Sustainable Development, Participatory Practices and Environmental Policy Initiatives in Bangladesh

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Abstract : *Sustainable development as a global policy discourse became quite prominent during the last two decades of the 20th century. Though most people equate sustainable development with environmental concerns, it is in fact multi-dimensional and one of the core ideas of the concept is participatory governance. Such ideas originating in developed nations have made inroads into policy arenas of developing countries. As a result, the policy arenas of these countries have witnessed participatory practices in implementation as well as formulation of polices. Bangladesh has also been subjected to such changes and under the influence of participatory characteristics of sustainable development have responded to its environmental degradation and embarked on a number of policy initiatives to face environmental challenges. Those initiatives have incorporated participatory practices and involvement of both state and non-state actors. Thus, prevailing global policy regimes have influenced local environmental policy initiatives in Bangladesh.*

Introduction

The concept of sustainable development has been a major global policy discourse related to the environment and one of the major instruments of this concept has been involvement of citizens in its pursuit. In the last few decades due to changes in the global policy agenda, there has been a gradual shift towards a more accountable and responsive form of governance. This shift has also impacted upon the policy sector, requiring policy making to be more open and responsive to needs of the citizens. In case of environment, sustainable development has been instrumental in fostering such changes. What exactly is sustainable development? How does it impact upon a developing country like Bangladesh?

This paper examines the concept of sustainable development, resultant environmental policy regimes, the environmental challenges facing Bangladesh, the way it relates to the concept of sustainable development and the state's responses to those challenges.

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The Concept of Sustainable Development

The environment became a major global issue during the last two decades of the twentieth century. However, the origins of the environmental movement lay a little further back in the 1960s, when periodic concerns about the environment commonly raised by nongovernmental organisations began to surface in developed countries, especially in North America and Europe. These concerns centred around a growing uneasiness that population growth coupled with industrialisation dependent on raw materials from nature would lead to the depletion of the earth's resources and culminate in disasters of severe proportions. Meadows, Randers and Behrens in 1972 further accentuated this apprehension in their influential boolc, Limits to Growth, which projected an apocalyptic end within a century unless corrective steps were taken and the public, especially those in developed countries, made increasingly aware of the problem. This prompted the United Nations (UN) to organise in 1972 a conference in Stockholm on Human Environment, where the concept of 'sustainable development' was first coined and helped to place the environment on the UN agenda through a Declaration of Principles to guide the development of an international environment policy. In the same year, the United Nations Environment Programme (UNEP) was created to coordinate environmental activities within international organisations and member states of the UN. The Stockholm Conference subsequently led to a series of UN conferences during the 1970s and 1980s on specific environmental issues such as desertification, human settlements and world population. However, the concern for the environment largely remained an affair of the industrialised nations, with the developing world seeing it as yet another contrivance of the former to dominate over the global economy.

Nonetheless, the concerns and views of the developing world led to the World Commission on Environment and Development (WCED), otherwise known as the Bruntland Commission after its chairperson, Gro Harlem Bruntland, the Norwegian Prime Minister. This Commission's report of 1987 called Our Common

Future recognised that poverty and underdevelopment in developing nations were important causes of environmental degradation and that without reduction of poverty and inequalities between developed and developing nations in the consumption of world's limited resources, environmental problems cannot be mitigated. It was the Bruntland Commission, which pushed forward the concept of 'sustainable development' into global discourse[1] and it formed a buzzword in development discourses. All this ultimately resulted in the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro in 1992. By then 'sustainable development' had became a powerful theme, inducing policy makers and development practitioners to couch their views and plans in terms of sustainability. From then onwards, the concern and usage of the term became global.

The definitions of sustainable development usually enunciate the rationale for improving people's material well-being by utilising earth's resources at a rate that can be sustained indefinitely or at least over several decades and emphasise nature's interests rather than depleting the capital (Dobson 1991:135). Perhaps the best-known definition of sustainable development is the one designed by the Bruntland Commission Report of 1987. It defines the concept as "development which meets demands of the present without compromising the ability of the future generations to meet their needs". The concept does imply limits0not absolute limits, but limitations imposed by the present state of technology and social organisations on environmental resources and by the ability of the biosphere to absorb the effects of human activities. Technology and social organisations can be managed and improved for a new era of economic growth, wherein the basic needs and aspirations of all can be met for a better future. In countries where the majority are poor, there must be an assurance by the state that they would get

[1] Adger et al. (2001:683) define discourse as a shared meaning of a phenomenon, which may be small or large, the understanding of which may be shared by a small or large group of people on a local, national, international or global level. The actors adhering to the discourse participate in various degrees to its production, reproduction and transformation, mainly through writings or oral statements. A discourse may be hegemonic if it dominates thinking and is translated into institutional arrangements, while a weaker form of hegemony may be called as 'discursive domination' (Hajer 1995:60-61).

their fair share of resources required to sustain that growth. Such equity would be aided by political systems that ensure effective citizen participation in decision making and through democracy in international decision making (WCED 1987:8-9).

