuss how the science-policy interface can improve policies, and how a global sustainable development report can help to do this.

Topic 1: Stocktaking of science-policy interface for sustainable development

The chair, David O'Connor, Chief of the Policy Analysis Branch, DSD/DESA opened the discussion by underscoring the importance of the science-policy interface and the need to identify current challenges hampering it such as the weak link between the two communities.

Prof. Bob Kates from the Brown University and Mr. Jorge Laguna-Celis, Senior adviser to the President of the 68th session of the General Assembly made presentations, with focus respectively on the background and state of science-policy interface for sustainable development, and thoughts on the Global Sustainable Development Report.

Participants then had an interactive discussion on ways to ensure effective interface between the scientific community and policy makers, on the value added of the Global

Sustainable Development Report, how the report can effectively shape policy, the role of economic science, the role of public opinion, the cycle for producing the report in the age of vast use of social and mass media, policy relevance, accountability of assessments, effective data collection, and capacity building in developing countries.

The key messages from the discussions include:

- ◆ The science-policy interface in the area of sustainable development became stronger over the past decades. There was significant growth of scientific publications on sustainable development and a clearer picture on global challenges and agenda emerged. More scientific evidence and information is being provided to policy makers to push sustainable development policies forward. However, the scientific community still needs to take bolder steps to more effectively engage with policy makers in order to apply science and shape up policies.
- ◆ There is increasing frequency over time of the use of terms “sustainable” and “sustainable development”, showing how awareness and capacity among scientists, both in developed and developing countries. Scientists in the North tended to research problems globally and undertook theory-based research, and scientists in the South undertook action-based research for local and daily problems. North had more funding. The challenge became how to bridge this gap between the North and South on progress and approaches in sustainability science. Assistance on capacity building should be provided to developing countries.
- ◆ It is important to bear in mind that given the breadth of sustainable development, the interface of science and policy is not only in the area of ecosystem and environment, but also needs to draw from the analysis and findings in the economic and social areas.
- ◆ There is a greater demand for integrated, scientifically informed sustainable development assessments. The Global Sustainable Development report needs to add value to an already crowded landscape. It needs to avoid overlapping with the existing assessment reports, build on a legitimate and policy-relevant process, influence implementation at all levels, use existing structures, and include incentives and support mechanisms for data collection.
- ◆ Many challenges remain in the science-policy interface, including the agenda setting, accountability of assessment, the standard to apply knowledge, and effective data collection, in particular in developing countries. We need more candid and continued discussions on these challenges and solutions.

Topic 2: Strengthening the interface between science and policy communities

Summary

The discussion of the second topic on the agenda, strengthening the interface between science and policy communities, was chaired by Mr. Juwang Zhu, Chief of SIDS, Oceans and Climate Branch of the Division of Sustainable Development. He reminded the participants of the generally weak relationship between science and policy and noted that, when science is involved in policymaking, progress is achieved.

Mr. Bassel Daher, Research Associate from the Qatar Environment and Energy Research Institute, presented insights and findings from a project at the national level on how water, energy and food interconnect and how both different parts of government and other stakeholders need to work in a coordinated fashion. He underlined how, after this first scientific input, the political input, has to come into play defining strategies and priorities. This political input determines the relative importance of the different sectors. When combining these two inputs, a sustainability index of each scenario is calculated.

Mr. Daher also mentioned that, in his view, the reward system in science does not support its integration with policy. Therefore it remains insufficient, although there have been some progress. He was also of the opinion that, given that knowledge is created by science, there is a responsibility of the scientific community to communicate that knowledge to policymakers.

Ms. Myanna Lahsen, from the Earth System Science Center in Denmark, started her presentation by stating that one of the problems was that research needed to be more user-inspired, so conditions are created for knowledge to be used and implemented. A dialogue with policymakers is, in this context, very important as there is demand for scientific information from a significant proportion of policymakers. Furthermore, she remarked that it is not possible for scientists to ignore the existing institutional frameworks, nor policymakers to ignore scientific knowledge, if we are to advance sustainable development.

