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SUSTAINABLE DEVELOPMENT : WHAT DOES IT MEAN TO THE WORLD'S POOR?

Introduction

The terms 'sustainable', 'development', 'sustainable growth', 'sustainability,' have become the watchwords of the day. They now command such a prominence in development vocabulary that it is simply not pragmatic for policy-makers to talk of development without prefixing it with these terms. Conceived through a political process by the World Commission on Environment and Development (WCED, otherwise known as the Brundtland Commission) in its Report *Our Common Future* (1987), the concept of sustainable development (SD) still lacks a commonly accepted framework or a technical definition. Its widely quoted definition of SD is quite vague: 'Development that meets the needs of the present without compromising the ability of the future generations to meet their needs.'¹ What are those needs or how to determine them have not been operationalized. The WCED itself put SD as a political and socio-economic goal. The Secretary General of the Commission, Jim MacNeill, has argued: "Our Common Future" is a political document. The main political concept of the report - that one

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1 WCED Report, *Our Common Future* (Oxford: Oxford Univ. Press, 1987), p.43.

that has caught the eye of governments... is sustainable development - that is development which is both economically and ecologically sustainable."²

Today, the profuse ways the concept of SD is used indicate a universal acceptance of its inherent goodness. But the vagueness and the resulting ambiguity in meaning of SD allowed it during the last decade to have multiple, rather innumerable, interpretations. The perspectives also differ in terms of the scale of sustainability: some, like the WCED, view it on a global scale, while others have come up with a more restricted definition of SD with respect to a particular sector of natural resource management and use (e.g. energy, agriculture, forestry etc.). The diversity of needs among countries and groups of peoples suggests the difficulty of establishing a universally "correct" definition of SD or an approach to achieving it. Indeed the concept has evolved to encompass *three* major dimensions: *ecological*, *economic* and *social*, with no success as yet of unifying them into a coherent whole. Even the differing interpretations of these dimensions reflect varying disciplinary biases, distinctive paradigms and ideological disputes.

In reality, the level of development among countries and peoples determines the nature and focus of environmental concerns. A global survey showed that residents of the developing world (South) are no less concerned about the environment than their counterparts in the industrial world (North).³ But the focus of concerns differs. Environment is valued by the world's rich more for its amenities and services, and their environmental movement is aimed at curbing the 'effluents of

2 Jim MacNeill, "Our Common Future: Sustaining the Momentum," in F. Archibugi, & P. Nijkamp, (eds.), *Economy and Ecology: Towards Sustainable Development* (Dordrecht : Kluwer, 1989), pp. 18-19.

3 R.R. Dunlap, *et al.*, "Of Global Concern: Results of the Health of the Planet Survey," *Environment*, 35(9), November 1993.

affluence,' the real culprit of global environmental degradation. But in the South, struggles over the environment by the poor majority are usually about their basic needs and strategies of physical and cultural survival. The impairment of the environment brings in more harm and insecurity to the poor who live on nature and its resources.

But even with a basic needs philosophy during the last two decades, inequality among classes of people has increased within most of the developing countries.⁴ Poverty on average has increased and overall quality of life has deteriorated for majority of people in Asia, where more than half of the world's poor live.⁵ The bottom is not lifting itself up, or development benefits were not reaching the target groups. It is argued that the suboptimal outcomes from resource allocations in the South are not a matter of technical flaws or oversight, but a result of structural factors. After two years of publishing the WCED Report, Jim MacNeill argued that the problem was not so much the rapid environmental changes, as the inability of "our political and economic institutions to cope. These institutions are not working. Many believe they cannot work."⁶ But the collective wisdom of the Brundtland Commissioners avoided making recommendations for any radical restructuring of the institutions that sustain such structural anomalies.

At the grassroots level, however, people are increasingly challenging the state institutions, particularly those involved in agriculture and natural resource sector. A growing body of literature is attempting to conceptualize such activities as involving conflicts over access to natural resources and its management. Juan Martinez-Alier, a Spanish economist, argues that while the two kinds of traditional socio-

4 B. Stallings, "The International Context of Development", *Items* 47(1), March 1993, pp.1-6.

5 *ADB Watch*, Vancouver, April 1991.

6 Jim MacNeill, *op.cit.*

economic conflicts - those over cultivated land and its produce (peasants vs. landlords/the state) and those within the factory (workers vs. capitalists/the state)- raise questions of efficiency and social justice, a *third* kind of socio-economic tension - environmental conflicts highlight the (potentially prior) dimension of the sustainability of different technologies, ideologies, and institutions, as well as the question of social justice.⁷ It is no wonder that the development agencies are gradually stepping into the hitherto untrodden area of policy dialogue among state institutions and local stake-holders of resources including their participation.

Thus, while analyzing SD within a global framework, one must adopt a differential approach to study the concerns of the poor, as distinct from those of the rich of both North and South. With a focus on the need-based and survival-induced resource husbanding practices by the world's poor, the present paper argues that it is not poverty or population pressure *per se*, but structural inequalities and (dysfunctional) state institutions of development delivery that stand in the way of SD; *creating a vested interest among the poor in resource management is likely to ensure SD as well as the needed institutions in the South*; such interests can be sustained through vesting tenure security and instituting a participatory management regime; since economic development is a question of politics and power relations, the *political* dimension cannot be avoided in achieving either national or global sustainability. Thus, the paper critically analyses, first, the frameworks of SD, and then focuses on its social dimension, namely, equity and participation of local communities in resource management.

7 Juan Martinez-Alier & E. Hershberg, "Environmentalism and the Poor: The Ecology of Survival", *Items* 46(1), March 1992, pp.1-5.

