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BEYOND DELUSION: SCIENCE AND POLICY DIALOGUE ON DESIGNING EFFECTIVE INDICATORS FOR SUSTAINABLE DEVELOPMENT 7-9 MAY 1999

The Science and Policy Dialogue on Designing Effective Indicators for Sustainable Development took place in San Rafael de Heredia, Costa Rica from 7 to 9 May 1999. The workshop was organized by the International Institute for Sustainable Development (IISD) and co-sponsored by the Bellagio Forum for Sustainable Development, the Deutsche Umweltstiftung, the Mistra Foundation and Deutsche Bank. The Dialogue brought together 40 participants from different geographical regions and backgrounds, including policy-makers, experts on various types of indicators, academics, and representatives from multilateral organizations and businesses.

The Dialogue met in three Plenary sessions and four working groups that discussed case studies on: Community Level Sustainability Assessment in India; the European Environmental Pressure Indices Project; the work of Canada's Commissioner of the Environment and Sustainable Development; and corporate reporting of The Placer Dome Group. Keynote speakers presented each case study. Working group outcomes were subsequently considered by Plenary round-table discussions. Two break-out groups were tasked with synthesizing discussions on feeding back into decision-making processes and grouping indicators under clusters or themes.

OPENING PLENARY

On Friday morning, 7 May 1999, Peter Hardi, International Institute for Sustainable Development (IISD), opened the Dialogue and highlighted the importance of reviewing how changes in today's world could be more effectively fed back into policy development and decision-making processes. He noted the diverse background of workshop participants and said their differing perspectives would greatly enhance the work of the scientific community working on indicators. He also noted that such a dialogue would produce useful results that could contribute to work undertaken by the Bellagio Forum for Sustainable Development and other fora.

Göran Persson, Director of the Foundation for Strategic Environmental Research (MISTRA), provided participants with background information about the Bellagio Forum, which he said is a partnership between foundations in different parts of the world. He noted one of the Forum's priorities is to develop a small number of highly aggregated indices for use at the national level.

Participants then examined various types of indicators and related difficulties. Several speakers highlighted the need for a highly aggregated Sustainable Development Index (SDI). Göran Persson noted the potential impact of an easily comprehensible SDI on local and national policy-makers and the public at large. He recalled the similar effect of GDP and GNP, and also noted the key role mass media could play in bringing about this change.

Participants generally agreed that developing indicators is difficult even with the best available data, because emphasis is often placed on economic growth rather than on sustainability. Speakers pointed to the discrepancy between highly aggregated indices used by policy makers at the national level and indices used by local communities and corporations for which other kinds of indices may be relevant. Participants suggested creating a hybrid SDI that could operate on both levels.

Other participants said that, instead of replacing GDP, a "super index" could be developed by combining GDP with other indicators and indices. One participant stressed the need for a systemic approach to develop a "super index." Several participants pointed to the usefulness of financial indicators to reflect damage caused to the environment in terms of direct costs or as a portion of the GDP.

Participants debated whether indicators should be internationally comparable or country-specific, whether the Bellagio Principles should be used as a basis for considering interactions between different issues and themes, the extent to which indicators influence behavior, the importance of performance indicators, and the need for ongoing reporting, follow-up and indicator comparability.

Several participants indicated the usefulness of the "pressure-state-response" framework to trace causal linkages between environmental problems and the human activities causing them. They noted that indicators defined under this framework have a significant impact on national policy-making. One participant underscored the role of national indicators in forming a country's shared vision of its future.

Participants spoke at length about the process of aggregation itself. Many said that oversimplification leads to the loss of inter-linkages, visibility and data details. Some noted that even a top-level sustainability index could be misapplied. Others said that aggregation simply highlights other types of relationships that may be relevant within specific decision-making contexts.

The group acknowledged the key role that communication plays in bringing various types of indicators to the attention of both decision-makers and the public, and agreed that decision makers often become interested in issues when they are brought to the public's attention by mass media. Many participants highlighted communication as a critical factor for linking sustainable development indicators to policy-making. One participant mentioned the "ecological footprint" as an example, and said its success stems from the fact that people easily understood it.

Several participants agreed that indicators should be designed with attention to their impact on public awareness. Participants highlighted the need to educate decision-makers and journalists about the interpretation and use of aggregate indices.

