

SUSTAINABLE DEVELOPMENT AND OUR RESPONSIBILITIES

by Amartya Sen, Rome, may 2010

1. Sustainability is not a new subject. The security of human lives has always been understood to depend on the strength and resilience of the natural world which we inhabit. However, the so-called "human predicament," including our mortality and our fragility, as human beings, has typically been understood as the plight of the individual, and this adversity has frequently been contrasted with the strength and durability of humanity as a collectivity. Indeed, throughout history people have tended to take for granted the robustness of nature - and a secure place for us in it. The frailty of individual lives (including their ultimate cessation) has been seen as an individual vulnerability that did not apply to mankind in general.

Even Alfred Tennyson, the great English poet, complained in his famous "Elegy" about the partiality of nature, contrasting the infirmity of individual lives with the strength that nature provides for the collectivity: so careful of the type she seems, so careless of the single life.

Tennyson's observation had a clear "Darwinian" ring - perhaps also the ring of something that has now come to be known as "the selfish gene" - even though Tennyson's poem ("In Memorium") was, in fact, published in 1850, one decade earlier than Darwin's *Origin of Species*.

The confidence in our group future has traditionally been based on the presumption of the robustness of nature which supports human life. The belief in the presumed invulnerability of nature was well captured by Horace. "Though you drive Nature out with a pitchfork," Horace had assured us, "she will still find her way back." Nature, however, has been showing its vulnerability in recent times, and seems more and more inclined to leave us in a state of hopeless incongruity - pitchfork in hand. Horace's comfortable belief has given way, in recent decades, to the growing recognition that not only is the environment in which we live quite delicate, but it also makes human lives - and indeed the lives of other species - deeply precarious. There is growing evidence of the rapidity with which we tend to decimate the ozone layer, heat up the globe, foul up our rivers and air, drive many species to extinction, destroy the forests, deplete the mineral resources, and impose other havocs on the environment, and consequently, on our lives.

Even though there are continuing scientific debates on particular prognoses, it is hard to avoid a general sense of deep vulnerability in our environmental outlook. Our very existence as human beings is totally contingent on the environment. Life, as we know it, can survive only in a very narrow temperature range - not just human life but any kind of life - a range that is hardly more than 100 degrees Kelvin, which is a tiny speck in the billion-degree temperature range of the universe. The survival of the human species is much more constrained still, and the possibility of viable and minimally comfortable human life even more radically confined. The environmental insecurities, such as global warming, that are being discussed a great deal just

now, relate to the far-reaching consequences of much tinier alterations. For example, variations of a few degrees celsius of ocean temperature can spell disaster for parts of humanity, for example drowning habitations (for the whole of the Maldives and for a large part of Bangladesh, among other low-lying areas), and threatening the basis of our on-going economic lives. In worrying about the climatic and environmental demands of sustainable development, it is essential to keep in mind the much bigger - and much more stark - picture of environmental dependence of lives in general and human lives in particular.

It may well be a sad reflection, but it is hard to escape the realization that we exist in what may after all be just a transitory moment in the theatre of this universe, and we have to do what we can to avoid making the magic moment shorter still through reckless behaviour and obduracy. There is perhaps some good advice in that fetching song of Simon and Garfunkel which was popular a few decades ago: "Slow down, not so fast/ You must make the morning last."

2. So what can we do to reduce our vulnerability? How should we think about our responsibilities? The focus of discussion on environmental policy has often been on developing appropriate national and international institutions. The rationale for this concentration is clear enough. As the cogently argued and wideranging report on Ecosystems and Human Well-being, produced in the last decade by a global team of Millennium Ecosystem Assessment (coordinated by the United Nations Environment Programme), points out, "*achieving sustainable use requires effective and efficient institutions that can provide the mechanisms through which concepts of freedom, justice, fairness, basic capabilities, and equity govern the access to and use of ecosystem services*".

But what about the institution of democracy? What difference can it make? It is easy to think that there must be an immediate tension here. Democracy involves participatory decision making by today's citizens, but the lives that may be most battered by environmental damage are people of the future. They are not, of course, participatory members of today's democratic governance. There would be a huge dissonance here if we were to take the very narrow view of human motivation much used in so-called "rational choice theory" (which, despite its non-exclusive name, is based on a very limited view of human motivation that has astonishingly many followers among economists, political scientists and legal thinkers). That theory assumes that people act only according to their own personal interests. We may be able to use our cleverness to construct some second-order reasons for the members of the present generation worrying about the future, without losing their obsession with their own personal interests, which many rational choice theorist see as the hall-mark of "rationality," but this is unlikely to take us very far into making today's citizens careful guardians of the long-term environment. So how should the present generation think about its responsibilities for the future people?

