



Delhi Sustainable Development Summit 2002

Ensuring Sustainable Livelihoods challenges for governments, corporates and civil society at Rio + 10

Background paper prepared for the
Delhi Sustainable Development Summit 2002
(8–11 February)



Introduction

Sustainable development: from Stockholm to Rio

The concept of sustainable development dates back a long way but it was at the United Nations Conference on the Human Environment at Stockholm in 1972 that the international community came together for the first time to focus on global environmental and developmental issues. The Conference brought into focus the enormity of issues related to environmental degradation and ‘transboundary pollution’ and galvanized public opinion around environmental concerns. The Conference led to the creation of the United Nations Environment Programme. Over the years, the urgency for concerted international action to address transboundary environmental problems, such as depletion of the ozone layer, climate change, management of ocean and freshwater resources, land degradation, and depleting biological diversity gained further momentum.

At that juncture, it was also recognized that environmental betterment could not be divorced from socio-economic development. Underdevelopment is both an agent and a victim of environmental damage – population growth, paucity of resources, and lack of economic opportunities would create pressures on ecologically fragile areas and natural resources. These, in turn, could jeopardize growth in the long run. Growing interdependence amongst nations also meant that by adversely affecting the economic base and social fabric in poor countries, local environmental pressures could impact the political, economic, and social interests of the world as a whole.

These concerns were reflected in the well-known definition of sustainable development evolved by the Brundtland Commission set up by the UN in 1987, as ‘development that meets the needs of the present generations without compromising the ability of future generations to meet their own needs.’

International recognition that environmental protection and natural resource management must be integrated with socio-economic issues of poverty and underdevelopment culminated in the historical Earth Summit at Rio de Janeiro in 1992. The Summit brought together representatives from governments, international and NGOs (non-governmental organizations), to adopt a global plan of action to confront the pressing needs of the world, and prepare for the challenges of the next century, in order to attain the long-term goal of sustainable

development. In essence, sustainable development comprises two key concepts. These in the words of the WCED (World Commission on Environment and Development) report are:

- the concept of ‘needs’, in particular the essential needs of the world’s poor, to which overriding priority should be given; and
- the idea of limitations imposed by the state of technology and social organization on the environment’s ability to meet present and future needs.

Any review of the implementation of the Rio accords must address both these constituent elements of sustainable development (Box 1). Placing unbalanced emphasis on the second element would amount to distorting the concept of sustainable development. Moreover, it would adversely affect the protection of the environment since, as the WCED report pointed out, ‘a world in which poverty and inequity are endemic will always be prone to ecological and other crises.’

Box 1 An unfinished agenda

The Rio Summit was a landmark event where the international community committed itself to realizing a future in which socio-economic progress went in harmony with nature’s carrying capacity. Ten years since Rio, progress towards the established goals has been slower than anticipated and in some respects conditions are worse than they were ten years ago. According to the UN Secretary General’s report on Implementing Agenda 21, the gap in implementation is particularly visible in four areas.

- A fragmented approach towards sustainable development, which does not reflect the inextricable connections between economic, social and environmental objectives.
- No discernible changes in the unsustainable consumption and production patterns that have threaten the natural life support.
- Lack of mutually coherent approaches in the areas of finance, trade, investment, technology and sustainable development, which assume far greater importance in a globalizing world.
- Inadequacy of financial resources and technology transfer necessary for implementing Agenda 21.

These gaps manifest in disturbing trends of unequal consumption and environmental deterioration. Marked regional inequities in economic growth as also consumption and production patterns remain despite the vision of a more egalitarian society (Table 1). It is estimated that 20% of the global population, living in highest income countries, account for as much as 86% of the total private consumption expenditure, and the share of the poorest 20% is only 1.3% (Brown et al, 2001).

Contd...

Table 1 Disparities in consumption (annual per capita)

Country	<i>Total value of private consumption (in PPP \$, 1997)</i>	<i>Cereals (kg, 1997)</i>	<i>Paper (kg, 1998)</i>	<i>Fossil fuels (kgoe, 1998)</i>	<i>Cars (per 1000, 1996)</i>
US	216880	975	293	6902	489
China	1410	360	30	700	3.2
India	1166	234	3.7	268	4.4
Nigeria	692	228	1.9	186	6.7

Source World Resources, 2001

There was a decline in the overall poverty rate in the developing countries, from 29% in 1990 to 23% in 1998 (based on an income poverty line of \$1 per day) while the number of absolute poor declined slightly from 1.3 billion to 1.2 billion. Much of this improvement was concentrated in East and South East Asia, with some progress in South Asia and Latin America and no progress in sub-Saharan Africa where almost half the population lives in poverty. Other indicators of human welfare also narrate a dismal story. At least 1.1 billion people still lack access to safe drinking water and about 2.4 to sanitation; there are 815 million undernourished people in the world of which over 95% live in developing countries; there are 113 million primary-school-age children in developing countries not in school, of whom 60% are girls. Despite notable progress towards the elimination of diseases such as polio, poor health conditions continue to be a major constraint in the developing countries—inadequate and contaminated water supplies, poor sanitation services, indoor air pollution from traditional fuels, malaria, tuberculosis, lack of reproductive health services and new threats such as AIDS place a heavy burden on humanity in the form of death and disease.

Agricultural expansion is threatening the environment despite the introduction of more sustainable techniques of enhancing agricultural productivity—forests and grasslands have been reduced and wetlands have been lost reducing biodiversity and other environmental services. Soil degradation affects at least two-thirds of the world's agricultural lands. Water scarcity has become severe and by 2025, as much as two-thirds of the world's population could live in countries with moderate or severe water stress. It is estimated that more than half of the world's major rivers are seriously polluted. Diminishing biodiversity is another cause of concern, with a rising number of plant and animal species threatened by extinction. About 50% of all marine capture fisheries are fully utilized and another 25% are overfished, leaving only 25% with some potential for increased fish harvests. Net annual loss of forests is to the tune of 9.4 million hectares, with net deforestation rates highest in Africa and South America, whereas in Asia, new forest plantation significantly offset deforestation. Global warming with rising sea levels and changing weather patterns is a real threat to the lives and livelihoods of millions of people. Global carbon emissions doubled between 1965 and 1998, increasing by 2.1% per year, following the general trend in energy consumption. People in developed countries consumed an average of 6.4 toe (tonnes of oil equivalent) per year in 1999, ten times the consumption in developing regions of around 0.62 toe/year per capita.

