GOVERNANCE FOR SUSTAINABILTY

by

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The Brundtland Commission's report *Our Common Future*, which inserted the notion of sustainable development into the global political discourse, states in the first sentence of the main text: "The Earth is one but the world is not." The central task of governance for sustainability is to reconcile this contradiction and nowhere is this imperative more obvious than in the current struggle to cope with the challenge of climate change.

The concept of sustainable development seeks to connect different epistemic communities. (An epistemic community is one that seeks to understand and explain a specified set of phenomena, for instance the behavior of elementary particles or of prices in a market, with a generally shared methodology of observation, experiment, explanation and proof.) Its origins lie in the dialogue between ecologists and economists for formulating the World Conservation Strategy. But in the Brundtland Commission it entered the policy discourse mainly as a way of providing a common framework for those sceptical about the merits of continued economic growth and development advocates suspicious about the "hidden agenda" of the, then, mainly Western environmentalists. (This is based on the author's direct involvement in the drafting of the report of the Brundtland Commission, particularly the first two chapters of the main report.)

Over time other epistemic communities (like lawyers, international relation theorists, natural scientists, urban planners and geographers) joined. Each of these communities finds deficiencies in the way sustainable development is typically defined. Each emphasizes a different dimension of the concept as most relevant. Yet the concept provides a framework for a dialogue between disciplines like land-use planning, fishery and forestry with development economics.

A further connection is between activists and advocacy groups. Prior to the acceptance of sustainable development as the overarching goal, there was little by way of a dialogue between environmental activists, like Greenpeace or Friends of the Earth, and developmental activists like Oxfam. Sustainable development provides a shared framework for a meeting of these two agendas. Here too, other activist communities like women's group, activists for children's right, indigenous people's rights and so on, have joined the conversation.

One difficulty with bridge concepts is that they do not belong to anybody on either shore. Hence there is always a certain tendency to harp on the deficiencies of the concept within the preferred framework of each discipline. There is also the usual charge that it is too vague. These criticisms will remain as long as sustainable development remains a foster child in academia, governments and social activism. No University faculty or Government Department or NGO movement "owns" this concept. For all of them it is simply a useful tool to increase their leverage with other disciplines in their sphere of action.

The situation can change if the concept is given greater precision in justifying actions proposed in its name. Now that the concept has acquired the status of a holy writ in policy dialogues the place to begin is to spell out the implications for governance of the three key operational dimensions sustainable development: the ecological, the economic and the ethical.

First, the ecological dimension. Humans live and work in eco-systems where the different components are interlinked in a complex web of dependencies. The geographical scale can range from neighboring eco-systems to the earth as a whole and the time scale between cause and effect can stretch into decades or centuries. The reason for concern now is because the scale and depth of the human impact on eco-systems has increased enormously and we are closer to the thresholds and discontinuities, which can lead to a sudden change.

The challenge for governance comes from the mismatch between sectoral and geographical jurisdictions and the trans-sectoral and trans-boundary character of eco-system linkages. Climate change processes, for instance, are global and stretch well beyond the jurisdiction of the nation states that exercise the sovereign power to make laws and policies. Action to manage and contain climate change risks requires the injection of climate concerns into the programmatic and policy agendas in a very wide range of economic sectors. That is the first challenge for governance-how inter-sectoral linkages and the fragmentation of jurisdictions can be taken onto account in the fragmented structures of governance at the national and international level.

The second is the economic dimension. Natural resources along with produced capital, labour, knowledge and skills are the basis for all economic activity. The way in which natural resources are used or abused is determined by the operation of profit maximizing and utility maximizing calculations of producers and consumers in a market economy. These seldom take into account the ecological interdependencies referred to above.

From an economic point of view we can see these interdependencies as externalities, where one person's welfare depends on consumption decisions made by another and one entities production possibilities are affected by the decisions made by another. From the perspective of sustainability an externality of particular significance is the way in which one generation's choices constrain or enhance the options available to future generations.
The market-price mechanism does not provide the opportunity for all those who are affected, particularly those not yet born, to signal their preferences to others. The challenge for sustainability is that of designing economic instruments that correct these market failures.

The third is the ethical dimension. An environmental problem almost always involves an injustice between groups, regions and generations taking the form of an unrequited passing on of environmental costs to others. Redressing this requires a political process that is capable of enforcing the rights of those who lack market or political power and the obligations of those who have such power. The challenge is to express this ethical dimension in norms or legal principles that sufficiently constrain the exercise of power to protect the requirements of justice.