Ms. Lahsen also showed examples of the role of mass media, including the issue of ownership concentration, in disseminating concepts and forming public opinion. She concluded that public opinion is shaped by the media but the messages passed on by the media are usually partial or biased. She advised for more transparency.

Ms. Gladys Ghartey, Head of the UN Unit of the Ministry of Finance and Economic Development of Ghana, stated that policymakers do acknowledge the role of science. She underlined that it is important that science is both innovative and applicable. If one wants to have policies that pass the test of time, one needs policies to be knowledge-based. Moreover, if the scientific community does not reach out to politicians, policymakers are likely to take decisions that are not informed. Therefore, scientists should be included in the decision process from the very beginning.

In Ms. Ghartey's opinions, there are several capacity limitations that hinder interaction between science and policy. These include the functional differences between the science and the policy communities and the financing of scientific work. Regarding the former, Ms. Ghartey mentioned that, in spite of the differences an understanding was possible and, for

this, fluid and early communication between the two communities was very important. Concerning the financing issue, she said scientific work is overwhelmingly funded by private sources and, therefore, this work is developed to be delivered to the ones that pay for it, which may not always coincide with society's needs. Many governments lack capacity to fund science, such as in the case of her country.

Ms. Gharthey said that inadequate communication, politicization of issues and different timelines and sense of urgency were also factors working against an effective science-policy interface. She was of the opinion that having communication before policy decisions are made is very important, so that those decisions could be made based on knowledge. Governance is vital to create institutional knowledge and to have long term strategies. Ms. Gharthey remarked the need for adequate capacity provided at relevant levels for both communities.

Ms. Laima Jureviciene, Director of Development Cooperation and Democracy Promotion Department of the Ministry of Foreign Affairs of Lithuania, agreed that there was still much to be done to strengthen the science-policy interface, although there have been some good examples of progress made. The private sector could also be a good source of science financing, but raised awareness for the science-dependence issue. She further mentioned that there is no single way of drawing international financing for scientific research but that it was important to do so. She stated that policymakers need short, concise and to the point papers from the scientific community. Another important aspect for policymakers is that scientific pieces address policy implications of research. In her view, policy reports should be built on evidence-based research and offer a cost-based assessment of the different policy implications.

Ms. Jureviciene underlined the importance of defining a broader framework for the interaction of policymakers and scientists and to maintain coherence between national, regional and global initiatives.

During discussions, participants noted the importance of science-policy interface. Some mentioned the challenge of science to evolve from analyzing the problem to contribute to the solution. Participants further discussed whose responsibility it is to approach the other first - scientists or policy-makers. The difficulties for by policymakers to be exposed to all outstanding scientific information were also mentioned. So was the importance of the form of scientific results and the way they are communicated, which can determine if scientific inputs are taken into account or dismissed by policymakers.

Participants also stated that scientific work should provide the costs of making one choice as opposed to another and debated the importance of education, not only for the audience but also for the media and the promotion of cultural science. The question of the role of the Ministry of Science and Innovation within a government was also raised, as well as the validity of assuming that science is the same in all places (developed versus developing countries, agriculture-based versus industry-based countries, etc). Other participants outlined the potential of webs of science institutions to gather knowledge and bring together different types of science. The example of Future Earth was brought up. Participants also underlined the importance of institutionalizing the interaction between

scientists and policymakers and of addressing the issue of the vested interests in the private sector in the context of financing of science.

It was stated that it would be useful to have a mapping of the outstanding scientific knowledge. There are also a myriad of cultural filters that constitute barriers in receiving the knowledge passed on by the scientific community. On the other hand, the fact that science works in “silos” also constitutes a filter for the knowledge that is produced and disseminated. All advocated increased transparency.

