



# Scientific Advisory Board

of the Secretary-General of the United Nations

hosted by the

United Nations Educational, Scientific and Cultural Organization

## Report of the Inaugural meeting

30-31 January 2014, Berlin, Germany

On 30 and 31 January 2014, the Scientific Advisory Board (SAB) of the UN Secretary-General held its Inaugural meeting in Berlin, upon invitation of the German Government.

The public opening ceremony at the Federal Foreign Office was addressed by Frank-Walter Steinmeier, Minister for Foreign Affairs of Germany, Ban Ki-moon, Secretary-General of the United Nations and Irina Bokova, Director-General of UNESCO. In four subsequent internal working sessions, chaired by the Director-General of UNESCO, the members of the SAB defined the elements of their future work programme.

### I. Opening Ceremony

The opening ceremony was attended by more than 500 persons, eminent German and international policy-makers, scientists and the media, including ambassadors, more than two hundred university rectors and directors of non-university research institutes, as well as Presidents and Secretaries-General of German national scientific institutions. The moderator of the ceremony was the well-known German TV science journalist Ranga Yogeshwar. Musical interludes were contributed by the World Orchestra for Peace.

In his welcome address, Minister Steinmeier underlined the key added value of the UN: "The United Nations provide their services when nation-states are reaching their limits. They help where others have long given up. They get involved where there are no more easy solutions." He went on to promise that Germany's "commitment at and to the United Nations is and remains at the core of German foreign policy." Minister Steinmeier further welcomed the establishment of the SAB: "The distinguished scientists on the Board will serve the Organization's top leadership not only in an academic capacity but also as partners who speak for society at large."

In his introductory remarks, the Secretary-General of the United Nations, Mr Ban Ki-moon, explained the specific rationale for establishing the SAB as a body to advise the UN Secretary-General and Executive Heads of UN agencies on science for sustainable development-related matters: "We face a multiplicity of crises, risks and vulnerability that are too intertwined to be solved by one nation alone. No single decision-making body can address them. No single research area can unravel them. [...] We need scientific approaches that overcome barriers between disciplines and methods. We need a holistic vision of the challenges to build integrated responses. And we need local and global political leadership informed by solid science and innovative approaches to problem solving." The UN Secretary-General emphasized three short-term landmarks for the SAB: the UN Climate Summit in September 2014, the last mile for reaching the MDGs by 2015 and the post-2015 development agenda.

In her address, Ms Irina Bokova, Director-General of UNESCO, underlined that: “The scale and the complexity of challenges we face today calls for a new unity among all sciences. It calls for better governance among the rich array of scientific tools existing in the United Nations. It calls for a new approach, across disciplines, across political borders, across sectoral lines.” The SAB should strengthen the linkages between science, policy and society by proposing appropriate mechanisms; it should help to reduce duplication between existing scientific advisory bodies; finally, it should help to identify the most urgent open scientific questions and define most suitable areas for investment in science and research.

Moderator Ranga Yogeshwar introduced the members of the SAB - 24 members out of a total membership of 26 were present - asking each of them a question on their particular take on science and sustainable development. Below are some excerpts of SAB members' statements during the panel discussion:

*« History is like the rain forest, if we look careful enough, we will find solutions to many problems we have already been confronted to ».* Hillary Beckles

*« 21st century needs the full range of knowledge, and indigenous knowledge has a vital role to play here ».* Joji Carino

*« The discovery of the Higgs boson is the example of advancement of basic knowledge and it is vital, without blue sky research there would not have been GPS or transistors. »* Fabiola Gianotti

*« The way to be effective is not only to produce good science but to communicate effectively about it. I hope this group will help the Secretary-General to do so. »* Rajendra Kumar Pachauri.

*« Science is more than a tool, it is the way to get new wisdom, new ideas, at a global level because science is international, and my life shows it: I started here in Berlin, in France then Switzerland, and in Japan, and I am living in Israël. »* Ada Yonath

In a joint statement, six young scientists from Brazil, Canada, Egypt, Indonesia, Slovenia and Sri Lanka, encouraged the SAB specifically to consider mechanisms to support reflexive and inclusive public science and to foster outreach, engagement and transparency in its activities, as well as to make use of growing networks of young scientists.

The full versions of the statements delivered at the opening ceremony are attached in the Annex to this Report and are also available on the SAB website.

## **II. SAB internal meeting**

The members of the SAB had an inspiring exchange of views and ideas on the mission, terms of reference of the SAB, as well as its future work, during private meetings on 30 and 31 January 2014. The discussion was strategic in outlook, focusing on long-term impact and added value of the SAB. The debates were also output-oriented, looking towards the next landmarks of the United Nations development agenda, as proposed by the UN Secretary-General.

SAB members welcomed the establishment of Board and expressed their gratitude to the UN Secretary-General for having been invited as members. They also thanked the Director-General of UNESCO for accepting to host the Secretariat and for her leadership, as well as the German Foreign Office and the German Commission for UNESCO, for their generous hospitality, the impressive inaugural ceremony and the excellent working conditions.