Thus, the concept of sustainable development encompasses the new awareness of the limits of the planet and of the fragility of its global ecological balances, a need-oriented approach to socio-economic development and the recognition of the fundamental role of cultural autonomy. It has a double function: the direction in which to move and a set of criteria to evaluate more specific actions (Sachs 1991:27).

According to WCED, the core issues and necessary conditions for sustainable development are: population and development, food security, energy, industry, and the urban challenge. Sustainable development therefore requires:

- A political system that secures effective citizen participation in decision making;
- An economic system that provides solutions for tensions arising from disharmonious development;
- A technological system that fosters sustainable patterns of trade and finance, and an administrative system that is flexible and has the capacity for self-correction (WCED 1987).

Adams (1993:208) suggests that although thinking about sustainable development is diverse, there is a clearly discernible mainstream within it. This has been formed by the three documents that emerged between the Stockholm Conference in 1972 and the Rio Earth Conference twenty years later. The three documents are the World Conservation Strategy (IUCN 1980), Our Common Future (WCED 1987) and the Caring for the Earth (IUCN 1991). The concept of sustainable development laid down in the World Conservation Strategy was later popularised by Our Common Future which contained the famous definition of sustainable development. Vig (1999:7) points out that this definition contains

elements of an attempt to bridge concerns and interests of developed and developing countries. Secondly, it attempts to reconcile economic growth and environmental protection; thirdly, it is anthropocentric, i.e. human needs must be met; fourthly, limits to growth are not physical or biological but social and technological, with the assumption that environmental problems can be solved; and finally, the concept is extremely general, lacking specificities and designed to allow the concept to be adopted by a wide variety of interests and discourses.

The views of the Bruntland Commission, though widely accepted, are somewhat grandiose in view of the continuing trend of the developed nations to cut down their rate of consumption and the desire of the developing nations to catch up with the industrialised world. The situation has been further complicated by the dominance of developed nations over global economy and international trade[2]. This led Torgerson (1995:15) to declare that sustainable development is an incrementalist strategy that involves accommodation with established institutions promoting industrialism, and reinforces the existing order and pattern of development.

Palmer, Cooper and van der Vorst (1997:88) therefore view sustainability and sustainable development as 'fuzzy buzzwords', which appear to encapsulate a discrete notion but actually have multiple meanings. Mitchell et al. (1995 cited in Palmer, Cooper and van der Vorst 1997) are more objective and identify four main components or closely interlinked principles of futurity (concerns for future generations), environment (concerns to protect existing eco-systems), public participation (concerns that individuals can participate in decision making affecting them), and equity (concerns for the poor and disadvantaged) that underlie the concept of sustainability (see Figure 1 below).

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[2] The decision by the U.S.A to back away from the Kyoto Protocol of 1997 on global emissions of green house gases manifest such attitudes by developed nations.
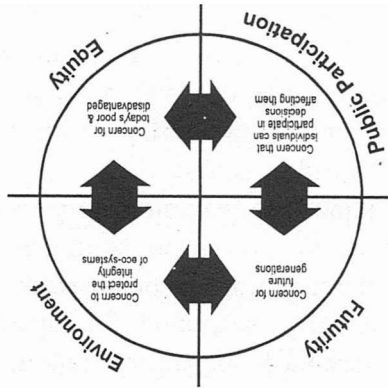
Figure 1: The Principles Underlying Sustainable Development
Source: Palmer, Cooper und van der Vorst 1997:88 adapted from Cooper 1993

Mainstream thinking sees sustainable development as something that takes place without threatening economic growth. Achievement of environment-development objectives requires rapid economic growth in both industrial and developing countries, freer market access for the products of developing countries, lower interests, greater technology transfer, and significantly larger capital flows (WCED 1987:89). Adams (1993) believes that sustainable development not only fails to challenge the capitalist growth paradigm, but is also remarkably resistant to eco-centrist or bio-centrist elements within environmentalism. It also lacks a clear conceptual framework for analysing political economy. Furthermore, mainstream thinking about sustainable development, as represented in the World Conservation Strategy (IUCN 1980), Our Common Future (WCED 1987) and Caring for the Earth (IUCN 1991) is techno-centrist' in nature and not eco-centrist' or reformist and not even radical and is situated firmly within a

' According to (Adams 1990:12) techno-centricism is simply a rationalist and technocratic worldview imposed from outside by industrialised countries on developing nations. This view underlies approaches to the environment involving management, regulation and rational utilisation of resources [see T. O'Riordian (1981) Environmentalism, London, Pion, 2nd edition; and T. O'Riordian (1988), 'The Politics of Sustainability' in R.K. Turner (ed.) Sustainable Environmental Management: Principles and Practice, Boulder, CO.," West View Press].

' Adams (1990: 12) paints this as romantic and transcendentalist in tradition, embracing ideas of bio-ethics and utopianism [see D. Woster (1985) Nature's Economy: A History of Ecological Ideas, Cambridge, Cambridge University Press].

paradigm of continued capitalist economic growth (Adams 1993: 213-214).

