

## EDITORIAL INTRODUCTION

### The Message of Environment for Sustainable Development

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#### Indispensability of Sustainable Development

The message that the theme of this *Regional Development Dialogue (RDD)* issue — “Environment for Sustainable Development” — conveys is simple but powerful and it is timely. It seeks to dispel the apprehension that the great environmental awakening and activism may undermine the need for, and value of, development, particularly to those who have not yet been touched by it or who cannot take it for granted. This apprehension in the first instance arises from the fact that whereas more and more is being discovered and revealed on atmospheric changes, loss of biodiversity, soil degradation, hazardous waste, air and water pollution,<sup>1/</sup> less and less is mentioned of the fact that far fewer mothers die today at the time of delivering babies; many more children live beyond the age of five; far fewer now die from cholera, small pox, plague, malaria, and famine; many more children go to school; and many more women exercise their voting rights today. One could go on but then all such gains are overshadowed by the fact that two billion people still do not have access to drinkable water or a toilet.

Whereas the gains of development will not have to be at the cost of environmental danger, there is a problem in the contemporary world’s dominant view that ascribes these gains to the power of the market economy and the capitalist system of development that has now engulfed almost every country in the world. Arguably capitalism has flourished by playing on the “greed” aspect of human nature, which in turn has resulted in a production and consumption structure to feed such life-styles with increasing dependence on canned and processed food, individually-owned automobiles, and migration to bigger and bigger cities to earn enough to afford emulating this life-style. If anything in the development process has become unsustainable, it is this particular pattern, nature, and content of development, not development *per se*. At the macro level, the aggregate outcome of an unfettered capitalist process of development is reflected in aggression, crime, violence, and war, dehumanizing men and women alike. Whereas the battle cry against such development distortions has been waged (and lost) under various banners in the twentieth century, it seems the new banner of the environmental movement has the potential of freeing the development process and its outcome from the distortions for sustaining its humanitarian gains. Formally, such distortion-free development has come to be known as sustainable development, a path of development which is environmentally, socially, and economically desirable as well as sustainable. Lest it be forgotten, if development were not desirable, perhaps the question of, and interest in, its sustainability would not have arisen. Since the

need and value of development is so deep, the concern for its sustainability is also equally profound.

Further to the global consensus<sup>2/</sup> on the three pillars or dimensions (environmental, social, and economic) of sustainable development,<sup>3/</sup> the theme of this *RDD* attempts to illustrate that environment, its protection and management are indeed for sustaining development and not to question it or slow it down. The challenge to the contributors to this issue has thus been to discuss, analyse, raise questions, and explore the answers to the questions concerning these three pillars of sustainable development. What has been central in all this is a two-fold inquiry. **One**, are environment and development on a collision course? **Two**, where there appears to be such a course, how is it to be resolved or reduced? In other words, the task is to identify the trade-offs and the potential institutional arrangements to overcome the observed trade-offs, wherever possible. All the better if this exploration shows there are indeed synergies in the interlinkage between the environment and development. The task in such instances is to devise ways and means to preserve and promote the synergic relationships.

### **Inseparability of Three Dimensions of Sustainable Development**

Arguably one of the most progressive developments in the conceptualization of sustainable development has been the incorporation of “social” and “economic” sustainability along with the concern for “environmental” sustainability. In its most widely known conceptualization, sustainable development is defined as “development that meets the needs of the present without compromising the ability of future generations to meet their needs”.<sup>4/</sup> This definition neither implies that the concern for the future generation is only in terms of environmental resource need nor does it disallow incorporation of social and economic issues for future generations. Indeed, in the original conception of sustainable development the “four key problem areas” noted were: the environmental challenge (the degradation of the natural basis of human life); the first social challenge (the increasingly unequal distribution of income and assets); the second social challenge (the high number of people living in poverty); and the institutional challenge (the resulting threats to peace and security). The “three core imperatives” derived from the above four problem areas are: the environmental imperative (safeguarding the environment globally and for a long-term perspective); the social imperative (strengthening cohesion by realising justice among people, countries, gender, social groups, etc; and the institutional imperative (securing participation in political decision-making and as a precondition for peaceful conflict resolution).<sup>5/</sup>

Spangenberg points out that “an economic imperative is not mentioned only in the sense that “if distribution issues are not . . . regarded as economic issues”.<sup>6/</sup> Non-mentioning of economic issue as an “imperative” by no means implies that it has not been in the mind of the World Commission on Environment and Development (WCED). Throughout the WCED report, economic issues fare quite prominently. The Commission Chair, Gro Harlem Brundtland in her foreword expressed it this way: “What is needed now is a new era of economic growth — growth that is forceful and at the same time socially and environmentally sustainable”.<sup>7/</sup> This does not sound like ignoring economic issues. There is no doubt that each of the three dimensions of sustainable development were germane in the sustainable development bible itself. Nevertheless, the common perception has been

that sustainable development is all about environmental sustainability. This is ironic because the conservationists are severely sceptical of the notion of sustainable development. The notion of “sustainability” is dismissed as “Mere hopes about the future” and they caution: “Use the term at your peril”.<sup>8/</sup>

Further to the WCED definition<sup>9/</sup> of sustainable development, incorporation of social and economic dimensions of sustainability seem to have taken place in earnest through extension of the ideas of academics and concerns of developing countries and their need to develop socioeconomically and in a manner which guarantees that respective nation’s social and cultural roots and values will not be sacrificed for development. They also wanted to prioritize economic growth for poverty reduction and to adopt progressive social policy for reducing imbalances and income inequalities inherent in a capitalist market economy.