Poverty beyond income

It is well appreciated that poverty goes beyond income (or the lack of it). As Prof. Amartya Sen succinctly puts it ‘poverty must be seen as the deprivation of basic capabilities rather than merely as lowness of incomes.’ Consequently, poverty eradication cannot be achieved merely through a top-down redistribution of public resources. However, poverty alleviation measures have traditionally focussed on enhancing per capita income and consumption at the national level, as also manipulating sectoral policies to direct subsidies to the poor. These approaches did not pay adequate heed to the milieu, within which the poor exist and the resources they use for generating a livelihood. In essence, the impact of macro policies on the availability of micro level livelihood options was not well conceived or appreciated. Poverty eradication in the long run, requires that the poor be enabled to sustain enhanced standards of living through promotion of opportunity, empowerment and security (WDR 2001/02), which in essence lays the foundation of the sustainable livelihood approach (Figure 1).

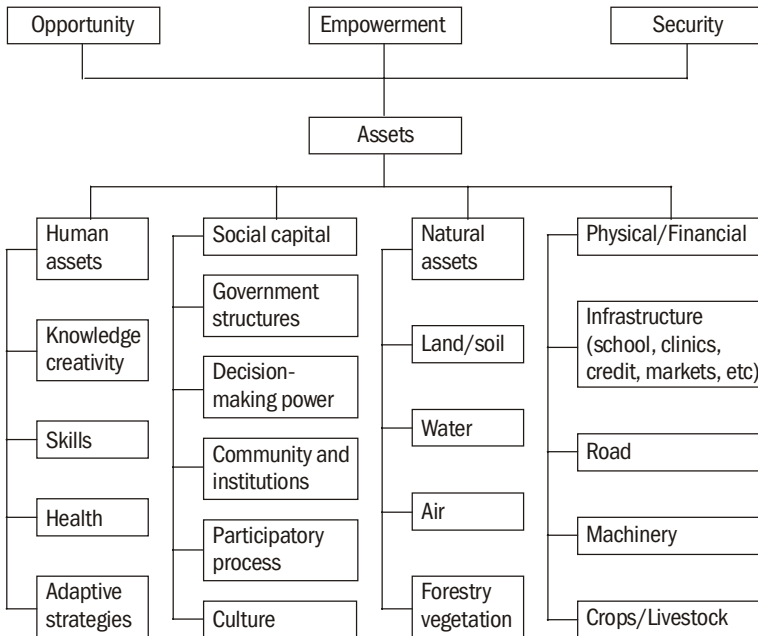


Figure 1 Poverty reduction through opportunity, empowerment and security (Adapted from Singh and Gilman)

Sustainable livelihoods approach for poverty reduction

Disenchantment with the top-down approach to poverty reduction and the recognition of the multifaceted phenomenon of poverty has led to the evolution of the sustainable livelihood approach that seeks to address poverty in all its dimensions. Evolved by the Brundtland Commission, the concept implies an approach to maintain or enhance resource productivity, secure ownership of and access to assets, resources and income earning activities as well as to ensure adequate stocks of food and cash to meet basic needs. This approach to engendering sustainable livelihoods is a departure from traditional macroeconomic measures to combat poverty, in that it allows for framing policies that target development, sustainable management of resources and poverty eradication simultaneously. And it is this facet of sustainable livelihoods that underpins the Agenda 21 for sustainable human development.

Sustainable livelihood is inextricably linked with the environment as the poor are both an agent and victim of environmental damage. About half of the world's poorest people live on marginal lands, with no recourse but to keep depleting the resources on these or to use other vulnerable areas (WRI, 2000/01). According to Georgieva,

‘...soil degradation, for example, now affects an estimated 65% of cropland area in Africa, 51% in Latin America, and 38% in Asia. The livelihoods of more than a billion rural people are at risk as a result of desertification and dryland degradation. Water scarcity is a serious problem in many parts of the world; many countries are already consuming more than 100% of their renewable water resources. Similarly, nearly 3 billion people depend on wood for household heating and cooking, yet many countries face a widening gap between their needs for fuelwood and sustainable supplies of it.’

The challenge, therefore, lies in providing the highest possible quality of life within the reality of ecological limits and a finite resource base

Besides the linkages between poverty and the environment, external processes such as globalization are increasingly being recognized as a powerful force, having ramifications for economic, political, social, and cultural systems around the world. The linkages between globalization and sustainable livelihoods are complex, entailing a mixed bag of

opportunities for and threats to the poor. On the upside, globalization forces have the potential to instil higher efficiency in economic activities and institutions, develop human capital, enhance employment opportunities, provide access to cleaner and efficient technologies, improve environmental awareness, and create market self-regulation of industrial activities through internationally recognized benchmarks, standards and management systems. On the downside, the exacerbation of inequities in the distribution of benefits amongst the world's population has been a concern for sustainable livelihoods. For those who are integrated with processes of globalization and decentralization, the human, financial, technological and natural resource bases tend to get enlarged. By comparison, those who are excluded from it experience erosion of their capital base, largely emanating from marginalization, displacement and loss of natural (especially common pool) resources.

Indeed, the challenge is to ensure that poor are not left out as global interdependencies increase. That is, there are more opportunities for poor people to earn a living and work their way out of poverty and supporting mechanisms are put in place such that their opinions are internalized in decisions that impact them (Global Poverty Report, 2001). At the national level, there is need to ensure consistency between trade reforms and larger development goals so that the poor are provided a level-playing field, in terms of education, health, access to natural and man-made capital, reduction of social barriers, to participate effectively in the process of globalization. Internationally, there is an urgent need to internalize social and economic interests of the poor and vulnerable communities in proposing and executing trade and investment agreements, intellectual property rights regimes, and environmental and labour standards.

