Economic Growth and Environmental Sustainability: Some Key Challenges for Asian Governments

ABSTRACT

The paper identifies four areas of public policy concerning environmental management which pose serious challenges to Asian governments as they continue to pursue economic growth. The implications are such that if they are not handled properly, the result is unsustainable economic growth, and the likelihood of negative spill-over effects and social strife. The four areas of concern are first, the emerging issue of siting of environmentally unfriendly facilities which are needed by a country but whose social costs are mainly borne by local residents and neighbourhood municipalities which hosts these facilities. Among the contentious facilities are nuclear power stations, landfills and incinerators, chemical plants, dams, and the like. Otherwise known as the NIMBY syndrome, it has relevance to Asian nations as they continue to demand higher economic growth and energy security and would not like to see any delays in meeting this goal from local opposition to the siting of these facilities. The second concern is the waste generation problem. As countries in Asia continue to prosper, this rising affluence means rising consumption, and this in turn creates difficult issues on waste disposal. It is especially acute for countries with limited land space. The third issue concerns transboundary pollution which has become increasingly important not only in terms of human health but also for good country, neighbourliness. The haze and inter-river contamination are some examples. The fourth issue is the critical need to understand non-market goods and to price them. This is often overlooked in land planning, resource allocation, and building and conservation studies. Many of these non-market goods such as quietude, aesthetics, pristine land, biodiversity, heritage preservation and parks, among other green goods, are often not monetarily valued and hence are overconsumed. There is a need to price these goods for proper and more complete benefit-cost studies. The paper also discusses what governments could do to manage these key environmental challenges by pursuing a number of pragmatic policies. A side comment on the issue of global warming and climate change as it affects countries in Asia is also made.

BRIEF

It has become fashionable and politically correct these days to use the term 'sustainable development' to mean continued economic growth with some degree of concern for the environment and the future generation. Called green economic growth in some quarters, it is to some extent no longer lip-service but rather there is evidence of seriousness on the part of governments to attempt to adhere to some initiatives reflecting economic growth but tempered that with sound environmental management and policy. There are concerns naturally with an expanding population amidst growing economies and there are still in some parts of Asia, pockets of abject poverty. But as in the case of China and India where there are large negative externalities from pollution, and expected future significance in contributions to greenhouse gases, active steps have however been taken by their respective governments to combat precisely problems of such nature through a wide assortment of strategies including encouragement in utilizing clean technologies through incentives from tax rebates, and subsidies, higher emission and effluent fees, strict enforcements and monitoring procedures, and higher penalties for violation of environmental laws. There are also increased requirements for project appraisal and environment impact assessment for large projects. On the ground side, the higher education, greater literacy and higher affluence have demanded a higher quality of life. This means that no longer is income the main input into the equation for happiness, but non-material aspects have also led to a greater appreciation of the environment. We now see greater public participation and awareness of impactful projects that may be detrimental to human health and the environment. Protests in some types of facility sitings are good examples.

Globalisation too has meant the arrival of the internet generation, extensive and investigative media coverage, and the like, so that governments become more transparent and accountable for their decisions and firms or business become more responsible for their actions.

It is estimated that the world's population will grow to 8.5 billion by the year 2020! There will be more than 30 so-called 'megacities' with at least 10 million residents and most of these cities will be in the less developed countries of the world, according to the United Nations. Emission of greenhouse gases which contributes to global warming, continuing species extinction, overfishing, rising air and water pollution, and deforestation remain as continuing serious threats to environmental and eco-security of our planet earth.

Sustainable development has come to mean different things to different people. A cursory look at the literature will reveal that currently there are at least 24 definitions apart from the varied ways in operationalising the concept. Sustainability to some people implies a higher awareness of environmental issues, while to others, a coordinated and organized theory for economic policy. There is the concept of weak and strong sustainability where the latter requires non-decreasing aggregate natural capital whilst the former allows for substitutes between man-made and natural capital. Still others prefer sustainability to be linked and to include human welfare, progress and development needs.

While all these new dimensions do enrich intellectual thinking on the protection of the natural resource base and the environment, there also arose an equally significant amount of intellectual confusion not only in the way some concepts and objectives conflict but also in the problem of operationalising and implementing them.

It is precisely because of the lack of clear definitions in the concepts, and the operationalising procedures that much of the debate over sustainability rages on. We know that the world's eco-system is a complex one and the needs of the individual, the nation, between nations and global needs are more than often in conflict with each other. To try to

force an all-encompassing concept such as sustainability would likely lead to confusion, disarray, and frankly an objective incurring much wastage of resources, energy, effort and time.

Here, I do not attempt to resolve this controversy or debate nor could I add significantly much to it. The literature on sustainability is growing almost too rapidly to cope with, and it transcends the scope of economics, although along with the ecological, natural and physical sciences, and other social science disciplines, economics do have an important role to play in it. Neoclassical economists, have for example, worked on an index of net national welfare, which includes data on economic growth and its associated environmental costs (Tobin and Nordhaus, 1972; Daly and Cobb, 1989). Other economists have looked at ways and means to value environmental goods (Pearce, 1990s), understanding renewable and exhaustible resources (Hartwick; Clark, 1970s, 1980s), intra and intergenerational equity (Solow, 1974 and 1986; Becker, 1982), among other contributions made by economists.

