28 years into "Our Common Future": sustainable development in the post-Brundtland world

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Abstract

This paper conceptually and empirically reflects on the 28 years since the publication of the Brundtland Report by the World Commission on Environment and Development in 1987 and questions why the world, especially the developing world, is still heading towards an unsustainable path of development. The paper concludes that while the Brundtland Commission has succeeded in getting the international community to integrate environmental concerns into the development process, it has neglected to consider how this integration may be articulated based on certain ethical action-guiding principles. Thus, acknowledging that effective environmental protection is a function of environmental ethics, the way to sustainable development would be for society to return to a non-exploitative, mutually supportive relationship with nature at both individual and institutional levels.
Keywords: "Our Common Future", Rio+20, sustainable development, Brundtland-Rio's trait of sustainability, environmental ethics.

1 Introduction

Since the publication of "Our Common Future" (also known as the Brundtland Report) in 1987, the concept of sustainable development (or SD), defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs", has permeated the mainstream development thinking to an unprecedented extent. Specifically, in an attempt to mitigate the destructive environmental consequences of economic growth, the report introduced a new growth model "that is forceful and, at the same time, socially and environmentally sustainable", placing great


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emphasis on the need to manage and use natural resources wisely so as to uphold the principle of intergenerational equity (WECD [1]). The report also calls for the need to observe the biological constraints on or the physical foundation of economic activity as emphasized under the Club of Rome report, "The Limits to Growth" published in 1972 (Meadows *et al*. [2]; see also, Georgescu-Roegen [3]).

The impetus of "Our Common Future" gathered further momentum at the Earth Summit 1992 which saw the adoption of various important documents. These include the *Rio Declaration on Environment and Development*, *Agenda 21*, *Statement of Principles for the Sustainable Management of Forests* and, most importantly, the legally binding *Convention on Biological Diversity* (*CBD*). These documents offer the most cogent elaboration of the concept of SD, listing some of the most recognized sustainability criteria and operational guides of sustainable development. These include, for example, the principle of inter-and-intra-generational equity, the principle of environmental policy integration, and the precautionary principle. It is noteworthy that both "Our Common Future" and CBD broke with convention in recognizing biodiversity as the global commons.

"Our Common Future" was further cemented with an appreciable dose of authority with the adoption of the Johannesburg Declaration at the 2002 World Summit on Sustainable Development (WSSD). The Summit created "a collective responsibility to advance the three pillars of sustainable development – economic development, social development and environmental protection – at the local, national, regional and global levels" (United Nations [4]). "Our Common Future" reached its climax at the United Nations Conference on Sustainable Development, known as the Rio+20 Conference held in 2012. The summit was meant to secure renewed political commitment to sustainable development agreed upon ten or twenty years ago (UN News Centre [5]).

In essence, the journey of "Our Common Future" to Rio+20 (or simply, Brundtland-Rio journey) had solidly established the scientific foundation of SD as an indispensable component of development policy. Most importantly, it had a decisive impact on the formulation of SD governance concerning sustainable use and management of natural resources. Specifically, many nations have since endeavoured to draw up their national sustainable development policies, such as the local Agenda 21, amenable to the Brundtland-Rio sustainability paradigm, in order to protect the global commons for the benefit of future generations.

However, mere casual observation of what has happened in the global sphere of development reveals that the world at large is still mired in the moral and practical difficulties of balancing economic growth with environmental protection. The Brundtland-Rio journey does not seem to have resulted in real improvement for the future of our planet earth. The WWF's 2006 *Living Planet Report* and the *Global Biodiversity Outlook-3* revealed that increasing human activities and insatiable material consumption are endangering the Earth's capacity to sustain present and future generations, threatening the very existence of human civilization (WWF [6], Secretariat of the Convention on Biological Diversity [7]). In addition, the *Millennium Ecosystem Synthesis Report* concluded that 10 to 30 percent of the mammal, bird and amphibian species are

threatened with extinction due to human actions and 60 percent of life-supporting systems are being degraded (MEA [8]).

