

## Delhi Sustainable Development Summit 2004

Partnerships for Sustainable Development  
Addressing the WEHAB agenda

Organized by TERI, New Delhi, 4-7 February 2004

Online at <http://www.teriin.org/dsds>

### In brief . . .

#### KEYNOTE ADDRESS 1

##### Sustainable Energy Systems for the 21st Century

Chairperson Mr Apolonio Ruiz Ligerio  
Speaker Prof. Jeffrey D Sachs



Prof. Sachs emphasized the need for increased energy availability and safer energy systems. Traditional fuels, including biomass, are inefficient and hazardous for the indoor environment. Their adverse impacts include massive deforestation and dissipation of women's time and energy. It is imperative to provide the currently unserved 2 billion people with access to modern energy systems. Markets alone cannot empower them; large-scale global subsidization and greater investment in infrastructure are inevitable. Also, while we are technologically capable of converting traditional fuels to modern cooking fuels, we need large-scale R&D and global infrastructural agreements to operationalize flexible energy systems.

Current rates of fossil fuel consumption would result in grave environmental imbalances, leading to massive changes in climate systems and ecological changes, perhaps resulting in the extinction of various species. One remedy is to control the atmospheric carbon level. It is not feasible to attain this through curtailed economic development. However, we can integrate economic growth with increased decarbonization. Energy efficiency and technological efficacy can also play crucial roles.

Renewables and nuclear energy are not ideal solutions (being either inadequate or hazardous) but fossil fuels would make sense, if we could decarbonize fuel-based energy systems. Carbon capture and sequestration can limit carbon emissions; with improved engineering, we can capture the gases before they are released into the atmosphere. In this process of limitation, less energy-intensive countries (like India) stand to lose more than more energy-intensive ones like the US. Mechanisms must be devised to make the latter 'pay' for the former.

#### PLENARY SESSION 1

##### The Water and Sanitation Challenge: How Complex? How Urgent?

Chairperson Mr Gourisankar Ghosh  
Members of the panel Mr Ashok Jaitly  
• Ms Martha Wangari Karua • Dr Maritta R von Bieberstein Koch-Weser • Dr Joe Madiath  
• Mr Rajat Nag • Dr Bindeshwar Pathak



Freshwater should be recognized as an economic good and managed in a participatory manner, involving the users. To meet the water-related Millennium Development Goals by 2015, about 1 billion people in Asia alone must obtain access to safe drinking water and another 1 billion to improved sanitation.

While safe water is a 'magic potion' for the poor, sanitation is a 'genocide' perpetrated on the poor and powerless. Good approaches are at hand but they must be replicated from the global and regional to the local level; South-South partnerships are called for. Traditional water harvesting methods must be promoted. The 'nexus' between water and energy must be emphasized by promoting the use of renewable energy in drawing water from aquifers.

Correct tariff policies and levels, with clear legal and regulatory frameworks, are vital to resolving a range of constraints to sectoral development. The argument here is not for 'privatization' but for a level playing field where consumers enjoy the benefit of good services and appropriate costs regardless of whether the service is provided by the government or by a private enterprise. Small-scale enterprises should be encouraged.

**There is an urgent need to bring about 2 billion people on this planet under modern energy systems. This cannot be done on a market basis alone.**

Prof. Jeffrey D Sachs  
Special Advisor to the Secretary General of the United Nations, New York

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**KEYNOTE ADDRESS 2**  
**Atmospheric Changes during  
the 21st Century**

*Chairperson* Mr Hiroyuki  
Watanabe  
*Speaker* Nobel Laureate  
Prof. Sherwood F Rowland

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Though the automobile is a valuable asset, it consumes valuable resources and has significant environmental impacts, like ozone layer depletion. Innovations in the automobile industry have yielded substitute coolants that do not harm the ozone layer, but do emit greenhouse gases. The CFC (chlorofluorocarbon) issue must be addressed right from its design through its usage to its disposal.

Scientists have measured gas bubbles trapped in glacial ice, revealing that the carbon dioxide concentration has increased from 190 to 250 parts per million over 400 000 years. Over the same period, methane concentration has increased from 300 to 700 parts per billion.

Since 1996, the Montreal Protocol has controlled the release of CFCs into the atmosphere. In 1979, there were 270 units of ozone over Antarctica in the spring; this dropped to 125 units in 1989. Though the Intergovernmental Panel on Climate Change has established the existence of global warming, no significant controls have yet been enacted.

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**PLENARY SESSION 2**  
**Energy for Sustainable Development: Ensuring  
Economic Growth and Universal Access**

*Co-chairs* Sir Charles C Nicholson • Mr R V Shahi  
*Members of the panel* Prof. Jean-Claude Van  
Duysen • Dr Peter Hennicke • Dr Hoesung Lee  
• Mr Subir Raha • Mr David Roberts  
• Dr Leena Srivastava

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Diffusion and accessibility of energy are crucial for economic and social well-being. Policies for energy dissemination must embrace some key issues: affordability, technology development, subsidy management, and delivery frameworks.