Chairperson Irina Bokova underlined that the main objective of SAB's work will be to better link science to sustainable development. She strongly encouraged SAB members to be bold in their opinions and approaches when offering advice for evidence and science-based

decision-making. “Interdisciplinarity and independence are clearly among the key assets of this Board”, she stated. She underscored that the guiding principles of the Board’s action should be its Terms of Reference to avoid duplication of efforts and respect the mandate entrusted to the SAB by the UN Secretary-General.

A synthesis of the debates and agreements reached is set out below, structured in four interconnected parts, as follows: 1. General considerations on the functions and main areas work of the SAB; 2. Proposals on future work streams and methodological approaches; 3. Considerations on modalities of work; 4 Conclusions and way forward.

## **1. General considerations on the functions and main areas of work of the SAB**

As a trans-national and trans-disciplinary body, the Board will act as a bridge among the sciences and between science and engineering, as well as at the science-policy-society interface. It will aim to have a transformative impact, not by addressing individual topics but by investigating sustainable development from a perspective that cuts across topics and disciplines, as well as across multiple scales – national, regional and global.

Contrary to other advisory bodies, SAB is a body of independent scientists which is a key component of its added value. It should express not only what governments *ask* and *want* to hear but *should* hear, from a scientific perspective. The main duty of the Board is not to give advice to governments, but to assist the UN Secretary-General and the UN system.

One of the Board’s major tasks will be to help elevate the role of science in policy-making and identify concrete modalities to strengthen the science-policy-society interface, in a world affected by many challenges, crisis and opportunities. The Board will also endeavor for improving communication on science and on the importance of risks related to unsustainable development.

In doing so, the SAB agreed that due consideration should be given to the following:

- Enhancing public understanding and support of science; this calls for a new culture of science through, *inter alia*: new models in education; new approaches to communicate science, and possibly a new “meta-narrative” on and about science, in order to share its vital importance and its core principles with the general public and leaders, and to help them understand and cope better with the diversity of scientific views and uncertainty; it calls also for new modalities of dialogue with all stakeholders, including the private sector, NGOs, young scientists, industry and governments, on possible solutions provided by science, technology and innovation to the challenges posed by the quest for sustainable development;
- Improving free access to and use of knowledge: Information and communication technologies allow in particular young people to access or use science in an unprecedented manner. Free access to knowledge and provision of guidelines in the way that knowledge can be applied, as well as how a balanced Intellectual Property Rights (IPR) system can contribute to the transparency of science and to building trust with policy-makers and young scientists, as well as with other stakeholders. The United Nations have a particular responsibility for enabling and facilitating data access and exchange;
- Ethical considerations require that interactions between scientists and policy-makers address issues related to inequalities, extreme poverty, food security, health, as well as North-South divides in relation to development agendas, calling also for reinforced education and capacity-building;

- The cultural dimension of sustainable development has to be understood and factored into the sustainable development debate, as cultural values are the foundation of how people act. A “culture of science”, including relevant indigenous and local knowledge, should be promoted in developing countries, not replicating nor importing science models from the North;
- Multi- and interdisciplinarity: While there is a diversity of relevant knowledge to address sustainable development challenges, there is also a need for different knowledge systems to work together. Whether addressing individual sustainable development topics such as food security or health, or specific challenges within these fields, the SAB agreed to discuss these topics from an interdisciplinary perspective;
- Global commons: Science can contribute to elucidating the impact of unsustainable exploitation of major commons such as ocean, air, water, soil, forests and biodiversity and to informing decisions and actions to create the needed level of security as far as these essential inputs are concerned;
- A historical perspective is critical to better understand past missed opportunities and shortcomings to draw lessons for the future;
- The main focus of the SAB’s work should be on developing countries;
- Both basic, curiosity-driven and applied research are crucial for addressing sustainable development challenges;
- The role of the private sector for investment in science, shaping research agendas and influencing science for sustainable development should be taken into account.

The SAB will carefully reflect on the concept of sustainable development and its understanding, and will seek to contribute to a more critical stance as concerns development models by, *inter alia*, identifying knowledge deficits and gaps. The SAB will thus address as a matter of priority sustainable development in an institutionally and multi-disciplinary overarching approach by promoting mutually benefitting interactions among basic sciences, applied sciences and engineering.

One of the tasks of the SAB will be to identify emerging topics in science and society and highlight areas in need of further research, including topics such as “tipping points” and “planetary boundaries”, and to bring them to the attention of the UN Secretary-General. This may also include societal attitudes and the issue of trust in science, including anti-scientific attitudes. Resilience and adaptation are bridging concepts between developing and developed countries and there is need to clarify what institutional and policy frameworks, emerging technologies, and systems could help mitigate and adapt to change. The Board called for improving observation systems at the global level.

Due to the success of technology roadmapping as management forecasting tool, the SAB considered that this instrument might be utilized as well in policy-making for sustainable development. This could also promote open access to information on all types of existing assessments in a single database.