In the academic literature such concerns led to a broadening of the sustainable development concept to include social and economic sustainability. For example, Abaza and Baranzini,<sup>10/</sup> by citing Daly,<sup>11/</sup> observe that the concept of sustainability is usually grounded on three criteria: biophysical (or environmental), social (or ethical) and economic. Attributing to Daly, they add that these three “criteria” may be interpreted as: “defining three filters in deciding respectively what is (physically) possible; what is possible and (socially) desirable; and finally what is possible, desirable and (economically) feasible”.<sup>12/</sup> By referring to Ekins,<sup>13/</sup> Susan Baker lists “three dimensions or pillars of sustainable development” as follows: the social (this relates to human mores and values, relationships and institutions); the economic (this concerns the allocation and distribution of scarce resources); and the ecological (this involves the contribution of both the economic and the social and their effect on the environment and its resources).<sup>14/</sup>

Another insight into these three dimensions of sustainability is also worth noting. This comes from Mulder and Coppolillo. To them ecological (environmental) sustainability implies practices that do not irreversibly deplete resources or degrade the habitat. Keeping harvest rates of a resource below the rate of natural renewals should lead to ecological sustainability...Social sustainability is seen to imply “a set of practices which are ideally all of the following — socially (or culturally) acceptable, technologically appropriate, and institutionally stable...Economic sustainability refers to a set of practices that will make money over a certain period, and not cause any major collapse or instability within the local economy.”<sup>15/</sup>

It goes without saying that the above evolution of ideas in reconciling environmental concerns and the developmental path to be pursued did not come easily. Indeed the “developmentalists” and “conservationists” have been at loggerheads in their views on the relationship between the environment and development. In tracing the ideas on sustainable development, Pumar observes that for long “...the field of environmental science was dominated by the perspective of conservation, both in the policy and intellectual arenas.”<sup>16/</sup> Similarly, the field of economics has been dominated by neoclassical economists. With the emergence of development economics as a distinct field (in which historical reasons of underdevelopment of the developing countries fared prominently), the focus shifted from “economic growth” to “economic development” and more recently to “human development” as reflected in the measure of development according to the human development index (HDI).

Obviously this development took place over a long period of time and has been expanded and influenced by the spadework of numerous intellectuals, experts, academics, and researchers (particularly of environmental and social sciences), activists, networks and organizations, politicians, and policymakers who have contributed to the “process of sustainable development knowledge formation” as noted by Pumar.<sup>17/</sup> Sarah Lumley and Patrick Armstrong even trace the sustainability concept to nineteenth century intellectuals. They observe that intellectuals from a range of disciplines of that period conceptualized the importance of balancing economic, social, and environmental sustainability in their quest for justice and the conservation of nature.<sup>18/</sup> By citing and quoting profusely they trace the origin of sustainable development ideas to “the eighteenth century antecedents” and “nineteenth century thinkers”. The following quote from John Stuart Mill is a good example:

If the earth must lose the great portion of its pleasantness which it owes to things that the unlimited increase of wealth and population would extirpate from it, for the mere purpose of enabling it to support a larger, but not a better or a happier population, **I sincerely hope, for the sake of posterity, that they will be content to be stationary**, long before necessity compels them to it.<sup>19/</sup> (emphasis added by Lumley and Armstrong).

### **Complexity of Sustainability Issues as Addressed by the Contributors to this *RDD***

**Biodiversity-Poverty Linkage.** The first article, by Gernot Brodnig, is more about synergies in the link between biodiversity conservation and sustainable development. It also interprets the UN Millennium Development Goals (MDGs) as contributing to sustainable development. “Ensuring environmental sustainability” (MDG 7), Target 9 (“integrating the principle of sustainable development into country policies and programmes; reverse loss of environmental resources”) is seen as the most explicit reference to biodiversity conservation. He adds that “wise use of biological resources is important for the full range of development priorities encompassed by all eight MDGs.” Such interpretations of lofty global goals from respective professional and academic turf is common and understandable. Even in this *RDD*, the article by Kuniaki Makiya *et al* also does this. Each MDG is thereby linked to the gamut of 3R activities. On the positive side, such interpretations denote tuning and gearing each and every respective professional activity everywhere to the relevant MDG or even better to all eight MDGs and thereby or in similar fashion, to sustainable development. The downside of such pulling towards respective turf may however denote an interest in strengthening respective areas of work but it may be bad public relations in the sense that the general public may see such phenomena cynically. Brodnig’s enthusiasm to locate a synergic relationship between poverty reduction and biodiversity conservation leads him to observe:

The poor often depend directly on a diversity of natural resources and ecosystem services for their livelihoods, and are therefore the most severely affected when the environment is degraded or their access to natural resources is limited or denied.

Such statements in the article draw critique from both commentators — D. Schmidt-Vogt for definitional reasons and Edward L. Webb for their weak empirical foundation.

Is it not an unrealistic assumption and expectation that the poor have all the access to natural resources? Doesn't access to land, forests, hunting, and fishing depend on ownership, absence of which is one of the defining characteristics of the poor? At its best, the poor can pick up<sup>20/</sup> nature's leftovers which the rich or the nonpoor will not care to do, e.g., picking up dry leaves or broken branches of trees and the like. In exploring the tourism-biodiversity linkage, Brodnig makes another controversial statement: "Nature-based tourism is a good example of value creation from biodiversity." Does an "ecotourism" site remain that way for long? Even in this issue of *RDD* the Carla Chifos and Michael Romanos article suggests a clear no. If "income poverty" is truly a "key pillar in all efforts towards poverty reduction", as Brodnig seems to be believing, the poor will not have to rely on nature's leftovers to survive. In this regard, it is also important to document how the poor get dispossessed of their property. This is a topic that hardly anybody cares to analyse in today's world. Property rights are indeed a key issue. One good thing is that Brodnig's analysis and observations reflect his basic commitment to work for harvesting "nature's wealth for society's health", one may add this should be done with due care and vision.

