The deliberations went on till 6.40 p.m. in the final session, a full hour beyond the scheduled closing time of DSDS 2002, but the audience sat in rapt attention, listening to the valedictory speakers. The chairman of the session, Mr Nitin Desai, Under-Secretary-General to the United Nations, summed up the spirit and hopes for Johannesburg and also informed the participants of the preparations that have already gone into the process. In many respects, the speakers in the valedictory session reflected the various constituencies that would have a bearing on the issues to be raised at the WSSD and the outcome of that Summit.

Mrs Sheila Dikshit, the Chief Minister of Delhi, articulated issues that are similar to those faced in other large cities in the developing world.

Mr Digvijay Singh, the Chief Minister of Madhya Pradesh, gave a lucid presentation on initiatives being taken by him with the participation of the people in sustainable management of natural resources at the grass-roots level. Mr Ola Ullsten, former Prime Minister of Sweden provided a broad global overview of themes relevant for WSSD.

The curtain may have come down on this session of DSDS but the overwhelming opinion of all the participants and speakers was that DSDS should become an annual series. Hence, we would now prepare effectively for DSDS 2003. So please stay with us.

(R K Pachauri)

Information Technology has changed the way we learn, work, communicate, do business, and offer services. It has enhanced transparency, participation, and efficient governance. Paradoxically, the digital divide is a major challenge for developing countries and seems to be widening at a swift pace. It was initiated by non-availability of telecommunications and while developing countries struggled to improve tele-density, the convergence of ICT (Information and Communication Technology) and its importance in socio-economic growth created yet another divide.

Subsidies will not solve the problem; success will come when technology programmes gain grass-roots acceptance, when users perceive its value and are willing to pay. The answer lies in reducing the cost, leveraging existing/potential investment, developing useful content (both voice and data; in local languages), and standardizing low-cost technology. The market will decide what technology it wants. The regulator must play the role of moderator and surrogate market initially.

Rural and semi-urban/urban connectivity must be addressed through different policies. Rural areas have not proved profitable even for voice transmission. The challenge is to accelerate service deployment in rural areas, which will pay for themselves.

Deployed technologies must be reliable, cost-effective, and capable of carrying or being scalable to broadband. Services maintenance is also crucial. Wireless, voice over Internet protocol, Internet telephony, public telephone information centres, and WAP can be used with imagination to bridge the divide.

In brief...
Sustainable energy must fulfil the objectives of (1) energy accessibility, (2) energy availability, and (3) energy acceptability.

Per capita energy consumption and GHG emissions of developing countries are far lower than that of the industrialized world. In a convergence of emissions at a sustainable level, developing countries can increase emissions to a safe limit while developed ones reduce to the same level. Marrakesh finalized operational rules for flexible mechanisms and alleviated market uncertainty for carbon trading. With US withdrawing, new sources of uncertainty emerged and the Protocol was diluted. Concessions given to encourage ratification include increased caps in forest management and no quantifiable caps for ‘offshore’ Kyoto mechanisms.

Beyond Marrakesh, every country including the US must contribute to mitigation. The ultimate level of GHG concentration must be agreed upon and medium-term targets set. National policies must integrate linkages between climate change and sustainable development.

The US is not (and is unlikely to be in the near future) part of the Protocol but with growing public and business support, it is accepting its responsibilities as the world’s largest GHG polluter. US withdrawal from Kyoto may harm multinationals as they will miss important market opportunities and not be able to manage their emissions reductions cost-effectively. Domestic and international regimes must be compatible to accelerate convergence.

It is time for action as the IPCC projects a 1.4 °C to 5.8 °C rise in world temperatures, resulting in changes in precipitation patterns, frequency and intensity of climate extremes, and sea-level rise, further adversely affecting yields of staple crops, run-offs in major river basins, and glacier movements.

The higher vulnerability of developing countries to such impacts may be reduced through faster growth, adaptation, and mitigation. To promote carbon trading, business regimes require clarity, flexibility, and low transaction costs, and capacity building. Projects should be uniformly distributed among developing countries. The high transaction costs and political risks hindering larger projects like rural electrification can be overcome through effective public–private partnerships.

Technological leapfrogging implies skipping many rungs of the technology ‘ladder’ by directly adopting advanced technologies. Most rural households cannot access basic energy services and rely heavily on traditional means, which adversely affect health besides depleting the country’s natural resource base. Science and technology advances offer unprecedented opportunities for sustainable development.

Technology can be incremental (reduces cost, improves performance) and radical/revolutionary (replaces traditional technology with modern). Incremental technologies can help the small-scale sector meet present challenges of efficiency improvement and environmental compliance. Radical innovations increase people’s welfare. In the IT sector, upgradation of existing wireline services to increased bandwidth and new wireless technologies for remote access could help overcome the digital divide. Satellite-based monitoring and automated data processing systems should be adapted and made affordable for developing countries.