Motivated by this global environmental concern and drawing upon the examples from both China and the fast developing economies in Southeast Asia, this paper argues that the Brundtland-Rio sustainability paradigm has not helped the world move towards the ultimate goal of sustainability mainly because of the overwhelming emphasis that is placed on economic growth to the detriment of environment and resource conservation. It is asserted that such an exploitative mode of human-centred growth ideology is in part due to the lack of ethical concern for environmental conservation. The paper further argues that the success of the sustainability paradigm is contingent upon environmental attitudes, and more importantly, the ethical matrix prevalent in a capitalist society. In mapping the way forward, the paper proposes mainstreaming environmental ethics across all levels of development decision making.

2 From "Our Common Future" to Rio+20: the making of a developing Asian sustainable development paradigm

The idea of SD as elucidated above has been deeply embedded in the developing Asian region since Brundtland. In this paper, for the purpose of analysis, developing Asia is defined to include China, the world's fastest growing economy, and the fast developing Southeast Asian nations, namely, Indonesia, Malaysia, Thailand, the Philippines, and Vietnam (or the ASEAN-5).

To begin with, China has been achieving a remarkable GDP (gross domestic product) growth since the adoption of market reforms in 1978 under the leadership of Deng Xiaoping. Over the past 27 years between 1987 and 2013, it has achieved an annual average GDP growth of 9.8 percent. The ASEAN-5 have also attained an impressive growth record at an annual average of 5.6 percent in the same period. Vietnam takes the lead as the fastest growing economy in the region with its rate of growth reaching 6.7 percent followed by Malaysia at 6.2 percent (Table 1).

Compared with the global average of 2.8 percent or the rest of the world between 2.3 and 3.7 percent, the economic performance in the Asian developing region, particularly in China, is truly remarkable. Over the past three decades, China has transformed into the world's second largest economy, after the United States. Initially, the robust economic performance in the region was driven by export-led growth based on primary products. In the latter years, manufacturing activities drove economic growth. Indeed, since 1987, economic growth has been the supreme government policy objective in the region.

Acknowledging that rapid economic growth has had damaging environmental consequences, regional leaders enacted a wide range of environmental laws for natural resource management, genetic resource conservation, and environmental protection as controlling measures (Table 2).

Table 1: Economic growth in the developing Asian region: a global perspective.

GDP (gross domestic product) growth between 1987 and 2013 (%)		
World	2.8	
OECD members	2.3	
High income-OECD	2.3	
Latin America & Caribbean (developing only)	2.9	
Sub-Saharan Africa (developing only)	3.5	
Middle East & North Africa (developing only)	3.7	
China	9.8	
Southeast Asia	ASEAN-5 average	Country average
Malaysia	5.6	6.2
Indonesia		5.4
Thailand		5.4
The Philippines		4.2
Vietnam		6.7

Source: World Bank [9].

2.1 "Our Common Future": Asian green development in the making

Even before the publication of "Our Common Future", and in the wake of the Stockholm Conference held in 1972, China had set up the Office of Environmental Protection to promote environmental conservation and protection. This was followed by the enactment of various environmental laws (as shown in Table 2. Environmental protection efforts intensified during Deng Xiaoping's administration which saw the establishment of the State Bureau of Environmental Protection in 1982 under the Ministry of Urban and Rural Construction and Environmental Protection. It was later restructured to become the State Environmental Protection Commission in 1984. In 1998, it was further elevated to the status of State Environmental Protection Administration and finally became the Ministry of Environmental Protection (MEP) in 2008. Its main function is to formulate environmental protection guidelines, policies and laws in order to ensure sustainable development. Indeed, it has been asserted that environmental protection was among the "most heavily legislated sectors of public policy in the post-Mao period" (Ross and Silk [10]).