In sum, sustainable livelihoods opportunities are shaped by not only local or endogenous factors but also seemingly exogenous forces such as economic and social integration of the nations of the world.

As shown in Figure 2, the critical entry point for evaluation of sustainable livelihood options lies in the assessment of the community asset base (including not only the physical assets but also, natural, social, and human capital), entitlements and knowledge, rather than the community needs. This assessment should aim towards increasing access to these assets, while building on the existing local coping and

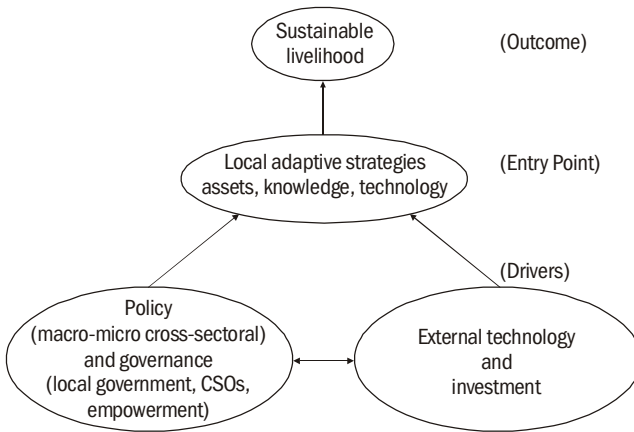


Figure 2 A livelihood approach to poverty reduction (Adapted from Singh and Gilman)

adaptive strategies. These options would have to be driven by a gambit of macro/micro policies and governance structures that critically impinge on communities' livelihood strategies, as also external forces such as science, technology, finance, and investment in a globalizing climate, to complement local capabilities and resources.

Achieving sustainable livelihoods by effectively managing natural resources, as also providing for basic human needs including food security, would necessitate rethinking on traditional financing and technological prescriptions as much as a renewed political will—both at the national and international levels. The traditional financing mechanisms have largely focussed on a few large projects rather than small investments for a relatively large number of small initiatives. Also financial flows, be it ODA (Overseas Development Assistance), FDI (foreign direct investment) or funds from the IFIs (international financial institutions) have been inadequate or inequitably distributed, ineffectively directed, or not aligned with local priorities and needs. There is an urgent need to enhance the financial flows as also make them more sensitive to local contexts. Furthermore, these financial flows should continuously facilitate technological transitions of the incremental nature, encompassing developing countries' needs and capacity. Also engaging the stakeholders, be it the civil society, the business leaders, NGOs, would be quintessential for any technological or financial solution to work towards sustainable development. Agenda 21 had underscored the importance of all these elements, which

although have been reiterated at various fora, have not found effective expressions either in national strategies for development or in bilateral and multilateral commitments.

Issues and concerns

Managing natural resources for society

The endowment of natural ecosystems constitutes a basis for sustainable income generation and employment, more so in low and middle-income countries. Primary activities such as agriculture, forestry and fishing provide as many as 50% of jobs worldwide and around 70% in sub-Saharan Africa, East Asia and the Pacific. In nearly a quarter of the world's nations, crops, timber and fish contribute more than the industrial goods (World Resources, 2000/01).

The depletion of natural resources and loss of their productive capacities impose huge costs on the local communities. Evidence bears out that, most often, on account of declining agricultural productivity, shrinking water supply and reduced timber yields the poor are the first and most directly and adversely impacted.

There exists a two-way link between natural resource management and livelihood of the poor and the impoverished. Firstly, there are disproportionate stresses entailed for the poor from degradation or depletion of natural resources, due to their excessive reliance on local resources for subsistence or cash incomes. Subsistence farming communities and others who can ill-afford chemical fertilizers tend to rely on natural soil fertility; subsistence fisher-folk depend on sustenance of fish stocks in estuaries, rivers, lakes and coastal wetlands. Depletion of these resources imposes a direct cost on them. They, however, usually exert only minimal control over how the ecosystems are used. Secondly, poverty contributes to pressures on natural resource degradation, largely stemming from unabated overexploitation of the natural resource base. Roughly half of the global poorest are known to thrive on marginal lands — arid areas, steep slopes etc — that are prone to land degradation. Even as the land productivity declines and fish stocks deplete, the poor have little room to manoeuvre in coping with environmental or resource stress. This link is, however, contested by many.

An 'ecosystem approach' is now being widely advocated for holistic and effectual management of natural resources, especially at the local or micro level. The approach

“...means to evaluate our decisions on land and resource use in terms of how they affect the capacity of ecosystems to sustain life, not only human well-being but also the health and productive potential of plants, animals, and natural systems. Maintaining this capacity becomes our key to human and national development, our hope to end poverty, our safeguard for biodiversity, our passage to sustainable future.’ (Abstracted from World Resources 2000/01).

Select pilot case studies identify the following as critical components of an ecosystem approach.

- *Tackling the science and information gap* to develop stronger base of knowledge and indicators at various levels (local, national and global) for enhanced understanding of ecosystem functions and conditions in terms of their productive capacity, recognition of trade-offs, and long-term implications of these trade-offs.
- *Recognizing and evaluating the ecosystem services*, such that governments, industry and communities at large internalize these values in their choices and decisions on production and consumption.
- *Engaging in a public dialogue on goals, policies and trade-offs* on what is needed from ecosystems, how best to distribute the benefits, what are the threshold levels of degradation, and what could be the trade-offs between the current and the future. This would not merely yield better outcomes but also aid education and awareness creation.
- *Involving stakeholders in ecosystems management* will bring a larger repository of indigenous knowledge and expertise to bear on the problem at hand. Incorporating diverse interests is also expected to yield outcomes that entail more equitable sharing of costs and benefits.