Frameworks of Sustainable Development

Since SD is a desirable objective, some experts focus on operationalizing sustainability, rather than trying to define SD. But, even at the technical level, sustainability remains a contested concept.⁸ To some, it means persistence and the capacity of something to continue for a long time; to others, it implies resilience and the ability to bounce back after unexpected difficulties. With regard to the environment, it is used to imply not damaging or degrading natural resources; others see it as development activities that simply take account of the environment; economies are viewed to be sustainable if economic activities do not harm the natural resource base; to others, sustainability implies continuing to grow at the same rate. Some argue that sustainability is a metaphysical principle, and as such it is only its implicative meaning that we should direct our attention to.⁹

The underlying reason of such differing reasoning is that no agreement exists regarding *what* exactly is to be sustained, or *how* it is to be sustained. Sometimes it refers to the resource base itself, and sometimes to the livelihoods that are derived from it. Since the needs of future generations are undefinable and the future economic value of species and ecosystems are equally unpredictable (despite attempts at quantification), SD apparently implies that total biological assets are not reduced in the long-term through human use.¹⁰ Thus, the constancy of natural capital stock (CNCS) is viewed by some as the key condition of

8 Jules N. Pretty, "Participatory Learning for Sustainable Agriculture," *World Development*, 23(8), 1995, pp.1247-63.

9 Richard Shearman, "The Meaning and Ethics of Sustainability," *Environmental Management*, Vol.14, Jan/Feb 1990, pp.1-8.

10 Marcus Colchester, "Sustaining the Forests: The Community-based Approach in South and South-east Asia," in D. Ghai, (ed.), *Development and Environment: Sustaining People and Nature* (Oxford: Blackwell Publishers/UNRISD, 1994), pp.70-100.

sustainability of the production systems.¹¹ The problem is, the current level of NCS has gone way down the ecological thresholds in many developing countries.

Against sustaining the levels of production, some writers emphasize the levels of consumption, since what makes continued "development" unsustainable at the global level is the pattern of consumption of the rich, while most policies designed to tackle development problems, including those that fit within the SD framework, are essentially production-oriented.¹² The reason is obvious - tinkering with lifestyles and consumption pattern of the rich is politically more risky. The average consumption level of the world's poor is quite low. So the focus of sustainability in the South should be on the production and livelihood support systems which overwhelmingly depend on nature and its resources.

Dimensions of Sustainable Development

The disagreements over the concept have led into devising three major dimensions of SD. The *ecological* view focuses on preserving the integrity of ecological subsystems viewed as critical for stability of global systems. The units of measurement in this perspective are physical, not monetary, and rely on such vocabulary as sustained yield, carrying capacity or assimilative capacity of a country or region.¹³

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- 11 David Pearce, *et al.*, *Sustainable Development: Economics and Environment in the Third World* (London: Edward Elgar, 1990).
 - 12 Michael Redcliff, "Sustainable Development and Popular Participation: A Framework of Analysis," in Dharam Ghai & Jessica, M. Vivian (eds.), *Grassroots Environmental Action* (London & New York: Routledge, 1992), p.25.
 - 13 C. Perrings, "Ecological Sustainability and Environmental Control," (Canberra: Centre for Resource and Env Studies, ANU, 1991); G.H. Orions, "Ecological Concepts of Sustainability," *Environment*, Winter 1992/93.

According to many, global production systems have already reached, or even exceeded, the limits of the ecosystems.¹⁴ Because of potential or manifest environmental problems, such as global warming, acid rain, rapid deforestation etc., there is no disagreement about the desirability of protecting the earth's life-support services. Differences occur as to what level to maintain, or how to maintain them.¹⁵

The *economic* approach to sustainability centers around two frameworks: qualitative development and quantitative growth. The qualitative framework argues for a development without quantitative growth, without expanding the macro scale of global production. Such a worldview is articulated by the supporters/proponents of ecological economics that include Nobel laureate economists, such as Tinbergen and Haavelmo, and others like Daly, Goodland, and Costanza.¹⁶ For example, Goodland, Daly and El Serafy argue that, "It is neither ethical nor helpful to the environment to expect poor countries to reduce or arrest their development, which tends to be highly associated with throughput growth. Therefore, the rich countries, which after all, are responsible for most of today's environmental damage, and whose

14 R. Goodland, H.E. Daly, & S.E. Serafy, *Environmentally Sustainable Economic Development: Building on Brundtland*, Env. Dept. Paper 36 (Washington, DC: World Bank, 1991); D.H. Meadows, et al., *Beyond the Limits* (London: Earthscan, 1992).

15 There are several ecological schools. See for details, T. O'Riordan, "Frameworks of Choice: Core Beliefs and the Environment," *Environment* 37(8), October 1995; T. O'Riordan & R.K. Turner, *An Annotated Reader in Environmental Planning and Management* (Oxford: Pergamon Press, 1983).

16 Prominent among this school are the works by H.E. Daly and K. N. Townsend (eds.), *Valuing the Earth: Economics, Ecology and Ethics* (Cambridge, MA: MIT Press, 1993), & R. Costanza, (ed), *Ecological Economics: The Science and Management of Sustainability* (New York: Columbia Univ. Press, 1991); R. Goodland, Daly, H. & S.E. Serafy, (eds.), *Population, Technology and Lifestyle: The Transition to Sustainability* (Washington, DC: Island Press, 1992).

material well-being can sustain halting or even reversing throughput growth, must take lead in this respect. Poverty reduction will require considerable growth, as well as development, in developing countries. But ecological constraints are real, and more growth for the poor must be balanced by negative throughput growth for the rich."¹⁷ So an attempt is made to ground conventional economics to physical reality of finite resources and sink functions of the environment. Therefore, more growth for the LDCs must be balanced by negative throughput growth in the industrial economies. The latter can be achieved through increasing efficiency in materials use, recycling, conservation and doing economy in consumption. This framework appears fully consistent with the ecological dimension of SD.

The Quantitative Growth Framework

The growth framework has two major models/strands: one interprets it as "sustainable growth," based on the Hicks-Lindahl concept of the maximum flow of income that could be generated while maintaining the stock of capital, both man-made and natural, non-declining.¹⁸ But problems arise in identifying the kinds of capital to be maintained and the degree of substitutability between man-made and natural capital, as well as valuing these assets, particularly ecological resources.¹⁹ This model treats SD as a modification of traditional development strategy, rather than an alternative to it.²⁰ It attributes

17 R. Goodland, H. E. Daly & S.E. Serafy (eds.), *Ibid*, Introduction.

18 K.G. Maler, "Economic Theory and Environmental Degradation: A Survey of Some Problems," *Revista de Analisis Economico*, Vol. 5, No.2, November 1990, pp.7-17; R. Solow, "On the Intergenerational Allocation of Natural Resources," *Scandinavian Journal of Economics*, 88(1), 1986, pp.141-49.