In the post-Mao era, "Our Common Future" also provided a remarkable conceptual framework and impetus for shaping policies based on the integration of environmental concerns into development policy in China. In the wake of the *Earth Summit,* 1992, China ratified the United Nations CBD. This was followed by the formulation and adoption of the National Biodiversity Action Plan in 1994 which was aimed at building a greener China and at halting the loss of

Table 2: Environmental Protection Laws in the Asian countries.

China	Malaysia	Thailand	Indonesia	The Philippines	Vietnam
Environmental Protection Law (1979, amended 1989)	National Policy on Biological Diversity (1998)	Forest Act (1941)	Environmental Management Act (1997, revised 1982; 1990)	The Philippine Environment Code (1977)	Law on Environmental Protection (1993, revised 2005)
Wildlife Protection Law (1988)	National Environment Policy (2002)	Wild Animal Reservation and Protection Act (1960, 1992)	Forestry Law (1999)	The Philippine Environmental Policy (1977)	Law on Forest Protection and Development (1991, revised 2004)
Fisheries Law (1986, amended 2000; 2004)	Environmental Protection enactment, Sabah (2002, amended 2004)	National Parks Act (1961)	Conservation Law (1990)	Executive Order No.263 (Community-based Forest Management) (1995)	Fisheries Law (2003)
Water Pollution Prevention and Control Law (1984, revised 1996)	Sabah Forestry Policy (2005)	National Forest Resources Act (1964)	Environmental Protection Law (2009)	National Integrated Protected Areas System Act (1992)	Ordinance on Plant Varieties (2004)
Solid Waste Pollution Prevention Law (1995)	Natural Resources and Environment Ordinance, Sarawak (1993)	Wild Animals Reservation and Protection Act (1992)	Cultivation Law (1992)	Mt. Kanla-on Natural Park (MKNP) Act (2001)	Biodiversity Law (2008)
Protection of Terrestrial Wildlife Law (1992)	Wild Life Protection Ordinance, Sarawak (1998)	Enhancement and Conservation of National Environmental Quality Act (1992)	Plantation Law (2004)	Sustainble Forest Management Act (2005; 2009)	Penal Code (1999, amended 2009) [Article 190 on the Breaching Regulations on the Protection of Precious, and Rare Species Prioritized for Protection]
Regulation on the Protection of Aquatic Wild Animals (1993)	National Parks and Nature Reserves Ordinance, Sarawak (1998)	Fisheries Act (1994)	Ministry of Agriculture Regulation (2007)	Wildlife Resources Conservation and Protection Act (2001)	Decree 32 on the management of endangered, precious, and rare forest fauna and flora species (2006)

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biodiversity by 2020 in line with the CBD. In the same year, it also adopted its local Agenda 21, also known as the White Paper on China's population, environment, and development in the twenty-first century. China's Agenda 21 sought to reinforce its commitment to environmental preservation and sustainable resource use while pursuing economic growth and social development. Indeed, China was one of the first few countries to propose and implement sustainable development strategies, and to publish its first, second and third national sustainable development reports in 1997, 2002 and 2012 respectively (NDRC [11]). Reinforcing its commitment to sustainable development, China has also committed to implement various environmental control and resource use laws and policies (Zhang [12]). Under the umbrella of the Scientific Outlook on Development (SOD), China laid out one of the most important principles on sustainable development: the creation of a harmonious society based on the integration of humans and nature (green development). Based on the guiding principles of SOD, China formulated and implemented the 11th Five-Year Plan (2006–2010) and the 12th Five-Year Plan (2011–2015) to promote green development (Hu [13]).