Lele (1991:607) spealts of sustainable development as a "fashionable phrase that every one pays homage to but nobody can define", while Redclift (1987:3-4) calls it a "development truism", he argues that "its very strength is its weakness". Actually, the very success of sustainable development lies in its flexibility as it embraces diverse and highly complex ideas, and is yet both unifying and simple. In fact, throughout the decade of 1980s, it "gained a remarkable currency, not because of its analytical power, but because of its tradability and the facility with which it could be used to package diverse and sometimes radically opposing concepts" (Adams 1990:208).

> Luke (1995:28-29) on the other hand, sees sustainable development as a new power/knowledge formation, aiming at accumulating power...rather than sovereign territories, these discourses look at subnational and transnational domains for sustainable ecosystems (in both their simple ecological and more complex economic articulations)…[and] the environmentalization of national territories reconfigures their existing boundaries, bringing in new forces and agents inside …[while] national bureaucrats typically do not, and perhaps will not, (alone) engage in such calculations.

It is easy to dismiss sustainable development as one more utopia, arguing that entrenched vested interests press for more uncontrolled growth through predatory use of resources and modernisation. Some also have the view that environmental protection is expensive and therefore should wait for better times. However, as Sachs (1991:28) points out that the present economic-social-ecological crises do provide an appropriate opportunity for sustainable development. The developing countries should therefore attempt to evolve new industrial patterns and rural-urban configurations meeting the criteria of social, economic, ecological, geographical and cultural sustainability. They should also take advantage of the primary biological productivity of the land and

aquatic tropical ecosystems by malting good use of their renewable resources.

Chaltravarty (1991:73-75) therefore succinctly points out that sustainable development in the context of developing countries encompasses several issues as environmental degradation in those developing countries has resulted from a combination of the impact of demographic pressures and the types of development strategies pursued0which have set into motion unsuitable development practices, which in turn have been further accentuated by certain public policies. He argues that this trend, however, can be prevented if we are able to initiate appropriate policies for reversing this process through institutional changes.

Such changes require a policy oriented deliberative, which according to Dryzelt (2000:101) can be constituted within civil society. A good example of this is the 1992 Rio Summit's Global Forum which consisted of NGO activists who succeeded in influencing the official proceedings of the Summit from the outside. Thus, civil society can, and often does influence domestic policies relating to the environment as sustainable development involves actors from above and below the state in the form of international organisations and citizen's groups of various ltinds. The functions of the international civil society based on a unique discourse is to provide a conceptual meeting place for many actors with shared assumptions and scope for joint action. Yet, the concept of sustainable development is essentially contestable and, like true democracy, one cannot see or envisage true sustainable development (Dryzek 2000:123).

Environmental Policy Regimes and the Rio Earth Conference

The concept of sustainable development and the realisation that the environment is of crucial concern for both developed and developing countries can no longer be ignored as problems and solutions are global in nature. This has laid the basis for the emergence of global eco-regimes in terms of international conventions, treaties and global policy frameworlts. International regimes or "principles, norms, rules and decision malting

procedures that facilitate extensive reciprocity in a given issue area" (Hughes 1991:264 cited in McCormick 1999:56) emerge when states need to reach agreement on common problems in a fashion that goes beyond ad hoc action but does not go so far as to oblige them to give sovereignty to a more permanent decision malting system (McCormick 1999:56). Thus, environmental issues have become part of international regimes due to their interrelatedness with other issues and international responses to environmental problems have centred around the concept of 'common pool resources'-resources which are global in nature and part of the global commons and do not belong to any particular state and therefore needing a broader perspective for effective management.

Regime formation and maintenance have become key objectives of multilateral policy malting. Environmental policy regimes, thus, regulate national environmental behaviour that affects other nations and address trans-border issues without directly challenging the state-centred system, which has led some to argue that improved global environment can be achieved through stronger policy regimes and not through changes in political institutions. This is because multilateral norms and rules that make up environmental regimes place obligations on states and their agents to limit or prevent environmental degradation and promote sustainable development. These regimes also help to determine the degree to which ecological balance will be legally recognised and protected among states and common resources they all share and establish the economic level that states competing for natural resources will be allowed to occupy. Environmental regimes help to address asymmetries in political interdependence and in environmental relations between different nations (Hempel 1998:169-172, 175).

Though the role of the state remains crucial in sustainable development they are not the only players in that effort as most environmental issues require international cooperation as some of the environmental problems are not bound by territories. Furthermore, globalisation and the transnational flow of capital, information and trade, as well as regional arrangements which have

come about to promote and monitor those flows have undermined traditional environmental regulatory policy frameworks. This calls for reinventing the role of the state in environmental management (Kohli, Sorenson and Sowers 1999:15) in terms of more participatory governance involving all stakeholders and thus constituting a departure from top-down, state-led initiatives. The prevailing global policy regimes and pressure from international organisations and from local environmental interest groups have forced states to open up and allow other actors into the policy arena. Litfin (1993:98) notes that the "impetus for recent environmental regime formation frequently, if not typically, emanates from a variety of non-state actors, including regional integration organisations, scientific organisations, environmental pressure groups, and the United Nation's specialized agencies." This participatory trend is noticeable in developed as well as developing nations.