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KEYNOTE SPEECH BY MAURICE STRONG

Maurice Strong, Chairman of Earth Council and Special Advisor to the President of the World Bank, offered a keynote speech during lunch on Friday, 7 May 1999. Strong noted that, although the environmental movement has come a long way since the Stockholm Conference in 1972 and environmental considerations are as widely considered in development decisions as are social and economic ones, there is still a need to redress the way industrialized societies see themselves, set priorities and evolve, and to resolve the imbalance between environmental concerns and the pursuit of economic objectives. He observed that dealing with the environment is partly a motivational and partly a governance issue and noted that motivation is also a reason for developing indicators. He said indicators help people know whether they are doing the right thing, and allow them to correct course and reward success. He noted the power and influence of indicators by recalling the way that GDP and GNP have been embraced by policy-makers and the public at large. He underscored the need for a new set of indicators to measure societal performance and the impact of human activities on the environment.

Maurice Strong said that, given the impact of the human enterprise on the environment, current generations are playing a primary role in shaping their destiny and can no longer manage without understanding the impact of their activities. He highlighted the usefulness of indicators to measure this impact and noted that the Bruntland Commission recognized this fact in 1987. He also referred to the Human Development Index (HDI) and the World Development Indicators as steps towards innovative ways of assessing sustainability. He referred to the catalytic role played by the World Business Council on Sustainable Development in developing generic eco-efficiency measures and to ISO14000 as a means to provide guidelines for corporate indicator development.

Strong called on participants to develop an “Earth Index” that would allow individuals to evaluate their own personal impacts on the environment. He said such an index should be simple, with no more than ten parameters, and could be a useful tool in raising awareness in younger generations.

WORKING GROUPS FOR CASE STUDIES

On Friday afternoon, 7 May 1999, participants gathered in four working groups to discuss case studies on a European Environmental Pressure Indices Project, Canada’s Commissioner of the Environment and Sustainable Development, a Community Level Sustainability Assessment in Dasudi, India, and the Placer Dome Group.

Working Group 1. European Environmental Pressure Indices Project: Jochen Jesinghaus, Institute for Systems, Informatics and Safety (ISIS) said this project followed a “pressure-state-response framework,” according to which human activities are pressure points that have an impact on the environment and “response measures” are actions taken to mitigate that impact. The model uses an information pyramid to rank the development of indices according to the degree that the information is processed, beginning with raw data and ending with a potential overall welfare index at the peak.

Jesinghaus noted the use of “policy fields” as the basis for determining indicators and explained that ten had been identified as relevant to the European Union (EU) on, *inter alia*: climate change, air pollution, dispersion of toxic substances, loss of biodiversity, waste, water pollution, resource depletion and ozone layer depletion. He said the purpose of using policy fields was to assist in aggregating information and to facilitate public communication of complex issues. He said a total of sixty indicators had been identified for these policy fields and noted that each indicator provided more in-depth information intended for use by experts or policy makers. He noted that the purpose of using a combination of policy fields and indicators was to avoid losing information in the process of clustering either.

Jesinghaus referred to the use of colors as a communication tool to distinguish good (green), bad (red) and satisfactory (yellow) performance as determined by indicators.

In ensuing discussions participants raised questions regarding criteria to determine when green, red or yellow should be used.

One participant suggested that the discussion should focus on lessons learned, clustering sets of indicators at the national level, and embedding these indicators into themes that are relevant to decision-makers. Another speaker asked how available indicators can be used to design a sustainable development index. Others observed that different models could be used to aggregate information and noted that a simpler approach using fewer indicators may be preferable. One considered that a set of three indices would suffice to raise public awareness and noted it could then be disaggregated into a more detailed database for expert use.

One participant noted that "decision-makers" had not been sufficiently defined. He inquired whether they were local, national or international and indicated that different sets of indicators are needed for each level. Another speaker suggested focusing on clustering indicators instead of attempting to aggregate them into one and presented an alternative model of human interaction with the environment based on the mapping of pressure points. He stressed the usefulness of mapping ecosystems threatened by human activities.

Participants also discussed the clustering methodology used by the United Nations Commission on Sustainable Development, following Agenda 21’s main chapters. Some participants viewed it as cumbersome considering that it led to 134 indicators.

Some participants favored using a different set of indicators for developing countries while others opposed and stressed the need for comparability. Speakers noted that comparable indicators were not always relevant in specific contexts.