In Southeast Asia, in the wake of "Our Common Future", the regional leaders also ratified various international agreements as a sign of commitment to sustainable development. In an attempt to implement the United Nations CBD in halting biodiversity impoverishment, each member state prepared and adopted its national policy of biodiversity conservation policy or plan. The member states have also strengthened their environmental controlling framework based on the establishment of formal institutions such as the Ministry of Natural Resources and the Environment in Malaysia, in Thailand and in Vietnam; the Department of Environment and Natural Resources in the Philippines; and the Directorate General of Forest Protection and Nature Conservation in Indonesia. To demonstrate further commitment to plan for sustainable development into the next century, each member state has also created its local Agenda 21 in order to execute full integration of the sustainability principles and environmental concerns of Agenda 21. Environmental protection is also being reinforced based on the enactment of a wide range of environmental laws (Table 2).

On a regional basis, each member state in Southeast Asia has adopted various accords, decrees and declarations in order to strengthen inter-state cooperation and management of the regional environment, particularly the adoption of the legally binding agreement, the ASEAN Agreement on the Conservation of Nature and Natural Resources, which serves to guide effective implementation of regional action plans or programmes concerning transboundary environmental protection. A case in point is the establishment of the Heart of Borneo initiative by the governments of Indonesia, Malaysia and Brunei to protect one of the world's most diverse and unique forest ecosystems. The Heart of Borneo, with its borders on West Kalimantan, Indonesia, the states of Sarawak and Sabah in Malaysia, and Brunei, covers approximately 23 million hectares of rainforest.

2.2 Sustainable development and the state of the Asian environment

It is increasingly clear that "Our Common Future" has been an important milestone in Asian green development. However, mere casual observation of what has been happening on the ground reveals that increased resource consumption accompanied by rapid economic growth in the region has caused a steady and alarming deterioration of its environment. In China, for instance, up to 70 percent of its rivers and lakes are seriously polluted and ecological degradation is widespread (Morton [14], WWF [15]). It may well be noted that of the world's 20 most polluted rivers, 16 are in China (McBeath and Leng [16]). The dumping of untreated waste water and animal wastes into rivers by industries is widespread (Turner and Ellis [17]). About one third of industrial waste water and more than 90 percent of household sewage in China are released into rivers and lakes without treatment (Refkin and Cray [18]). In 2010, industrial waste water discharge volume was estimated at 237 billion tons while domestic sewage discharge volume was about 380 billion tons. The total sewage discharge was about 659 billion tons (Wu *et al*. [19]). Also, it is estimated that 5,850 tons of organic pollutants are released into Chinese waters everyday compared to 2,750 tons in the United States, 1,700 tons in Japan, 1,150 tons in Germany, 1,600 tons in India, and 300 tons in South Africa (Refkin and Cray [18]).

In addition, about half of the 20,000 petrochemical plants located by the bank of the Yangtze River release large amounts of industrial wastes including toxic wastes, heavy metals (cadmium, mercury, lead, and arsenic), chemical effluents and agricultural runoff and organic matter, into the river. The amount of discharge increased at an alarming rate from 15 billion tons in the 1980s to 33.9 billion tons in 2010, causing unprecedented destructive impacts on the Yangtze aquatic ecosystem (Wong *et al*. [20], Ting [21]). The construction of the Three Gorges dam in the Yangtze River system also resulted in massive loss of natural habitats, exerting immense pressure on the regional biodiversity and threatening the long-term survival of the Siberian crane, Chinese tiger, and giant panda.

In particular, uncontrolled river pollution and extensive habitat degradation coupled with illegal and unsustainable bycatch by fishermen by rolling hook long-line fishing, gill nets, electrocution and dynamite or other banned destructive fishing methods, have resulted in the extinction of the world's most critically endangered and rare cetacean, the Yangtze River dolphin (Baiji or goddess of the Yangtze). The evolutionarily distinct Baiji had been thriving in the Yangtze River for the past 20 to 30 million years. In the past, the relic species was commonly hunted in the local fisheries for meat, oil and leather. Its population dropped drastically from a healthy number of 6,000 in the 1950s to only one individual in 2004. It was declared extinct in 2006; making it the first dolphin that mankind directly drove to extinction. This happened despite having in place various ecological protection programmes and legal instruments to protect its continued survival (Ding *et al*. [22], Turvey *et al*. [23]).