Schmidt-Vogt's takes issue with the Brodnig article specifically regarding the author's use of such an important term as "biodiversity". Readers are reminded of the subtlety required in defining biodiversity as they read Schmidt-Vogt's perceptive comment on interrelated terms. His comment also alerts us as to the kind of caution necessary in using the interrelated terms. By citing Otto Solbrig, he reminds us that "diversity is a property, not an entity". Webb's comment is also thought-provoking. It serves as a reminder for reflection and careful analysis on the issue of poverty-biodiversity linkage. He questions the widely held notion that the poor gain from biodiversity and lose from its loss. The reality perhaps is that the poor lose all the time. Lack of ownership of both natural resources and produced assets, in all socioeconomic systems, particularly in feudalism and capitalism, deny the poor any access to resources or assets. The widespread view that the poor rely on natural resources or biodiversity for their living is questionable. Even if this is true to some extent there is nothing to glorify about the poor's reliance on nature, based on casual observation of their water collection or gathering of fuelwood from natural sources. Such reliance is the hallmark of the poor's marginal living and struggle for survival. The same commentator points out that neither the "degradation-increased poverty" linkage nor the "poverty alleviation-conservation" linkage has been "consistently demonstrated" by the evidence. He considers that an understanding of the conditions or processes of environmental degradation should not be presupposed on any link with poverty. His moot point is: poverty-environment linkages are dangerously oversimplified.

**Adoption of sustainable development strategies.** The next article, by Surendra Shrestha and Subrato Sinha, is a useful compilation and collation of the status of the national sustainable development strategy (NSDS). It will serve the readers well as a convenient source of basic information on various NSDS initiatives. The article also describes the principles of, and processes in, managing NSDS through illustrations of firstly, ways to integrate strategies and policies for NSDS purposes, and secondly, processes of formulating NSDS — both are from authoritative sources. The review of, NSDS status suggests that its adoption is yet to gain momentum in Asia and the Pacific countries. Moeed W. Yusuf, in his comment, gives credit to the authors for making it particularly clear that NSDS is a "process" and there is no "blueprint" for it. The value of

this point is that the developing countries need not be concerned whether yet another new policy or strategy is being imposed upon them. The need is indeed to orient, integrate, and assess respective country policies from a sustainable development viewpoint, as made very clear by the article which follows. However, it ought to be pointed out that such orientation, integration, and assessment will not take place unless relevant education and training programmes to (a) work with sustainable development paradigms in general and (b) render the tasks associated with NSDS formulation and implementation are created — with generous support from the developed countries.

**Sustainability assessment.** J. J. Kessler and H. Abaza, in their article, provide rich insights in operationalizing sustainable development in all its three dimensions — environmental, social, and economic — by drawing from the United Nations Environment Programme/Economics and Trade Branch (UNEP/ETB) studies on integrated assessment (IA) of trade-liberalization effects in twenty-eight countries, conducted in several phases. In each successive phase, the study methodology became further enriched from the preceding phase's experience. The authors report that the "(e)arly studies were mostly *ex-poste* assessments of proposed policies. In the third round, this has moved towards more *ex-ante* or concurrent approaches" that analysed options before a policy was formulated, thereby, allowing the planners and the decision-makers to become involved in the IA process. Perhaps the most appealing common feature in all of these studies is integration at three key levels: **substantively and methodologically** (i.e., integration of disciplines and different analytical tools); **policy-wise** (integration in the planning and decision-making process); and **process-wise** (integration that promotes interministerial coordination and multi-stakeholder participation).

This three-level integration methodology draws the attention of both Kin Che Lam and Paul J. Thomassin. In their respective comments, both praise UNEP/ETB and the authors for this in different tones and words. Kin Che Lam compliments the UNEP/ETB approach for focusing on the "policy-making process", taking a "holistic view of the social, economic, and environmental consequences" and for making the sustainability assessment not only analytically rich but also making the IA process participatory — interdisciplinary and interministerial. For overcoming the UNEP-study problem of inadequate "understanding of the interrelationships between the economy, environment, and other social effects, such as poverty alleviation", Paul Thomassin suggests adoption of a systems approach in sustainability assessment. He draws our attention to the fact that the currently adopted holistic approach in UNEP studies will not allow the interrelationships between the subsystems to be revealed. Two other key points in Thomassin's comment concern stakeholders and the current generation. He welcomes inclusion of stakeholders but seems to be doubting if "our knowledge base of when and how stakeholders should be included" is adequate. He also reminds us that sustainability assessment "has to take into account the distribution of wealth and opportunity not only **between generations** but also within the **current generation**" (emphasis added). Thomassin does not stop by just bringing up these issues. He also provides some examples of "system-subsystem modeling approaches that can be utilized".<sup>21/</sup>

**Landscape changes.** The article by Chifos and Romanos, mentioned earlier, is a fascinating chronicle with profound observations on sustainability issues of an idyllic island in the Eastern Mediterranean — Santorini — which illustrates how an unsustain-

able development path has emerged from its early environmentally-balanced landscapes. It is a sad outcome directly resulting from the rapid influx of tourism — hypertourism development — affecting the fragile balance, overburdening the island's carrying capacities. Based on an in-depth case study of the island involving analysis of the three landscapes — natural, cultivated, and built — and their interactions, the authors develop two insightful models: one sustainable and the other unsustainable. The authors observe that “the future trajectory is unsustainable in all senses of the word — environmentally, socially, and economically.” The authors are obviously saddened by what they have found in Santorini but the processes described, lessons drawn, and the sustainability principles derived are of value to those who care for understanding the interactions between the society, its environment and economy.