Whilst discussing management of natural resources for society, one cannot ignore the global commons. In this context the current negotiations on climate change assume even greater importance. Climate change caused by rising atmospheric concentrations of GHGs (greenhouse gases) is a serious threat to the earth’s ecosystems and the livelihoods of the world’s poorest people. Severe storms, floods, and droughts in the last decade have served as a reminder that urgent action is required to reorient energy systems, control GHG emissions, and provide clean energy for human needs and sustainable livelihoods.

Although the countries of the developing world are more vulnerable to climate change, their contribution to the creation of the greenhouse problem has been much smaller than that of the developed countries. The Framework Convention on Climate Change called upon the Annex I countries¹ to take the lead in mitigating climate change by returning to 1990 levels of emissions by 2000. Over the period 1990–98, GHG emissions from these countries collectively declined by 6.4%, largely due to the severe economic decline in economies in transition. The OECD (Organisation for Economic Co-operation and Development) countries collectively increased their emissions by 6.8%, thereby adding 242 MtC (million tonnes of carbon) to the atmosphere over this period (UNFCCC). If their emissions continue to grow at business-as-usual rates, Annex I countries would have to reduce an estimated 625.3 MtC per annum in order to meet the Kyoto Protocol targets (Projections based on World Energy Outlook Reference Scenario). Whilst an agreement over the Kyoto Protocol is a positive step, the world is clearly not doing enough to address the challenge of climate change.

Clearly, the energy sector is one of the major contributors to GHG emissions, and sustainable use of energy including enhanced energy efficiency, greater reliance on renewable energy, and accelerated development and deployment of clean and advanced energy technologies is important in this context.

In the short-term, the CDM (clean development mechanism) introduced under the Kyoto Protocol provides an avenue for providing finance and technology for sustainable energy in developing countries, whilst enabling Annex I countries to meet their reduction commitments in a flexible and cost-effective manner. At the same time, it forms a basis for developing country participation in global GHG mitigation efforts.

In the long-term, however, stabilization of GHG concentrations requires convergence of countries' emissions in an equitable manner. Developed countries would have to redirect their lifestyles towards a more sustainable path, whereas developing countries could adopt 'leapfrogging' as a development strategy (TERI 2001). There is a need for a stronger spirit of cooperation and appreciation of the constraints under which different countries can take effective action. This would require both assessing the economics of mitigation measures, as well as

¹ OECD countries and economies in transition.

greater research on the impacts of climate change on a location specific and regional basis (Pachauri R K and Kelkar U). The vulnerability of developing countries to impacts of climate change is relatively high and it is essential to start planning for climate impacts, by identifying and implementing adaptation measures, and strengthening the coping capacity of vulnerable sections of society.

To address concerns of other forms of global commons, various multilateral environmental agreements and conventions to safeguard the natural resources (such as the CBD [United Nations Convention on Biological Diversity]) have been put in place. The CBD provides a basis for the equitable access to natural resources, whilst focusing on conservation, sustainable use and equitable sharing of benefits from the utilization of these resources and respect for local communities' knowledge and innovations. International conventions such as the CBD need to be augmented through concerted action to efficiently conserve or use natural resources to produce goods for the larger benefit. At the same time it is imperative to ensure that its provisions are reconciled with those of other international agreements such as the TRIPS (Trade-Related Aspects of Intellectual Property Rights) Agreement of the WTO (World Trade Organization) to build on the objective of benefit sharing and conservation of biodiversity especially in developing countries. Such initiatives may not be forthcoming by the private sector alone, necessitating public spending on R&D for the purpose.

Food security and basic human needs

'A day will come when the progress of nations will be judged not by their military or economic strength, nor by the splendour of their capital cities and public buildings, but by the well-being of their peoples: by their levels of health, nutrition and education; by their opportunities to earn a fair reward for their labours; by their ability to participate in the decisions that affect their lives; by the respect that is shown for their civil and political liberties; by the provision that is made for those who are vulnerable and disadvantaged; and by the protection that is afforded to the growing minds and bodies of their children,' states UNICEF (UNICEF, 1995).

The following trends bring out the magnitude of global poverty and shortfalls in meeting the basic human needs (Box 2).

Box 2 Facts and figures on meeting basic human needs

- Despite the rise in aggregate value of global output, to around US \$ 30 trillion per annum, an estimated half of the world's population lives below income level of US \$ 2 per day and as high as 1.2 billion lives on less than US \$ 1 per day.
- An enormous consumption gap exists between industrialized and developing countries. The consumption of the richest 20% is 16 times that of the poorest 15%. The addition to consumption by a child in the industrialized rich country over the entire lifespan is equivalent to consumption of about 30 to 50 children born in a developing country.
- Nearly 800 million people do not have sufficient food, and approximately 500 million suffer from chronic malnutrition.
- As much as 130 million children are malnourished. More than 250 million children are working as child labourers.
- Whilst at the global level, access to safe drinking water has risen to as high as 70%, in the developing countries almost 33% of 4.4 billion people lack access to safe drinking water, about a quarter lack adequate housing and as much as 60% have no or inadequate sanitation facilities. With urbanization levels having doubled between 1960–90, urban infrastructure is under ever-larger stress and access to basic amenities is expected to shrink further.
- As much as 260 million children are out of school at primary and secondary school levels. In 1997, over 870 million adults were illiterate around the world.
- Every year, nearly 3 million people die from air pollution, of which an overwhelming 80% from indoor air pollution. Another 5 million die from diarrhoeal diseases caused by water contamination. In developing countries, the mortality rate for children below 5 years of age is 7 times as high as in industrialized countries.

Compiled from

UNFPA, 2001. State of the world Population 2001. Chapter 1: Overview. <http://www.unfpa.org/swp/2001/english/cho1.html>. Downloaded on February 1, 2002.

UNDP, 1995. Human Development Report 1995. Oxford University Press. New York.