Another participant reiterated the need to differentiate sets of indicators according to levels of policy-making and said that, while comparability of indicators may be more important for international policy-makers, their relevance to *in-situ* circumstances may be more important for national or local policy-makers.

Participants agreed on striving for a comprehensive indicator system by attempting to cluster indicators and expressed differing views on whether many or a few more encompassing indicators should be used for this purpose. The group identified social, economic and environmental aspects as major areas under which major themes or clusters could be classified, and identified poverty as an overlapping area. Participants discussed cross-cutting clusters and devised a chart of intersecting circles to illustrate this cluster interrelationship.

Themes identified under the social area included: employment, human development, social capital, social connectivity, freedom indices and cultural endowments. Themes identified under the economic area included: output, formal/informal economies, wealth, productivity and access to services. The environmental area was divided into two sets of themes according to relevance to developed or developing countries. The area for developing countries focused on air, water and land resources while the other area included clusters or themes on extractive policies, outputs in terms of pollution and waste, land-use and ecosystem pressures. Cross-cutting clusters linking the environmental and social areas included: access to environmental resources and large scale environmental risks. Sustainable production and equity were identified as cross-cutting clusters linking the environmental and social areas to the economic one. One participant underscored the “merely illustrative” nature of this scheme.

Working Group 2. Canada's Commissioner of the Environment and Sustainable Development: This session began with a presentation by David Bell, Director of the York Center for Applied Sustainability, on the work of Canada's Commissioner of the Environment and Sustainable Development. He noted that the office of the federal Commissioner was established in response to the report of the World Commission on Environment and Development and through an amendment to the Auditor General Act in 1995. The Act required that federal departments prepare Sustainable Development Strategies (SDS) for Parliament. Bell explained that this required departments to review for the first time their own operations from the perspective of sustainable development.

The Sustainable Development Strategies were to include a description of, *inter alia*, department profile, issue scan, consultations, goals, objectives and targets, action plans, and performance assessment and reporting. In assessing the first set of audits, the Commissioner performed a "conformance audit" to determine whether departments actually did what was required, followed by a detailed audit of all report components listed above. Bell stressed the particular importance of three components: goals, objectives and targets; action plans; and measurement, analysis and performance reporting. He pointed out that the Commissioner viewed indicators and monitoring as critical for the success of his work and explained that there is a difference between first order monitoring of the real world, second order assessment of the effectiveness of policies and action, and a third order audit focused on executing assessment strategies. Bell indicated that the Commissioner's work falls in the third order category. He further noted that sustainable development auditing should focus on monitoring all aspects of program and project results to provide feedback and make continuous improvement possible. The Commissioner's audit found that, while government departments do well with regard to policy planning, they are lagging in terms of monitoring and performance assessment. He reported that sustainable development commitments were not carried out, due to implementation gaps in most cases, and noted that monitoring and reporting systems usually were not in place to detect failures.

Bell also said implementation often does not take place due to a lack of measurement systems. He noted that governments expect to advance their sustainable development agenda by improving measurement systems. He concluded that eventually the interest of the Commissioner is in improving the sustainable development monitoring capacities of government departments and agencies. He highlighted the role of the audit in raising awareness about sustainable development and increasing governments´ capacity to measure performance.

In ensuing discussions, participants recognized that sustainable development requires improved decision-making at all levels. One participant defined sustainable development as an improvement of the quality of human life within ecosystems' carrying capacity. Participants agreed that measurement improves decision-making by, *inter alia*, increasing awareness, allowing comparisons, measuring change over time and space, establishing accountability, and impacts. Participants noted that, to improve decisions by using measurement tools, a number of intermediate processes, communication strategies and management practices need to be in place. They underscored the importance measurement tools in providing feed-back to decision-makers.

The group designed a diagram to illustrate a sustainable development reporting system. The system builds on a process that includes both indicator development and assessment, leading to the production of a sustainable development report. Participants noted that making assessment results and recommendations public may generate feed-back regarding the need for policy adjustment, capacity building and planning or education programmes, among others. The group suggested complementing sustainable development indicator sets with measures that help assess the extent to which agencies have included sustainability in their procedures.

Although the group did not reach consensus on sustainability indices, it did agree on guidelines to develop them. Participants noted that sustainability reporting requires attention to the linkages among sustainable development issues. They also pointed out that developing core indicators on the national scale is useful, but highlighted the benefits of complementing generic indicators with country-specific ones.