In his comment, Charles Ellison starts by observing that “without knowing the history of development, we do not have anything”. His comment perhaps will induce readers to reflect on the achievements in development, allowed by capitalism. By citing Marx and Schumpeter, Ellison draws attention to their respective acknowledgement of capitalism's role in the progress of human society and creative destruction. But Ellison also points out that both recognized the transitional nature of capitalism and its own undoing will come from its dynamic nature. But their limitation lies in the fact that both Marx and Schumpeter worked largely with the dynamics of economic life without raising the question how “capitalism transforms society's environmental and spatial character”. Ellison leaves the readers to reflect on whether the reformist agenda of sustainable development will be adequate for human beings to live in harmony with nature while keeping all the rest going as usual — globalization, migration, tourism, globe-trotting energy-intensive travel, unprecedented dependence on global trade, even for basic consumption needs — or human beings will really have to turn to Rousseau's “**self-sufficient, modest and balanced social order**” (emphasis added) as he advised the Corsicans “**to stay as you are**” (emphasis added), the kind of order Marx dismissed as static without any hope and aspirations on the part of the people therein. Marx's critique of the self-sufficient village-system in India has been so intense that one of his most controversial writings is seen as welcoming the British colonization of India, which he saw would destroy the static system, ushering in dynamic change. To the extent Rousseau's advice “to stay as you are” is the future course for the sake of sustainability, one wonders at the cycle which humanity has traversed. But it is not really turning backwards for sustainable development, rather it may (only a may) be bringing a synthesis, what Marx “envisioned as a possibility in a post-capitalist order as noted by Ellison and what Rousseau proposes a stable community that maintains its traditions and eschews the temptations of wealth and economic growth”. One wonders whether it is not the vision of a post-modernist enlightenment that seems to be spreading?<sup>22/</sup>

Ranjith Perera approaches the article from an optimistic perspective in the sense that he seems to be suggesting that imaginative planning of the built environment can make a difference by avoiding an unsustainable development course. He does, however, observe that urban ecosystem resilience “depends on the magnitude of anthropogenic interests and interferences”. He also suggests that the unsustainable interactions among the natural, cultivated, and built landscapes, which Chifos and Romanos describe, may have much to do with a closed ecosystem of a relatively small island. But he cautions that even in a more normal or larger geographical setting, the way that “nature gives responses to violation of

equilibrium between natural, cultivated, and built environments (which) are sometimes astonishing and shocking”. Thus, there is no scope for complacency by viewing Santorini’s situation as a special one, Perera observes. He expects that the Chifos and Romanos documentation of Santorini will serve as further impetus to the ongoing search by urban planners to innovate “low-impact development” alternatives.

**Human behaviour.** The A. T. M. Nurul Amin *et al* article stresses the need to draw on the rich economic and financial insights for sustainable development-conforming behavioural changes but not to be limited to those alone. It presents an environmental management measures (EMM) framework for simultaneous use of regulatory, economic, and suasive measures for adoption of a holistic approach to influence human behaviour. The case of simultaneous usage of these measures is based on the assumption that there are three principal elements in the human mind: **fear, material** (economic/financial) **interest**, and a **moral/ethical sense**. For influencing human behaviour towards sustainable development — promoting norms and practices, regulatory measures seen to target the fear element, economic measures play on the material interest and suasive measures appeal to ethical sense of individuals, households, and enterprises. Although these three sets of policy measures have long been in use, they have not in most instances produced optimal results for, among other reasons, not using them with the above sense that would have warranted their simultaneous usage.

The article limits its attention to the environmental dimension of sustainability. Social and economic sustainability issues, particularly the need to adopt an employment-income approach to poverty reduction and thereby increasing the poor’s access to environmental infrastructure and services are not discussed. The huge role of the informal sector, if it is accommodated and integrated into the urban environment, in poverty reduction is also not raised.<sup>23/</sup> The role of innovative financing and cost recovery schemes in the provision of environmental infrastructure and service provisions could have also been meaningfully raised if the discussions were extended to economic sustainability.<sup>24/</sup> Because of such omissions, the article suffers from the kind of problems which it itself has raised, i.e., the nonoptimal results from adopting a partial approach or lack of holistic and simultaneous use of policy instruments. All three dimensions of sustainable development should have been addressed to free the article of the kind of problem it urges others to avoid for desirable results in pursuance of the sustainable development goal.

Edsel E. Sajor, in his insightful comment, raises a fundamental point: Is modeling of human behaviour that simple, as the article under discussion would like to suggest? He also questions economists’ tendency to rely on “state-centric” policies for public welfare and environmental well-being. The EMM framework relies heavily, if not solely, on state machinery, he points out. Sajor directs readers’ attention to the need and potential of using community driven regulations (CDR), which at least should supplement an EMM-use by government and its agencies. He then seems to be stepping into a controversial area: the relevance of the West’s “intellectual and political tradition of individualism, liberalism, and a clear divide in the relation between civil society and the state” and this tradition’s relevance to the “developing countries, many of which have not experienced the same historical trajectory as the West”. It is worth noting that Amartya Sen has questioned drawing such a divide.<sup>25/</sup> Sajor however ends his commentary on a positive note: “EMM as discussed by the authors should be appreciated, critically evaluated, and redefined....”

Desta Mebratu, in a useful comment, notes two potential uses of the EMM framework: one, its use would allow “combined application” of three sets of policy instruments for effective implementation of “the prevention principle” (which is a reference to one of a number of environmental principles referred in the Rio declaration); and two, at the operational level, EMM can be fruitfully used for “promotion of waste into resources through the effective promotion” of 3Rs (reduce, reuse, and recycle), which is seen as the core element of the Integrated Solid Waste Management (ISWM) strategy. In a similar vein as Sajor’s suggestion for refinement of the EMM framework, Mebratu states his preference for the term, “information-based instruments” rather than “suasive instruments”, on the assumption that the former will have a broader impact since the latter bear potential to go “beyond appealing to the moral and ethical values of individuals”.