UNDP, 1997. Human Development Report 1997. Oxford University Press. New York.

By comparison, it is envisioned that in the 21st Century (1) the proportion of people living in extreme poverty in developing countries has to be reduced by half by 2015; (2) universal primary education to be provided in all countries by 2015 together with gender equality in primary and secondary education by 2005; (3) death rates for infants and children below 5 years to be reduced by two-thirds of 1990 level by 2015; primary health care made available for all as soon as possible and no later than 2015; (4) reversal of trends of loss of environmental and natural resources at global and national levels by 2015 (OECD, 1996). Going by the prevailing trends, achieving these is a formidable task, to say the least.

At the World Food Summit in 1996, the leaders of the world affirmed to reduce the number of hungry people to around 400

million by 2015. Going by the present rate of reduction of 8 million undernourished people per year, there is little hope to meet that goal.

The quantum jump in yields of rice, wheat and maize in both the developing and developed countries is well documented. With the onset of the Green Revolution, which combined breeding and agronomic practices did improve agricultural productivity and output and improved the living standards of billions of people. The moot question is, how long is this trend sustainable? Globally, these appeared to have depicted a slowdown since the mid-1980s—from 2.3% per year to 1.5% per year now. The best predictions for the future put it at 1% per year for the next 25 years.

Deteriorating environmental conditions, such as soil degradation and mounting water shortages together with persistent genetic erosion of cereals and other plant varieties also compound the security of supply of staple crops. Evidently, at present 15 crops provide 90% of world's food intake, of which three – rice, wheat and maize (corn) – are staple foods for two out of three people. Climate change is also predicted to have serious and variable implications in terms of changes in hydrological cycles, soil erosion, accelerated extinction of plant and animal species, shifting agricultural zones, and threat to public health due to increased water stress and tropical diseases.

At the micro level, closer links between agriculture and development will have to be forged through enhanced productivity and employment in agriculture and natural resource-based sectors. For local communities, closely linked to concerns of food security are issues of income and employment security. Enhanced earning opportunities and extension of education to women would contribute significantly to lower fertility rates and provide food security.

At the broader level, the economic reforms will be effective in ameliorating poverty only if infrastructure and institutional reforms are put in place. Herein lies the need for a second-generation of Green Revolution, that would now have to emphasize a broad based national agenda with regard to inclusion of semi-arid and dry land area development, covering a larger base of crop varieties, thrust on conservation of natural resources and environment, and directing the flow benefits to the poorest and marginalized. Even the international research agenda, including that of the CGIAR (Consultative Group on International

Agricultural Research) will have to lay more emphasis on enhancing yields in rain-fed areas, which are the mainstay for small and marginal farmers. These would need to aim at achieving food security and sustainable livelihoods by integrating modern science and technology with economic and social reforms.

Financing development: focussed, transparent and pro-poor systems

Financial resources constitute a basic input for effecting Agenda 21. Unfortunately, even though the imperatives for mobilizing financial resources have intensified since the Rio Conference, the trends thereafter have been disappointing, to say the least. The various sources of finance including the ODA, and domestic and foreign private capital, have proved inadequate for engendering sustainable development whilst domestic action towards correcting market and policy failures and making effective use of international investment and assistance also leaves much to be desired.

The facts and arguments are well known. In the case of ODA, flows have progressively diminished to 0.22% of the (GNP (Gross National Product) of Development Assistance Committee countries, less than a third of the United Nations target of 0.7%, despite repeated commitments to 'new and additional financing' by the developed world. Even this low volume of aid is not directed primarily into countries whose population lives in abject poverty nor on measures that directly benefit the most disadvantaged groups. The ODA has increasingly been used to finance global public goods such as protection of rainforests, the seas and the ozone layer etc implying a further diversion of resources available for traditional development activities such as education and health (IIED and RING, 2002). The share of ODA allocated to environmental protection and basic social services accounted for less than 12% of total bilateral ODA commitments in 1999, whilst in the case of multilateral ODA commitments (including loans at non-concessional rates), the share stood at less than 8% of total commitment in 1999 (CSD, 2001).

With regard to FDI, the fourfold growth of global FDI, from US \$ 174 billion in 1992 to 644 billion US dollars in 1998 (World Bank, 1999) notwithstanding, concerns regarding its geographical concentra-

tion and environmental side effects remain unabated. Of the net FDI to developing countries, the top five developing countries (China, Brazil, Mexico, Singapore, and Indonesia) received 55% of developing country FDI inflows in 1998, while the 48 least developed countries received only 1.8% of all developing country inflows and 0.5% of global FDI inflows. The trend also underscores the point that despite a remarkable rise in private capital flows, many countries especially in sub-Saharan Africa remain wholly reliant on ODA and other official inflows. On the upside, it is argued that international investment wherever it flows, offers cutting-edge production technologies in some sectors that are cleaner and more resource efficient, apart from being crucial for sustaining economic growth in developing countries.

Concomitantly, developing countries need to undertake domestic action, which would include measures to internalize environmental costs through the use of economic instruments and correcting policy failures. The Global Environmental Outlook 2000 (UNEP 1999) estimates that governments spend over 700 billion dollars a year subsidizing environmentally unsound practices in the utilization of water, agriculture, energy, and road transport. As Panayotou (1998) argues, Agenda 21 estimate of financing requirements are inflated and these would shrink if appropriate policies are in place to minimize environmental degradation.

A large number of poor economies are still struggling with substantial outstanding historical debts. The outstanding unpayable debts of the poorest countries, reported at around 300 billion dollars, continue to drain their resources even after several years of the international debt relief initiative, HIPC (highly indebted poor countries), (IIED and RING, 2002). In addition to transferring real resources from the poor to the rich, high levels of debt deprives governments in poor countries independence and autonomy, subordinates' local needs, and mandates to the interests of foreign creditors.