The key messages from the discussions include:

- ◆ Scientists need politicians and politicians need scientists. There are capacity issues and cultural filters that hinder their interaction and this needs to be improved;
- ◆ Communication between the scientific and the political communities is vital. Both should take initiative in bridging the gap in this matter. If the scientific community does not reach out to politicians, policymakers are likely to take decisions that are not informed. On the other hand, scientists should be included in the decision process from the beginning, before the emergency state arises;
- ◆ Policy reports and decisions should be done based on knowledge. Policymakers need short, concise and to the point papers, with reference to policy implications of research,
- ◆ Research needs to be more responsive to the needs of users and more user friendly, so conditions are created for knowledge to be used and turned into action. On the other hand, there is the need for mapping outstanding scientific knowledge and to communicate this knowledge to the policy community;
- ◆ Coherence between national, regional and global initiatives should be improved and promoted. The different type of science and science initiatives should be brought together (example: Future Earth);
- ◆ It is important to include mass media and civil society when talking about science-policy interface and sustainable development;
- ◆ Institutionalizing the interaction between the two communities is very important to create institutional knowledge, as is having long term strategies;
- ◆ Governance is vital. It is necessary to understand knowledge systems and reward structures and to increase transparency;
- ◆ Funding of science is important and lack of government funding is often related to a capacity problem;

- ◆ National and international capacity building and international assistance should be consistent and continuous. Science can help in the international development cooperation, as scientists can assess upfront what the needs are exactly so they can be better addressed.

Topic 3: Global Sustainable Development Report as an option to strengthen science-policy interface

The discussion of the third topic on the agenda, how to use the Global Sustainable Development Report to strengthen science-policy interface, was chaired by Mr. Richard A. Roehrl, who is in charge of the preparations of the Report in the Policy and Analysis Branch of the Division of Sustainable Development.

Mr. Roehrl gave a short summary of a two-day Expert Group Meeting on Sustainable Development Assessments which was organized on 3-4 September in New York. He noted that the process of developing the first Global Sustainable Development Report should be seen in the long historical context that preceded the mandate given in Rio+20 Outcome document. The prototype report now prepared aims to support deliberations on what type of a novel report would be of most use for the Member States and other Stakeholders. The report tries to be descriptive to the extent possible while at the same time being policy-relevant.

Dr. Gerald Berger, Senior Fellow and Project Manager from University of Vienna and the first speaker of the panel brought the European perspective from working in the European Sustainable Development Network (ESDN) which gives support to sustainable development policy-makers and strategy coordinators in the region.

Dr. Berger noted that there are different kinds of actors in policy making and working with public administrators or politicians requires different approaches. On the issues of effectiveness, Dr. Berger reminded the group that scientists need to take full advantage of windows of opportunity when certain knowledge is needed by the policy makers because no matter how much knowledge and scientific data is available, use of that knowledge always requires a political decision.

Specifically on the Global Sustainable Development Report Dr. Berger raised a few issues. It will be extremely important to be clear on the intent of the report and why the policy makers should read it; there needs to be a long-term vision and framing; clear objectives are needed and the focus should be narrow enough. The Global SD report has to address the regional and national levels and to examine what is needed at national level to achieve the global objectives. Timelines and follow-up mechanisms combined with political backing will be crucial.

Dr. Bob Brinkmann, Professor of Geology, Environment, and Sustainability from Hofstra University, the second panelist of the session, highlighted the need to take into consideration the different starting points of different Member States when drafting the

Global Sustainable Development report. This came out of his research on national reports done prior to the Rio+20, MDG progress reports and national indicator and strategy reports on sustainable development. The discussion on sustainability has only started and even though many practitioners can already agree on many aspects of it, in many countries it is still a contested issue.

Dr. Keola Souknilanh, visiting researcher at Lund University from the Institute of Developing Economies, gave examples of how remote sensing data can be used in sustainable development reporting. According to Dr. Souknilanh, remote data sensing has so far been used mainly by natural sciences.

Data used for evidence-based policy making needs to be accurate and the challenges come down to spatial resolution and temporal frequency. Remote sensing data can address the problem of having outdated data.