The continued deterioration of the Yangtze ecosystem is also evidenced in the decline or extinction of many notable aquatic species that used to thrive in the

river. The endemic Chinese paddlefish which dates back 70 million years, for instance, may have become extinct in 2003 as none have been sighted in the wild since then (Bourton [24]). Another species exposed to the similar threat of extinction is the porpoise (Bourton [24], Lovgren [25]). Illegal wildlife trade in China also contributes to endangering the continued survival of many of its rare and endangered species. China is a top consumer country of illegal wildlife products and one of the world's hotspots for the illegal trade in wildlife and wildlife parts (Felbab-Brown [26]). Furthermore, compared to the average global rate of biological loss of 10 percent, the rate of biodiversity loss in China is about 15 to 20 percent. The China Red List indicates that 40 percent of mammals, seven percent of birds, 28 percent of reptiles, 40 percent of amphibians and three percent of fish are vulnerable to ecological destruction (McBeath *et al*. [27]).

The disappearance of Baiji in the wild is a stark indication of how unrestrained pursuit of economic growth and socioeconomic progress is changing irreparably the country's natural environment. It also symbolizes the loss of harmony of human beings with nature. This is excruciatingly clear particularly since the Baiji had long been recognized as the rarest and most critically threatened mammal species on earth, and despite China having expressed serious commitment to its ecological conservation by legally categorizing it as the First Category of National Key Protected Wildlife Species.

In Southeast Asia, illegal logging, large scale monoculture development, infrastructure development, and mega-dam constructions are causing extensive forest destruction in the region. Indeed, deforestation rate in the region is the highest in the tropics, with Indonesia contributing to the largest share of loss in terms of acreage. Between 2000 and 2012, Indonesia lost more than six million hectares of forest – the most extensive in the world in terms of acreage. In 2012 alone, it lost 800,000 hectares of forest compared to Brazil which lost about 460,000 hectares (Margono *et al*. [28]). Indonesia is also the world's third largest source of greenhouse emissions due to deforestation and land degradation and conversion, contributing significantly to climate change (PEACE [29]).

Between 2000 and 2012, Malaysia lost 4.7 million hectares of forest, an area larger than the size of Denmark or the state of Virginia. This made Malaysia's rate of deforestation the highest in the world at 14.4 percent, compared to Indonesia at 8.4 percent during the period (Butler [30]). Oil palm plantation expansion and timber harvesting are two of the most important drivers of forest depletion in both Indonesia and Malaysia (Litta [31]).

Vietnam and Thailand have together lost 43 percent of their forest cover in the past few decades (Drollette [32]). In Vietnam, forest destruction is mainly due to the expansion of coffee plantation and timber harvesting for the furniture industry while the main crop driving deforestation in Thailand is rubber (OECD [33]). In the Philippines, where logging is a primary contributor to forest loss, more than 600,000 hectares has disappeared from 2001 to 2013. In fact, timber harvesting increased by nearly 30 percent from 2008 to 2013 (Panela [34]). Illegal logging activities which are common in all of the above countries have also contributed to substantial forest loss in the region.

Rapid deforestation in Southeast Asia is clearly a serious threat to sustainable development in the region. The region is claimed to have one of the highest rates of habitat loss in the world. Extensive and uncontrolled human-driven land and forest use practices are threatening the continued survival of the exceptionally high number of endemic species in the region. The Philippines, in particular, having lost more than 90 percent of its original forest cover, has now become one of the world's most threatened biodiversity hotspots. Extensive forest destruction and habitat depletion have also led to the ecological extinction of many unique and rare species in the region, including the Javan rhinoceros in Malaysia; the Java tiger, Bali tiger and Double band Argus in Indonesia; the Cebu warty pig and Panay flying fox in the Philippines; Eld's deer, the kouprey, Sumatran rhinoceros and Schomburgk's deer in Thailand; and the kouprey, sika deer, wild buffalo and Sumatran rhinoceros in Vietnam (Choy [35]). Extensive habitat loss has also increased the number of endangered and critically endangered species in the region (Choy [35]).