Technological change improves performance, reduces cost, and mitigates adverse impacts of human activities. The ideal strategy would implement incremental changes in the short term and radical transitions in the long term. Opportunities to nurture entrepreneurial spirit and human ingenuity are essential. Appropriate legislative measures, financial support, and international cooperation are required to ensure that developing countries do not follow the developmental path traced by industrial countries.

Ecologists are living examples of shaping ideas that surround sustainable development. The tendency to be steeped in complacency and delay action until situations escalate uncontrollably must be terminated.

Progress must be redefined by developing an alternative progress index for human development or natural accounting. Policy formulations and statements must be eco-labelled; TERI’s ‘Green Budget’ exercise of appraising a public document to re-evaluate its ecological/social sustainability is pertinent. Corporates were urged to eco-label their products. Aggressive drives are needed to notify the public of inherent advantages of recyclable materials.

Market prices do not fully reflect externalities; factors like pricing, demand, and supply are far removed from the core problem. Rather than adopting incremental taxation, policies should be blunt and across-the-board to avoid loopholes and non-compliance. The language in implementing such mandates must be cut. Enforcement is the key; incessant and superfluous campaigning against laws only works against the larger good.

Subsidies, used to gain political popularity, have resulted in unsustainability, increased fiscal pressures, and failure to benefit those that really need them. Subsidies must be introduced with strict time frames and re-examined regularly.

In India, there is an urgent need to (re)inculcate a civic sense and sensitivity in the mindsets of people and decision-makers to keep their surroundings congenial for living. In the face of a revolutionary idea, authorities should have the tendency to first ignore it, then laugh at it, then denounce it, then suppress it, and finally respect it. The ecological movement is now in the final stage of respect.
The discussions were modelled around three questions posed by the chair to the speakers.

1. What do you expect from the WSSD as a politician?
2. What are you offering or committing yourself to on behalf of your country?
3. How different is Johannesburg going to be after 11 September?

Dr Pachauri said that TERI would summarize the DSDS 2002 recommendations to feed into the WSSD. Globalization must work for the poor, encompass environmental concerns, and derive from good governance.

Ms Beckett said that the WSSD should look ahead and achieve concrete social, environmental, and economic goals. The UK government is considering projects in water, energy, forestry, and tourism. The 11 September event reinforces the fact that we are one world and can together make a success of it or ruin it.

Mr Baalu said that it is time to make the right choices since Rio is behind us and Johannesburg is imminent. Specific issues to be addressed at the WSSD include climate change, biodiversity loss, water pollution, public awareness, and institutional frameworks.

Mr Haavisto said that the pre-Johannesburg spirit of scepticism is not justified, as 10 years is too little time for real long-term achievements. Though the climate convention has not really taken off, we now have many more instruments in place and a much more active civil society. The Kyoto Protocol should be ratified despite US opposition. ODA should be increased and specific funding/tools for sustainable development should be earmarked.

Mr Prank accentuated the necessity of civil society alliances to mobilize necessary support to urge heads of states to make serious commitments for operationalizing sustainable development; they should not get away with simply nice words. The ministers accepted the importance of nurturing confidence between developed and developing countries. The latter should also be provided adequate financing.

Mr Hanegbi said that the WSSD ought to be concerned with implementing promises made by governments at Rio. Israel has provided its people a better quality of life through various environmental measures including education and awareness and formulation of a ‘green’ police. Israel is voluntarily committed to promoting environment at the WSSD.

Mr Upton said that in Rio, government leaders managed to strike several deals, which crystallized as the Agenda 21, and to agree on binding conventions. In contrast, no plans are on to negotiate any binding conventions in Johannesburg. He presented stark figures, which must be balanced to bring about parity between developed and developing countries.

Mr Tortoli said that half the battle would be won if countries got anywhere close to achieving

**Agenda 21.** To combat unsustainability, Italy has devised a comprehensive strategy incorporating poverty reduction, civil society participation in decision making, broad-based financial support, and debt relief and market access to least developed countries.

Mr Schmidt spelt four key aspects of global sustainable growth—trade liberalization (crucial for capital flows into developing countries); free market access; good, effective governance; and sound environmental strategies.

Ms Mabudafhasi’s opening slogan aptly summed up the South African objective—people, planet, and prosperity. The WSSD must address issues challenging nations of the South including women’s rights, unemployment, disease, poverty, and hunger.

Mr Prank summarized the session by saying that no country has kept the promises it made in Rio. Concrete agendas have to be prepared for consensus at Johannesburg, after which they must be swiftly translated into action. Processes, relationships, money flows, etc. have to be redefined. Aspects like public–private partnerships, debt reduction, and resource allocation should be coordinated intelligently between the North and the South.

**Valedictory session**

**Leadership for sustainable livelihoods**

Chairperson Mr Nitin Desai

Presentation of rapporteurs report Mr Yateendra Joshi

Speakers Dr R K Pachauri • Mrs Sheila Dikshit

Mr Digvijay Singh • Mr Ola Ullsten

Mr Desai enunciated the need for interactive leadership from ministries, bureaucracy, and civil society. The greatest challenge in achieving sustainable livelihoods from rests with the leadership that would emerge at local, regional, national, international, and global levels.