However, according to Habermas two conditions must be met for emergence and survival of 'engaged' and 'capable' publics. First of all, the public must not be pushed out by the state or powerful private interests; neither should the articulation of other private interests be dampened. Secondly, the relevance of the expressed interests can only be tested when directed to an audience which can meaningfully participate (Habermas 1997 cited in Kohli, Sorenson and Sowers 1999:21). Unfortunately, in most developing nations these conditions are yet to be completely attained, but things are changing as their governments realise that the state alone cannot solve environmental problems.

Zurn (1998) points out the role of 'transnational networks' of knowledge-based 'epistemic communities' comprising of scholars and scientists (Haas 1992) and international nongovernmental organisations (INGOs), which tend to put forward the interests of neglected people or advocate social change (Gordenker and Weiss 1996; Princen and Finger 1994), and increasingly influence international policy regimes. However, they not only affect states but also larger global collectivities (Wapner 1996).

Thus, during the 1990s, the environmental discourses moved into the centre of environmental debates leading up to global solutions to environmental problems. The 1992 Rio Earth Summit was attended by delegates from 172 countries and included government representatives, environmental activists, corporate officials, religious leaders and others. About 108 heads of state or government and some 2,400 representatives from NGOs attended the meet.[5] The Conference aimed at integrating efforts to protect the earth's ecosystem with economic development for the developing nations and came up with a declaration of principles (The Rio Declaration or Earth Charter) to guide global environmental cooperation, along with an action plan (Agenda 21) for forming global and national (governmental as well as nongovernmental) institutions for sustaining and improving the environment.

The Rio Declaration on Environment and Development, which is non-binding in nature, calls the world into action by broadly outlining the responsibilities of both developed and developing nations. It outlines wide-ranging principles aimed at ensuring sustainable development. Its goal is to establish "a new and equitable global partnership through creation of new levels of cooperation among states, key actors of societies and people, working towards international agreements which respect the interests of all and protect the integrity of the global environmental and developmental system" (UNCED 1992). The Declaration contains 27 principles which, while recognising the 'right to development' by developing nations, calls upon all nations to commit in assisting in developmental and environmental needs of present and future generations by ensuring that activities within their own jurisdiction do not damage the environment in their states, or in other areas or states beyond (Bryner 1999). Of particular interest to this paper, Principle 10 of the Declaration states that:

Environmental issues are best handled with participation of all

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[5] United Nations (2002), Retrieved 11 April 2002 from
www.un.org/geninfo/bp/cnuiro.html

concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities…and the opportunity to participate in decision making processes. States shall facilitate and encourage public awareness and participation … Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided. (UNCED 1992)

Moreover, Principles 20, 21 and 22 further stress the participation of women, youth, indigenous people and local communities in environmental management and development activities.

Agenda 21

The UNCED adopted *Agenda* 21 by consensus. It outlines what nations and international organisations agreed to do to protect the environment and promote sustainable development. It contains 40 different chapters and 120 action programs which require states to commit to achieve sustainable levels of consumption, address population growth, consider market-oriented reform of economies, incorporate environmental costs in prices of goods, ensure increased participation of all concerned in development and environmental policies and programmes, facilitate technology transfer from developed to developing nations, take actions to maintain and increase biodiversity, and increase institutional capacity to foster sustainable development. (Bryner 1999:158). *Agenda* 21, in particular, suggested steps for individuals, families, communities, local and national governments as well as international organisations "to ensure the compatibility of economic activity with ecological limits and to expand the knowledge of how to preserve the environment so it would support future generations. The agenda promised to produce a global partnership...[to] secure interests and meet the basic needs of all people" (Bryner 1999:160). The latter category is of interest for this paper.

The provisions of *Agenda* 21 can be divided into two broad categories: issues of specific environmental and development problems and actions to be taken, and provisions on increasing capacities of governments at all levels through increased public

participation in development decisions and interaction of people, especially disadvantaged groups, government organisations, nongovernmental organisations and international organisations (Bryner 1999:161).

In fact, Chapters 8 and then 24 to 32 of *Agenda* 21 stress the participation of all concerned in development decision making. Chapter 8 on 'Integrating Environment and Development in Decision Making' has the overall objective to improve the decision making process so that social-economic and environmental issues are integrated through assurances to broaden public participation in tenns of development or improvement of mechanisms to facilitate involvement of concerned individuals, groups or organisations in decision making at all levels. Chapter 23, which is in fact a preamble to Chapters 24 to 32, reads like this:

> One of the fundamental prerequisites for the achievement of sustainable development is broad public participation in decision-making...this includes the need of individuals, groups and organisations to participate...in decisions, particularly those which has potentially affect the communities in which they live and work. Individuals, groups and organisations should have access to information relevant to environment and development held by national authorities...and information on environmental protection measures. (UN 1992)