19 Mohan Munasinghe, "Environmental Issues and Economic Decisions in Developing Countries," *World Development*, 21(11), 1993, pp.1729-1748.

20 David Pearce, et al. (1990), *op.cit*; R.F. Mikesell, *Economic Development and*

environmental and resource degradation to “market failures” that result from inadequate property rights, underpriced or unpriced resources, or unwise regulations and subsidies.²¹ What is prescribed is an internalization within the production function of *externalities* - the social costs of environmental impacts/resource depletion - through such market mechanisms as taxes and prices. This worldview is termed by some as ‘cornucopian technocentrism’, in which it is taken as axiomatic that the market in conjunction with technological innovations will ensure infinite substitution possibilities to mitigate resource scarcity.²²

So these economists deny for SD a “no-growth condition, nor does it require that wealthy nations forgo per capita growth to permit developing countries to survive.”²³ Lawrence Summers, former chief economist of the World Bank, cautions that “limiting growth is a sledge hammer approach to environmental improvement... the world’s policy-makers will find *Beyond Limits* beyond belief.”²⁴ It is no wonder that heading the team at the Bank in charge of preparing the Report on *Environment and Development* (1992), Mr. Summers has suggested (internally though) that it makes economic sense to shift polluting industries to the South (because of low wage/low cost of pollution and under pollution of poorest areas).²⁵

the Environment: A Comparison of Sustainable Development with Conventional Development Economics (London: Mansell, 1992), p.33; *World Bank Report 1992: Environment and Development* (Washington, DC: World Bank, 1992).

- 21 Theodore Panayotou, *Green Markets: The Economics of Sustainable Development* (San Francisco: ICS Press for Harvard IID & ICEG, 1993).
- 22 T. O. Riordan & R.K. Turner, *op.cit.*; R.K. Turner (ed.), *Sustainable Economic Development: Principles and Practice* (Boulder: Westview Press, 1988), Chap. 1.
- 23 R.F. Mikesell, *op.cit.* p.33.
- 24 Lawrence H. Summers, “Is the World beyond its Limits?” *Focus*, Spring 1992.
- 25 Memo of L.H. Summers, Memo to the senior World Bank staff dated 12/12/91.

This single-minded focus on growth (bereft of any moral values) by the neoclassical economists witnessed a *material* boost in the 1980s with the fall in prices of oil and primary commodities from the South. The trend has confounded the compulsive rationale of the prescriptions of *The Limits to Growth* (1972) and *Beyond the Limits* (1992) to the growth-oriented policy-makers of the North. It is their non-acceptance of the *limits* to material production that greatly explains the fan-fare behind introducing the nebulous concept of SD by the international development agencies, though its advent is explained mainly by the rapid depletion/degradation of renewable resources in the South.

The WCED Model

The other model of growth is represented by the WCED *Report Our Common Future*. Its definition of SD, mentioned above, discerns two main features: the constraint of not compromising the needs of future generations implies that the commission admits some kind of natural limits, as the Report says, "ultimate limits (to usable resources) exist." (p. 45). It noted that past growth in the industrialized countries emphasized needs rather than resource limitations, thereby exhausting a disproportionate share of global resources. But "development that meets the needs of the present" is understood in terms of a "new era of economic growth." In this context, growth by definition is not a threat to sustainability, but the only feasible weapon in the fight against poverty, for "those who are poor and hungry will often destroy their immediate environment in order to survive."²⁶ Thus the Report anticipates a 5 to 10-fold increase in world industrial output as a necessary condition of sustainability. The only thing required is a "change in the content of growth, to make it less material and energy-intensive and more equitable in its impact." (pp.52-54). Two years later,

26 WCED Report, *op.cit.*, p.28.

this "growth" thesis was reemphasized by Jim MacNeill, WCED's Secretary General.²⁷ This world-view is termed as 'accommodating' technocentrism which, while rejecting the axiom of infinite substitution, supports a 'sustainable growth' policy guided by conservation rules.²⁸ However, this emphasis on growth focuses on meeting particularly the needs of the poor, that requires a fairer distribution of wealth within and among countries and groups in society.

A Critique of the Growth Framework

The recommendation of economic growth as the antidote to environmental degradation raises some fundamental issues. *First*, environmental taxation aimed at resource depletion/pollution emissions might promote efficiency, but unless there is an explicit intertwining of efficiency and equity doctrines, sustainability is likely to be doomed (more discussion on this follows).²⁹

Second, While the WCED acknowledges limits to resources, and recommends for its fairer global redistribution for SD, its focus on growth is based on the myth of progress that everyone can have all of the good things.³⁰ But limits in resources and environmental services are likely to limit growth and expansion of the global scale of production. Therefore, the prescription of many-fold growth at the global level including the North appears incompatible with its understanding of SD. Obviously, political expediency helps overlook this contradiction.

27 Jim MacNeill, *op.cit.*, pp. 18-19.

28 T. O. Riordan & R.K. Turner, *op.cit.*; R.K. Turner (ed.), *op.cit.*

29 T. O. Riordan, "Linking the Environmental and Social Agendas," *The Environmentalist*, Vol. 15, 1995, pp. 233-39.

30 Merle Jacob, "Toward a Methodological Critique of Sustainable Development," *The Journal of Developing Areas* 28, January 1994, p. 245.

Third, experiences of the last four decades indicate that growth in national income or even at per capita level, as suggested by the WCED Report, does not have much meaning for the poorest and marginalized of the World. Empirical evidence suggests that even the growth-based basic-needs strategy did not work, as was expected.³¹ Therefore, what economist Barbier suggests is that "instead of advocating economic growth at the national level as the solution to absolute poverty, a better approach may be to design policies more directly concerned with increasing the material standard of living of the poor at the 'grassroots' level in terms of increased food, real income, educational services."³² This targeted approach seems more realistic since the majority of the developing world population are poor and depends on natural resources for their livelihood support, income, and employment.