Energy policy has recently gained prominence for security, social, environmental, and ethical considerations. Globally, despite the number of policy changes, the pace has been slow, the scope narrow, and the shared sense of urgency, missing. Environmental considerations must increasingly drive energy policies in developed countries, while both security and environmental concerns should dictate regional energy mixes.

Localization of energy policy can effectively support sustainable development. This requires

competencies in technologies, planning tools, economics, sociology, and efficiency building. Most important, it needs partnerships, which abound in developed countries. These alliances should include developing countries.

The corporate sector can make meaningful contributions to community development through initiatives like PURA (Providing Urban Amenities to Rural Areas) and the implementation of connectivity in rural areas.

While 95% of energy R&D takes place in OECD (Organisation of Economic Co-operation and Development) countries, nearly 70% of energy growth will take place in non-OECD countries. Yet, many innovation opportunities exist in developing countries. Endeavours to bridge the research gap must be accelerated through sharing of experiences and successes in developing and developed countries. This requires partnerships at every level.

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**PLENARY SESSION 3**  
**Food Security and Sustainable Livelihoods: Global  
Surpluses and Household Deficiencies**

*Chairperson* Mr Ian Johnson  
*Members of the panel* Dr Suman K Bery  
• Mr Clive Butler • Dr Vibha Dhawan  
• Prof. Leen Hordijk • Ms Julia Marton-Lefevre  
• Dr R B Singh • Mr Paolo Soprano

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Malnutrition and hunger persist despite intense efforts to reduce food insecurity. Of the world's 840 million hungry people, about 800 million belong to developing countries. Hence, the continued reluctance of the major trading powers of the developed world to make concrete reductions in agricultural subsidies is of immense concern to developing countries. Access and availability of safe food are crucial to food security, which can be enhanced by integrated pest management and organic farming.

Watershed development programmes and community participation initiatives should be scaled up to the national level, with the help of IT advances. Education and training are also key to the adoption of appropriate technologies and farm management practices. Farmers will have to become ecological managers.

Science and technology can catalyse a new agricultural revolution by increasing yields, ensuring efficient resource use, increasing nutritional value of crops, and mitigating adverse impacts of climate change and variability. Biotechnology can help resource-poor farmers in moving towards sustainable agriculture. Safe biotechnology applications can supplement prevalent traditional techniques in developing countries. Harnessing indigenous knowledge systems can yield appropriate solutions.

Partnerships with the private sector are more successful when closely related to its core interests. A successful partnership between the private sector and NGOs is that between Unilever and the WWF to establish the Marine Stewardship Council aimed at sustainable management of fish stocks.

The food security challenge necessitates integrated approaches, which require the strengthening of multilateral and bilateral cooperation initiatives. The Millennium Development Goal of halving the number of hungry people by 2015 is Herculean but achievable in the long run.

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**DINNER ADDRESS**

*Chairperson* Dr R K Pachauri,  
Director-General, TERI  
*Dinner address* Dr Karan Singh,  
Hon'ble Member of  
Parliament, New Delhi, India

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Dr Singh highlighted the Indian tradition of integrating 'nature' with policy and gave the example of how the 'national animal of India' was

changed from lion to tiger, as tigers are found all over India. He drew two parallel lines of philosophical thoughts to analyse the contribution of human kind to universal existence: one believed that human existence is the transitional journey to reach God from being any other living being, whereas the other believed that being a human means destroying the wealth of the nature.

Emphasizing some dangers that stand on the way of development today, Dr Singh spoke of a possible nuclear disaster, which could damage the earth more than we can quantify. He also expressed concern on the use of pesticides and chemicals in the food chain that lead to situations like the avian flue and the mad cow disease. The large-scale ecological degradation has to stop immediately, he urged.

True to being a scholar of theology, Dr Singh called for the operationalization of the concept of inter-faith functioning and management of the environment. He highlighted the traditional belief systems of various religions that respect the idea of preserving the nature and urged to bring some similar system into effect before it is too late.

**As they said it . . .**

*We need alternative resources that go beyond renewable energy. One way is to rely on nuclear energy, which can be dangerous. The other is to decarbonize a fossil-fuel-based energy system.*

Prof. Jeffrey D Sachs, Special Advisor to the  
Secretary General of the United Nations,  
New York

*Safe water is the magic potion, which gives strength to the village poor... When we speak about sanitation, we are talking not only about toilets but also about dignity.*

Dr Joe Madiath  
Executive Director, Gram Vikas, Orissa

*Water seems to be everybody's turf but nobody's responsibility.*

Mr Ashok Jaitly  
Distinguished Fellow, TERI, New Delhi

*Energy policy changes are occurring but the pace is slow and the scope is narrow, given the scale and challenge of sustainable development*

Dr Hoesung Lee  
President, Council on Energy and  
Environment, Seoul

*Local energy policy is a powerful tool in favour of sustainable development.*

Prof. Jean-Claude Van Duysen  
Director, European Institute for Energy  
Research, Karlsruhe, Germany

*Corporate philanthropy is a fine thing but business self-interest is the only way to ensure that it is effective and sustainable in the long run.*