This is not really a serious problem to solve if we bear in mind that, contrary to the narrow view of humanity, it is entirely possible - indeed quite natural - to be interested in the lives of others, including those not yet born, and to be committed to make sure that our successors are not left in ruins generated by us.

Indeed, if the reach of public reason extends beyond narrow selfcentredness, then there is surely something that democracy can offer to make people more interested in the future. Indeed, public discussion makes us take interest in the lives of each other, and if democracy is understood, as John Stuart Mill thought it should be, as "government by discussion," then democracy can bring about a democratic response to the serious problems of the future.

3. There is perhaps some lesson here from the effectiveness of functioning democracies in preventing famines on which I have written in the past. The economic analysis that I presented in the 1970s, put together in my 1981-book *Poverty and Famines*, showed that famines can be very easily prevented through public action, since famines are not inescapable even with reduced per capita availability of food. People die from starvation in a famine not because any inescapable doom necessarily related to the absolute shortage of food, but mainly because of bad public policy that does not try to compensate for the deprivation of the potential famine victims. Their lives could be certainly saved if food is less unequally shared among the population involved. The government can easily ensure that everyone has some minimally manageable amount of food through public policy, such as rationing and control, through creating employment, and through other ways of giving everyone some entitlement to food. In fact, on the other side, even quite big famines can actually take place despite the fact that there is plenty of food around, since some people could lose their ability to buy food because, say, the loss of their own employment and occupation thus depriving them of income, and the government might fail to give them any relief. So the basic art of famine prevention involves public policy and governmental response.

The question that arises, therefore, is that of influencing public policy.

How does democracy influence public policy? The direct penalties of famine are borne only by the suffering public and not by the ruling government. The rulers never starve. However, when a government is accountable to the public, and when there is free news reporting and uncensored public criticism, then the government too has good reasons to do its best to eradicate famines. When there is a functioning democratic political system with a free news media without censorship, and active opposition parties that are eager to pounce on the government for its failure to prevent starvation, the government is under severe pressure to take quick and effective action whenever famines threaten. Since famines are easy to prevent once there is a real effort to stop them (as I have already discussed), prevention has, in general, been possible. It is, therefore, not surprising that in the terrible history of famines in the world, there is no case in which a famine has occurred in a country that is independent and has a functioning democracy with freely operating opposition parties, along with an uncensored press.

Democracies with free and energetic media, and with regular multi-party elections, are indeed effective in stopping famines from occurring. This understanding has close relevance for discussing the possible effectiveness of public discussion today in taking care of the problems of the future generations. Why so? The point of comparison is that the proportion of people affected by famines is never more than 10 per cent of the total population, and

is typically less than even 5 per cent. That low proportion can hardly make majority vote a directly relevant means of eliminating the threat of famines. It is public discussion and engagement that expand the breadth of vision of people whose own immediate interests may not be much pounded by famines, but who find it reasonable to try to prevent famines - and to vote callous governments out of office. So even though the present generation, who can vote today, may be dead and gone before the future generations suffer from the severity of climatic change and environmental decline, democratic public discussion can make today's vote effective in taking care of the interests of the future generation, in the same way a majoritarian democracy today, when combined with strong public discussion, can save the lives of a small minority of people (such as the potential famine victims) who cannot, on their own, swing the outcome in majority voting. Democracies with free public discussion and the absence of governmental censorship provide the means of the pursuit of social justice in a great many fields, and doing justice to the future people can be an effective part of that free democratic engagement. Open public discussion is a good means of working out our responsibilities towards the future generations.

4. So our responsibilities in dealing with sustainable development certainly include the role of today's citizens to discuss the predicament of the world that extends beyond their own lives.

Of course, many problems of environmental decline have an immediate effect. In breathing the air in Beijing or Mexico City or Delhi one does not have to be reminded that some of the effects of environmental deterioration impoverish our lives immediately. And whether we are dealing with the predicament of the population today or that of the population tomorrow, the responsibility of citizenship and political participation can hardly be overlooked. As it happens, there is by now quite a considerable literature on the role of citizenship in environmental preservation, focusing on actions that are motivated by a sense of civic obligation and social ethics. In his book, *Citizenship and the Environment*, Andrew Dobson has even argued for what he calls "*ecological citizenship*," which demand that priority be given to ecological considerations.