Fourth, the WCED's focus on poverty as the major cause of environmental destruction seems an oversimplification.³³ The conventional reasoning of the linkage ignores the fact that many poor communities do conserve resources under the *right* circumstances.³⁴

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- 31 I. Adelman & C.T. Morris, *Economic Growth and Social Equity in Developing Countries* (Stanford, CA: Stanford Univ. Press, 1973); B.A. Newman & R.J. Thomson, 'Economic Growth and Social Development: A Longitudinal Analysis of Causal Priority,': *World Development* 17, April 1989, pp.46-71.
- 32 Edward B. Barbier, "Is Sustainable Growth Our Common Future?" *New Economics*, September 1987, pp. 7-9.
- 33 See, W.C. Thiesenhusen, "Implications of the Rural Land Tenure System for the Environmental Debate: Three Scenarios," *Journal of Developing Areas*, October 1991, pp. 1-24; and J. Martinez-Alier, "Ecology and the Poor: A Neglected Dimension of Latin American History," *Journal of Latin American Studies* 23, October 1991, pp.621-639.
- 34 See, for an insightful analysis of the poor's behavior IFAD Report by Idris Jazairy, M. Alamgir & T. Pannucio, *The State of World Rural Poverty: An Inquiry into Its causes and Consequences* (New York: New York Univ. Press, 1992).

Recent studies show that the behavior of poor African farmers are quite environment-friendly, who plant slow-maturing perennial crops, with market-based incentives.³⁵ It is the poor who have more to lose if anything goes foul with nature. The larger survival stake they have in resource protection, together with their traditional knowledge, actually makes them more responsible stewards of the land than the rich.³⁶

It is the rich farmers who actually do the worst damage to the environment. For example, the experience of some land- and forest-rich countries like Indonesia, Malaysia, or Brazil indicates that large private farms are responsible for the most environment-damaging tree-cutting and cattle-ranching schemes.³⁷ The forests in the Philippines also witnessed the same experience under private concessionaires.³⁸ An American philosopher, Mark Sagoff argues that "while local populations can nibble around the edges of rain forests, it takes enormous capital investments to deforest on a major scale. The massive highway project that opened up the Brazilian rain forest to grand-scale exploitation could not have been built by the local peasants; it was financed by the World Bank."³⁹

35 S.D. Mink, *Poverty, Population and the Environment*, Discussion Paper No. 189 (Washington, DC: World Bank, 1993).

36 A.B. Durning, *Poverty and the Environment: Reversing the Downward Spiral*, Worldwatch Paper No. 92 (Washington, DC: Worldwatch Institute, Nov. 1989), p.41.

37 Robert Repetto, *The Forest for the Trees? Government Policies and the Misuse of Forest Resources* (Washington, DC: World Resources Institute, 1988); S. Bradford & O. Glock, *The Last Frontier: Fighting Over Land in the Amazon* (London: Zed Books, 1985); A. Wright, *The Death of Ramon Gonzales: The Modern Agricultural Dilemma* (Austin: Univ. of Texas Press, 1990).

38 Robin Broad, "The Political Economy of Natural Resources: case Studies of the Indonesian and Philippine Forest Sectors," *The Journal of Developing Areas* Vol. 29, April 1995, pp.317-340.

39 Mark Sagoff, "Population, Nature and the Environment," *Philosophy and Public Policy* 13(4), Special Issue, Fall 1993, p.8.

Population Pressure and Resource Degradation

Finally, the conventional wisdom of negative correlation between the two, as reflected in the WCED Report, can also be questioned. A sparse population is no guarantee of resource protection. For example, the sparsely populated Amazon basin is undergoing widespread deforestation followed by rapid degradation of pasture and cropland. In much of Africa, rural labor shortages frequently cause many traditional resource-conserving tasks - such as soil preparation, mulching, terrace maintenance and weeding - to be left undone.⁴⁰

Some analysts point out that consumption in the North and its capital are more responsible for resource depletion in the South than are the growing population or poverty. A US official, quoted by R.P. Shaw, a World Bank staff, describes the situation: "Yes, rapidly growing numbers of peasants contribute to tropical deforestation, but on a global scale their activities are probably more akin to picking up branches and twigs after commercial chain saws have done their work."⁴¹ Based on empirical evidence from Africa, some analysts also question the assumption of a linear relationship between population growth rates and fuelwood-induced deforestation.⁴²

On the contrary, examples of resource protection/development in areas of high population density are many. Two examples based on primary data collected by the author from the most densely-populated area in the world (except city-states) can be cited.⁴³ In the 1960s

40 R. L. Paarlberg, "The Politics of Agricultural Resource Abuse," *Environment* 36(8), October 1994, p.35.

41 Cited in M. Sagoff, *op.cit.*

42 R. A. Cline-Cole, *et. al.* "On Fuelwood Consumption, Population Dynamics and Deforestation in Africa," *World Development* 18(4), 1990, pp.513-27.

43 M. R. Khan, "Social Dimension of Sustainable Development: An Inquiry into the Forest Sectors of Bangladesh and West Bengal, India," Ph.D. dissertation, unpublished (College Park, MD: Univ. of MD, May 1997).

population density in the southwestern district of Midnapore of the Indian state of West Bengal was about half the current 600 persons per sq.km. Then forests in the area were severely depleted and degraded, and the forest department staff and local communities were at perennial conflicts that resulted even in physical casualties.⁴⁴ In 1972 Dr. A.K. Banerjee, a forest official, initiated a change, on an experimental basis, from conventional custodial management to a system of joint forest management (JFM), with local communities under a product sharing-mechanism. Today, despite a doubling of population, forests are being successfully regenerated through JFM in the whole state. With people's participation, forest protection/development is becoming sustainable, to a lesser degree though, in the densely-populated neighboring Bangladesh too.⁴⁵ The model of JFM is based on the simple principle of *care and share*. The care is based on group responsibility and social fencing (peer pressure against poaching/encroachment), and the community share of forest products is equitably distributed among members of the forest protection committees. JFM has proved so successful in regenerating/protecting of forests under heavy biotic pressure that the model, highly acclaimed by the World Bank, is being replicated across India and beyond.

Some analysts argue that high rural population density can favour resource protection under certain circumstances because it tends to increase the value of land relative to labour, which in turn, induces greater labour in protection of the land.⁴⁶ In northern Nigeria (a semi-

44 S. Palit, *The Future of Indian Forest Management: Into the Twenty-First Century* (New Delhi: National Support Group for JFM, Society for Promotion of Wasteland Development, and the Ford Foundation, December 1993).