**Groundwater overexploitation.** Although the sustainable development paradigm, as such, is not used, the Mukand Singh Babel, Ashim Das Gupta, and Niña Donna Sto. Domingo article clearly shows how important the sustainability issue is. It is a vivid illustration of the fact that in the absence of sustainability concerns, servicing of the need and causes of development, urbanization and industrialization can create a precarious situation regarding a resource without which no life is possible: water. Having polluted the surface water and because of its resulting inadequacy to meet the vastly expanded needs of production and consumption, people have turned to groundwater. But its overexploitation has now brought the problems of land subsidence and a wide range of water quality deterioration as shown from a case study of the Bangkok region in Thailand. The authors’ review of the problems and policy response in place suggests policy instruments need to be integrated. The policy review also reveals that the use of economic instruments (EIs) have not been effective because the charges have not been high enough. Although this is a well-known problem with EI use, it seems this has not been taken into account adequately by the policymakers involved in groundwater management in Thailand. On the basis of the extensive review, the authors come up with a strategy in which regulatory, economic, technical, and some “supportive measures” are proposed with specification of agency to be responsible for their implementation to thereby promote sustainable groundwater use.

Abaidullah, commenting, points out that the article’s review suggests the “primary reliance” is on regulatory measures. He observes this is not “in line with the increasing realization that the market-based approach is more effective for environmental management”. The commentator also questions the oft-repeated villain, “lack of political will” for any nonoptimal outcome from a policy. “If government is not implementing the water-use charge, it does not necessarily mean that it is due to lack of political will” Abaidullah adds. Vilas Nitivattananon also raises this point and urges careful analysis of the authorities involved; in the absence of which he observes that “such statements have no basis”. Nitivattananon’s views suggest his familiarity with the ground reality and the issues discussed in the article. Among his several useful suggestions, an “institutional issue” is raised: Should the Department of Groundwater be both regulator and developer of groundwater resources? It is also perhaps worth mentioning that some theoretical underpinning and/or an analytical framework is perhaps preferable (e.g., the EMM framework presented in Amin *et al*) for recommending policy reform so that the theoretical rationale of each policy recommendation can be seen by readers, policymakers, and implementers.

**Automobiles, urban form, and unsustainability.** The significance of the article by Yoshitsugu Hayashi lies in the fact that if there is one single factor responsible for bringing the unsustainability issue into focus, it is the automobile — this is the issue he addresses with a great deal of imagination. By distinguishing automobiles from other transportation modes, Hayashi coins the term “automobilization” to investigate its relationship between economic development and urbanization. He then extends the analysis to locate the negative feedback between automobilization and suburbanization. The article is also a reminder of the widespread reality of divergence between the individual and collective interests, which warrants active public policy interventions to narrow, if not eliminate, the divergence and thereby promote sustainability. Also stressed is the need to focus on quality of life (QOL) factors in which car ownership and long drives do not figure! To him what counts for QOL are: a job to earn an income, an opportunity for cultural pursuits, life amenities, security and safety, and environmental amenity. Marie Thynell in her perceptive comment suggests that automobility today is a pillar of “the elevated consumer-oriented lifestyle”. But she raises the question whether the “western life-style and extensive car driving” will not finally influence future urban trip patterns because of the predicted energy crisis. Hayashi could have used this prospect, suggests Thynell, to strengthen his argument on rail superiority in urban transport. She pleads for more research to explain transport as a determinant of urban form and its influence on urban sustainability. Pannapa Herabat, in her comment, compliments Hayashi’s attempt to relate rail network expansion to economic growth and population density in a compact city. She also mentions the author’s use of Sun Wen’s theory of equal opportunity to use land as a basis for developing sustainable city strategies. One key message of this article is that transportation strategy ought to change depending on the stage of development and degree of urbanization but it should also be used as an instrument for promoting sustainable urban form and cities.

**Trading recyclables internationally.** The Makiya *et al* article, a long discourse on an important topic, promotion of 3R (reduce, reuse, recycle) through cooperation between developed and developing countries, contains a wealth of information compiled by the authors from diverse sources throughout the world. Two key implicit assumptions in the article seem to be, firstly, 3R promotion contributes to sustainable consumption and production (SCP), secondly, international trade in recyclable wastes is going to be mutually beneficial to both trading partners. No theoretical insights, however, are used or referred in support of these assumptions. Arguably a 3R approach to SCP denotes an end-of-the-pipeline strategy that does not touch the fundamental social, political, economic, and market forces that give rise to unsustainable consumption and production in a capitalist market economy. The 3R promotion agenda however may be seen as the right thing to do on the part of professionals, academics, and researchers since the task of changing the social, national, and global structures that give rise to unsustainable consumption and production rests with the political forces and movements. However, following up the case of 3R promotion on the basis of G7 or G8 countries’ decisions may not be very wise or persuasive to many developing country governments. Indeed more care is called for in this regard. The case for 3R promotion within national boundaries is politically less volatile but fundamentally the same because the national production and consumption structure is largely a reflection of the global structure as long as all countries are part of the same world capitalist system.