I am not quite sure that dividing up an integrated citizenship into function-specific roles is the best way to think about citizenship and democracy. But Dobson is surely right to emphasize the reach of civic responsibilities in dealing with environmental challenges. He is especially concerned with investigating and highlighting what citizens can do when they are moved by social understanding and reasoned reflections, rather than only by financial incentives (acting merely as "selfinterested rational actors").

Focusing on the sense of ecological responsibility of citizens is part of a new trend that straddles theory and practice. For example, there was criticism of the British government's policies in late 2000, when it backed away, in response to picketing and protests, from a proposed increase in taxes on petrol, without making any serious attempt to bring the environmental case into public discussion. As Barry Holden puts it, in his engaging book *Democracy and Global Warming*, "*this is not to say that the environmental case would necessarily have won the day*" but "*it is to suggest that it may have*

done so, had it been put". There is increasing disappointment not only with the feebleness - or absence - of positive initiatives to involve the citizens in environmental policies, but also with the evident scepticism of public authorities about the possibility of fruitfully appealing to the sense of social responsibility of citizens.

If what I have discussed so far constitutes one of the central points I wanted to make today in this meeting, I want to discuss two other issues relevant to the subject matter of this talk. First, is public discussion a matter for dialectical engagement within a country, or one on a global scale? What should an understanding of our environmental responsibilities demand? Second, how should sustainable development be characterized?

5. The need for global action - and related to that a global contract - in dealing with global environmental changes is easy to understand. For example, emissions need control all over the world, and a single nation cannot solve its problem on its own. It is easy to appreciate the need for constraints that each country has to accept, in one way or another, to have adequate emission control for the world as a whole.

The debates today are not about the need for global agreement on environmental behaviour, but about the division of costs and responsibilities in dealing with the global challenge. We can all benefit around the world through binding constraints that make the overall pollution level go down. But different contracts on this divide the burden differently. It would be silly and also unfair to impose some kind of mechanical limits on each country without considering its development process, its needs of poverty removal, and its ability to afford the resources needed for using environment-friendly technology.

Perhaps I should comment also here on an argument for "*historical justice*" that is often aired against rich countries, as presented by some poor countries. The argument takes the form of presenting the case for making the already industrialized countries pay some kind of a price - of a "*fine*" - for their polluting roles in the past. I am quite sceptical of this argument. As we know from the ways of resolving past racism, for example in South Africa, the best solution is not to cultivate new hostility by harping on past misdeeds, but to turn a page on the past. Also, it must be recognised that when the old industrialized countries polluted the world, the understanding of pollution and its lasting effects were little known. Furthermore, people in Europe and America today were not even born when their ancestors polluted the atmosphere.

No, that is not a fruitful line of analysis. Rather, the important issue is that today - right now - the developed countries take up an unequally large share of what are called "*the global commons*" - the common pool of air, water and other natural space that we collectively can share. The present-day unequal sharing of the global commons, resulting from historical differences, is a contemporary fact that has to be taken into account in looking for a plausible contract about how to share the burdens of environmental control among different countries today.

Not addressing this issue adequately doomed the Copenhagen conference to relatively little concrete achievement. What had to be addressed - and still has to be - is to face fully the hard question of sharing the benefits and costs of having a friendly environment today - and in the future.

These issues have to be sorted out at the global level paying particular attention to the conflicting elements that co-exist along with the general benefits from global cooperation. I must say here that I am not entirely persuaded that the new group of G-20 is an adequate forum for undertaking the difficult issue of dividing the restrictive actions to be undertaken around the globe. Sure enough, with a broader representation of the successfully growing economies, including China, Brazil, India and others G-20 is a lot better in representation of diverse interests than is the old G-7 or G-8. And yet G-20 has little representation of those poor countries which have not yet experienced much growth and dynamism. Just as China and India may have much to complain about today about the way Europe and America have come to occupy so much of the global commons, at some future date much of Africa may have reason to complain about how China and India, along with Europe and America, make the room left for Africa in the global commons that much more precarious. China, India, Brazil and others growing fast today have to consider fairness not only vis-a-vis Europe and America, but also vis-a-vis vast parts of Africa that have not yet entered the phase of globalized expansion.