The challenge is to combine these elements. Governance for sustainability will require that the border controls between disciplines are removed. Public policies and programmes will have to be designed and managed by a different type of person – one who is an ecologist who recognizes that all interventions in natural systems need to be evaluated with a full understanding of the complex pathways through which local, national and global ecosystems are affected, enough of an economist to respect the need to compare costs and benefits and to recognize the potential of a properly managed market system to save us from the excesses and perversions of public control and also enough of an engineer or technologist to recognize that the right sort of development requires not just tweaking of the market, but a systematic effort to promote alternative technologies that are less aggressive in their use of natural systems. In all these, this person must be guided by the principle that the real test of development is what it does to the self-respect, dignity and well being of the poorest person in society or, in the context of international relations, the least powerful State.

The response to global warming has to take account of all of these dimensions. Climate change involves ecological processes that link atmosphere, oceans and land resources in complex interactions. It is the mother of all externalities: global, long-term, highly variable in its impact in different geographies and involves risks of major irreversible changes in the eco-systems. It involves uncertainty because it is about realised

externalities only to a limited extent and more about potential risks. It involves intra-generational equity because of large differences in impact in high latitudes/low latitudes, uplands/lowlands, coastal zones/inland areas, and more generally between rich and poor areas. Most importantly the causes and consequences stretch over decades and centuries and involve issues about intergenerational equity.

The basic facts are now more widely known and can be summarized in two prognostications:

- A moderate increase of average global temperature by 2°C is already under way and probably unavoidable. It will affect hydrology, coastal zones, mountain ecosystems and biodiversity with significant impacts on agriculture, health, settlements.
- A much larger potentially catastrophic increase of 5°C is possible if we continue with business as usual. Such a temperature increase will amplify impacts and create risks of activating tipping points like a large scale Arctic Ice Melt, Greenland Ice sheet melt, West Antarctic Ice Sheet melt, the release of methane from permafrost melt, and ocean temperature changes with effects on Indian monsoon, El Nino and the Gulf Stream. Such a catastrophic increase can be prevented if action to mitigate greenhouse gas emissions is undertaken soon enough on a sufficient scale.

These prognosis involve three factors that our political processes are not well designed to handle. First, the time frame is long: most major impacts are projected to happen 50 even 100 years from now and the more catastrophic impacts even later than that. But action is required now if catastrophic impacts are to be avoided. Second, there is significant, but a gradually narrowing, scientific uncertainty about the projections. One thing worth noting is that each IPCC report has been more categorical in attributing the observed changes to human impact and more dire in its forecasts of impact. Third, those with the highest culpability as measured by cumulative contribution to greenhouse gas accumulations are least affected and some may even benefit from moderate increase. Those who are most affected are least culpable. They are also less developed and poorer and therefore less able to cope with the consequences.

Can democracies, as they function at present cope with this challenge of taking decisions now to avert consequences in the distant future about which there is much uncertainty and which may affect people who are not voters at the time and in the jurisdictions where these decisions need to be taken?

In the liberal democracies of the West the reconciliation of democracy and a market economy has involved the acceptance of a role for public policy in free or subsidized provision of merit wants like education and health care and underwriting a basic minimum of needs for all with a system of social welfare. It was this emergence of what was called the Welfare State in the United Kingdom, the New Deal in the USA, Social Democracy or the Social Market Economy in Europe that made capitalism acceptable in the West. Environmental protection at home has been added to this agenda for some decades now.

Globalised capitalism lacks this underlying welfare consensus and the sense of solidarity and responsibility for the welfare of others is not extended to other nations. At the global level allocative outcomes are determined by market forces and distributive outcomes shaped by the interplay of political and economic power. This will not provide an adequate basis for effective, efficient and equitable action on climate change. We need a framework of principles similar to the one that led to capitalism with a human face in the West.

The frameworks and mindsets that shape policy need to be reconsidered and modified in four areas of concern:

- how we take account of the interests of future generations in today's decisions,
- the way we handle risk and uncertainty in our decisions,
- fairness in burden sharing between those who are most culpable and those who are worst affected, and
- ensuring concerted action by the 200 or so sovereign states that constitute the global economy.

A sense of responsibility to future generations is a part of most traditional value systems and is asserted in Principle 3 of the Rio Declaration on Environment and Development which states:

> *The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations.*

However democratic societies work to a short-term calculus of costs and benefits because voters are myopic. The falling rate of savings in the West testifies to the growing preference for current consumption relative to future prosperity, possibly because of a rising proportion of older persons in the population. Greater awareness about potential impacts of climate change may help in restoring a respect for inter-generational equity. In the final analysis it will depend on how people value the welfare of those not yet born and the capacity of the political process to reflect this in day to day decisions.