Bryner (1999:172-173) comments that from one perspective *Agenda* 21 is a set of policies that states can pursue to attain sustainability. It has set in motion policy innovations in many countries and has acted as a vehicle for sharing information and ideas. On the other hand, it is a national commitment to a new set of policies for states that have ratified the *Agenda* to keep their international pledges. In other words, *Agenda 21* is a global policy regime that paves the way for sharing ideas of sustainable development (through exchanges of ideas/policy transfers) and provides opportunities (policy spaces) for actors other than the state to influence the government in the development policy arena. It

eniphasises greater public involvement in the design and implementation of environmental policies (Eden 1996) and in particular the 'Local *Agenda 21*', a component of *Agenda 21*, entails a similar program of action at the local level for all countries, and involves development of "fresh and innovative methods of working with and for the community" (Freeman, Littlewood and Whitney 1996:65 cited in Holmes and Scoones 2000:11). Thus, for developing countries like Bangladesh, implementation of *Agenda* 21, along with its participatory processes, is crucial in view of the fragile environments resulting from population pressures, poverty, illiteracy and natural disasters. Holmes and Scoones (2000:11-12) point out that, during the 1990s, this has in fact stimulated increased interest and use of 'deliberative inclusionary processes' (DIPs) in policy malting in the environmental sector.

The participative processes common known as 'deliberative inclusionary processes' (DIPs), which have become widespread as a result of local level environmental planning reflecting Local Agenda 21 and also due to development of community and local economic strategies (Holmes and Scoones 2000:7) have the characteristics of: (a) social interaction, normally through face to face meetings; (b) dependence on language through discussion and debate; (c) respect of different views; (d) contains reflective capacity of participants to evaluate and revaluate positions; (e) resolution of problems through public reasoning and dialogue to attain win-win situation; (f) reflective and open ended discussions (Bloomfield et al. 1998). DIPs in different contexts have differing objectives and procedures such as neighbourhood forums, citizen juries, citizen's panels, committees, consensus conferences/workshops, focus groups, issue forums, public meetings, participatory rural appraisal, working groups (NEF 1998 cited in Holmes and Scoones 2000). Moreover, the state has always been a central player. Healey (1997: 286) sees DIPs as part of the 'soft infrastructure' of institutional capacity building which has the potential to transform the 'hard infrastructure' of the established government institutions and social institutions. Evans (1999 cited in Holmes and Scoones 2000:12) opines that the majority of the 'Local Agenda 21' has used traditional participatory methods such

as public meetings and consultation documents rather than 'deliberative inclusionary processes'.

Agenda 21's (Chapter 28) overture to local authorities across the globe to map out a 'Local Agenda 21' through consultation and consensus with people and institutions by 1996 did not go unheeded. By 1997, at least 1,812 local governments from 64 countries (both developed and developing) were involved in such planning processes and many of them have utilised 'deliberative inclusionary processes' (Selman and Parker 1997 cited in Holmes and Scoones 2000:12) in their exercise. This has also been evident in the environmental policy arena in Bangladesh in the case of NEMAP and its implementation through SEMP (Khair 2004). At this point it is necessary to acquaint ourselves with the state of the environment in Bangladesh and how it relates to the concept of sustainable development.

The Environmental Scenario in Bangladesh

Bangladesh is a country of paradoxes. It is still one of the poorest nations of the world but nevertheless is close to achieving self-sufficiency in food and has steadily improved *per capita* income and many of the basic measures of social safety nets. It is a small country with a large population. According to the latest figures of Census 2001 it is the eighth most populous country in the world with a population of more than 129 million crammed into an area of 147,570 square kilometres.[6] The population density is 834 persons per square kilometre with 23.39 percent of the population living in urban areas (BBS 2001). Even with replacement fertility rates, the population is expected to reach 160 million by 2010 and 250 million by the end of the millennium (World Bank & BCAS 1998). The urban growth rate is nine percent, which means that by the middle of this century Bangladesh will be gradually moving towards a more urbanised situation (CPD 2001).

Bangladesh is mainly a flood plain and delta criss-crossed by as many as 220 rivers, and as almost one third of the country lies less than 10 metres above the sea level the country runs the risk of

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This official data is different from the World Bank version, which shows the population to be around 133 million in 2001 (World Development Indicators Database, April 2004, Retrieved 29 April 2004 from http://devdata.worldbank.ora/external/CPProfile,

becoming one of the worst victims of global climate changes. According to the Second Assessment Report of the Intergovernmental Panel on Climate Change (1995), only a one-metre rise in sea level would permanently inundate about 17.5 percent of coastal Bangladesh. The country has 54 international rivers with 91 percent of their catchment areas outside its borders, over which it has little control (Haque 1999). Moreover, the geographical location and topography of the country exposes it to regular natural disasters like floods, droughts and cyclones.

Therefore, high rates of population growth, extreme poverty, regular natural disasters, ecological disasters like arsenic contamination of ground water[7] and declining natural resources have created a vulnerable situation which underscores the urgency of finding alternative strategies for development in Bangladesh. Though the country has made considerable progress over the past decades, nearly 50 percent of its population still live in abject poverty and consumes less than 1800 calories per day.[8] Its meagre resources are either over exploited or sub-optimally utilised. Thus, the pressure of the population puts enormous strain on any planning process. Traditionally, the annual growth rate of the agricultural sector averaged around 2.5 percent and even though, since the mid-1990s, it has improved to around 4.6 percent (GOB 2003), it is barely enough to keep up with the population increase. Moreover, pitiable health and sanitation conditions lead to a high incidence of water borne diseases, which further complicate resource constrained development efforts.