In relation to the need to work with multiple knowledge systems and the contribution of indigenous and local knowledge (ILK), it was noted that ILK should not be subject to validation according to standard scientific methods. Rather, it was stressed that processes are in place, such as IPBES, which are already working on how methodologically multiple knowledge systems can complement each other and interact synergistically.

## 2. Proposals on future work streams and methodological approaches

The Board agreed that, in the initial 6-months phase, its work will be structured around four work streams, for each of which a Policy Brief shall be developed.

**Work Stream 1:** *What kind of science and what multi-disciplinary approaches are needed for sustainable development*

The goal of this first work stream is to issue a “defining paper” and identify new approaches needed in science for sustainable development. It will focus on redefining the role and contribution of science for advancing sustainable development, including how science is designed and conducted, scientific gaps to be addressed, and issues related to human capital development for sustainable development.

**Work Stream 2:** *Linkages between science and society and mobilization of all stakeholders for sustainable development*

The goal of this second work stream is to determine concrete modalities for improving the linkages between science and society and propose solutions to engage better all stakeholders, including the private sector.

**Work Stream 3:** *New approaches, modalities and processes to integrate better science into policy-making*

The goal of this third work stream is to identify concrete modalities for improving the linkages between science and policy. It was agreed that best practices should also be highlighted.

**Work Stream 4:** *The relevance of science for the SDGs*

Board members agreed to comment on the Sustainable Development Goals (SDGs) from the point of view of science, based on the relevant documents related to the deliberations of the post-2015 sustainable development agenda, including the relevance of the eventual targets. Such review will also provide an opportunity to underline the importance of fundamental research, basic and applied sciences, and the need to invest in science to advance sustainable development. The Board will also engage in proposing strategies for reporting on the SDGs’ targets as well as for reviewing and revising them over time.

All four Policy Briefs shall be presented to the UN Secretary-General before the UN Climate Summit to be held in September 2014.

In addition, the Board recognized the need to articulate a science-based “meta-narrative” to: (i) better communicate the underlying causes of global crises; (ii) focus on growing inequalities and social exclusion; (iii) underline the importance of job opportunities for all; and (iv) identify the need for decisions in light of uncertainty.

It was also suggested to formulate concrete recommendations for improving the coherence and effectiveness of the interfaces of the UN system with science, i.e. the multitude of advisory bodies and assessments. For that purpose, the outlines of an overview of structures and processes, which had been included in the background documents of the meeting, should be finalized. However, this exercise should not result in a full-fledged assessment of assessments.

The work of the Board and the related policy papers will respond in broad terms to the urgent issues currently pursued by the United Nations, such as poverty reduction and climate change. Other specific issues could be flashed out as examples, such as, health issues (e.g. tobacco elimination); human population dynamics and demographics; agriculture efficiency/food security; public mistrust in relation to science and the 'anti-science' discourse; emerging or unresolved issues such as fracking, nuclear energy, science and technology in areas beyond national jurisdiction (e.g. space and the ocean), as well as cutting-edge science issues, such as biosensors.

### **3. Considerations on modalities of work**

In the initial phase of its work, the Board will work through Task Groups each dealing with the topical areas related to the Board's main four work streams. The task groups will be open to all interested Board Members and will be coordinated by the following individuals:

- Task Group 1 for Work Stream 1: Shankar Sastry, Tanya Abrahamse, Carlos Nobre;
- Task Group 2 for Work Stream 2: Susan Avery, Abdallah Daar, Reiko Kuroda;
- Task Group for Work Stream 3: Maria Ivanova, Laurence Tubiana, Rajendra Pachauri;
- Task Group for Work Stream 4: Joerg Hacker, Laurence Tubiana.

A member of the Secretariat will assist each Task Group.

The Board will meet every 6 months, but is expected to interact remotely between meetings.

The Board will benefit from an online work space set up by the Secretariat so that Members can have access to relevant documentation, engage in collective exchanges and advance their collaborative work on specific topic areas reflected in the Board's main work streams.

The Secretariat is also preparing a dedicated SAB website to promote the Board's activities and reach out to a larger community, including science stakeholders in general, local communities and decision-makers. This will offer opportunities for the SAB members to launch web-based consultations and crowd-sourcing initiatives.

The Chair suggested that future SAB meetings be co-chaired by her and by a SAB member. The Board agreed that SAB member Hamid Zakri will serve as co-chair for the next meeting of the Board.

### **4. Conclusions and way forward**

Science has a key role to play in informing policy-making, but this role has not been taken sufficiently into account so far.

Members of the SAB agreed that the Policy Briefs they will prepare shall be delivered to the Secretary-General well before the UN Climate Summit convened by him on 23 September 2014 in New York, so that the Secretary-General may draw upon the advice from the Board, as appropriate.

Proposals related to the venue and dates for the next meeting of the Board will be transmitted to the Board Members in due course.