One of the benign effects of globalization is that we are in close touch with each other in our interdependent planet. The world has shrunk a great deal over the last two centuries through closer integration, quicker communication and easier access. Even as early as 1750, David Hume had noted the importance of increased commercial and economic intercourse in expanding the reach of our sense of justice. He had put the issue thus in an essay called "Of Justice" (later included in his book, *An Enquiry Concerning the Principles of Morals*):

....again suppose that several distinct societies maintain a kind of intercourse for mutual convenience and advantage, the boundaries of justice still grow larger, in proportion to the largeness of men's views, and the force of their mutual connexions. The place of global justice is as central to thinking about the global environment as it is in tackling any other problem of global relations in our thoroughly interdependent world. The need for critical public reasoning is extremely strong in the contemporary world. There is no substitute for critical scrutiny. But critical global reasoning has to include considerations of justice and fairness across the borders to ensure a reasonable future for humanity. The challenges that the world faces today demand above all that we carry forward further what David Hume saw as the process of enlargement of "*the boundaries of justice*" Indeed, the boundaries of our concern limit the future prospects of the interdependent world in which we live.

6. I turn, finally, to the difficult issue of assessing the requirements of sustainable development. The idea of "sustainability" was powerfully outlined more than two decades ago in a pioneering manifesto, prepared by the World Commission on Environment and Development, led by Gro Brundtland (formerly the Prime Minister of Norway and later the Director General of the

World Health Organization, the WHO). The Brundtland Report defined sustainable development as meeting *"the needs of the present without compromising the ability of future generations to meet their own needs"*

Sustainable development has become the ruling theme in much of the environmental literature. The idea has also inspired some significant international protocols for concerted action, for example to reduce harmful emissions and other sources of planetary pollution. The idea of sustainable development has also motivated many large international gatherings - such as the "Earth Summit" in Rio de Janeiro in 1992 and the "World Summit on Sustainable Development" in Johannesburg in September 2002, and to some extent, even the recent conference on global warming in Copenhagen.

These meetings have had varying concentrations, but they have shared inter alia a common concern about sustainability. The world does indeed have good reason to be grateful for the championing of the idea of sustainable development that has occurred in recent years. And yet it must be asked whether the conception of human beings implicit in the prevailing idea of sustainability takes an adequately capacious view of humanity. Certainly, people do have *"needs,"* but they also have values, and in particular, cherish their ability to reason, appraise, act and participate. Seeing people only in terms of their needs may give us a rather meagre view of humanity, and - relevantly in the present context - of their role as citizens and as participants in democratic public decisions.

The question can, thus, be asked whether environmental priorities should be seen only in terms of sustaining the fulfilment of our needs, rather than sustaining our freedom as responsible citizens with the moral power to think about issues that go well beyond our narrowly defined selfinterest. Brundtland's concept of sustainability has been further refined and elegantly extended by one of the foremost economists of our time, Robert Solow, in a monograph called *"An Almost Practical Step toward Sustainability"*, published a little over a decade ago. Solow's formulation sees sustainability as the requirement that the next generation must be left with *"whatever it takes to achieve a standard of living at least as good as our own and to look after their next generation similarly"* The Solow formulation of sustainability has several attractive features. First, by focusing on sustaining living standards (seen as providing the motivation for environmental preservation), Solow gives more concreteness to Brundtland's concentration on the fulfilment of needs. Second, in Solow's neatly recursive formulation, the interests of all the future generations receive attention through provisions to be made by each generation for its successor. The generational coverage is, thus, comprehensive. But does the Solow reformulation of Brundtland's idea of sustainability incorporate an adequately broad view of humanity?

While the concentration on maintaining living standards has some clear merits (there is something deeply appealing in Solow's formula about trying to make sure that the future generations can "achieve a standard of living at least as good as our own"), it can still be asked whether the coverage of living standards is adequately inclusive. In particular, sustaining living standards is not the same thing as sustaining people's freedom to have - or safeguard -

what they value and to which they have reason to attach importance. Our reason for valuing particular opportunities need not always lie in the contribution they make to our living standards.