45 M. R. Khan, *op.cit.*; Remote sensing data show a forest cover of 15.0%, where 13.4% of the total geographical area is recorded as forest land, *State Report on the West Bengal Forests 1993-94* (Calcutta: West Bengal Forest Dept.), p.5.

46 R. L. Paalberg, *op.cit.*

arid region with poor soil), a dense and rapidly growing population - local densities amounted to more than 500 persons/sq.km.- supports itself with systems of farming with high labour inputs. Reports suggest that the area produces a diversified mix of high-value crops, partly for sale in nearby urban markets, with no evidence of declining outputs, soil fertility or recent erosion.⁴⁷ Similar examples can be found in the densely-settled, semi-arid Machakos district of Kenya.⁴⁸ Dense population also favours farm specialization and development of rural infrastructures, which relieves pressure on cultivating marginal and fragile lands. However, rapidly-growing population, as compared to high population density, may disrupt the sustainability of protective institutions, such as privatization, common property regime (CPR), or social fencing, as in the case of West Bengal's JFM. But population growth is not the only source of such disruption.⁴⁹ The sustainability of the Arabari Socio-Economic Project (ASEP) in Midnapore, which mothered JFM into maturity, is under stress, because the new households want to be members at par with the *original* households/members of the protection committee. But the rules have not yet been changed.⁵⁰

Privatization/Statization and the Poor

The erosion of customary but effective, rights over land and trees due to state-sponsored privatization or nationalization of property, a practice the newly-independent governments originally learned from colonial administration, explains the real problem. In South Asia since

47 B. L. Turner II & P. A. Benjamin, "Fragile Lands: Identification and Use for Agriculture," in V. W. Ruttan (ed.), *Agriculture, Environment and Health: Sustainable Development in the 21st Century* (Minneapolis: Univ. Of Minnesota Press, 1994), pp.104-45.

48 R. L. Paalberg, *op.cit.*

49 *Ibid.*

50 M. R. Khan, *op.cit.*

the 1950s, local CPRs have broken down not so much by population pressure as by inequitable privatization schemes. When Indian government authorities began to privatize well-functioning CPR systems in the name of clarifying ownership and helping the poor, the traditional protection of village commons collapsed and the poorest households received only one-half to one-third the amount of land given to more prosperous households.⁵¹ Another Indian analyst argues that privatization of CPR has led to overuse of forests because of unavailability of common pasture, and the local rich have doubly benefitted from such privatization - as owners of nearby lands, they gradually encroached into the adjacent public forest lands.⁵²

But the viability of CPR systems is supported by the empirical research of Bromley, Cernea, Ostrom and others.⁵³ Their studies show that many communities dependent on common resources, both in developed and developing countries, have devised and sustained informal/customary ways to control access to the resource and institute rules among the users. The CPR tragedy model, articulated by Garret Hardin,⁵⁴ simply conflates "common property" with "open access"

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- 51 N. S. Jodha, "Rural Common Property Resources: A Growing Crisis," *Gatekeeper Series* no. 24 (London: International Institute for Environment and Development, 1991).
- 52 G. K. Karanath, "Privatization of Common Property Resources: Lessons from Rural Karnatak," *Economic and Political Weekly*, 27(31/32), August 01, 1992.
- 53 W. W. Bromley & M.M. Cernea, *The Management of Common Property Natural Resources: Some Conceptual and Operational Fallacies*, World Bank Discussion Paper # 57 (Washington, DC: World Bank, 1989); M. M. Cernea, "User Groups as Producers in Participatory Afforestation Strategies." *Development Discussion Paper* No. 319 (Cambridge, MA: Harvard Univ. Press, 1989); Elenor Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action* (Cambridge, UK: Cambridge Univ. Press, 1990).
- 54 Garrett Hardin, "The Tragedy of the Commons," *Science*, Vol. 162, December 1968, pp. 1243-48.

resources. One analyst argues that privatization of commons to prevent Hardin's tragedy has undercut the very basis of survival of pastoral communities in Africa.⁵⁵ To viability advocates, CPR management is a question of identifying the appropriate social and institutional arrangements at the community level. As Michael Cernea (1989), a senior adviser to the World Bank, points out:

Resource degradation in the developing countries, while incorrectly attributed to 'common property systems' intrinsically, actually originates in the dissolution of local level institutional arrangements whose very purpose was to give rise to resource use patterns that were sustainable.⁵⁶

For example, the nationalization of Nepal's forests under the 1957 Forest Act was meant to 'protect' forests from local encroachers through state control and management. The result was the quite opposite of what was expected. The policy failed because: a) people perceived their customary rights of access curtailed; and b) encroachments were too numerous to control, rendering 'national' forests virtually open 'access.'⁵⁷ However, during the last decade, the government reversed its policy, and currently, local User Groups are successfully managing state forests.⁵⁸ Similar is the experience in Africa: due to nationalization or government's land-titling programs that functioned as patronage distribution, the rights of the resource-dependent communities have

55 George Monbiot, "The Tragedy of Enclosure," *Scientific American*, January 1994, p.159.

56 M. M. Cernea, (1989), *op.cit.*, p.iii.

57 D. Bajracharya, "Deforestation in the Food/Fuelwood Context: Historical and Political Perspective from Nepal," *Mountain Research and Development*, Vol. 3, pp. 227-240; J. Adhikari, "Is Community Forestry a New Concept? An Analysis of the Past and Present Policies Affecting Forest Management in Nepal," *Society and Natural Resources*, Vol. 3, 1992, pp.257-65.

58 J. Adhikari, *Ibid.*

gradually eroded.⁵⁹ In Latin America, indigenous resource management institutions had never had a chance to evolve after land seizures and their massive depopulation that followed the European conquest.⁶⁰

But in recent years, things are changing with incentive provisions and security of tenure. In 1983, in South Mexico's state of Quintana Roo, *Ejido* (cooperative group) Forest Producers Project was introduced under the Pilot Forestry Plan (PFP). Local indigenous communities were organized into *ejidos*, which share usufruct rights to well-defined forest parcels. Since 1992 they also have the legal right to forest ownership. Among the factors that have been identified as contributing to the project's success are: security of tenure, the creation of an autonomous and flexible producer organization, and a marketing strategy which aggressively promoted the acceptance of secondary species (essential to viability of sustainable management), and above all a supportive policy environment.⁶¹ Poore, a leading forestry expert, described the project as an example of "the leasing of the land to local communities under defined conditions."⁶²

Farming communities with power to control their own resources are seldom prone to destructive practices. The above examples of community resource management bear this out. Dangers arise when rural elites or elite-backed governments take away local control. Incentives to conserve then disappear. As Alan Durning of the Worldwatch Institute has argued, "Access to a resource without control

59 Land Tenure Center, *Security of Tenure in Africa: A Presentation to the Agency for International Development* (Madison, Wis, 1990).