Summarizing the session recommendations, Mr Joshi said that to ensure sustainable livelihoods, especially for the marginal poor, faster and increased ODA flows in poorer nations are critical. Local, national, and regional micro-credit programmes should complement this. In this process, technology will be important and effective participation of stakeholders from business, government, and civil society will be indispensable. The links of environment with sustainable livelihoods, the quintessence of food security, the reality of climate change, and the need for pro-poor business models and sustaining energy needs were stressed.

Stating the DSDS philosophy, Dr Pachauri said that TERI has set milestones towards achieving sustainable development for India and will project to the world the best ways to reach them. The fact that the Indian Prime Minister inaugurated DSDS 2002 substantiates the nation’s emphasis on sustainable development. DSDS would not stop at being a talk shop but would facilitate enlightening discussion involving technology, science, economics, and governance.

Discussing urban sustainability, Mrs Dikshit focused on Delhi’s problems, including the provision of water and housing to its growing populace, heavily constituted by the marginalized and poor. The solution lies in governance and its efficacy can be enhanced by removing multiplicity in the governing structure, which, instead of serving as an engine of growth, often impedes
crisis resolution. Barriers to decision making and implementation should be removed to ensure sustainable development. There is need for bhaagidaari (partnership) between citizen and governments towards achieving economic and social goals for the nation.

Mr Singh emphasized that leadership must bring together civil society, bureaucracy, business, and governance. Development of rural India is of utmost importance. India suffers more from overgovernance rather than ineffective governance. Conflict at different levels of administration and governance must be resolved. Short- and long-term goals, at regional and national levels, must be combined. Redefining the Forest Conservation Act and reframing environmental protection acts would catalyse the achievement of sustainable livelihoods.

Mr Ullsten emphasized the need for translating sustainable livelihood theories into practice. The WSSD would and should succeed for the greater good of mankind; it would mark the first global move towards sustainable development. If it fails, it would sadly show the lack of global recognition and awareness of the glaring need of the hour. Rio demonstrated that the environment is not a mere subset of the economy and indicated the need for development within the limits of the biosphere.

Sustainable livelihoods, environment, and terrorism are linked in the realm of global security. Lack of sustainable development leads to an increasing percentage of the poor in the global community. This can only aggravate unwanted social tensions like terrorism, besides directly affecting the environment. Conflict resolution between different political systems can be effectively sorted out by global dialogue. This calls for visionary leadership, which would drive the process of growth while achieving the primary objective of sustainable livelihoods for the global poor.

Mr Desai remarked that besides the technical convergence to adopt a framework for sustainable development at the WSSD, international will for conflict resolution at all levels must be forthcoming.

He concluded by raising a call for the Johannesburg Activist—the right blend of an economist, market worker, and an engineer, thus implicitly pointing out the need for a thorough understanding of the economics, business mechanics, and technology perspectives. This activist would be none other than each one of us that belongs to the civil society. The chair thus called for positive action for the WSSD from all sections of society.

As they said it . . .

**Johannesburg is a competition for the vision of the world.**

. . . Mr Nitin Desai, Under-Secretary-General for Economic and Social Affairs, United Nations, New York

**It is possible to combine environment and development objectives...create immediate incomes for poverty reduction and environmental resource base.**

. . . Mr Digvijay Singh, Chief Minister of Madhya Pradesh, India

**Environmental degradation feeds on poverty as much as poverty feeds on the world’s degrading environmental resources.**

. . . Mr Ola Ullsten, former Prime Minister of Sweden

**Inculcating the civic sense is a very important task for the media; the visual image is a very powerful tool.**

. . . Dr Arun Shourie, Minister for Disinvestment, and Department of Development of North Eastern Region, Government of India

**Leaders should not cover their ineffective actions with words.**

. . . Mr Simon Upton, former Minister for the Environment, New Zealand

**The ‘global deal’ to achieve renewed commitment to implementation of Agenda 21 must incorporate people, planet, and prosperity.**

. . . Ms Rejoice Mabudafhasi, Deputy Minister for Environmental Affairs and Tourism, South Africa

**What kind of science and technology is required for overtaking without having to catch up?**

. . . Dr Hansvolker Ziegler, Deputy Director-General, Environmental and Social Research, Federal Ministry of Education and Research, Germany

**One talks of death and sustainable development in the same breath.**

. . . Mr Shyamal Ghosh, Secretary, Ministry of Telecommunications and IT, Government of India

**Let us start technological learning now.**

. . . Dr Nebojsa Nakicenovic, Project Leader, Transitions to New Technologies, International Institute for Applied Systems Analysis, Austria

**Hydrogen is just right for the future.**

. . . Prof. Umberto Colombo, Former Minister of Universities, Science and Technology, Italy

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