Though recent reports indicate that the GDP has hovered around 5 percent during the last decade: according to experts the key to sustained poverty alleviation0the over-reaching objective of

It is only in the late nineties it has been discovered that ground water from shallow tube-wells used mostly for drinking and other domestic purposes in rural and semi-urban areas, is contaminated by arsenic. The government. donors. NGOs and local communities had put in the tube-wells for supply of safe drinking water and encouraging people to refrain from using surface water, which is prone to water borne diseases. So far, out of 64 districts of Bangladesh, 54 districts covering an area of about 65,000 sq.km. have been found to be affected by arsenic pollution in tlie tube-wells particularly in shallow aquifers on which about 97% of tlie population depends for safe drinking water and around 35 million to 51 million are believed to be at risk (Alam 2000).

"According to tlie recent government estimates the incidence of national poverty is around 49.8 percent. which declined from 58.8 percent during 1991-92. But in rural areas where tlie majority of the population live. it is still above fifty percent (53%) and tlie urban areas have fared better with a poverty rate of 36.6 percent (GOB 2003).

" World Development Indicators Database, April 2004, Retrieved 29 April 2004 from http://devdata.worldbank.org/external/CPProfile.

economic reforms in Bangladesh0is a rapid and intensive growth rate of six percent to seven percent in the medium to the long run (GOB 1991[10]). However, such a development scenario is likely to put further pressure on the fragile resource base of the country and its environment, as about 80 percent of the population relies on agriculture for their livelihood. According to the Fourth Five-Year Plan prepared by the Planning Commission of Bangladesh," three kinds of factors affect the environment in the country viz. local factors, regional or transnational factors, and global factors. Of these, the major concerns are population growth and migration, poverty and malnutrition, natural hazards, threats to sustainable agriculture, availability and quality of water, increasing pressure on land, depletion of forests, fisheries and other natural resources, loss of biodiversity, problems of industrialisation, increasing pollution, waste management, frequent natural hazards and environmental awareness. It is therefore imperative to choose the pattern of development in such a way that environmental degradation is minimised through the judicious use of resources on an inter-temporal basis to achieve sustainable development (GOB 1990). In view of the global interest and debate on environment in recent decades, successive governments from the eighties recognising that need have emphasised the importance of environment in the context of Bangladesh and relevant policy frameworks have been developed.

Following the Rio Earth Summit, the Fifth Five Year Plan (1997-2002), while spelling out that Bangladesh is committed to implement Agenda 21 through its national plans and policies, has a separate chapter on environment and sustainable development. Its prominent goals were:(i) promotion of sustainable environmental management in pursuit of quality of livelihood and reduction of

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[10] The Task Force Report of 1991(called Report of the Task Forces on Bangladesh Development Strategies for the 1990's) was commissioned by the non-partisan interim government of 1990 right after the fall of the Ershad government. The Report was compiled by 29 task forces comprised of academicians, experts and bureaucrats who came up with a four volume Report outlining the development vision for Bangladesh in 1990s in view of the return of democracy in the country after nine years of autocratic governance. The Report covered macro policies for development, management of the development process, development of infrastructure for development and environmental issues.

[11] The Fourth Five-Year Plan is the five-year medium term plan document of Bangladesh for the years 1990-1995. During this Plan period the Environment Policy 1992, the National Environment Management Action Plan were formulated.

poverty, (ii) control, prevention and cleaning up of hot spot pollution areas, (iii) public-private sector cooperation and disaster management, (iv) public awareness programmes, and (v) conserving non renewable resources and generating resources. The Plan also recognises instrumental interventions through reforms in resource taxation, licensing, land tenure and credit arrangements. Moreover, accountability of governance and promotion of innovative technologies are recognised as vital for success in the environment sector (GOB 1998).

Given the country's physical and socio-economic parameters, Bangladesh is a test case of sustainable environmental management and, under such conditions, sound environmental policy making cannot be ignored. Solaiman and Belal (1999) have drawn up a schema outlining the components of sustainable development process in Bangladesh as shown below:
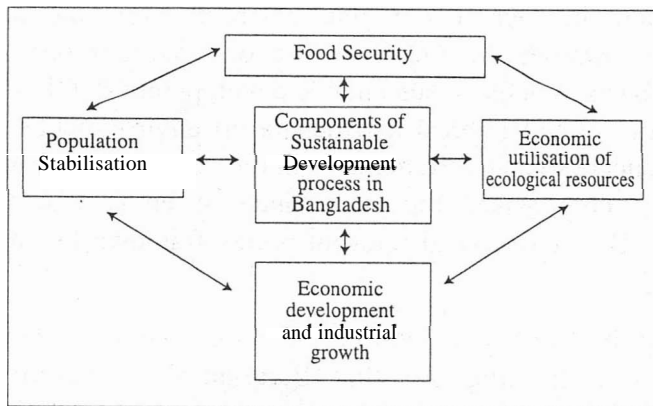