Working Group 3. Community Level Sustainability Assessment in Dasudi, India: Adil Najam, Department of International Relations, Center for Energy and Environmental Studies, opened this working group with a presentation on a participatory assessment method developed by IUCN and IDCR and tested in India. He explained that the approach combined institutional, project and whole system assessment. He noted the sustainability of the system is simultaneously determined by ecosystem and human well-being and pointed to key issues addressed through assessment such as baselines, motivation for action and a clear vision for the future. Najam referred to a holistic and systemic approach to assess community level sustainability, and said steps in the process leading to that assessment include: defining the system and its goals; identifying issues and objectives; selecting indicators and performance criteria; measuring and spatially mapping the indicators; and combining indicators to produce an aggregate index.

He emphasized that communities need to identify their own indicators through participatory processes. He explained that work progresses from outlining the system (the district and villages) to defining its subsystems (ecosystems, human subsystems, etc.) and determining relevant indicators (freshwater availability, extent of land degradation, etc). He said indicators for individual villages participating in the case study were aggregated to calculate a Barometer of Sustainability.

Najam noted that, beyond indicators, the project focused on better action for sustainable development. He pointed out that sustainability had been defined in concrete terms by the communities and was then refined by developing indicators. He said reflecting on action and continuous learning are essential components of the assessment process and may be more important than coming-up with the indicators themselves.

In the subsequent discussion, Najam said not enough time had passed to determine whether and how indicators and indices helped decision-makers. Another participant noted the limited usefulness of indicators without a clear vision of goals. One participant expressed concern about the aggregation technique underlying the Barometer of Sustainability. Several speakers agreed that signals for sustainable development potential, such as property rights and distributional equity, provided a basis to develop good indicators. Participants referred to efforts by the "community indicators movement" towards building institutional capacity for indicator development.

Necessary steps identified by the group to develop indicators at the national included: definition of goals; identification of economic, environmental, social or other dimensions; identification of specific issues; and selection of indicators. Najam concluded that sustainable development's goal is to maximize environmental, social and economic benefits.

Participants compiled a list of currently known indicator frameworks and noted similarities and differences. One participant indicated that the sustainability of ecological systems determines overall sustainability. Participants proceeded to produce a list of potential issues around which indicators could be developed, including poverty, population, land tenure, participatory processes, pollution – including

land degradation –, pricing policy, and technology. In discussing the list, some participants concluded that the usefulness of developing a core set of indicators is limited, considering the importance of context and learning involved in participatory processes to select indicators.

Participants proposed using a car dashboard to illustrate an alternative framework to arrange sustainable development indices identified under other frameworks. The "dashboard" components would signal variations in the condition of the economic, environmental, and social components of the system. Some speakers proposed an Asian Development Bank model, which includes economic and social factors and their impact on the environment, to structure the "dashboard " framework. Several speakers suggested including indicators in the "dashboard" for, *inter alia*, environmental remediation costs, resource use efficiency, material flows and the "ecological footprint." Others proposed including a "fuel tank" indicator, but acknowledged uncertainty regarding its meaning and content. Participants concluded that the ultimate meaning of sustainable development is survival of the human race.

Working Group 4. "Placer Dome Group" Case Study: Tony Hodge, International Institute for Sustainable Development, presented this case study to lead off the workshop. He said the Placer Group is one of the largest gold producers, with 14 operating mines in five countries. He explained that the Group recently adopted a sustainability policy and is committed to establishing performance measures and credible verification of the policy. He said the challenges that the Group faces are parallel to those faced by broader society with respect to the need to address environmental, economic and social concerns. Hodge noted that the Group annually compiles a small set of well understood financial indicators and no equivalent set exists to track human and ecological concerns. He said the Group had not attempted to compile aggregated indices to address the various dimensions of sustainability.

Ensuing discussions focused on the need for information to addresses specific concerns, problems encountered in sustainable development policy implementation, and accountability within corporate schemes. Participants considered lessons learned from the case study and discussed overarching themes and clustering approaches. One participant noted that themes varied according to people's vision for the future.

Another approach proposed "long term endowments," "processes" and "current results" as categories to cluster indicators. "Long term endowments" refer to the various assets, resources and capacities people receive from their predecessors, the manner in which the assets, resources and capacities are used, and how they are passed down to future generations. Examples of long term endowments include infrastructure, housing, education, natural resources – including forests –, fisheries and oil reserves. "Processes" refer to natural and human related processes. "Current results" refer to the goods, services and conditions enjoyed or experienced by current generations.