During the discussion it was noted that when trying to find new types of indicators for sustainability, researchers and policy-makers need to explore their comfort levels with complex data sets. The participants raised also the issue that quite often political decision-makers request forecasts and scenarios for very long time spans resulting in almost useless data due to the lack of confidence in those forecasts. At the same time, though, there continues to be little interest in evaluation and monitoring of the results of poor political decisions and policies since this could often result in negative publicity. Therefore, the question was raised how much appetite there truly is in the academic field and in the political sphere for new tools and ways of measuring progress.

The key messages from the discussions included:

- ◆ The Global Sustainable Development Report needs to stand out from the vast array of other publications so as to clearly demonstrate why policy makers should take it into consideration. Too broad scope of subjects will dilute the effectiveness of the report, which has to set clear objectives, also for the long-term.
- ◆ When producing the GSDR, it is important to take into account the audience and the difference between the different types of policy-makers as well as between Member States. Public administrators and political decision makers have different needs for reports and data. At the same time, for many countries sustainability is still a contested issue and country-level policy-making concentrates on basic short-term survival. These issues should be taken into consideration when addressing the applicability of the report.
- ◆ There is a vast amount of data, assessments and comprehensive reports readily available but using those for policy-making always requires a political decision. The scientific community needs to look for the windows of opportunity when a certain knowledge and scientific evidence is needed by the policy makers.
- ◆ Collecting of consistent, reliable and up-to-date data is still problematic in many parts of the world and support and education is needed in order to enhance the

needed institutions. One useful tool to address these problems can be remote sensing data that has so far mostly been utilized in natural sciences.

- ◆ All in all, data should be more readily available for scientific and it should be considered as a public good. There should be greater openness of both survey and administrative data. At the same time though there remains the question how readily the scientific community and policy-makers start using new tools for data collection and analysis.

Topic 4: Options for the way forward

Marion Barthelemy, Chief of the Intergovernmental Support and Interagency Branch, DSD/DESA, highlighted the need to give attention to the differences between national versus global level policy discussions. She provided an overview of the possible role of the high-level political forum (HLPF) in the national and international science-policy interface. She invited the group to discuss ideas on what policymakers need most, how to examine implications of choosing one policy over another and how to provide a solid basis for evaluation of progress by the HLPF.

Mr. E. William Colglazier, Science and Technology Advisor to the United States Secretary of State, said that every country government could benefit from input and advice from the non-governmental scientific sector, but that the scientific community needed to know exactly what the government is asking from them. He suggested that “science diplomacy” be used to advance the scientific enterprise and support diplomatic efforts. Science and technology be used to help make progress on tough national, regional and global issues. Countries mainly link science and technology to innovation and economic development, and globalization will increase innovation and competition in the future. Mr. Colglazier offered five recommendations: ask independent scientific bodies to carry out studies that address specific needs and questions raised by the HLPF; consider establishing a scientific advisory committee, to engage in dialogue with policymakers and the scientific community; ensure that relevant local data and input, including metrics, measurements and indicators, can be provided in shaping locally applicable SDGs, to affect and shape the scientific research agenda; sponsor open challenges open to anyone who might have an idea for innovation, or solutions for problems using low-cost, relevant technologies; and support fellowship programs that contribute to the science-policy interface and foster the careers of young scientists.

Mr. Manuel Montes, Senior Advisor on Finance and Development, the South Centre, Geneva, concurred with Colglazier that an advisory panel could serve as a dialogue partner with the forum, that countries should be encouraged to come up with their own metrics and indicators. Youth interested in the science-policy interface should be encouraged and supported. He also noted that the intellectual property rights (IPR) regime raises questions on whether it is possible to have open calls for innovation. While rapid propagation of technology is in the interest of the scientific community, the IPR regime is inherently against it.

In distinguishing whether the science-policy interface is being referenced at the national or international level, he said that no clear line of accountability exists at the international level, although at the country level the interface is often more defined.

During the interactive exchange, several experts agreed that “to avoid being political you have to be political”, meaning that ensuring balanced and non-political reports requires a careful and balanced selection of global experts. One added that it is important to engage scientists from developing countries, so that countries priorities are represented.