Mr Clive Butler  
Corporate Development Director, Unilever,  
London

*Current statistics indicate that nearly 800 million people do not have enough to eat; yet the world produces more food per inhabitant than ever before.*

Ms Julia Marton-Lefevre  
Executive Director, LEAD International,  
London

*We need a new science and technology revolution driven by ecological concern and opportunities for health benefits built into agriculture.*

Mr Ian Johnson  
Vice President, The World Bank, Washington, DC

*How to treat solid and liquid wastes as economic products is vital... Without treating waste water, we will not be able to achieve our goals of water and sanitation.*

Mr Gourisankar Ghosh  
Executive Director, Water Supply and  
Sanitation Collaborative Council, Geneva

*Let us integrate renewable energy and efficiency; let us integrate energy and materials. This will be the path to sustainable energy.*

Dr Peter Hennicke  
President, Wuppertal Institute for Climate,  
Environment and Energy

## Look forward to . . .

### **Keynote address 3 (9.45–10.30 a.m.)**

#### **The Anthropocene: Human activity as a geologic force. Where are we heading?**

*Chairperson* Dr Suman K Bery, Director-General, National Council of Applied Economic Research, New Delhi

*Speaker* Nobel Laureate Prof. Paul Crutzen, Director Emeritus, Max Planck Institute for Chemistry, Germany

### **Plenary session 4 (10.30 a.m.–12.00 noon)**

#### **Public Education in a Knowledge Society: Creativity, Content, and Delivery Mechanisms**

##### *Co-chairs*

- Mr Paul Iredale, Journalist, Reuters Foundation, Kent, UK
- Ms Aban Marker Kabraji, Regional Director, IUCN Asia, Bangkok

##### *Members of the panel*

- Dr Roger Baud, Executive Director, Alliance for Global Sustainability, Zürich
- Prof. Gilberto M Jannuzzi, Universidade Estadual de Campinas, Departamento de Energia, Brazil
- Ms Tiahoga Ruge, Director General, Centre for Education and Training for Sustainable Development, Mexico
- Prof. Jeffrey I Steinfeld, Professor of Chemistry, Massachusetts Institute of Technology, Cambridge, USA

### **Tea (12.00 noon–12.15 p.m.)**

### **Plenary session 5 (12.15–1.45 p.m.)**

#### **Defining the Stakes, Engaging the Stakeholders: Inclusive Approaches for Coordinated Action**

*Chairperson* Dr Prodipto Ghosh, Secretary, Ministry of Environment and Forests, Government of India, New Delhi

##### *Members of the panel*

- Dr Stephen Bass, Chief Environment Advisor, Department for International Development, London
- Ms Preety Bhandari, Director, Policy Analysis Division, TERI, New Delhi
- Mr Warren Evans, Deputy Director of Environment, The World Bank, Washington, DC
- Dr Charles McNeill, Team Manager, Environment Programme, Bureau for Development Policy, United Nations Development Programme, New York
- Mr Vikram S Mehta, Chairman, Shell Group of Companies in India, New Delhi

- Ms Cornelia Richter, Director-General, Planning and Development, GTZ, Postfach, Eschborn

### **Lunch (1.45–2.30 p.m.)**

### **Keynote address 4 (2.30–3.15 p.m.)**

#### **The Millennium Development Goals. Can we afford failure? Can we avoid failure?**

*Chairperson* Dr R K Pachauri, Director-General, TERI, New Delhi

*Speaker* Dr Jan P Pronk, Chairman, Water Supply and Sanitation Collaborative Council & Special Envoy for the Secretary General, United Nations

### **Plenary session 6 (3.15 p.m.–4.45 p.m.)**

#### **Bridging the Science and Technology Gap: Institutional Innovations and Effective Financing**

##### *Co-chairs*

- Ambassador Walter Fust, Director General, Swiss Agency for Development and Cooperation, Berne
- Prof. V Ramanathan, Director, Centre for Atmospheric Sciences, Scripps Institute of Oceanography and Board Member, TERI-North America, Virginia, USA

##### *Members of the panel*

- Prof. Joanne Kauffman, Political Scientist, Academic Advisor on Sustainable Development, Massachusetts Institute of Technology, Massachusetts, USA
- Dr Jorgen Kjems, Managing Director, Riso National Laboratory Management, Roskilde
- Dr Chris Mottershead, Distinguished Advisor, Environment, BP plc, Middlesex, UK
- Mr Steven D Smith, Venture Investor, Redding, CT, USA
- Prof. Patrick Whitney, Head of the Design School, Illinois Institute of Technology, Chicago

### **Keynote address 5 (4.45–5.30 p.m.)**

*Chairperson* Mr S Sundar, Distinguished Fellow, TERI, New Delhi, India

*Speaker* Mr Anand Mahindra, Vice Chairman and Managing Director, Mahindra & Mahindra, Mumbai; President, Confederation of Indian Industry, New Delhi

#### **Reception**

**5.45–7.45 p.m.**

**Venue** Silver Oak, India Habitat Centre

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