

Bedrich Moldan and Indicators of Sustainable Development

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After the Rio Earth Summit in 1992, there was a determination to ensure that the decisions taken at that historic meeting were effectively implemented. UNEP appointed me to Coordinate the UN System-wide Earthwatch, and I became Task Manager for inter-agency implementation of Agenda 21 Chapter 40 on Information for Decision-making. That chapter included the provision: "Indicators of sustainable development need to be developed to provide solid bases for decision-making at all levels and to contribute to a self-regulating sustainability of integrated environment and development systems." (Agenda 21, 40.4) Following calls for such indicators at the first session of the Commission on Sustainable Development (CSD), I organized a UNEP/UNSTAT Consultative Expert Group Meeting on Environmental and Sustainable Development Indicators in Geneva on 6-8 December 1993, bringing together leading experts and UN agency representatives to decide how to take this mandate forward. Bedrich Moldan had been a Vice-Chairman and Rapporteur of that first session of the CSD, and had written to both the UN Division of Policy Coordination and Sustainable Development and the UN Statistics Division (UNSTAT) about this provision. UNSTAT suggested we invite Bedrich to chair the expert meeting, and thus began a long collaboration on indicators of sustainability.

Bedrich was the ideal choice, because he combined the experience and perspectives of a scientist, politician and diplomat, and he prepared a discussion paper for the meeting on indicators of sustainable development. The meeting proposed, among other things, that the Scientific Committee on Problems of the Environment (SCOPE) of the International Council for Science (ICSU) undertake a project on indicators of sustainable development to provide the scientific underpinnings for the work on indicators by the UN and governments. Bedrich developed and led that project, with a scientific committee including Albert Adriaanse (Netherlands), Peter Bartelmus (UNSTAT), Allen Hammond (WRI), Donella Meadows (USA), Kirit Parikh (India), Manuel Winograd (Colombia) and myself (UNEP).

When at the second session of the CSD, developing countries raised concerns that such indicators might be used to impose conditionality on development assistance, or to force countries to follow a concept of sustainable development imposed by the rich countries, we organized a UNEP/SCOPE Workshop on Indicators of Sustainable Development for Decision-making in Ghent, Belgium, on 9-11 January 1995, with the collaboration of the Governments of Belgium and Costa Rica (Gouzee 1995). The workshop brought together leading scientists from the SCOPE project, the President of the CSD and other diplomats from key countries, and

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the relevant UN Agencies, and Bedrich played a key role. The workshop overcame the political blockage in the CSD by proposing to develop indicators that each country could select from to measure their own sustainable development according to their own criteria. On this basis, the CSD approved a work programme on indicators of sustainable development which has produced three extensive frameworks and methodologies and done much to encourage governments to use indicators. When I reviewed national reporting on the state of the environment for the UNEP Governing Council two years ago, over 60 countries were using such indicators (Dahl 2008).

Bedrich and his SCOPE project continued to support this process, organizing a Scientific Workshop on Indicators of Sustainable Development in Wupperthal, Germany, on 15-17 November 1995 (Billharz and Moldan 1995). The papers from that meeting were expanded to become the SCOPE book on *Sustainability Indicators* (Moldan and Billharz 1997), a landmark in the development of the field.

Our paths continued to cross at the sessions of the Commission on Sustainable Development in New York. I remember one evening we had a long and wide-ranging discussion on the roof of the Pickwick Arms Hotel during one CSD session.

Bedrich also supported the activities of the International Environment Forum (IEF). In 2001, he and his wife took time from his vacation at his rural cabin to give a keynote talk on "Knowledge and Indicators for Sustainable Development" at the 5th Annual Conference of the International Environment Forum, 19-21 October 2001, in Hluboka nad Vltavou, Czech Republic (IEF 2001). The next year at the World Summit on Sustainable Development in Johannesburg, the IEF organized a Dialogue on Indicators for Sustainability, in the Forum on Science, Technology and Innovation for Sustainable Development on 27 August 2002. Bedrich gave a keynote talk in the opening session of the Forum, and then participated on the panel for the IEF dialogue on indicators (IEF 2002).

A decade after the initial SCOPE project, Bedrich felt that it was time for an update and assessment of progress on indicators, so he organized a second SCOPE project, including a very successful SCOPE/IHDP Workshop on Assessment of Sustainability Indicators hosted by his Center at Charles University in Prague, and leading to a second SCOPE book: *Sustainability Indicators: A Scientific Assessment*, in 2007 (Hak, Moldan & Dahl 2007).

It is evident from the above that Bedrich's foresight, leadership and gentle guidance were critical to the launching and development of the effort to produce indicators of sustainability as called for in Agenda 21. He was part of the little group that mobilized governments, UN agencies and the scientific community, and created the partnerships that started the process after Rio and gave it the impetus that has

carried it forward. The involvement of his Center at Charles University in the present EU-funded project on values-based indicators of education for sustainable development (www.esdinds.eu) is only the most recent illustration of the momentum that has built in the last 17 years under his guidance.

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