To illustrate, consider our sense of responsibility towards the future of other species, not merely because - nor only to the extent that - the presence of these species enhances our own living standards. For example, a person may judge that we ought to do what we can to ensure the preservation of some threatened animal species, say, spotted owls of some specific kind. There would be no contradiction if the person were to say: "*Our living standards would be largely - or completely - unaffected by the presence or absence of spotted owls, but I do strongly believe that we should not let those owls become extinct, for reasons that have nothing much to do with human living standards.*"

If the importance of human lives lies not merely in our living standard and need-fulfilment, but also in the freedoms that we enjoy, then the idea of sustainable development has to be correspondingly reformulated. There is cogency in thinking not just about the sustaining the fulfilment of our needs, but more broadly about sustaining - or extending - our freedoms (including the freedom to meet our needs). Thus recharacterized, sustainable freedom can be broadened from the formulations proposed by Brundtland and Solow to encompass the preservation, and when possible expansion, of the substantive freedoms and capabilities of people today "without compromising the capability of future generations" to have similar - or more - freedoms.

I finish by invoking a medieval distinction that we are not only "*patients*" whose needs deserve consideration, but also "*agents*" whose freedom to decide what to value and how to pursue what we value can extend far beyond our own interests and needs. The significance of our lives cannot be put into the little box of our own living standards, or our need-fulfilment. The manifest needs of the patient, important as they are, cannot eclipse the momentous relevance of the agent's reasoned values. Sure enough, we have our needs, but our humanity can take us well beyond that.

BIBLIO

1. Gerald Piel, *Only One World*, New York: Freeman, 1992
2. *Ecosystems and Human Well-being: A Framework for Assessment*, A Report of the Conceptual Framework Working Group of the Millennium Ecosystem Assessment, Washington, DC, and London: Island Press, 2003, p. 14
3. Andrew Dobson, *Citizenship and the Environment*, Oxford and New York: Oxford University Press, 2003
4. Barry Holden, *Democracy and Global Warming*, London and New York: Continuum, 2002, p. 76.
5. David Hume, *An Enquiry Concerning the Principles of Morals*, (first published 1777); republished, La Salle, Ill: Open Court, 1966, p. 25. The challenge of global fairness in an unequal but interrelated world has been beautifully discussed recently by Philip Kourilsky in his book *Le Temps de l'altruism*, Paris: Odile Jacob, 2009
6. A. Sen, *The Idea of Justice*, London: Penguin, and Cambridge, MA: Harvard University Press, 2009; Italian translation by Mondadori, 2010.

7. vii. World Commission on Environment and Development, *Our Common Future*, New York: Oxford University Press, 1987
8. viii. Robert Solow, *An Almost Practical Step toward Sustainability*, Washington, DC: Resources for the Future, 1992

Sustainable development is a phrase we hear thrown around from time to time in order to underline our ideal vision of the future – rid of all the problems that the inhabitants of the Earth tackle today. Depletion of natural resources. Gender inequality. However, due to the all-encompassing nature of the term Sustainable Development and the gravity of the situation which it looks to solve, many treat it as an abstract, unachievable concept usually taking into consideration the shocking images of over polluted oceans or the hopelessness of their life situation due to being born female. Nevertheless, a thorough understanding of this field and its challenges is quite necessary in our current environment and can help in living a more conscious and altruistic life. UNDESSA. The developed countries acknowledge the responsibility of sustainable development. 9. Nations should reduce and eliminate unsustainable patterns of production and consumption and promote appropriate demographic policies. 10. Environmental issues are best handled with the participation of all concerned citizens. The report on sustainable development in our common future identifies three leading interconnected principles viz. environmental efficiency, inter and intra-generational social justice and participation in decision making. Although the assumed growth of welfare includes rebound effects, this cannot be prolonged endlessly. Sustainable development refers primarily to issues of environmental impact and economic justice, while corporate social responsibility encompasses broader concerns ... Sustainable development is not solely an environmental concern. The World Commission on Environment and Development's definition of sustainable development defines –needs– as referring to basic economic necessities, especially those of the poor. A mining project designed to rapidly remove all of the valuable minerals from a certain mountain would not be economically sustainable, because any job gains in the local area would be strictly short-term. A wind farm on the same mountain could be seen as sustainable, because it would provide both energy and employment in the long term. Stakeholders. 4 Linde 2019 Sustainable Development Report. Message from our CEO. 102-14. , At Linde, environmental and social responsibility are deeply rooted in the way we do business globally. With a strong presence in all key geographies, Linde has a diverse and balanced global portfolio and a sound capital structure which allows us to pursue quality opportunities for future growth. I am convinced that our unwavering commitment to our values of safety, inclusion, integrity, accountability and community, combined with a disciplined and resilient business model and our talented employees around the world, will ensure our success well into the future.