Poaching and illegal wildlife trading also exacerbate the ecological quagmire in the region (Sodhi *et al*. [36]). The alarming scale of illegal wildlife trade in the region has resulted in the drastic decline of the number of high commercial value species such as the tiger, elephant, rhino, pangolin, and wild orchids and rare plants in Indonesia and Vietnam (ACB [37]). If left unchecked, illegal wildlife trade will lead to massive and irrevocable loss of many of the world's unique and rare species endemic to the region (Nayar [38], Inciong [39]). Malaysia, Indonesia, the Philippines and Vietnam share the dubious reputation of being among the world's top 10 wildlife smuggling hubs (Felbab-Brown [26], Gooch [40]).

It is increasingly clear from the above data that the remarkable economic growth in the Asian region has been achieved at the expense of the environment. The regional legislative attempts and cooperative efforts to conserve its natural resources and protect its biodiversity have clearly been ineffective. Despite the recognition of and commitment to the principles of sustainable development, environmental protection efforts in the region have been extremely disappointing. This is mainly due to the overwhelming emphasis the region places on the pursuit of economic growth, which is often resource-intensive, over environmental protection. Indeed, the Asian model of sustainable development is oriented to maximizing socio-economic progress expressed in terms of increased economic growth or material consumption. That is to say, sustainable development means sustaining long-term economic growth or increased material wealth and future needs are often interpreted as luxurious needs of the present rather than the survival needs of the future.

2.3 Sustainable development and environmental ethics: the connection

Twenty-eight years have lapsed since "Our Common Future", yet a huge gap still exists between economic growth and environmental sustainability. Narrowing this gap calls for concerted action to address the unsustainable levels of consumerism and resource use patterns in the region. This, in turn, requires a

genuine revolution to adopt the thinking and practices of the Brundtland-Rio's trait of sustainability based on ethical environmental insights.

To wit, environmental problems in the Asian region as discussed above are fundamentally ethical problems inherent in the economic use of nature. Here, human beings, as economic agents, see themselves as radically distinct from nature. Also, nature is measured, valued, and manipulated instrumentally as a means for fulfilling human ends. An object is said to be instrumentally valuable if it lends itself effectively to the achievement of some desired goals or valued purposes. Instrumental value is always a function of usefulness. Such value lies not in the object itself but in the beneficial or productive uses to which it can be put.

The disregard for ecological and moral aspects of resource use is a common feature in the conceptualization of instrumental values. This instrumentalist conceptualization stems from the belief that human beings are ethically superior to the rest of the natural systems. Such an environmental worldview is essentially anthropocentric (human-centered) because human beings are regarded as the masters or conquerors of nature, subduing it for their own instrumental purposes. Such understanding of values tends to lead to extensive environmental degradation in the name of "sustainable development". The various empirical studies discussed above show clearly that with an anthropocentric understanding of values, policy makers in the region who advocate sustainable development seldom engage in environmentally responsible behaviour. To them, nature has value only because it directly or indirectly serve their instrumental or material interests, hence the resulting extensive environmental destruction in the region.

The anthropocentric value system may be contrasted with the nature-centered or ecocentric view of our relationship to nature, the key feature of which is its intrinsic view of non-human nature. Something is said to be intrinsically valuable if it is valuable in itself; intrinsic value is a value which exists by virtue of its nature and place in our universe that is not conferred or generated by a valuer (Rolston III [41]). In the ecocentric value system, human beings are not considered separate or superior to nature, but as an integral part of it (Devall and Sessions [42]; Callicott [43]). Ecocentric environmentalism also stresses that man's development should be pursued only insofar as it does not exert undue influence on the ecological integrity of natural ecosystems (Egri and Pinfield [44]).