Essentially, the issue of responsibility needs to be brought to the centrestage (IIED and RING, 2002). In the case of IFIs, responsibility entails reorienting their actions towards promoting sustainable development instead of pushing money, supporting and enhancing disclosure, and strengthening smaller institutions, which can provide credit at smaller scales and at local levels. Similarly in the case of ODA, responsi-

bility entails making aid flows predictable, transparent, untied (including in the case of ‘technical co-operation’ and ‘food aid’ that are currently excluded from the definition of tied aid), and conducive to concerns of sustainable livelihoods. In the case of FDI, responsibility refers to the new approaches in socially and environmentally responsible investments. On the demand side, developing countries need to focus on strengthening the capacity of governments and communities to access, absorb and use finances effectively; and creating capacity to use trade regime as facilitators rather than obstacles to sustainable development. Urging transnational corporations to adopt better environmental practices through decentralized institutions such as community groups and grassroots NGOs appears to be a more effective way to encourage sustainable practices than use of centralized modes of regulation. At the same time market and policy failures need to be corrected through internalization of environmental costs and phasing out environmentally perverse subsidies.

Further, in order to ensure that resources reach the targeted population, it is necessary that the institutional channels through which resources flow be strengthened. The efficacy of local credit arrangements in generating sustainable livelihoods for low-income households as exemplified by the success of the Grameen Bank venture in Bangladesh, clearly demonstrates the need to integrate grassroots organizations and NGOs into the institutional conduit through which resources can penetrate to the appropriate levels. As Sachs points out, the availability of a small number of large projects may be less useful than the availability of relatively small amounts of money for a large number of relatively small initiatives (IIED and RING, 2002).

Technological leapfrogging: the lure and the limits

Inequitable growth, along with inequitable distribution of its benefits, and digital, and the larger technological, divide have made the issue of ensuring sustainable livelihoods the focus of all thinking related to development. It is in this context that technological advancements in the last half-century, if harnessed for the benefit of all strata of developing societies, including the poor, can work towards ensuring sustainable livelihoods. These include, inter alia,

- agricultural interventions that seek to address issues of food/nutritional security while ensuring ecological sustainability;
- energy interventions that seek to harness renewable energy sources like solar and wind and those that provide energy-efficient ways of utilizing limited resources resulting in sustainable fuel systems;
- process and product related technological interventions for the small and medium enterprises to improve their operating efficiencies;
- information technology interventions that seek to create one world with fast information access facilitating market access and promoting education, health-care, and participative and transparent governance; and
- natural resource management that seeks to conserve and protect the earth's ecosystems and natural resources.

These technological advancements if delivered with simplicity/user-friendliness carry the potential to create decentralized systems and hence provide an opportunity to employ technology for ensuring sustainable livelihoods at the lowest strata of the society. It is significant to note that addressing the problem of energy and connectivity would by itself go a long way in ensuring sustainable livelihoods.

Technology leapfrogging, in this context would imply technological transitions in developing countries that are 'incremental' in nature but penetrating on a faster time scale. Such technological transitions will be effective if and only if they are in line with the priorities of developing societies.

Any approach for sustainable development employing technology would essentially need to address the issues of technology adaptation, building capability, ensuring financial access, ensuring physical access to technologies, and policy frameworks that facilitate technology adoption.

The developing countries, on their part, can help global corporations understand the social milieu in which they are to operate and, therefore, help them develop a corporate philosophy consistent with the priorities of developing societies. Developing countries must also help global corporations realize the potential market that the billions of poor people provide throughout the developing world in terms of technologies that open up opportunities for their development. This becomes

particularly important as a shift in the attitude towards poverty alleviation from a welfare measure to an opportunity for enhancing business alone can help ensure sustained efforts in this direction.

Equally important for technological leapfrogging is the dimension of radical changes in technological profiles, especially in the context of 'bending the (environmental Kuznet's) curve'. This would necessarily require sustained R&D expenditures for implementing new technology futures.

Creating business model for the poor: expanding sustainable development

Recent years have witnessed the spread of global business, with multinational corporations extending their activities into developing countries. In contrast, there has been an increase in the number of poor in the world, with almost 3 billion people surviving on an income of less than 2 US dollars a day. This presents both a threat and an opportunity for business.

As recognized by the WBCSD (World Business Council for Sustainable Development), "Business cannot succeed in societies that fail". Recent demands for greater corporate social responsibility and protests against globalization and large corporate organizations only reflect the fact that social stability, and hence poverty alleviation, is essential to reap the returns from business investments. At the same time, the large numbers of poor represent a unique and hitherto unexplored opportunity for businesses that have focussed mostly on producing goods and services that cater to upper and middle class demands. Providing goods and services that meet the needs of the poor would help enhance their productivity and hence, incomes. This implies not only expansion of the existing market, but also the creation of new markets and growth in profits.

The rural market in developing countries is characterized by income inequities, limited access to resources, poor distribution and communication links, unorganized local markets, and low levels of education and skills. Harnessing this market of millions requires an approach that combines technology innovation, local empowerment, and adaptation and application of existing knowledge and experience to suit local needs. In this context, the role of managers is critical and would involve

- using business models that rely on a new mix of technology, financing arrangements, and retailing strategies;
- introducing new and affordable products and solutions through technology innovation;
- encouraging local entrepreneurial spirit; and
- building partnerships at the lower end of the market (local communities, government authorities, NGOs, and financial institutions) and empowering the local population (e.g. employing and training local technicians).

Specifically, thrust would have to be given to

- creating mechanisms that shift the poor from unorganized to organized sector;
- facilitating transitions from barter to money transactions;
- educating latent consumers to make choices among more sustainable products and services;
- creating access to credit on a commercial basis to enhance purchasing power; and
- building a cost-effective and sustainable supply and distribution chain – with local dealers, retailers, and post-sales service centres. (TERI 2001)

Governance structures and the processes for sustainable development

According to the UNDP (United Nations Development Programme), governance comprises the complex mechanisms, processes, and institutions through which citizens and groups articulate their interests, mediate their differences, and exercise their legal rights and obligations (UNDP). It is in this context that human development and governance nexus has been debated upon.