#### **Annexes:**

1. List of Participants in the private meeting
2. Brief Summary of Task Groups discussions
3. Statements of the Opening Ceremony

**ANNEX 1**  
**List of Participants in the SAB private meeting**

**SAB Chairperson:** *Irina Bokova*, Director-General of UNESCO

**SAB Members**

*Tanya Abrahamse* (South Africa), CEO, South African National Biodiversity Institute

*Susan Avery* (United States of America), President and Director, Woods Hole Oceanographic Institution

*Sir Hilary McDonald Beckles* (Barbados), Pro-Vice Chancellor and Principal, University of the West Indies

*Joji Cariño* (Philippines), Director, Forest Peoples Programme

*Abdallah Daar* (Oman), Professor of Public Health, University of Toronto, Canada

*Gebisa Ejeta* (Ethiopia), Professor of Agronomy, Purdue University, United States

*Vladimir Fortov* (Russian Federation), President of the Russian Academy of Sciences

*Fabiola Gianotti* (Italy), Research physicist and former Coordinator of ATLAS Experiment, CERN, Geneva, Switzerland

*Ke Gong* (China), President of Nankai University

*Mr Jörg Hinrich Hacker* (Germany), President, National Academy of Sciences Leopoldina

*Maria Ivanova* (Bulgaria), Professor of Global Governance, University of Massachusetts Boston, United States

*Eugenia Kalnay* (Argentina), Professor of Atmospheric and Ocean Sciences, University of Maryland, United States

*Eva Kondorosi* (Hungary), Research Professor, Biological Research Centre, Academy of Sciences of Hungary

*Reiko Kuroda* (Japan), Professor, Research Institute for Science and Technology, Tokyo University of Science

*Dong-Pil Min* (Republic of Korea), Emeritus Professor, Seoul National University

*Carlos Nobre* (Brazil), Senior Climate Scientist, National Secretary for R&D Policies

*Rajendra Kumar Pachauri* (India), Director-General, The Energy and Resources Institute (TERI); Chairperson, Intergovernmental Panel on Climate Change (IPCC) - Nobel Laureate for Peace

*Shankar Sastry* (United States of America), Dean, College of Engineering, University of California, Berkeley

*Hayat Sindi* (Saudi Arabia), Founder and CEO, Institute of Imagination and Ingenuity (i2nstitute)

*Wole Soboyejo* (Nigeria), President, African University of Science and Technology (AUST), Garki

*Laurence Tubiana* (France), Professor, Sciences Po Paris and Columbia University; Founder and Director, Institute for Sustainable Development and International Relations (IDDRI); Co-Chair, Sustainable Development Solutions Network (SDSN) Leadership Council;

*Judi Wakhungu* (Kenya), Professor of Energy Resources Management, First Cabinet Secretary, Ministry for Environment, Water and Natural Resources

*Ada Yonath* (Israel), Director, Helen and Milton A. Kimmelman Centre for Biomolecular Structure and Assembly, Weizmann Institute of Sciences; Nobel Laureate in Chemistry

*Abdul Hamid Zakri* (Malaysia), Science Advisor to the Prime Minister of Malaysia; Chairperson, Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES)

### **UNESCO Secretariat**

*Hans d'Orville*, Assistant Director-General for Strategic Planning

*Wendy Watson-wright*, Assistant Director-General, Secretary of the Intergovernmental Oceanographic Commission

*Philippe Quéau*, Assistant Director-General a.i. for Social and Human Sciences Sector

*Qunli Han*, Director, Division for Ecological and Earth Sciences, Natural Sciences Sector

*Lidia Brito*, Director, Division for Science Policy and Capacity-Building, Natural Sciences Sector

*Cheikh N'Diaye*, Senior Programme Specialist, Office of the Director-General

*Matthieu Guével*, Adviser, Office of the Director-General

*Salvatore Arico*, Senior Programme Specialist, Natural Sciences Sector

*Iulia Nechifor*, Programme Specialist, Bureau of Strategic Planning

### **UN Organizations**

*Michel Jarraud*, Secretary-General, World Meteorological Organization (WMO)

*Johannes Christian Wichard*, Deputy Director-General, World Intellectual Property Organization (WIPO)

*Joseph Bradley*, Head, Intergovernmental Organizations and Partnerships Section, Department of External Relations, WIPO

### **National Commission of Germany for UNESCO**

*Lutz Möller*, Head, Division of Science, Human Rights

*Sonja Muehlenfeld*, Programme Specialist, Division of Science, Human Rights



## **ANNEX 2**

### **Brief summary of Task Groups discussions<sup>1</sup>**

#### **Summary of the initial meeting of Task Group 1**

SAB members present: Tanya Abrahamse, Carlos Nobre, Gebisa Ejeta, Dong-Pil Min, Eva Kondorosi; UNESCO Secretariat: Lidia Brito.

The Task group 1 will address the topic “What kinds of approaches are needed in science and human capital development to promote sustainable development” (The role of interdisciplinary approaches and mechanisms in science and human capital development).