The group then proceeded to suggest themes for each cluster and worked on a "jigsaw puzzle" chart to illustrate the relationships between clusters. Themes under the "how is nature "cluster included air, water, soil and biota. Themes under the "how are people" cluster included the human development index, crime, equity, governance and employment. Themes under the "how are we using nature" cluster included pressure and eco-efficiency indices. One participant observed the holistic nature of the "jigsaw puzzle" chart and noted that it resembled a system model known as "the egg of sustainability," which portrays in a similar way the wellbeing of human beings and ecosystems.

SYNTHESIS BREAK-OUT GROUPS

Participants reconvened in Plenary on Sunday morning, 8 May 1999, and decided to break into two groups to produce a synthesis of the meeting. One group discussed processes involved in developing indicators and feeding back into decision-making processes. The other group discussed grouping indicators under clusters or themes.

Synthesis Discussions on "Process:" This break-out group, facilitated by David Bell, sought to synthesize discussions on approaches to clustering indicators and on sustainable development assessment and reporting processes. Several participants agreed that the ultimate purpose of reporting on performance was to improve decision-making and to contribute to bending the curve of development in the direction of sustainability. Participants agreed to focus their discussion on principles underlying assessment and reporting processes.

Several participants noted that indicators are always developed according to a specific context in a given country or community, and highlighted the need for processes to involve concerned communities and institutions. Speakers underscored continuous feedback as an essential part of assessment, reporting systems and processes and noted these would vary slightly from country to country according to their particular conditions.

Participants identified a number of steps involved in performance reporting, including: identification of agencies responsible for reporting, development of indicators, measurement, synthesis, assessment and the publication of results in a sustainable development report. Another participant stressed that the development of indicators should result from partnerships between a broad range of stakeholders, scientists and policy-makers. Stakeholder participation was also noted as crucial to enhancing public understanding of the issues, ensuring transparency and facilitating access to information. Participants said high public credibility of stakeholders and representatives involved in performance assessment and reporting processes is crucial for making the sustainable development reports credible. Participants also noted that assessment and reporting processes could be conducted either by governmental or non-governmental agencies and noted that agencies responsible for statistics are best placed to offer independent, high quality data.

Synthesis Break-Out Group on "Clusters:" The break-out group, facilitated by Richard Norgaard was tasked with synthesizing discussions on clustering approaches produced by the four working. They examined the "dashboard," "jigsaw puzzle" and "intersecting circles" charts produced by the working groups to illustrate approaches. This break-out group proceeded to identify common elements between the approaches.

One participant noted that none of the approaches reflected equity among nations. Many participants preferred the "dashboard" as an approach because they thought people could easily relate to it and understand it. Many said the "fuel gauge" as an indicator of stocks and assets of capital and resources needed further discussion. A speaker inquired whether the "fuel gauge" represented endowments for future generations. Other participants said the costs involved in environmental remediation were not adequately reflected under the approach. Some speakers noted the limitation of the approach in comparing current trends and situations to previous ones. One participant observed that a more "dramatic" dashboard could be devised to reflect early warning indicators of crises. The group concluded that the "dashboard" provides an adequate approach and noted more work needs to be done to overcome shortcomings such as its inability to track trends and provide early warning signals.

CLOSING PLENARY

The synthesis break-out groups reported their conclusions during the closing Plenary on Sunday morning, 9 May 1999. Many participants supported the "dashboard" approach, emphasizing that indices displayed therein are based on different methodologies and may serve to highlight different but equally important aspects of sustainability. Several participants spoke of the "fuel gauge" as a key indicator of sustainability.

Some suggested developing a single, super-aggregated SDI, noting its effectiveness as a means to communicate with policymakers and the public. Participants noted that the time needed to develop an imperfect but testable SDI could range from two to three years and experience gained during this period could serve to refine the index. Others suggested that, instead of creating a single SDI, the primary objective should be to develop a cluster of sub-indices to be aggregated in the future.

In discussing the advantages and disadvantages of a single index approach, one participant pointed out that governments use GDP in combination with other indicators. He suggested GDP could be part of a suite of other sustainable development indicators. Another participant noted that dissemination of information through printed and electronic media could be easier for a single index. He said that even the "dashboard" approach may have limitations in this regard and noted that changing circumstances may demand continuous adaptations to the dashboard's design.