60 R. L. Paalberg, *op.cit.*

61 E. M. Richards, "Lessons for Participatory Natural Forest Management in Latin America: Case Studies from Honduras, Mexico and Peru," *Journal of World Forest Resource Management*, Vol. 7, 1993, pp.1-25.

62 Cited in *Ibid.*

over it is calamitous. Nothing incites people to deplete forests, soils, or water supplies faster than the fear they will soon lose access to them."⁶³ Non-accountable government agencies, such as forest departments, irrigation bureaucracies and marketing boards often constitute the greatest single threat to secure local control by ordinary farmers and the landless.⁶⁴ As an alternative to custodial management, the model of JFM in West Bengal has proved itself as the least-cost and most effective approach to regeneration and protection of forests. There is now a department-wide recognition of past failure. Agarwal thus argues:

Whenever national bureaucracies have taken over management role, discharged by local communities, systems of traditional governance over natural resources have broken down, and local communities were alienated and environmental resources suffered.⁶⁵

Therefore, the drawback to the *economistic/technocratic* approach is that it pulls attention away from power relations and real conflicts of interest among classes and groups. The underlying problem is a function of political power seeking and providing rents at the expense of the rest of society.⁶⁶ As Blaikie argues, "The problem starts with the context, not with the poor."⁶⁷ It is a question of governing without adequate accountability to the people and their countryside. For example, India and Pakistan, being low-income countries with over one-third of their

63 Alan B. Durning, *op.cit.*, p.42.

64 R. L. Paalberg, *op.cit.*

65 Anil Agarwal, "Elements of Global Environmental Democracy," *Indian Forester* 118(5), May 1992, pp.317-26.

66 D. J. Mahar, *Government Policies and Deforestation in Brazil's Amazon Region* (Washington, DC: World Bank, WWF & Conservation Foundation, 1989).

67 P. Blaikie, *The Political Economy of Soil Erosion in Developing Countries* (London: Longman, 1984).

population living below poverty line, pursue an expensive arms race including nuclear. This is not an issue of market or policy failure, or technical failure of cost accounting, but of conscious (ab)use of public resources. But, citing South Asia as the worst case, the IFAD Report (1992) warns that both landlessness and poverty are increasing in the area; the situation of the scheduled tribes in India, numbering about 50 million, is the worst.⁶⁸ It is these tribals who successfully initiated tree-hugging (now known as Chipko Movement) in northern India as a protest against government or commercial harvesting of forests on which their livelihood depends. During the WCED's preparatory work, one African participant defined the environmental problematique thus:

If the desert is growing, forest disappearing, malnutrition increasing, and people in urban areas living in very bad conditions, it is not because we are lacking in resources, but the kind of policy implemented by our rulers, by the elite group. Denying people's rights and people's interests is pushing us to a situation where it is only poverty that has a very prosperous future in Africa. And it is our hope that your Commission, the World Commission, will not overlook these problems of human rights in Africa and put emphasis on it. Because, it is only free people, people who have rights, who are mature and responsible citizens, who then participate in the development and in the protection of the environment.⁶⁹

Social Dimension of Sustainable Development

The social dimension, in similar vein, emphasizes that the key actors are human beings, whose pattern of social organization is crucial

68 I. Jazairy, et. al., *op.cit.*

69 WCED Report. *op.cit.*, p.48.

in devising viable ways to achieving SD.⁷⁰ This view does not neglect deprivation and poverty, but the focus shifts to realization of human potential and enhancement of moral, intellectual and technical capabilities.⁷¹ UNDP's notion of sustainable human development consists of three major elements: development *of* the people, development *by* the people and development *for* the people.⁷² Both intragenerational (especially elimination of poverty), and intergenerational equity (involving rights of future generations) are important aspects of this approach. Thus, sustainability is fundamentally linked to concepts of social justice and equity.⁷³ The WCED Report acknowledges that achieving sustainability requires a fundamental change in the way natural resources are owned, controlled and used. Colchester argues the same way:

Sustainability emphasizes four basic principles when applied to rural communities: that basic needs must be met; that resources should be subject to local control; that local community must have a decisive voice in planning; and that they should represent themselves through their own institutions.⁷⁴

Some authors, such as Chambers who contributed to the Brundtland process, take an even more human-focused approach than that reflected in the WCED Report. Chambers argues for using "sustainable livelihood security" as an integrating concept, that combines three approaches to development, namely environment-

70 M. M. Cernea, "A Sociological Framework: Policy, Environment and the Social Actors in Tree Planting," in N. P. Sharma (ed.), *op. cit.*

71 The concept of capabilities has been developed by Amartya Sen in his *Commodities and Capabilities* (Amsterdam: Elsevier, 1985).

72 UNDP, *Human Development Report* (New York: Oxford University Press, 1993).

73 WCED Report, *op. cit.*; M. Colchester, *op. cit.*

74 M. Colchester, *op. cit.*, p.70.

oriented, development-oriented and livelihood-oriented.⁷⁵ Agenda 21 includes a Chapter on promoting 'sustainable livelihoods' for the poor, and this builds on the positive experiences of many community-based initiatives in resource management.

Evidence is mounting that failure to pay sufficient attention to social factors seriously undermines the effectiveness of development programmes. A 16-country comparative analysis of Asian experience by the Rural Development Committee at Cornell University found national success, measured in terms of both agricultural productivity and social welfare indicators, is strongly correlated with systems of participatory local organization, linking rural communities to national centers of decision-making and implementation.⁷⁶

The World Bank, for example, has directly invested more than \$50 billion in "poverty-alleviation programs" since 1975, but looking at the results, Bank analysts have concluded that long-term 'sustainability' of projects is closely linked to active participation by the poor.⁷⁷ Another World Bank survey of 25 Bank-financed projects indicates a strong correlation between project success and the participation of grassroots organizations.⁷⁸ After spending about US \$1.5 billion on forestry projects in Asia between 1979 and 1990, the Bank admits that its actions

75 Robert Chambers, *Sustainable Livelihoods: An Opportunity for the World Commission on Environment and Development* (England: Inst. of Dev. Studies, Univ. of Sussex, 1986).