Figure 2: (Source: Solaiman and Belal 1999:123)

The schema involves four sets of interrelated issues, which include 'stabilisation of population growth' as increasing population enhances environmental pressure along with use of technology and affluent consumption patterns. Matched with that is the question of 'food security' in terms of physical and economic access to food by all people at all times, which is rather difficult in a country where a large part of the population is poor. The government must therefore ensure proper policies, mechanisms and management to warrant

food securify. The third issue is 'economic utilisation of ecological resources' through sustainable strategies, which can help to halt degradation of ecological resources (like land, water, forest, air, etc) and conserve non-renewable resources (like gas, clay, etc). This can be possible through environmental regulations and standards as well as creation of new products, processes and technology. The last issue of the schema involves 'economic development and industrial growth'. The fact that Bangladesh is still at the early stages of industrialisation does not preclude it from increasing industrial pollution, and there is need for stricter regulations and enforcement, along with a shift towards agro-based and environment friendly industries (Solaiman and Belal 1999:122-125).

The government recognised that environment was a critical issue in the ecologically fragile country and set up the Ministry of Environment and Forest in 1989 and then a new Department of Environment was established to exercise regulatory authority in the country. The other roles of this department include environmental impact assessment, formulation of guidelines and advising other line agencies on environmental issues. Other development related ministries are also involved in implementation of environmental policies and plans. At the higher level there is the National Environment Council headed by the prime minister and the Executive Committee of National Environment Council headed by the Environment minister. However, the Council has met infrequently in the last decade.[12]

With the increasing awareness of environmental issues, Bangladesh has so far signed, ratified and acceded to 27 international conventions, treaties and protocols related to environment. Among them are the Agenda 21, Climate Change Convention and

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[12] The National Environment Council was formed in 1992 and besides the prime minister, consists of ministers, selected members of parliament, secretaries of different relevant ministries, vice-chancellors of universities, as well as 11 representatives of NGOs, professional associations and civil society. The mandate of the Council is to review implementation of the National Environment Policy 1992, implement UNCED resolutions, identify environment related inter-ministerial issues/problems, and provide necessary guidelines for the environment sector in Bangladesh (Mastaller. Montgomery and Weinstock 2000).

Biodiversity Convention, all of which came out of the UN Conference on Environment and Development (UNCED) held at Rio de Janeiro in 1992. As a signatory of these international and regional treaties/conventions/protocols, and in fulfilling the constitutional obligations, Bangladesh has already engaged several policy efforts to chart the course to prosperity ensuring that no irreparable damage is inflicted on the environment and prosperity is sustained in the long run.

The Environmental Policy Framework in Bangladesh

The government in Bangladesh has consistently reiterated its commitment to implement the international conventions and treaties relating to the environment signed over the years. The environment related policy framework include: National Environment Policy (1992), National Environment Action Plan (1992), Forest Policy (1994), Forestry Master Plan (1993-2012), Forestry Policy (1994), National Energy Policy 1995, Environment Conservation Act (1995), National Environment Management Action Plan (1995-2005), Draft National Conservation Strategy and Sustainable Environment Management Action Programme (1998-2005). The issue of environmental and ecological sustainability was also emphasised during the preparation of the Participatory Perspective Plan (1995-2010) for Bangladesh (UNDP 1997), which stressed needs assessment at the grassroots level through local level consultative groups0an important proposition not finally adopted by the government.[13] Brief overviews of the major policy documents under the environment policy framework that contributed to the design of the participatory policy initiatives of the government- National Environment Management Action Plan (NEMAP) and Sustainable Environment Management Action Programme (SEMP) are given below.

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[13] This extensive Participatory Perspective Plan, supported by UNDP, was formulated with participatory inputs from district levels across the country, but was not accepted by the government in power as it lacked a coherent analytical framework and contained implausible targets (World Bank and Bangladesh Centre for Advanced Studies 1998). Before it could be revised and put up for further scrutiny, there was a change-over in government in June 1996 and the new government, went back to the Five Year Plan framework and came up with the Fifth Five Year Plan (1997-2002).

In recognition of global and regional environmental pollution and degradation affecting nature, as well as the environment and resource base of the country, the Bangladesh government formulated the **Environment Policy** in 1992. It also became imperative to have a co-ordinated effort and undertake actions to address such issues. Moreover, the geophysical location of Bangladesh, the gradual degradation of its environment and the lack of appropriate technology, sustainable management techniques and processes for the exploitation of resources made it essential to adopt an integrated environment policy (GOB 1992). The **Environment Policy 1992** sets the broad policy framework for environmental action in combination with a set of local sectoral guidelines. The objectives of the Policy are:

- To maintain ecological balance and overall development through protection and improvement of the environment,

- Protection of the country against natural disasters,

- Identification and regulation of the activities which pollute and degrade the environment,

- Ensure environmentally sound development in all sectors,

- Ensure sustainable long term and environmentally sound use of all national resources, and

- Actively remain associated with all international environmental initiatives to the maximum possible extent.