Issues to be tackled in a policy brief could include:

#### 1. Knowledge production and dissemination

- The importance of multidisciplinary/interdisciplinary and transdisciplinary approaches (co-design and co-production of knowledge); exploring the programmes that are using it and drawing on lessons such as Future Earth, and others; identifying gaps in science programmes and developing pertinent recommendations;
- Metrics in use to measure sustainable development (SD): other than GDP explore other existing metrics and their value and drawbacks as a metric for SD;
- Highlight science as a public good and propose forms to democratize knowledge, building a culture of science; one example could be what science is saying about global environmental change, thresholds and tipping points and how it is communicated to the general public, defining it as a common public good calling for global and national action.

#### 2. Human capital development:

- Reflect on the importance of education and capacity-building programmes so as to create a critical mass necessary for SD, including risk analysis, dealing with uncertainty and preparing the learners to be active, engaged and responsible citizens;
- Explore innovative programmes and propose possible approaches to develop effective and innovative education for SD;
- Reflect on the importance of IT in human capital development programmes by analyzing best practice examples.

#### 3. Access to technologies:

- Analyze how technology advances have benefited the people how different people have access to latest technologies;
- Analyze how technology, science, entrepreneurship and innovation promote job creation, and access to knowledge and know-how. Actions can include internet access and broadband as an example of a technology that is transformative and can narrow existing divides;
- Raise key issues related to divergent technologies and also issues related to affordability of Technologies from a Human Capital and financial point of views

#### 4. Institutional development:

- Propose key aspects of institutional models and infrastructure that can support the use of knowledge and technology to improve quality of life, enhance productivity and promote job creation (e.g. agriculture, health)

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<sup>1</sup> This Annex includes a 1st draft Summary by UNESCO Secretariat of the discussions of Task Groups which met after the end of the plenary meeting. This draft will be subject to further discussions and completion by the SAB members.

5. Markets:

- Reflect on the need of public policies, services and infrastructure to support STI-based actions to promote SD and job creation;
- Propose good practices and mechanisms by highlighting the differentiated roles of the public sector, the private and of the public-private partnerships;
- Reflect on the incentives and mechanisms that may bring academia and industry closer to each other, promoting more innovation (R&D culture, performance management indicators, etc.).

### **Summary of the initial meeting of the Task Group 2**

SAB Members present: Susan Avery, Reiko Kuroda, Abdallah Daar, Wole Soboyejo, Sindi Hayat, Hilary Beckles; UNESCO Secretariat: Iulia Nechifor

The Task Group will address science-society linkages and multi-stakeholder approaches needed for sustainable development. The following issues will be highlighted:

- The need to promote scientific careers in both developed and developing countries and the importance of role models in science;
- Pedagogical methods to enable a better understanding of science, enhance critical sense and fight 'falsified' science;
- Enhancing the public understanding of science with a focus on particular age groups;
- Address the need to connect various stakeholders, including NGO, industry and business communities, rural communities; provide case studies and explore methods to scale them up at national and global levels;
- Reflect on incentives and mechanisms that could bring academia and industry closer to each other and promote innovation.

Reference Paper: Kuroda Reiko, *What it takes to bridge gap between science and life*, Asahi News, 30 June 1996.

### **Summary of the initial meeting of the Task Group 3**

The Co-Chairs of Task Group 3 noted that its work is closely related to that of Task Group 4 and they asked Board member Laurence Tubiana to provide a liaison between the two groups. They also noted the need to interface the work of the Task Group 3 with that of Task Group 2, in relation to the interface of science with society, the role of young generations, stakeholders' contributions to outreach activities, interactions with NGOs and with the private sector.

Task Group 3 has organized its work in the following manner:

- The theory of the science-policy interface: a comprehensive review of the current literature on the science-policy interface, the production of an annotated bibliography and the organization of the information and related findings in the form of a database;
- Collection of empirical evidence: identification, compilation and analysis of relevant case studies as exemplified by the German case study on the relationship between scientists and politicians and the provision of advice by the former also on research relevant to meet industry's needs; technology roadmaps in Silicon Valley, California, U.S.A.; the example of innovation hubs in South Africa.

## ANNEX 3

### Address by Frank-Walter Steimeier, German Minister of Foreign Affairs

Forty years ago the Federal Republic of Germany acceded to the United Nations. On that occasion Willy Brandt became the first Federal Chancellor to address the General Assembly. In his speech he made a point which is as relevant today as it was then.

“Some of the criticism directed at the United Nations”, he noted, “sounds bitter and cynical, is filled with almost jubilant pessimism, as if it stemmed from a secret hope that the weaknesses of the Organisation would refute the idea and the purpose. But setbacks in pursuit of an ideal do not necessarily prove that the ideal is wrong but often merely that the road to it could be better.”

We’re all familiar with the prejudices surrounding the United Nations. In view of current conflicts and global challenges, the world organisation is too weak, inefficient and ineffectual, it is claimed. But hasn’t this past week alone shown us how indispensable the United Nations is?

After three years of civil war, over 130,000 deaths and seven million people driven from their homes, the United Nations managed in Montreux to get Syria’s warring parties around a table. UN inspectors are supervising the destruction at long last of Syria’s chemical weapons. Tens of thousands in South Sudan have found shelter in UN camps.