76 Cited in John M. Cohen and Norman T. Uphoff, *Rural Development Participation: Concepts and Measures for Project Design, Implementation and Evaluation*, Rural Development Monograph # 2, (New York: Cornell University, 1977).

77 Annis Sheldon, "The Next World Bank? Financing Development from the Bottom Up, *Grassroots Development*, 11(1), 1987, p.25.

78 M. Cernea, *NGOs and Local Development* (Washington, DC: The World Bank, 1988).

“have had a negligible impact on borrower’s forestry sectors as a whole.”⁷⁹ The WCED Report argues,

Programs to preserve forest resources must start with the local people who are both victims and agents of destruction. They should be at the centre of integrated forest management, which is the basis of sustainable agriculture.⁸⁰

People’s Participation: Varied Interpretations

Participation, like SD, has become an umbrella term for a new approach to development intervention. A review of relevant literature in such disciplines as economics, political science and sociology presents a complex and confusing picture of the concept.⁸¹ Disagreements occur as to what participation really means or how it should be realized. The fundamental split is between those who see participation as a means to an end, and those who advocate it as an end in itself. As a goal in itself, community participation is viewed by some as a necessity for individual and social well-being;⁸² others see it as a ‘basic need by itself of men and women.’⁸³ Such views are related with the perceived inadequacies of the new democratic nation-states, where the newly-forming political institutions usually bypass the poor and marginalized populations.⁸⁴ The democratization process in the South is

79 Mark Poffenberger & R. D. Stone, “Hidden Faces in the Forest: A Twenty-First Century Challenge for Tropical Asia,” *SAIS Review* XVI (1), 1996, pp.202-19.

80 WCED Report, *op.cit.*, pp.136-37.

81 A detailed discussion can be found in J. M. Cohen & N.T. Uphoff, *op.cit.*

82 Herman E. Daly & J.B. Cobb, *For the Common Good: Redirecting the Economy Toward Community, the Environment and A Sustainable Future* (Boston: Beacon Press, 1989).

83 M. A. Rahman, “Concept of An Inquiry,” *Development*, No.1, 1981, p.3.

84 J. Midgley, et al. *Community Participation, Social Development and the State* (London: Methuen, 1986); E. F. Schumacher, *Small is Beautiful: Economics as if People mattered* (New York: Harper & Row, 1975).

dominated by the urban middle class,⁸⁵ in cooperation with the rural elites. The latter have at times used democratic procedures to consolidate and extend local power.⁸⁶ UNDP's 1993 *Human Development Report* estimates that more than 90% of the global population are unable to exert a meaningful impact on economic, political and social functioning of societies they live in. Therefore, giving voice to the people and increasing the levels of participation are seen as a necessary condition of development.

However, the breadth of meaning given to "participation" to date can be judged from the following list of definitions:

- a) organized effort to increase control over resources and regulative institutions;⁸⁷
- b) people's involvement in decision-making, implementation, benefit-sharing and in evaluation of programs;⁸⁸
- c) people's capacity to take initiative in development, to become "subjects" rather than "objects" of their own destiny;⁸⁹ this can only be achieved through a deprofessionalization in all domains of life in order to make "ordinary people" responsible for their own well-being.⁹⁰

85 S. P. Huntington, *The Third Wave: Democratization in the Late Twentieth Century* (Norman: Univ. Of Oklahoma Press, 1991).

86 R. L. Paalberg, *op.cit.*

87 UNRISD/79/C.14, Geneva, May 1979, cited in A. Turton, *Production, Power and Participation in Rural Thailand: Experiences of Poor Farmer Groups* (Geneva: UNRISD, 1987), p.3.

88 J. M. Cohen & N. T. Uphoff, *op.cit.*

89 P. Freire, *Education for Critical Consciousness* (New York: Seabury Press, 1973); D. Goulett, "Participation in Development: New Avenues," *World Development*, 17(2), 1989, pp. 165-78.

90 Ivan Illich, *Medical Nemesis* (New York: Pantheon, 1976), & *Deschooling Society* (New York: Harper & Row, 1983).

- d) Participation involves a reversal of role playing: people should be the primary actors and government agencies and outsiders should "participate" in people's activities.⁹¹

The list is certainly not an exhaustive one. But one thing is clear: participation is concerned with power, particularly to control resources and decision-making.⁹² Brazilian sociologist and dependency theorist F.H. Cardoso (currently the elected President of Brazil) argued that participation ought to be linked to political activity in broader arenas, and not confined to small-scale, problem solving efforts.⁹³ Attaining sustained participation thus requires major political change and decentralization, not of administrative bureaucracy (as often is done), but of management of resources to the local community level. What is needed first is participatory economic democracy, without which political democracy has no meaning for the poor and disenfranchised. The focus should be on *socio-economic empowerment* through implementing land reformmes, providing security of tenure, employment and support programmes, through expansion of educational opportunities in rural areas, and allowing NGOs to organize and mobilize the poor. Once the poor are sensitized enough about their condition and mobilized as a group, they can exert their say in local, and

91 R. Chambers, "Participatory Rural Appraisals: Past, Present and Future," *FTP Newsletter*, No.15/16, 1992.

92 A detailed discussion can be found in O. F. Borda, *Knowledge and People's Power* (New Delhi: Indian Social Institute, 1988); M. Rehnema, "Participatory Action Research: The 'Last Temptation of Saint' Development," *Alternatives* XV, 1990, pp.199-226; M.A. Rahman, *People's Self Development* (London: Zed Books, 1993); and P. Oakley & D. Marsden, *Approaches to Participation in Rural Development* (Geneva: ILO, 1984).