Discussion revolved around the issues of objectivity and bias in the science-policy interface. While combining people with different viewpoints can create checks and balances, problems can arise where final reports reflect the interests of the lead author more than the actual dialogue. True scientific experts are not always objective—they represent their own or others’ interests, while government agencies often create specific questions to ask scientific academies with a vested interest in simply creating more studies. It is better when governments and academics can work together in programs, where research questions are jointly decided in a collaborative effort.

In applying these observations to the work of the HLFP and the OWG on SDGs, one participant noted that the OWG on SDGs would partner with the Columbia Earth Institute on 16 December for a dialogue to explore the scientific community’s views on the SDGs.

One expert raised a question on funding arrangements, especially on global issues. The work of the Committee of Experts on Strategies for Financing Sustainable Development was highlighted, including its mandate to provide proposals on a financing strategy related to the broad agenda of the SDGs. There would be a parallel track of work on technology and technology facilitation, which would lay out options for strengthening technological cooperation.

The UN is gathering inputs and ideas for the SDGs through an “open call” method through its broad country consultations. It was noted that more could be done to stimulate interest and elicit proposals from the scientific and technological community.

The key messages from the discussions included:

- ◆ Overcome uncertainty on which side is responsible for strengthening communication and partnerships by urging both scientific and policymaking communities to reach out to each other through regular interactions;
- ◆ Improve data collection methods, and increase funding for data collection and diffusion;
- ◆ Encourage openness of remote sensing data, and treat data as a public good;
- ◆ Understand how to combine different data sets for use in applied policymaking. Such data may represent interlinked or synergistic issues, such as agriculture, water, land, energy and climate change;

- ◆ Work to overcome entrenched interests of the private sector that prevent effective policymaking based on sound scientific evidence and analysis;
- ◆ Devise innovation through use of social media and networking technologies, to implement policy and raise awareness on scientific issues;
- ◆ Strengthen the evaluation of policies using scientific evidence;
- ◆ Create and strengthen multi-sectoral bodies that include civil society and allow scientists to interface with the policy community.

Closing session

The Chairs of the day's four thematic sessions reported back to the group on the salient points that had emerged from the discussions. These included:

The interplay between the supply and demand side of the science-policy interface, the participation of civil society, and the tension between being policy-relevant and policy-prescriptive, are all fundamental questions facing the scientific and policy community.

How users are consulted in assessments raises the issue of whose research agendas we are trying to address.

Research is demand-driven yet limited by the amount of demand, its role is prescriptive because of the need to answer questions and make judgments.

Effective policy making in the area of climate change is hampered by the timidity and excessive caution of scientists and to the way they deal with the honesty of uncertainty, and challenges in communication remain obstacles to effective policymaking.

With a wealth of scientific studies, the growing specialization poses challenges to communication for the benefit of policymakers.

The science-policy interface needs to be continuous; institutions should not "fossilize" their interactions.

The importance of social media and culture must be recognized and factored into the science-policy interface.

To conclude the Expert Group Meeting, Nikhil Seth, Director, DSD/DESA offered his reflections on the nature of policy and how it is influenced. He highlighted the progress that the Commission on Sustainable Development made in the 1990s, noting that the science and science-based information gap became increasingly evident, and that the creation of the HLPF should aim to address this shortcoming, as a new institution with the influence of different people and different formats. He underscored that interactive discussions can change the views of policymakers at the national level, to influence thinking and reject "phony science". The scientific method should be put in service to the poor, who are concerned about the impacts of global changes on their lives.

The overall objective of the HLPF shall be to transcend poverty by enacting United Nations legislation, engaging with national policymakers to influence national dialogues, and bringing the science policy interface closer in analysis and in the service of the poor. The forum has the potential to bring together the broad voices of all scientific disciplines in an interdisciplinary way, to demonstrate impacts on people who can make change. Decision making must not yield too much to principles of uncertainty—policies need to be definitive to be effective. Good decision-making can be encouraged through deeper engagement and work at the country level. The Global Sustainable Development Report will help to do this. The scientific and technological community can ultimately help governments to break away from barren dialogues and provide intelligence to their decisions.