The meeting in Montreux may have seemed to some a defeat for international diplomacy. Yet if you consider what incredible violence and atrocities the warring parties have inflicted on each other, you realise what a success it was to get them not only around a table but also sitting in the same room together.

Without initial steps like these, which can lead to bigger advances, any political solution, however insistently demanded, will remain illusory. Only initial steps like these can spark a glimmer of hope for concrete improvements such as local ceasefires and humanitarian access. These are small steps, certainly. But given how long this suffering has gone on, every single step counts.

Political observers see the United Nations far too often as a remote institution with tortuous conflict solving processes that simply can’t keep up with the speed with which new crises erupt elsewhere.

There’s another thing, too. Any war, crisis or conflict supplies images. Talks that inch along patiently for months without a breakthrough are devoid of journalistic interest.

But day in, day out the United Nations is for a great many people a friend in need. For Syrian children who’ve endured hardship and danger to reach safety finally at Zaatari refugee camp. For the victims of the civil war in the Central African Republic or the victims of the earthquake in the Philippines, for whom the UN provides shelter and medical care.

In the world’s hot spots the United Nations is a concrete source of hope for people in need. For them the sky blue UN flag is a symbol of international solidarity.

There’s one thing that those who lament the deficiencies of the United Nations shouldn’t forget: the world organisation steps in when nation states are up against their limits. It helps in places where others have long thrown in the towel. It operates in places where there are no simple solutions. The United Nations provides the only roof and structure capable of offering universally binding solutions.

The UN architecture is in need of reform – of that there’s no doubt. But reforms are needed not because the United Nations has become redundant. They are needed because it is indispensable.

What we want is to gear our world organisation to 21st century realities. Here the values enshrined in the UN Charter are as relevant as ever.

Take work in the development field, for example. We need the United Nations structure if we’re to pull together effectively to advance the Millennium Development Goals.

And we need this structure, too, to help us evolve a common, long term development agenda for the post 2015 period.

In 1973 Willy Brandt announced to the assembled members of the United Nations: “We have come to assume a share in the responsibility for world affairs on the basis of our convictions and within the scope of our possibilities.”

This is the yardstick by which we want to be judged also in future. Our engagement with and for the United Nations will remain one of the hallmarks of German foreign policy.

That’s why we need to have an honest debate about our country’s role in the world.

What does “assuming a share in the responsibility for world affairs,” as Willy Brandt put it, mean in practice, here and now? And how exactly do we define “our possibilities”? What are our goals? What costs and risks are we ready to bear in pursuit of these goals?

It's my firm belief that also in future Germany must not only be engaged financially, we must also be engaged with people and on the ground. That doesn't mean flinging ourselves into military adventures.

As I said just yesterday in my speech in the German Bundestag, a policy of military restraint is a good thing. There's little evidence that military intervention tends to make things better. Military restraint is a good thing certainly, but it mustn't mean standing aloof as a matter of principle.

Right now there are nearly 6,000 German soldiers, police officers and civilian experts serving with UN peace missions or UN mandated missions.

And we're discussing with our allies in what other ways we might enhance our engagement in future. In Mali, for example, we're considering whether we could increase our training assistance for the country's security forces.

Germany has significantly stepped up its contributions to the humanitarian aid effort. In 2013 the German Government provided a record 358 million euros to relieve suffering in a range of humanitarian crisis situations.

Another way we've sought to do this was our decision to take in 10,000 refugees from Syria currently living in neighbouring countries.

What we're doing to help the Syrians illustrates how we're assuming growing responsibility in UN affairs and how the nature of this responsibility is changing.

Germany now hosts a range of important UN bodies in Berlin, Frankfurt am Main, Hamburg and above all Bonn. Bonn has become a centre for sustainability, climate protection and development. Over the years ahead we'll continue to provide the United Nations with the best possible environment for its activities here.

So I'm very pleased, Secretary General, that tomorrow you'll be seeing our UN city of Bonn with your own eyes.

It's a source of pride for us, Secretary General, that you've chosen Berlin as the venue for the constituent meeting of your new Scientific Advisory Board. We see this choice both as a tribute to our UN engagement and an incentive to do still more.

The distinguished scientists on the Board will serve the organisation's top leadership not only in an academic capacity but also as partners who speak for society at large. The job of the Board, as I see it, will be more than providing wise counsel from inside the ivory tower.

It will be to assist you, Secretary General, in the process of translating scientific findings into realistic policy.

A first test for this ambitious undertaking will be the debate I mentioned earlier on long term development goals for the post 2015 agenda. We all look forward with keen interest both to the work you'll be doing and to our future collaboration.

We wish you a very successful start. You are most welcome here in the Federal Foreign Office – today and also in future. And you can count of course on Germany's active cooperation and support.

Thank you very much.

### **Remarks by UN Secretary-General Ban Ki-moon to Inaugural Meeting of his Scientific Advisory Board**

Welcome to this Opening Ceremony to launch the work of the Scientific Advisory Board.

I am pleased to see such high-level representation here today.