Public policy decisions that are based on cost-benefit calculations do involve some valuation of the future relative to the present. The economic parameter that reflects this relative preference in cost-benefit analysis is the rate of time preference or the rate at which income that will arise in the future is discounted relative to the same amount accruing today. One reason for such discounting is the expectation that income will be higher in the future and therefore any given amount is more valuable now when we are poorer than in the future when we will be richer. Another reason, referred to by economists as the pure rate of time preference, discounts future utility simply because it arises in the future. It is as if we were to say that a given amount of income accruing to our children is less valuable than the same amount accruing to us even if they are not any wealthier than we are. This may understandable in an individual with a finite life, but not to a society that expects to survive forever. Hence public policy decisions must be based on a zero rate of pure time preference so that there is no discrimination between current and future generations when decisions have to be taken on resource conservation.

The uncertainty about the extent and timing of change is partly a function of the long time frame used for the projections and estimation of impacts. But the dynamics of climate change are such that the potential adverse impacts cannot be avoided unless we take action now. Whether this will happen will depend on how risk-averse we are. How will we balance out relatively low and uncertain probabilities of potential catastrophes far into the future with the near certainty of current costs?

In our present state of knowledge the downside risk of things turning out to be worse than expected seem to be greater than the chances of a pleasant surprise. The current forecast that, with business-as-usual, greenhouse gas concentrations would rise by the end of the century to a level that involves a 50:50 chance of temperature change exceeding 5°C does not allow for the tipping points like ice sheets melting or permafrost thaw or lower carbon absorption by oceans. If things do not turn out to be quite as bad as expected, we can, to put it colloquially, start smoking again. But the reverse option of undoing past negligence is not available if things out to be worse than expected. In this situation even a risk neutral society confronted by potential irreversible catastrophes should be prepared to bear some cost to keep options open for the future.

Precaution means caution in advance of full knowledge of the likelihood of damage. The celebrated precautionary principle, which is Principle 15 of the Rio Declaration, states:

> *Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.*

This is weak form of the principle in that it seeks to balance the potential for damage against the costs of risk mitigation. The Stern Review of the Economics of Climate Change estimates that the damage caused by inaction could amount to the equivalent of a 5% consumption reduction now and forever while the costs of mitigation to contain the risk of temperature increase to a 50:50 chance of staying below 2°C would cost an amount equivalent to a 1% consumption reduction now and forever. This does not allow for catastrophic tipping points kicking in and, if this is taken into account, the damage from inaction could amount to a 20% consumption reduction now and forever. On the basis of these numbers the case for taking out insurance and going beyond zero and low cost measures seems justifiable.

This will not happen in the normal course. It will require policy interventions by way of public spending, incentives and regulatory changes by governments. But in democratic societies the immediate and measurable costs and benefits to voters and pressure groups trump any proposal to deploy public resources and policies to protect future options. This has to change and the implicit and explicit cost-benefit calculations that decision makers use must be modified to allow full play for the precautionary principle.

Who should bear the cost of this insurance? The damage from inaction and the cost of action are unevenly distributed between countries and generations. The technical and financial capacity to undertake mitigation actions is also unevenly distributed. There are two principles that UN member states have agreed in the Rio Declaration that are relevant. The first is "*the polluter should, in principle, bear the cost of pollution,*" (from Principle 16, Rio Declaration on Environment and Development) and the second, which is more explicit about global burden sharing:

> *States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth's ecosystem. In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit to sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command. . (Principle 7, Rio Declaration on Environment and Development)*

The polluter pays and the common but differentiated responsibility principles clearly require that the costs of action should be distributed in proportion to culpability. The bulk of the accumulation of greenhouse gases since the industrial revolution is attributable to the industrial countries. Hence the Kyoto Protocol, where mitigation obligations are restricted to the industrial countries is an application of the two

principles. The Bali decisions go further and call for mitigation actions by developing countries but tie this to the provision of finance and technology by the industrial countries and, in that way, remain within the bounds of the Rio Principles.

There is another aspect of burden sharing that needs cooperative action and that is adaptation to the changes that are unavoidable given any realistic goal for mitigation activity. If one looks at a world map then the countries which have been most culpable in causing the problem, and hence the need for adaptation, are largely the industrial countries in the higher latitudes of the North. On the other hand the countries that are most severely affected are developing countries in the lower latitudes. This is a case where the polluter pays principle can and should apply and the cost burden of adaptation should be borne by the industrial countries. The only issue is how much of adaptation will be required-the less ambitious is the mitigation target the greater is the burden of adaptation. In fact one could argue that, if the Stern Review estimates of the costs of inaction are at all correct, the costs of adaptation will be far more substantial than the cost of vigorous and immediate action.

Now comes the difficult issue of the fragmented geography of sovereignty. The concern for future generations, the precautionary principle and fairness in burden sharing have to be given practical expression in the obligations to other jurisdictions that States recognise.