Having noted this overwhelming reality, let us recognize a basic irony that defines the scope of international trade in recyclable waste and the needed cooperation between developed and developing countries. This irony has to do with the fact that the countries and cities with more recyclable resources in their waste (particularly its inorganic component) have neither the necessary labour to recover it nor the enterprises to make use of the recovered resource. In contrast, the countries with abundant labour and enterprises do not have the resources to recover from their discarded wastes.<sup>26/</sup> Although not stated thus, this irony is the fundamental basis of the article's emphasis for promoting the international trade of recyclables. Formally, this is yet again another case of free (beneficial) trade, based on the theory of comparative cost advantage. But the danger in waste trading may arise from the potential trading of hazardous wastes.<sup>27/</sup> The authors show an awareness of this problem but they prefer to rely on the interest of, and cooperation among, the trading partners and, more specifically, on the transfer of technology from the developed countries to the developing countries for promoting environmentally-sound recycling practices.

Bindu N. Lohani, based on his vast experience in this field, also expresses his confidence in technology to make the difference. He points out that technology is already on the market for dismantling and separating recyclable materials. In addition to the support for 3R-promoting capacity-building in the developing countries, already stressed by the authors, Lohani draws attention to the huge opportunities created by the clean development mechanism (CDM) in solid waste management (SWM), specifically in methane recovery from landfill site. He stresses the need for "promoting investment in 3R related projects". Indeed there are "considerable business opportunities" centering on 3R activities in developing countries.

In this regard, Virginia W. Maclaren's point on making use of the already involved informal sector labour and enterprises is extremely important since the new opportunities may contribute to enhancing their income and thereby significantly contributing to poverty reduction resulting in socially desirable development from the process of promoting environmentally-sound SWM practices. The article however limits its reference to small and medium enterprises (SMEs) ignoring the informal sector. Another important point made by Maclaren is the article's lack of attention to household waste. Maclaren reminds us that the whole focus of 3R promotion will be different for the developing countries if attention is turned from industrial to household waste.

Through his detailed comment, Yasuhiko Hotta makes several constructive suggestions, which enrich the coverage of the 3R issues in the article. Similar to Maclaren, he notes the neglect of the role of the "informal recycling sector" — a role which is seen as filling "the gap between the recycling needs and capacity of the formal recycling sector". The authors seem to have been concerned by "the health risks and environmental pollution associated with informal recycling activities". This is a legitimate concern but if so much can be done to promote safe and environmentally-sound recycling practices by the formal sector at a much higher cost, why should it not be possible to do the same for the informal sector? It goes without saying that the needed support for the informal sector will cost a fraction of that required for formal sector recycling. To be fair to the authors, it has to be said that perhaps because of their focus on "industrial waste", as pointed out by Maclaren, the informal sector did not fare prominently in their minds. But as Hotta points out, based

on the JICA and World Bank summary,<sup>28/</sup> the benefits from the already existing role of the informal sector is indeed manifold in 3R activities. It will be ironic if the informal sector is now ignored in 3R promotion activities because it is the informal sector labour and enterprises which have discovered the resources in waste by their ingenuity and survival instincts. Of course, such ironies are common in capitalist market economies. If the vanguard in resource recovery is now replaced by big capital, it will be another irony in the realm of capitalist market economy's norms. But public policy and actions have the obligation to make a difference.

**Planning for urban sustainability.** The article by Ijaz Ahmad and Ihsan Ullah Bajwa reviews town planning tools in general and the newly-established local government system in Pakistan, in particular from the viewpoint of sustainable urban development. The effective use of classical urban planning tools of "land-use planning, building, and development control and infrastructure management and the like" is seen as the crux of pursuing the goal of sustainable development in the urban context. By citing several authoritative sources in "town planning", the authors stress the need for planned spatial development. In this context, it is worth pointing out that the professions of urban planning and economics are faced with some well-known dilemmas. In fact, urban planners often get frustrated by the market mechanism and associated price signal-based decision-making of individuals, households, business enterprises, and industrial factories. Such decisions of numerous individuals make a mockery of spatial plans of urban planners. Similarly, economists grow frustrated when they observe their preference (in order to benefit from "market dynamism") to rely on the market and price signal-based decisions of individuals, households, enterprises, and factories result in imbalances, inequities, and boom and bust cycles. Urban planners and economists thus need to act imaginatively to deal with such market vagaries. The catastrophic options are to discard the spatial planning totally and reject the market mechanism altogether. Accommodative planning (e.g., to accommodate the informal sector in urban planning and environmental management) and public policy and actions to reduce market excesses are the solution to such problems. Thus, planners and economists instead of being at loggerheads have a great deal to gain by understanding respective professions' compulsions and indispensabilities.

Unfortunately the Ahmad and Bajwa article does not discuss the urban planning paradigms for the purpose of promoting sustainable urban development. This is manifested in their unrestrained optimism towards a military regime-enacted local government system.<sup>29/</sup> They seem to be particularly carried away by the "5D principles" in this system.<sup>30/</sup> Their comment on "political intervention" is an aspersion to the elected representatives. Yes, such interventions is a problem in the developing countries but these interventions come not only from political leaders, they come from all elite groups: military and civil bureaucrats, technocrats, academics, NGO leaders, and business leaders; in other words, whoever commands some influence and prestige in these societies. In this respect, Noman Ahmed's comment on the article is a welcome contribution. He observes that "A legitimate political process, that is capable of transforming people's choices into an agenda for development, is a prerequisite for any urban planning to sustain." On the earlier point as to the planning and economics professions, Ahmed makes an insightful observation:

The feasibility of urban planning can be justified across two aspects. One, the urban planning process — like economic or development planning — has a

strategic role. It sets specific targets with corresponding strategies for their achievement according to resources, constraints, and potentials. . . . Two, the urban planning process has a regulatory role. It promotes positive trends and regulates the negative ones.

Noman Ahmed also aptly reminds urban planners of the need to understand that “cities are the seats of civilizations and engines of progress”. But he recognizes cities as “common habitat”, thus, requiring contributions from “each discipline of learning and every cross-section of the society”.