It confirms the importance of scientific advice in shaping our collective action to advance sustainable development, reduce inequality and eradicate extreme poverty.

This Board has been established on the recommendation of the High Level Panel on Global Sustainability, co-chaired by President [Tarja] Halonen of Finland and President [Jacob] Zuma of South Africa.

When I spoke to the Informal General Assembly Plenary on the Global Sustainability Panel Report, I emphasised the importance of strengthening the ties between the global scientific community and the United Nations, so science can better be used in policy-making processes.

This Board will provide additional support to the United Nations in addressing global challenges from an integrated, holistic perspective.

We need to strengthen our decision making processes based on a variety of scientific fields, including traditional and indigenous knowledge.

I am grateful to Germany for hosting this event.

I thank UNESCO for providing the Board's Secretariat, and its Director General, Dr. Irina Bokova for her wisdom and guidance.

And I particularly thank all the members of the Board for accepting my invitation.

Your presence here, taking time from your busy schedules, is a demonstration of our collective commitment to put the world on a sustainable path.

Excellencies, Ladies and gentlemen,

For too long have we sought to burn and consume our way to prosperity. That model is unsustainable.

We have entered a new era, which has been given the name 'Anthropocene'. Human activity is now having a direct and measurable impact on the planet's life support systems.

We need science to understand our environment, to protect it and use it wisely. We need to understand the many economic and demographic forces at play in our changing world.

And we need to tackle the big issues – hunger and food security, growing inequalities, disaster prevention, urbanization, sanitation and sustainable energy for all.

The renowned scientist, Marie Curie, once said, I quote: "Nothing in life is to be feared, it is only to be understood. Now is the time to understand more, so that we may fear less." End of quote.

But to know is not enough. We need new ways of thinking and acting.

We face a multiplicity of crises, risks and vulnerability that are too intertwined to be solved by one nation alone.

No single decision-making body can address them.

No single research area can unravel them.

We need more integrated policies.

We have to weigh the social, economic and environmental dimensions of sustainable development equally, under a single agenda. This is the main message of the Rio+20 Conference on Sustainable Development. The ECOSOC Ministerial Review has also called for strengthened links between science and policy.

This Board is a concrete step towards these goals.

We need scientific approaches that overcome barriers between disciplines and methods. We need a holistic vision of the challenges to build integrated responses. And we need local and global political leadership informed by solid science and innovative approaches to problem solving.

This Board represents some of the world's best scientific competence.

It will provide indispensable advice on the interface between science and policy for sustainable development.

The next two years are critical for three reasons.

First, have agreed to finalize a global legal climate agreement by the end of 2015. We have to limit global temperature rise or we will never achieve sustainable development and eradicate extreme poverty. That is why I will host a Climate Summit on September 23rd for global leaders from government, business, finance, and civil society. I want to catalyze ambitious action on the ground and strengthen mobilize political will.

Second, 2015 is the deadline for achieving the Millennium Development Goals. We have to accelerate action.

Third, Member States are busy defining a post-2015 development agenda. We must build on the MDGs, and deliver a framework that can end extreme poverty, reduce inequalities and advance sustainable development.

I count on this Board to provide valuable ideas in all these areas, and wherever we need cutting edge thinking on the interface between science and policy.

Thank you.

### **Address by UNESCO Director-General Irina Bokova**

Let me start by expressing my excitement to be here today, in this great country of science and technology -- I thank all those who have worked so hard for this first meeting.

I wish to express deep gratitude to the Federal Government of Germany, the Foreign Ministry and the German National Commission for UNESCO for their generous invitation.

I salute the presence of so many leaders of the scientific and policy community in Germany.

I wish to thank Mr Ban Ki-moon for his decision to establish the Scientific Advisory Board and for his trust in UNESCO – this is an honour and a responsibility.

I think it's safe to say we have assembled some of the most outstanding scientific minds of our planet.

And what we intend to do is nothing less than to craft a new reply to a very old question.

The question is -- how can we bring together the diversity of knowledge that exists to form a more coherent vision of our world and to advance more effective action?

Many have called for a better integration of all aspects of sustainable development – the economic, the social, and the environmental.

Many have called for a stronger interface among the sciences, for tighter linkages between science, policy and society.

Scientific specialization has enabled unprecedented progress over the last century.

But scientists have sometimes travelled so far in their respective disciplines that we feel they speak a different language, that they work in silos and that we need to bring together information and knowledge that is dispersed -- for sustainable development, for poverty eradication in the South and the North, across the world.

The scale and the complexity of challenges we face today calls for a new unity among all sciences.

It calls for better governance among the rich array of scientific tools existing in the United Nations.

It calls for a new approach, across disciplines, across political borders, across sectoral lines.

This is what this Scientific Advisory Board is about – to ensure at the highest level that decisions are informed, enabled and accompanied by the best available knowledge, brought together in a holistic manner.

I can hardly think of a better place than Germany to start -- a country with such a deep passion for knowledge...

... the country of Leibniz, who was himself a universal mind,

... the country of Goethe, who once said: Knowing is not enough, we must apply, willing is not enough, we must do.