To realise the above objectives, the policy document laid down protocols in 15 environment-related sectors and also indicated a broad legal framework and institutional arrangements for implementation of the Policy. The sectors identified in the document were agriculture; industry; health and sanitation; energy and fuel; water development; flood control and irrigation; land; forest; wildlife and bio-diversity; fisheries and livestock; food; coastal and marine environment; transport and communication; housing and urbanisation; population; education and public awareness; and science, technology and research.

The **Environment Action Plan 1992,** which was formulated

around the same time, also stipulated certain specific actions to achieve the objectives and implement policy recommendations covering the 15 major sectors indicated in the Environment Policy together with the legal and organisational framework necessary for the Plan. It should be noted that both the Environment Policy and Action Plan of 1992 are general in nature and appear more or less like general mission statements with broad objectives rather than specific policy directions.

The **National Environment Management Action Plan** or NEMAP is a stratagem   prepared by the Ministry of Environment and Forest intended to build on the general principles of the National Environment Policy 1992 by taking concrete actions and interventions in priority areas identified in the Policy. It aimed to institutionalise both the National Environment Policy and the draft National Conservation Strategy[14] into a strategy, which was implementable (UNEP 2001:54).   NEMAP was formulated in consultation with the people, media, NGOs, professional groups and academics. The United Nations Development Programme (UNDP) played a key role in the formulation of NEMAP by providing technical as well as financial support to the government. NEMAP provides the framework for formulation of further policies and implementation of programmes aimed at better resource management, making people more aware of environmental problems, reversing the trend of environmental degradation in the country and promoting sustainable development. Though NEMAP was to cover the period 1995-2005, it was expected to evolve in response to changes in key environmental issues over that period of time.

For the purpose of management, implementation and funding, actions under NEMAP were first grouped into four broad areas: institutional issues, sectoral issues, location specific issues and long-term issues. This was followed by the Action Plan in identifying a series of specific actions involving government agencies, NGOs, media, academics, private sector, elected

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[14] The Draft National Conservation Strategy, though drafted in 1991 is yet to be formally endorsed by the government.

representatives and professional groups who were entrusted to carry out actions divided into categories of advocacy, policy actions and specific projects. Some of tlie actions combined two or more of the above types of action.

The **Sustainable Environment Management Programme** or SEMP was a follow-up action of NEMAP was implemented by the Ministry of Environment and Forest. SEMP had five major sub-programmes or broad components (compromising of Policy and Institutions, Participatory Ecosystem management, Community Based Environmental Sanitation, Advocacy and Awareness, and Training and Education) and 26 components. It was initially spread over a period of five years (1998-2003) but was extended up to December 2005. SEMP, as the follow-up of NEMAP, addressed the major environmental priorities identified by people through NEMAP. It is the first program approach initiative of the UNDP's Bangladesh office as well as the government of Bangladesh. Its objectives were prevention and reversal of the present trend of environmental degradation, promotion of sustainable development, reduction of poverty, and capacity strengthening at community local and national levels. SEMP was intended to benefit the grassroots population by supporting community capacities for sustainable management of environmental resources. It was also designed to strengthen the capacity of the public sector to develop new frameworks for policy development in support of increased community participation and sustainable management of environment and natural resources. All components under SEMP focused on strengthening the capacity of the community at the local and national levels. At the community level it sought to target the improvement of community based decision malting; at the local level it aims at enhancing capacity for environmental advocacy and awareness; and at the national level it attempts to entrench the environmental agenda in the national developmental plans and policies (Haque 1999:137-138).

SEMP was supposed to support community capacities for sustainable management of environmental resources and strengthen tlie capacity of the public sector to develop new frameworks for

policy development in support of enhanced community participation, protection of the environment, and sustainable management of the country's environment and natural resources. As a result, SEMP was supposed to benefit grassroots level people in eco-specific intervention areas.

Recently, the Poverty Reduction Strategy of the government named *Unlocking the Potential: National Strategy for Accelerated Poverty Reduction* (2005), which has replaced the traditional Five Year Plans as macro strategy for development has been prepared through a participatory process. This document too reiterates government's commitment towards sustainable development and use of participatory principles in policy planning formulation and implementation.

Conclusion

The concept of sustainable development has impacted on global environmental policy regimes, especially in developing countries. The ideas of sustainable development and neoliberalism have made inroads into policy arenas of developing countries. As a result, the policy arenas of these countries have seen an influx of participatory practices not only in implementation, but also formulation of polices as well. Thus, the 'policy space' has been opened up for actors other than the state for their active participation in the policy process.

Bangladesh has also been subject to such changes and following the international trend have responded to its environmental degradation and fragility and embarked on a number of policy initiatives to face environmental challenges. Prominent among those initiatives were the NEMAP and SEMP, which have incorporated participatory practices and the involvement of both state and non-state actors. This has been largely due to the influence of participatory characteristics of sustainable development and Agenda 21. Thus, global policy regimes through policy transfers have influenced local environmental policy initiatives in Bangladesh.

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