**Sustaining Project-Based Service Provisioning.** The concluding article in this *RDD* journal, by Ijaz Ahmad and Hideharu Morishita, is a review of a typical community-level project, similar to perhaps thousands of others which have been going on in the cities and towns of developing countries, ostensibly targeted at the improvement of living conditions of residents through the provision of basic services involving the community, nurtured by NGOs, and funded by the donor community with complementary funding of central and local governments. Many have become restive with such project interventions due to their lack of upscaling, replication, and sustainability. This article’s significance lies precisely in this respect — the issue of sustainability of the tertiary level sewerage service introduced in a community through the Faisalabad Area Upgrading Project (FAUP) in Pakistan. The article is based on secondary source information, largely from project documents. It does not address the sustainability issues by their social, environmental, and economic dimensions. Its focus is on community participation in service provision, therefore it cannot satisfactorily address the sustainability issue in all three dimensions. But if primary data were used, without which no meaningful assessment is also possible for the purpose at hand, the article could shed some light at least on the social dimension of sustainability. The two comments — the first by Jonathan Parkinson and the second by K. M. Maniruzzaman — have however added value and insights making the total coverage of the topic relatively robust. Parkinson’s point on the financing and cost recovery issue is key for economic sustainability of such service provisions. Maniruzzaman observes that *RDD* readers would have benefited if the article had drawn some parallels with the famed Orangi Pilot Project (OPP). To the extent urbanization and urban problems are contributors to the sustainability alarms, the last two articles, along with their accompanying comments, shed light on how the ominous road to urban unsustainability can be avoided.<sup>31/</sup>

## The Need for Profound Change

The contributions in this issue hopefully will induce readers to reflect on what is of fundamental importance for ensuring development to be socially, economically, and environmentally sustainable. If some soul-searching does take place, Hayashi’s article may perhaps feature in readers’ minds and may induce them to prioritize their needs for happiness and quality of life, restraining the mad rush for more and more. A few may even become motivated to discard the “great love affair” with the automobile. Some will perhaps also ask themselves how they could really bring about the sustainable development-conforming behavioural change as described in the Amin *et al* article. While reading the Makiya *et al* article, readers may wonder how 3R can be made a routine practice as it is becoming increasingly the case with many developed countries, particularly among the younger generation? The Brodnig article, with accompanying comments by Schmidt-

Vogt, and Webb, may make readers consider that there is a limit to biodiversity conservation if human activities are not to be severely restricted and ultimately it depends on human beings' caring mind and love of nature. Similar examples can be drawn from each contribution. Without embarking on such an exercise, it can be said that a common thread binds together all the contributions in this *RDD* issue — though of course the analysis of the issues under discussion by each contributor are based on his/her respective area of expertise. This binding thread is the felt necessity for a change of some profound nature in the matter of the social, economic, and environmental thinking and practices of everyone, everywhere.

The “cultural creatives”<sup>32/</sup> of the world are already active as the vanguards for making this change happen. Their role and the spread of postmodernist enlightenment<sup>33/</sup> seems to be opening up a new horizon of hope for development to be meaningful and life to be more satisfying. A new generation has thus emerged throughout the world, particularly in the developed countries, which can contain its greed for more and more by being happy with fewer goods, moderate consumption, and a simpler life-style. They reject consumerism, generate less waste, reuse and recycle more, spend less, love nature's beauty, and care more for fellow human beings. They work to reduce human deprivation, participate actively in peace and anti-war activities, raise voice against any occupation, and seek liberation of men and women alike. They are not only a part but are the souls of the environmental movement. They value human freedom and pluralistic societies. They understand religious and cultural differences and their inevitability in a world where countries and societies are at vastly different stages and levels of economic, social, and political development. Thus they do not seek or support the notion of imposing one value system on another by force. Their own work to earn a living is marked by a creative enthusiasm to do so. This is the generation of hope for sustainable development, maybe its flower children (Schumpeter would have said they are the creation of advanced capitalism). “Marx envisioned such possibility only in a post-capitalist order” as Ellison has reminded us in his comment on the Chifos and Romanos article. But there may be a long wait, if it is ever to happen at all. Meanwhile, the spadework, as exemplified by the contributors to this issue, needs to be continued for a more sensible humanity.

## NOTES

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1/ These categories of major environmental damage and their associated health and productivity consequences are widely cited since the World Bank articulated them for dissemination. See its *World Development Report, 1992: Development and the Environment* (Washington DC: World Bank), Table 1.

2/ Since formally defining sustainable development in the World Commission on Environment and Development (WCED), *Our Common Future* (Oxford: Oxford University Press, 1987), three global summits — the 1992 Rio Summit, The Rio+5, and the World Summit on Sustainable Development (WSSD) 2002 in Johannesburg — and numerous intellectual contributions and activities have brought