This Scientific Advisory Board is, fundamentally, about action.

It is about health, it is about improving agriculture and the livelihoods of millions of people, it is about risk reduction, food security, poverty eradication, human dignity.

Scientific advice is vital for policy-making in all these fields.

Policy also is vital to define the kind of science we need, where we should invest.

Our future depends on the relation we build between these two.

This is not easy.

Strengthening the science-policy interface does not mean submitting one to the other.

Independence is vital for research, as it is for sound and truly democratic policy decisions.

Policy-making is confronted with finding solutions to urgent needs, whereas the scientific endeavour is a medium to long term undertaking.

How can we square this circle? This is where I turn to you, distinguished members of the Scientific Advisory Board.

Mesdames et Messieurs,

Permettez-moi de vous exprimer d'abord mon admiration.

Vous êtes une source d'inspiration pour nous tous, pour tant de jeunes chercheurs, au sein et au-delà de cette salle.

Vous avez été choisi pour la variété de votre expertise, dans les sciences naturelles, sociales et humaines, dans les systèmes de savoirs traditionnels.

Vous exercez des responsabilités diverses, en lien avec les politiques, et votre expérience nous est précieuse.

Vous avez été choisi à parité hommes / femmes, et c'est aussi une question de crédibilité pour cette Assemblée.

Nous attendons beaucoup de vous :

1. D'abord, que vous nous aidiez à définir ce que le renforcement des liens entre la science, la politique et la société implique concrètement – quels mécanismes, quelles modalités ?
2. Ensuite, que vous nous aidiez à travailler plus efficacement pour éviter les doublons entre les instances scientifiques existantes, qui sont déjà nombreuses.
3. Enfin, que vous puissiez dire ce que sont les problèmes scientifiques les plus urgents – et où investir pour faire la plus grande différence?

Mesdames et Messieurs,

Cette réunion marque un engagement clair des Nations Unies pour renforcer la science, la technologie et l'innovation pour la paix et le développement durable.

Ce potentiel a été largement ignoré dans les objectifs du Millénaire pour le développement.

M. Le Secrétaire général a décidé d'en faire une priorité dans l'agenda pour le développement, afin d'accélérer le progrès et mieux formuler le débat post-2015.

L'UNESCO est déterminé à tirer le meilleur parti de cette opportunité, avec l'appui de tous les organismes des Nations Unies ici réunis, et qui vont bénéficier de vos conseils.

Nous sommes ici pour vous entendre, n'hésitez pas à nous bousculer. Cet espace doit être un espace de libre pensée, soyez audacieux, au nom des peuples que nous avons la responsabilité de soutenir, au nom des jeunes générations à qui nous devons rendre une planète durable.

Merci.

### **Statement by Young Scientists**

It is truly a great honor to be given the floor as members of the global community of young scientists.

Imagine a world of plenty, in which the wealth of nations is measured not by GDP but by social inclusiveness and ecological wellbeing. Imagine a global economy that benchmarks its success against planetary and social boundaries, corporate transparency and institutional accountability. In today's world, this is not our world of today. It is the emerging world of sustainable development, a world that includes social equity, distributive justice and environmental resilience.

In working towards sustainability, young scientists can and should play an important role in working towards achieving sustainability. We stand before you, not only as individuals from diverse regions and disciplines, but also as the inheritors of whatever decisions are made today. We therefore have a vested interest – and of special interest to us is that evidence be appropriately used in decision-making. Ensuring this is the key task of the SAB.

In this vein, we encourage the SAB specifically to consider mechanisms to support reflexive and inclusive public science. Public science is science that contributes ideas and innovation for the public good, strengthens public engagement in science and also ensures improved autonomy of knowledge production vis-à-vis its commercial utilization. Public science and the democratization of knowledge are based on the conviction that human development must have priority over profit-orientation.

The Scientific Advisory Board can play an important role in promoting public science by:

- Supporting open access to data, infrastructure and results so that knowledge can be shared more widely and equitably across nations;
- Increasing public trust in decision-making by encouraging the transparent use of knowledge.
- Facilitating the scientific community to engage more directly with decision makers, the media and the broader public. The goal here should be to ensure that knowledge for sustainability is responsive and relevant to local needs, and complements well-established science-industry partnerships.

We, Young scientists, are ready and willing to help the SAB in its efforts to provide the best advice to decision-makers. We strongly encourage the SAB and associated UN bodies to make use of growing networks of young scientists, including Young Academies, to nurture a joint sustainability-oriented mission for the next generation scientists.

Furthermore, we encourage the SAB to consider other mechanisms to foster outreach, engagement and transparency in its activities. Particularly suitable should be platforms that cut across established scientific and political sectors, including the institutions related to sustainable development created at the UN.

The commitment towards a sustainable future must be strengthened not in rhetoric but in everyday policy processes. The SAB can play a crucial role in democratizing knowledge generation and sharing, building public trust, and supporting the active partnership of scientists and civil society networks in decision-making. Young scientists are ready to help. Thank you.