Governance must respond to the scale at which interdependence operates. Today we speak about global governance because economic, political and cultural linkages between communities cut across national boundaries. An individual's life chances depend not just on what is done in her community or country but also on the policies of other countries. Within the country an individual who lives in a democracy has the opportunity to influence the direction of policy. But there is no such direct influence that she has on the policies of the governments of other countries. There her influence has to operate through her government as it asserts and protects its national interest in global diplomacy.

Domestically governance arrangements have evolved as the sovereignty of princes has given way to the sovereignty of people. Political power has been given a constitutional basis, rather than being simply seen as an absolute monarch's divine right to rule. The principle of people's sovereignty and people's representation has been accepted and reflected in political arrangements, very imperfectly of course in many cases. Domestic politics has evolved. The politics of every country in the world looks different now from what it was just a couple hundred years ago, and in many cases even from what it was fifty years ago.

But the way in which international relations are conducted does not look as different. There are some new institutions, many changes in the actual practice of diplomacy, greater knowledge and greater interaction. But the type of revolutionary transitions that have taken place in domestic governance, from absolutism to peoples sovereignty, or in more recent times, from colonial subjugation to independence, have not taken place in the framework of international relations. The key changes at the domestic level - the development of constitutional rule, sovereignty rooted in law and the principle of citizen representation- do not have any counterpart at the global level.

The institutional and legal arrangements that have been made at the international level are better conceptualised as the analogue of a voluntary association. The principle institution of global governance, the United Nations is founded on a paradox. Its charter begins with the words "We the people… ". But structurally it is not an association of people but a voluntary association of states represented by their executive branch. It is an organisation of nation states that is meant to set standards and constrain the behaviour of these very states towards each other and towards their citizens. And even in this it has a limited impact as is seen in the impunity with member states violate the principles and rules of behaviour incorporated in the Charter – non-aggression, avoiding the use of force except in self-defense, respect for human rights, etc. Could it be that the world today is a confused mix of empire and a concert of nations with both lacking any agreed constitutional basis, except for an inadequate UN Charter for the latter? Hegemony at the global level encourages regional hegemonies to appear so that a type of global political feudalism is what we are moving to, but a feudalism with very poorly specified rights and obligations, a feudalism that is capricious and unpredictable.

This is clearly not the evolution that we are seeking. What we need to do is to recover the spirit of multilateralism and global cooperation that guided the establishment of the United Nations system. The fundamental goal of reform in the UN and other multilateral bodies must be to institute the changes that strengthen the role of basic constitutional principles and lessen the role of power.

But there are also issues of process. Global governance today faces a democracy deficit, a compliance deficit and a coherence deficit. The first is reflected in the sense of disempowerment felt by many developing country governments, the second in the impunity with which states renege on their treaty obligations and the third in the sectoral compartmentalization of relations between states, both in the multilateral system and in the way in which external relations are organised within countries.

All three need to be addressed if we are to tackle the challenge of climate change and other global interdependencies. The UN Framework Convention on Climate Change provides a space for securing agreement. But the negotiating culture that drives this process is one founded on the classical model of reciprocal quid-pro-quo concessions. The nature of the climate challenge is such that it requires more than that as participants have to agree on facts and projections, on the economics of the options available and a fair way of sharing the burden of concerted action.

Do we have a global political process that is capable of doing this? We do have an effective and democratic process in IPCC and other networks of scientific cooperation for participants to agree on the data and the dynamics underlying projections and assessments of impact. The economics of climate change is now receiving much more systematic attention. The Stern Review has played a major role in raising the level of analysis and debate to a new level. But we do not as yet have a more structured process of consensus building in this area. The biggest gap however is in the third area of principles of fairness and burden sharing. What is missing is perception by each participant that the others care for his interest, will reciprocate concessions and can be trusted to observe their commitments.

The climate process could be the beginning of a more effective mode of global environmental governance. Its impact could extend to other areas of interdependence because of its wide sectoral ramifications. In the long run it could even become the beginning of a new multilateralism or more. But that will require more than the perception of interdependence and mutual interest. The example of the European Coal and Steel Community, which developed into the European Union of today points to the importance of persons in positions of authority who have a long term vision, of powerful states recognising the concerns of smaller states, of credibility in the eyes of people, as distinct from governments.

Governance for sustainability will require an epistemic change in the way we view ourselves and our place in the world so that we look:

- *beyond nationalism* and recognise the realities of interdependence and the need to reflect this in partnerships within and between nations,
- *beyond interdependence* and accept that our obligations to each other cannot be defined solely by mutual interests but require mutual responsibility or solidarity,
- *beyond individualism* and look at progress not just as individual advancement but as the advancement of the common good of the community.

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