- this consensus.
- 3/ See following section in this guest editorial, Three Dimensions of Sustainable Development.
- 4/ WCED, *Our Common Future*, p. 43.
- 5/ Joachim H. Spangenberg, "Reconciling Sustainability and Growth: Criteria, Indicators, Policies," *Sustainable Development* 12 (May 2004), pp. 74-86.
- 6/ Spangenberg, "Reconciling Sustainability and Growth", p. 75.
- 7/ WCED, *Our Common Future*, p. xii.
- 8/ See Monique B. Mulder and Peter Coppolillo, *Conservation: Linking Ecology, Economics and Culture* (Princeton, NJ: Princeton University Press, 2005), p. 42.
- 9/ WCED, *Our Common Future*.
- 10/ Hussein Abaza and Andrea Baranzini, eds., *Implementing Sustainable Development: Integrated Assessment and Participatory Decision-Making Processes* (Cheltenham, UK: Edward Elgar, 2002).
- 11/ H. E. Daly, "Filters against Folly in Environmental Economics: The Impossible, the Undesirable and the Uneconomic" in G. Pillet, ed., *Environmental Economics — The Analysis of a Major Interface* (Geneva: R. Leimgrubber, 1987), pp. 1-10.
- 12/ Abaza and Baranzini, *Implementing Sustainable Development*, p. 1.
- 13/ P. Ekins, *Economic Growth and Environmental Sustainability: The Prospects for Green Growth* (London: Routledge, 2000).
- 14/ Susan Baker, *Sustainable Development* (London: Routledge, 2006), p. 7.
- 15/ Mulder and Coppolillo, *Conservation*, p. 42.
- 16/ Enrique S. Pumar, "Social Networks and the Institutionalization of the Idea of Sustainable Development," *International Journal of Sociology and Social Policy* 25 (1/2, 2005):64.
- 17/ *Ibid.*, p. 73.
- 18/ Sarah Lumley and Patrick Armstrong, "Some of the Nineteenth Century Origins of the Sustainability Concepts," *Environment, Development and Sustainability* 6 (2004):367-78.
- 19/ John Stuart Mill as cited in Lumley and Armstrong, "Some of the Nineteenth Century Origins", p. 371.
- 20/ The Bengalee Nobel laureate in literature (1913), Rabindranath Tagore's poem, *Shudhu Bige Dui* (two bigha — one acre — land only) is a classical depiction of the dispossession of a poor person of even the last parcel of land that remained after paying loans and how he was not only prevented from picking up the two mangoes which fell from the tree in front of him while he returned once to see the land he used to own, but was ironically taken into custody as a thief by the usurping *zamindar*.
- 21/ In a personal communication to this author, Mark Curtis, a colleague of Paul Thomassin, who facilitated the writing of this Comment by him, complimented Thomassin for this point in particular.
- 22/ See the following section, A Common Thread: The Need for a Profound Change
- 23/ See L. A. S. Ranjith Perera and A. T. M. Nurul Amin, "Accommodating the Informal Sector: A Strategy for Urban Environmental Management," *Journal of Environmental Management* 26 (1996):3-15; A. T. M. Nurul Amin, "The Compulsions of Accommodating the Informal Sector in the Asian Metropolises and Changes Necessary in the Urban Planning Paradigms" in A. G. Yeh and M. K. Ng, eds., *Planning for a Better Living Environment in Asia* (Aldershot, England: Ashgate Publishing, 2000), pp. 25-53; and A. T. M. Nurul Amin, "The Role of the Informal Sector in Urban Environmental Management," *International Review for Environmental Strategies* 5 (2, 2005):511-30.
- 24/ Elsewhere this author has attempted to do this. See A. T. M. Nurul Amin, *Economic and Financial Considerations in Urban Environmental Management* (UMP-Asia Occasional Paper; no.65) (Bangkok: UMP-Asia Program, AIT), p. 96.
- 25/ In the many writings of Amartya Sen, this theme fares quite prominently, e.g., in his *Development as Freedom* (Oxford: Oxford University Press, 1999), and *The Argumentative Indian: Writings on Indian History, Culture and Identity* (Calcutta: Farrar, Straus, and Giroux, 2005).
- 26/ A. T. M. Nurul Amin, "Reflections on Changes in Waste Recycling and Composting Practices Associated with Different Levels of Development: Some Evidence from Selected Cities in Southeast Asia" (Paper presented at the International Conference on Solid Waste Management in Southeast Asian Cities, July 5-7, Siem Reap, Cambodia). This paper contains some elaborations on ironies, trade-offs, and synergies associated with resource recovery from waste.
- 27/ This is precisely the reason for which the *Basel Convention on Transboundary Movements of Hazardous Wastes* was signed. For some basic information on the original 1989 *Basel Agreement*, see Barry C. Field and Martha K. Field, *Environmental Economics: An Introduction* (Boston: Mc Graw Hill 2002), p. 475.

- 28/ See Yasuhiko Hotta's comment in this issue (p. 183).
- 29/ A close observation of all military seizures of power suggests that they take place in the name of freeing their respective country from corruption or to bring stability and one of the quick follow-ups is reforming local government.
- 30/ See Ahmad and Bajwa's article in this issue which provides a helpful illustration of the 5D principles (p. 187).
- 31/ It needs to be added that the Chifos and Romanos article and the two accompanying comments also provide rich insights on urban sustainability and unsustainability configurations.
- 32/ Seema Nusrat Amin, "Cultural Creatives Changing the World?" *Meghbarta* (Internet journal); available from [www.meghbarta.com](http://www.meghbarta.com); accessed October 2004.
- 33/ The postmodernist enlightenment (which can be seen to embody a view and attitude that is changing the life-styles of a good portion of citizens who tend to consume less, generate less waste, discard less, reuse and recycle more and give more to others who do not have enough) is associated with "(p)ostmodernism which grew out of modernism in the second half of the twentieth century, continuing some of its trends, such as stylistic experimentation, while discarding others, such as concern with purity of form". It reflects an "artistic and critical tendency characterized by eclecticism, relativism and criticism, the rejection of intrinsic meaning and reality, the repudiation of progress and cultural cohesion, and an ironic embrace of ambiguity..." See C. Rohmann, *The Dictionary of Important Ideas and Thinkers* (London: Arrow Books, 2000), p. 311. Here postmodernism is seen as an encouraging phenomenon, particularly in the sense of its attitude towards consumerism and concerns for the environment. Of course, the capitalist mode of production, distribution, and consumption do impose a limit on the realization of the full potential that postmodernist enlightenment is offering.