The brief here focuses narrowly on 4 key challenges in what I deemed to be important for public policy and which will if not already have had significant impact on Asian nations in particular, and therefore require much attention and immediate action. These four areas have direct or indirect bearing on sustainable development, or green growth. The four areas are:

1) the problems of siting environmentally unfriendly facilities, otherwise known as the NIMBY (not-in-my-backyard) or NIABY (not in anybody's backyard) syndrome.
2) the problem of accumulating wastes or garbage disposal;
3) transboundary pollution; and

4) the problem of neglecting environmental intangibles in decision-making.

In addition to the above four areas of concern, there are also a number of pragmatic principles to use for environmental policy. One principle is the fact that money spent on addressing environmental problems is money diverted away from other equally pressing needs such as health care, education, foreign aid, etc. In order not to be carried away with only environmental concerns, we should have more benefit-cost analysis of any significant proposals so as to be clear in the choice of projects. Another principle is to pursue clean technology and on this, the thinking should be long run benefits. While using advanced technologies, care and consideration must be given to the possibility of conflicting end result. The use of advanced technology to minimize pollution must also include other forms of scientific measurement and detection of pollutants. Remote sensing technology with satellite graphics which is currently used to detect forest fires and indirectly reduce transboundary pollution is an example.

A third principle is to try to explore and expand the use of market solutions by providing the right incentives and /or disincentives for pollution control. This allows for flexibilities in where, when, and how much to reduce. Emission fees, deposit– refund systems and tradeable pollution emission permits are instruments in point.

A fourth principle is to understand and be aware of multiple stakeholders in any environmental management or transfer of one land use to another. By studying, and accounting for these stakeholders will more robust and generally more acceptable solutions be reached.

Societies also need to establish for themselves acceptable air, water, and noise quality levels, and to be aware that these baseline levels will change over time as expectations on

quality of life changes. Concomitantly, the principle of scarcity and value in economics comes into play. Assuming demand exists, the availability of resources whether land, or good environmental quality will determine its value. Where undeveloped land, pristine forests and beaches continue to be used up over time, the remaining resources should be more valued, and this itself is an insurance for the protection of the environment. This works only if society from time to time take stock of its natural assets, and along with this, undertake some measures of environmental accounting. In other words, the setting up of a set of satellite green accounts to augment the current GNP statistics is warranted. Economic growth is essential and in some countries necessary for a better quality of life but a more balanced, and informed economic growth with all the elements mentioned here is clearly desirable.

Finally, on the issue of climate change and global warming, we now know that the scientific inquiry into this is fairly certain and generally accepted by most people. The evidence for global warming is holding up and is no longer anyone's conjecture. But while the economic and social costs associated with global warming is certainly real, and there are many studies on that, there remains however, a number of issues which in my view are equally important but attracts less attention. Three relevant and critical issues include:

1. The question of the magnitude of these impacts; and depending on this, we obtain the range of measured costs or damages. The latter certainly depends on the former. And, the former, in turn, depends on many other factors e.g. cloud cover, mitigation effects, etc

2. The question of how large are the benefits to global warming Greenland for example is reporting on the increased yield from growing potatoes as a result of a longer and warmer growing season. This implies that we should focus more on net benefits. The true cost maybe lower.

3. The issue of immediate or short run welfare concerns versus the long run. Reducing and mitigating global warming is not cheap but requires a willingness on the part of society today to make sacrifices and incur opportunity costs. Presumably this is done with the desire to benefit and protect the future generations. There is also a moral and ethical sense of intergenerational equity. But the issue arises as to what extent the present generation whose needs are still to a large extent not satisfied willing to bear these costs now to allow the future generation to gain from their sacrifices? I don't think it is true that the present generation or at least the majority would be willing to incur so much costs to benefit a far-off future generation. Concerns for the present generation's immediate future generation as in from parents to children and perhaps to grandchildren would be at best but not I think to the generations beyond that. This is an important empirical issue and demands research. This, in turn, has implications for the discounting issue.

Finally, increasingly much weather phenomenon are attributed to climate change. It is important to distinguish between what is real and what is and can be considered part of natural cycles. This has important implication for measuring damages.

It is not a question of not wanting nor inability to be greener. But it is a question of how much attention do we want (as a society from a particular country) to be green. Being greener, like anything else requires costs or more precisely, opportunity costs in terms of forgone income, and forgone alternatives which by themselves do provide consumption benefits or investment opportunities. Keeping a piece of land in its pristine condition means forgoing benefits from development, housing, and with it jobs that may arise from such opportunities. It is a balance that a society has to strike. We also have other priorities such as alleviating poverty, providing sanitation and clean water – these are problems of the present

generation where their needs are frequently immediate unlike benefits from reducing global warming, protection of biodiversity and reducing ozone depletion.