One participant commented on countries' desire to develop indicators and clusters for themselves given country differences, such as natural resource bases, cultural values and governance structures. She said countries could then share their experiences with others. Speakers also stressed the importance of adequate processes to cluster indicators and strategies to present them as key to making use of indicators effective.

In identifying the greatest challenges associated with the creation of sustainable development indicators and reporting systems, participants pointed to, *inter alia*: the difficulty of grappling with a difficult concept; the use of the same indicators for a variety of levels; the importance of accounting for everyone's interests; the need for indicators that reflect specific contextual situations without losing comparability; the difficulty of determining how much time is left before irreversible damage occurs; the inequality of nations on the global level; the need to convince decision-makers to think long term; the need to ensure indicators make an impact on decisions; and the use of indicators to address changing needs and consumption patterns.

Peter Hardi called participants' attention to the key factors on which there was consensus, including: recognition that sustainable development requires broadening the focus of measurement beyond economic factors; agreement on the need for organizing and presenting indicators in clusters; and consensus on the need for embedding the results of measurement and assessment in decision-making processes. He noted that GDP does not reflect important non-monetary considerations, such as social and environmental factors, and suggested that, as a minimum, it be complemented with additional indicators.

One participant reiterated that embedding indicators in decision-making is critical. He said this could be achieved through partnerships with stakeholders and effective information dissemination through electronic and print media. Participants generally agreed that the utility and effectiveness of indicators would have to be put to the test. One noted that the assessment should not be focused only on the past and present, but help focus attention on emerging issues. Another participant reminded others that reporting frameworks and methodologies that satisfy these criteria exist and mentioned UNEP's Global Environment Outlook (GEO) as an example. Although still evolving, these methods are being adopted in national reporting and can serve as testing grounds for indices in assessment.

Although no consensus was reached on using the European Pressure Index (I), participants referred to it as a positive example and highlighted that it had been adopted in 15 countries. Many agreed that a real index, even if imperfect, should be developed early in the process and exposed to critical review so that it can be improved. As one participant noted, it is much easier to constructively criticize a concrete, if imperfect, index than to work with vague theoretical constructs.

Several participants agreed that, given the scope and nature of environmental problems, it is time to proceed with the development of indicators that assist in determining whether ecological or socio-economic capital stocks are being depleted. They noted the development of indicators and of communication strategies should be parallel. One participant suggested convening a meeting on leading indicators to design specific media strategies to disseminate them.

Participants agreed the implications of indicators on political processes should be better understood. Some observed that changing indicators may change incentives and power relationships, which may influence their acceptance by various stakeholders. This expectation is reflected in the sensitivities associated with who has a say in the selection of indicators. Sectoral indicator sets, for example, could potentially create conflicts between public and private sector interests. A participant suggested that ideas for indices and measurement processes be test-marketed with decision-makers on relevant levels and refined as needed. Participants observed that specific audiences may need specific indicators; a community may not be interested in the GDP but it may be interested in indicators of local relevance.

In discussing next steps and work priorities, participants agreed on the acute need for information on how sustainable development indicators affect decision-making. They underscored the need to enhance our understanding of a variety of factors, such as the role of media, the education system, and business and political processes influencing the success or failure of using indicator systems. One participant stressed that indicators should be integrated into both informal and formal education strategies, including university curricula.

One participant explained that indicators are not ends but means in progressing towards a positive vision and noted that, while having sustainable development indicators is part of that vision, turning unsustainable trends around and successfully adapting to change are even more important. Participants agreed that developing indicators, indices and reporting systems is a continuous learning process and whatever is produced in the process is to be tested and improved.

CLOSING REMARKS

At the close of the workshop, on Sunday afternoon, 9 May 1999, Peter Hardi, on behalf of IISD, expressed that the discussions at the Policy Dialogue on Designing Effective Indicators for Sustainable Development would contribute to enriching similar discussions in other fora, including the Bellagio Forum, the Consultative Group on Sustainable Development Indicators (CGSD), the United Nations Commission on Sustainable Development, the World Bank and the Asian Development Bank. He expressed his appreciation to workshop's Costa Rican hosts, to the workshop's co-sponsors for their support, to the workshop's participants for their active involvement and to the Earth Council for its assistance in organizing the meeting.