Sustainable development necessitates recognition of problems with the traditional method of development as a first step to building a consensus on the general direction of development which should integrate economic, social, and environmental perspectives. Further, an understanding of problems, strengths, and weaknesses of all sections of the society become necessary in articulating such a framework for development, which in turn makes building of systems that ensure

representation of all essential sections of society. There are, however, certain issues related to making such a mechanism work effectively both at the national and at the international levels.

At the national level, good governance has been identified with such attributes as participatory, transparent, accountable, and equitable. This necessitates moving away from the centralized model to a decentralized structure wherein the development priorities and hence allocation of resources and such like are decided by the communities themselves. This becomes particularly important in the case of the marginalized sections of our society who have thus far had the least say in the policies that directly impact them. Transparent decision-making processes that are open to dialogue would ensure empowerment that becomes meaningful only through provision of education and access to information that helps them make informed choices. Empowerment of this section of the society would go a long way in ensuring sustainable livelihoods. Good governance ensuring sustainable development at the national level, therefore, requires addressing such issues as provision of education for all; knowledge development and exchange; effective media strategy; cooperation between government, private sector, and the civil society; regular appraisal or assessment procedure; accountability of various stakeholders; transparency in governmental process; shifting governmental activities to basic needs of the population; right to information; open scrutiny of governmental activities.

Given the reality of globalization, sustainable development is not possible in isolation. For sustainable livelihoods to become a reality there is need for a minimum common platform for interaction with respect to critical issues, such as climate change and biodiversity, concerns of market access and transfer of appropriate technology, and their integration with traditional issues of international economic and development cooperation. A consensus on these alone will help focus priorities worldwide towards a common goal of sustainable development. And this requires tackling the larger issue of a strong political will, independent of short-term gains and based on scientific evidence, across the globe on agreement with respect to a minimum action plan. Many international environmental agreements bear evidence of the requirement of international cooperation for implementation, and hence international governance structures, working in a coordinated

manner. There are numerous multilateral environmental agreements in existence today. Sometimes these tend to contradict each other and there is a felt need to harmonize provisions in these conventions to ensure that there are no conflicting environmental and developmental objectives subsumed in them.

In conclusion, for governance to work towards sustainable development for ensuring sustainable livelihoods both at the national and international level, there is a need to address such issues as awareness generation; participative and transparent decision-making in keeping with development priorities of the most vulnerable societies redefined along the tenets of sustainable development; and cooperation of the world community towards a defined common goal.

Engaging the stakeholders

The stakes in ensuring that development is sustainable are extremely high. Poverty and illiteracy are both major challenges which need to be effectively met. Failure to do so can only mean disruption and threats to the world order. Protection of environment is again a high priority since, development paths that disturb the natural balance can only rebound on all of us. With trade, investment, information and transportation barriers coming down, it is no longer possible to isolate the effects of unsustainable development to one part of the world. Sustainability in this sense is indivisible and every citizen is a stakeholder.

Governments are the largest organized stakeholders as they represent the people of their respective countries. They necessarily have to take the initiative and leadership in ensuring sustainability. Quite clearly Governments by themselves cannot perform this role and need the support of business, farmers, and labour, the scientific community and civil society. The manner in which these different stakeholders should engage each other and the changes required in our governance and social structure requires deep consideration.

Democracy provides the largest organized forum for different stakeholder to express their views and ensure that their legitimate interests are articulated and protected. Democratic institutions therefore need to be protected and strengthened. However, democracy by itself cannot protect the interests of all stakeholders and other institu-

tions are required to strengthen and reinforce democratic values and principles.

Decision-making at all levels needs to be made in a spirit of greater participation and consultation. It is not always that people affected by a particular decision have the means to understand the impact of these decisions and influence the process of decision-making. With a greater degree of consultation and transparency, it is possible for NGO's and civil society to bring about a greater degree of awareness and understanding. This can also help in arriving at consensus amongst the different stakeholders. The greater the degree of consensus, the better would be the chances of such decisions being sustainable and equitable. Such a process would also build up awareness about the full impacts of individual decisions, both for the present and for the future.

The future generations, have necessarily to be protected by the present. The responsibility to ensure that our demands on nature do not impinge on the capacity of future generations to use these resources rests to a large degree on the scientific community. They must constantly bring out the trade-offs between present and future consumption. Their capacity to do so need to be supported. Their knowledge can only be utilized if there are consultative forums where these trade-offs can be discussed, understood and more sustainable development paths charted out.

Apart from the future generations there are other important stakeholders, who may not be in a position to fully protect them. The poor are quite obviously the largest of such stakeholders. It is sometimes believed that the interest of business is simply to make profits and at best they have an ethical responsibility towards the less fortunate members of our society. Viewed in a different perspective, the interest of business transcends these narrow limits. The WBCSD has stressed the view that broader corporate social responsibility makes good business sense and contributes to the long term prosperity of companies. It is this enlightened self interest that needs to prevail. The interests of business and the poor can thus be seen as mutually supporting rather than being independent and even in conflict with each other.

This change in the way of approaching the problem must also manifest itself at the global level. The global community and the richer countries must realize that a world in which poverty, disease and

illiteracy is rampant, cannot survive. In fact, the very presence of these factors would contribute to the growth of violence and terrorism. Poverty in one part of the world can quickly transform itself into terrorism that strikes at distant corners of the globe. Thus the fall out of the problems of poverty and ignorance, cannot remain confined to the countries in which they exist.

Both at the national and global levels it is, therefore, necessary for governments and business to remove poverty and realize that this is necessary for their own survival.

At the national level, an important institution, which can protect the interest of stakeholders, is the judiciary. Their role is both to ensure that the actions of governments do protect the interests of stakeholders as well as to take the initiative where government may be inactive. The judicial process can be expensive both financially and in terms of time. Society has to evolve mechanisms to provide for protection to those who cannot afford this process. NGOs and civil society have played an important role in using the judiciary to bring about a better balance in decision making as well as in implementation. The manner in which such support can be institutionalized, needs deliberation.