93 F.H. Cardoso, *Las politicas sociales en la decada del 80: nuevas opciones?* (E/CEPAL/ILPES/SEM.1/R.r, 12 April 1982), cited in Marshall Wolfe (ed.), *Participation: The View from Above* (Geneva: UNRISD, March 1983).

ultimately national-level decision-making. It may be mentioned that even in the North, particularly in the USA, politics is dominated by the big business interest groups, with their lavish campaign financing and issue articulation through funded research. The result is a declining participation even in voting by the general mass.

Participatory Practice

In the developing world, a variety of participatory models are already in practice across different sectors of natural resources. As there is no universally accepted framework of the participation process, these models differ widely in their working dynamics. But in most of the cases a *top-down* approach to development has remained essentially unchanged. As a World Bank review admitted:

The principles guiding beneficiary participation in Bank-financed projects have been quite abstract and of limited operational impact. Beneficiaries were not assigned a role in the decision-making process, nor was their technological knowledge sought prior to designing project components.⁹⁴

Empirical evidence indicates that in most of the cases, state-directed participation was meant for cooptation, political mobilization, or clientelism.⁹⁵ In both the examples of participatory forestry from the Bengal areas cited above, a top-down paternalism still rules. This

94 World Bank, *Rural Development: World Bank Experience 1965-1986*, Washington, DC: 1988, cited in Graham Hancock, *Lords of Poverty* (London: Mandarin Press, 1989).

95 N. Uphoff, "Farmers' Participation in Project Formulation, Design and Operation," in *Proceedings of the Second American Agriculture Sector Symposium*, 1981; P. Oakley & D. Marsden, *op.cit.*; Harry W. Blair, "Participation, Public Policy, Political Economy and Development in Rural Bangladesh," *World Development* 13(12), 1985.

explains why the project of participatory forestry is not gaining momentum in Bangladesh, or why the original JFM project of West Bengal is under stress even after quarter of a century. There is an acute lack of autonomy in decision-making and control over resources on the part of the participating communities.⁹⁶ This problem led some to argue for bypassing the state role in enhancing the level of community participation.⁹⁷ Others counter-argue that it is not feasible because of the vast resources modern states command. Therefore, state-directed participation remains a paradox: it is naive to assume that the ruling elites and administrators readily agree on devolution of their authority to the masses. Midgley presents four types of state responses to participation, based on such criteria as state definition of what participation entails, or the degree to which it is willing to devolve power to local institutions: a) the anti-participatory mode (people's participatory initiatives are viewed by regimes as threats and are suppressed); b) the manipulative mode (participatory rhetoric is used by regimes for some ulterior motive); c) the incremental mode (regimes officially support participation, but policies are vaguely formulated and incrementally implemented); and d) the participatory mode (regimes create machinery for effective involvement through devolution). Therefore, any participatory development project should be approached with questions of *who* participate, *what* kind of participation takes place, and *how* it takes place. A typology of participation is presented in Table 1.

Conclusion

It is evident from the preceding discussion that SD has become an umbrella concept for a variety of development models. The qualitative

96 M. R. Khan, *op.cit.*

97 J. Midgley, et.al., *op.cit.*

development framework that allows for quantitative growth in the South appears realistic in an era of global environmental stress. However, past experience tells that economic growth in the South requires a total reorientation of both resources and strategy. The proposition of the constancy of natural resource base as the key condition of sustainability seems consistent with both intra-generational and intergenerational equity in the South, since majority of the population are poor and dependent on natural resources for their livelihood support. Therefore, investments and other support programmes aimed towards maintaining at and enhancing the resource base to an ecologically-safe level is fully consistent with the principles of equity.

The examples cited in the paper show that the poor are victims, not perpetrators of resource/environmental degradation. They tread the lightest on earth. Whenever the poor communities have a *secure* stake in the resources they depend on for their survival, they behave in a responsible manner and take all-out efforts for their sustainability. The underlying problem is: national regimes in most countries of the South depend on the propertied classes of both urban and rural areas, which does not allow them the autonomy needed for initiating structural reforms favouring the poor. This is where the need for mobilization of the poor/landless and their participation (in the forms of 6 and 7 in Table 1) come in. Therefore, the focus of SD in the South should be to increase the *space* of people's participation in resource management. The national and international development bureaucracies have to understand this in a better way, so that they play a facilitative role. The national and local NGOs in the South, together with the international development agencies, are taking steps in this direction. What is needed is a concerted reinforcement of this effort.

Table 1: Typology of Participation in Development Projects

Typology	Characteristics of Each Type
1. Manipulative Participation	Participation is simply a pretense, with "people's" representatives on official committees, but who are unelected and have no power.
2. Passive/Pseudo Participation	People participate by being told what has been decided or has already happened. It involves unilateral announcements by an administration or project management without any listening to people's responses. The information being shared belongs only to external managers/ professionals.
3. Participation by Consultation	People participate by being consulted or by answering questions. External agents define problems & information gathering processes, and so control analysis. Such a consultative process does not concede any share in decision-making, and professionals are under no obligation to take on board people's views.
4. Participation for Material Incentives	People participate by contributing resources, for example, labour, in return for food, cash or other material incentives. Farmers may provide land and labour, but are involved in neither experimentation nor the process of learning. It is very common to see this called participation, yet people have no stake in prolonging technologies or practices when the incentives end.
5. Functional Participation	Participation seen by external agencies as a means to achieve project goals, especially reduced costs. People may participate by forming groups to meet predetermined objectives related to the project. Such involvement may be interactive and involve shared decision-making, but tends to arise only after major decisions have already been made by external agents. At worst, local people may still only be coopted to serve external goals.
6. Authentic/Interactive Participation	People participate in joint analysis, development of action plans and formation or strengthening of local institutions. Participation is seen as a right, not just the means to achieve project goals. The process involves interdisciplinary methodologies that seek multiple perspectives and make use of systematic and structured learning processes. As groups take control over local decisions and determine how available resources are used, they have a stake in sustaining the structures/practices.
7. Spontaneous Participation/Self mobilization	People participate by taking initiatives independently of external institutions to change the system. They develop contacts with external institutions for resources and technical advice they need, but retain control over how resources are used. Self-mobilization can spread if governments and NGOs provide an enabling framework of support. Such self-initiated mobilization may or may not challenge the existing distribution of wealth and power.

Source: Adapted from J.N. Pretty, 'Participatory Learning for Sustainable Agriculture', *World Development*, 23 (8), 1995.