The ecocentric view of environmentalism is suffused with some of the salient features in environmental ethics, that is, love, respect, awe and moral consideration that human beings should extend towards those intrinsically valuable beings. Within this perspective, it may be remarked that environmental ethics are concerned with the issue of responsible personal conduct with respect to nature. It presents a holistic resource use model driven by ethical environmental beliefs and moral concerns for future generations when optimizing the instrumental use of nature. This is to protect the ecological integrity of the natural systems for the benefit of future generations so that they will not be worse off than the present generation. Within this ethical frame of resource use system, the natural environment is not only instrumentally

considered for its economic benefits but also intrinsically regarded for its (non-economic) aesthetic, spiritual, psychological, moral and cultural values.

The belief in value pluralism as elucidated above is directive and action-guiding and should ideally govern decision-making in promoting environmentally sustainable development. This proposition is validated by findings from extensive field studies with the indigenous people in the state of Sarawak in Malaysia between 2007 and 2011 concerning the role of indigenous land ethics in environmental conservation and management practices (Choy [45]). As this field research has been comprehensively reported in Choy [45], suffice it to mention the one important finding from extensive interviews conducted with more than 500 indigenous people spread across 50 villages in different parts of the forest interiors in Sarawak.

To begin with, over hundreds of years, the local people in Sarawak have developed an intimate cultural relationship with their lands and forests through their daily interaction with nature. These local communities view the environment not only as an instrumental source of socioeconomic sustenance in the form of hunting and fishing grounds, forest produce, and agricultural land for cultivation, but also regard it as an intrinsically valuable non-human entity which is ascribed with various non-economic values as noted above. It is their deep cultural relationship with land and forests that makes the local communities consider themselves as part of nature, and responsible for the healthy maintenance of their natural systems while optimizing its economic use for the benefit of present as well as future generations. The field observations showed clearly that this ethical stance of environmentalism has been able to allow the local communities to protect the ecological integrity of their natural systems over the past few centuries.

The field research also revealed that environmental sustainable development evokes profound ethical sentiments, particularly about man's moral relationship with or ethical response to nature or non-human organisms. The field studies further provide compelling evidence that environmental ethics and sustainable development are inextricably intertwined and it is impossible to achieve either without embracing the other. More succinctly, the operational levels of SD are contingent on the presence of the degree of environmental ethics of the stakeholders. Indeed, it is no exaggeration to say that environmental ethics offers one of the most important solutions towards the mitigation of some of the most devastating consequences of the Asian environmental quagmire

3 Conclusion

Twenty-eight years after "Our Common Future", the state of the global environment has hardly improved. Indeed, present studies provide incontrovertible evidence that our planet is still under considerable environmental stress despite the promulgation of a wide range of global, regional and national environmental protection initiatives over the past 28 years. Across Asia, stretching from China to Southeast Asia, old environmental problems such

as deforestation, habitat destruction, and river pollution, continue to threaten our life support system and hence, the core of human existence.

To a large extent, these seemingly endless environmental problems are human-induced. The Asian perspective of sustainable development means sustaining long-term economic growth or development rather than environmental protection. Thus, when a conflict between growth and environmental sustainability surfaces, the environment is inevitably relegated to the back seat. This appears to be incongruent with the concept of "Our Common Future" which seems to suggest that we can continue to cherish the positivism of growth provided we develop better ways of managing the environment. Better ways, as reflected in the present analysis, refer to actions such as the establishment of legislative instruments, regional environmental protection cooperation. However, the question is: to what extent have these initiatives been effective?

It is clear that the Brundtland-Rio concept of sustainability has been inadequate to deal with contemporary environmental problems because it has missed the point that sustainable development, in the strict sense of the word, ultimately rests on environmental ethics: environmental ethics and sustainable development are inextricably linked together and one cannot achieve the latter without considering the former. The post-Brundtland world would not be what it is today had equal attention been paid to the promotion of environmental ethics by way of unfolding its philosophy of sustainable development.

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