Sustainable development requires that different stakeholders are properly integrated into the decision making process. This is as much required at the global level as it is at the national level. This can no longer be treated as a moral issue but is at the core of the concept of sustainability. A greater degree of consultation and consensus building would be required to strengthened democratic institutions and values. The manner in which these processes can be institutionalized requires careful thoughts. Equally important is to make all stakeholders understand and accept that although short run interests may appear divergent, ultimately the interest of all stakeholders will converge.

Towards the World Summit on Sustainable Development, 2002

Reiterating the basic approach evolved by Agenda 21 to deal with poverty and promoting sustainable livelihoods, the forthcoming World Summit on Sustainable Development at Johannesburg is expected to lay greater emphasis on identification of workable solutions, implementation of principles evolved at Rio, incorporation of processes of globalization to work towards equity and inclusion of larger sections of the

world populace. It would also underscore the need to strengthen institutional arrangements for effective integration of the economic, social and environmental dimensions of sustainable development. Specifically, the promises made at Rio regarding resources, technology, capacity building, and market access must be reinvigorated.

It needs to be reiterated that the Summit should adopt a focussed approach (rather than be all-encompassing) and more importantly seek to identify deliverables that would aid sustainable development and enable sustainable livelihoods.

At the Summit it is expected that the Rio principles would get reaffirmed, in particular those relating to the 'polluter-pays-principle' and 'common but differentiated responsibilities'. Whilst pragmatic in spirit, the adoption of such principles will have to incorporate the specific concerns of the poor and marginal communities. These gain significance on account of their overwhelming dependence on environmental goods and services and little 'room to manoeuvre' in the face of constraints imposed by the carrying capacity of the natural resource base.

Expectedly, managing the local and global resource wealth would be high on the agenda of the Summit. However, the traditional piecemeal approach for managing natural resources would now have to be replaced by a holistic 'ecosystem approach' that would explicitly incorporate the complex relationships amongst components of the ecosystem, including human action and response. Through an explicit appreciation of needs of the poor and the future generations, this approach would provide a platform for effective redressal of their concerns.

The Millennium Goals of meeting basic human needs, including poverty eradication, food and nutrition, health, education, basic amenities and sustainable human habitats are laudable. But given the progress with regard to these, the achievement of these goals remains a formidable task. There is a need to link food security with income and employment security, and ensure that technological innovations in agriculture complement the larger objectives of social and economic reforms.

In view of the expectations of process and outcome from the Summit, the discussions will have to clearly go beyond engaging the traditional stakeholders – governments, NGOs, bilateral and multilateral

agencies, and social elite – to mainstream those who have been marginalized thus far. Effective delivery of solutions would require empowerment of local communities through a participatory approach, and deepening of democratic institutions. At the same time, it is possible to have a convergence of business interests with social objectives.

The need to mobilize additional financial resources, whether ODA, FDI or domestic resources, is critical, but it is equally important to channelize these effectively. Rather than undertaking a few large projects, a larger number of smaller locally conceived projects may be more successful in using available resources for ameliorating poverty. Private investors have to realize that the social dimensions and their own business interests need not diverge. Instead, focussing on social acceptability and sustainability will enhance their own opportunities.

A combination of these approaches can contribute towards making the World Summit on Sustainable Development a success in terms of providing the right impetus and pathways to ensuring sustainable livelihoods and development.

References

CSD (Commission on Sustainable Development). 2001

Ninth Session April 2001

Financial Flows Statistics. Background Paper No 19. United Nations Department of Economic and Social Affairs, New York.

Georgieva K.

Disproportionate Effects

www.ourplanet.com/imgversn/111/kristin.html

Global Poverty Report. 2001

A globalised market: opportunities and risks for the poor.

African Development Bank, Asian Development Bank, European Bank for Reconstruction and Development, Inter-American Development Bank, International Monetary Fund, World Bank.

IIED and RING. 2002

Financing for Sustainable Development, 2002, Eds. Tariq Banuri, SEI (Stockholm Environment Institute) Boston and Tom Bigg, IIED (International Institute for Environment and Development), London and RING (Regional and International Networking Group).

OECD. 1996

Shaping the 21st Century: The contribution of development cooperation

Development Assistance Committee. OECD. Paris.

Pachauri R K and Kelkar U.

Climate of Concern: International Cooperation from Rio to Marrakesh. Submitted to Oilinvest Reference Magazine.

Panayotou T. 1998

Instruments of change: motivating and financing sustainable development

London: Earthscan Publications Ltd.

Singh N and Gilman J. 2002

Employment and Natural resources Management: A livelihoods approach to poverty reduction.

www.undp.org/seped/publications/empl_pub_res.pdf

TERI. 2001

Directions, Innovations, and Strategies for Harnessing Action for sustainable development

New Delhi: TERI.

TERI. 2001a

Poverty, new technologies, and globalization: opportunities and challenges for global business

New Delhi: TERI. 130 pp. [TERI Project Report No. 2001 RE 42]

The World Bank .1999

Global development finance: country tables

Washington, DC: The World Bank.

UNDP Governance for sustainable human development: a UNDP policy document.

<http://magnet.undp.org/policy/chapter1.htm>.

UNFCCC (United Nations Framework Convention on Climate Change)

www.unfccc.int

UNEP. 1999

Global Environment Outlook 2000

London: Earthscan Publications Ltd.

UNICEF (United Nations Children's Fund). 1995

The Progress of Nations, *New York*.

WDR (World Development Report). 2001/02.

Attacking Poverty.

World Bank, Washington , DC: Oxford University Press.

World Resources. 2000/01

People and Ecosystems: The Fraying Web of Life

United Nations Development Programme, United Nations Environment Programme, World Bank and World Resources Institute.