

Ecology, Justice, and the End of Development

*Wolfgang Sacks
Wuppertal Institute*

For global environmentalists, 1997 was a year of anniversaries. Ten years had passed since the World Commission on Environment and Development, chaired by Gro Harlem Brundtland, offered its famous formula of how nature could be preserved and development nevertheless continued: sustainable development is development "that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED 1987, 8). After the golden post-war decades with their explosion of world economic output, the bitter insight had thus received an official blessing that conventional development, like a fire, burns off resources, which are essential for the generations to come. All of the sudden a future changed its tone; it was not any longer a bright period when the fruits of development could be harvested, but appeared as a potentially gloomy period when finally the bill for the party would have to be paid. Against this background, the Brundtland Commission pleaded with governments to consider the time dimension in all their decisions and to weigh benefits in the present against losses in the future. For politicians are not just accountable to

their contemporaries, but also bear responsibility for posterity. They are consequently supposed to systematically consider the effects of action taken today upon the conditions of life in the future. The commission called for justice between generations, a concept that had gradually come to the fore since the 1972 UN Conference on the Environment in Stockholm. In light of this concept, the essence of sustainability is to be found in a particular relationship between people and people rather than between people and nature. In fact, the concept can serve as the cornerstone for a new ethical framework; it extends the principle of equity among the human community along the axis of time.

However, highlighting justice in time as the canonical formula under emphasizes justice in social space. Constraints imposed by the present generation on future generations are given prominence over constraints imposed by powerful groups on less powerful groups within one generation. The Brundtland definition puts the spotlight on "needs" and "generations", terms, which are socially neutral, comprising rich and poor, powerful and powerless classes. Yet such distinctions are crucial when it comes to intra-generational equity. Whose needs and what needs are supposed to be met? In a divided world, these are core questions, which decide if sustainable development will be part and parcel of a democratic project or eventually deepen social polarization. Is sustainable development supposed to meet the needs for

water, food and minimal purchasing power or the needs for air conditioning and university studies abroad? Are the needs in question those of the global consumer class or those of the enormous masses of have-nots? Is sustainable development concerned with the survival needs of the majority world or with luxury needs of the minority world? The Brundlandt-Commission left these questions in the air; it remained elusive about the pretense of power and over consumption throughout the report. Such fuzziness certainly facilitated the acceptance of "sustainable development" in circles of privilege and power, but obfuscated the point that there will be no sustainability without restraint on wealth. In other words: that more *intra*-generational equity is a condition for achieving *inter*-generational equity.

The other anniversary is equally unlikely to shed more light on the issue of justice, at least not in an environmentally reasonable sense. Because in 1992, the UN Conference on Environment and Development in Rio de Janeiro was as ambiguous about equity within generations as the Brundtland Commission. It is true; the conference would probably not even have taken place, if the demands of the Southern countries that inequality should be addressed had not been accommodated. But the concern for equity was couched in the language of "development", circumventing again the question: whose development and of what? In fact, the Rio Declaration first reiterates the "right to development" before it proceeds

to state the need for environmental protection – which was the motive for convening the conference in the first place. Although during the conference Southern governments countered demands for environmental restrictions with calls for a better balance in North-South relations, they entered an unholy alliance with the North in their praise of development. Both South and North continued to perceive themselves as moving along one single track, each country hoping for redemption in economic growth, albeit starting from different levels. Feeling compelled to mobilize the ever-scarce resources to that end; they converged in assigning sustainability a back seat in the vehicle called economic development. While thus the South entertained its mimetic desire to follow the well-to-do nations, the North could feel free to indulge in its competitive compulsion to keep on rushing ahead. This way, over development was scarcely an issue, and the fact that it produces both poverty and bio-spherical risk was off the agenda. As the quest for justice was firmly wedded to the idea of development, nobody had to profoundly change and all parties could turn to business as usual – a result amply borne out in the following years.

Point of Departure

The expectation that justice will be brought about through development is deeply engrained in the post-war political discourse. To be sure, its roots reach back to the European Enlightenment, when the people of the globe were recognized as

mankind, unified by common dignity and destined to move towards the reign of reason and progress. But it was only after the war that the perception of the world as a site where in a few decades equality could be engineered took hold. For instance, the United Nations solemnly announced their determination in the Preamble to the UN Charter "to promote social progress and better standards of life in larger freedom... and to employ international machinery for the promotion of the economic and social advancement of all people".

Politically, two historical shifts converged in creating a global consensus around this idea. On the one hand, the United States, after the terrors of war, was in search of a new world order, which would guarantee peace. In their view, the outbreak of war in Europe had been due to the economic upheaval following the Great Depression. Remembering their own successful management of economic crisis during the New Deal, when Keynes had advised to stabilize the economy through state action, they projected the need for economic growth – steered along through public intervention – upon the globe. The Point Four Program of technical assistance, according to President Truman in his Memoirs, "aimed at enabling millions of people in underdeveloped areas to raise themselves from the level of colonialism to self-support and ultimate prosperity" (Truman 1956, 252). Economic development had to be launched globally in order to lay the base for peace. On the other hand, with

the definite downfall of England and France as colonial powers, decolonization set in and new nation-states emerged. With independence achieved, most of these states saw their *raison d'être* in economic development. They secured the support of their citizens by holding out the promise of greater economic output. After extended periods of humiliation during colonialism, they longed for recognition and rushed to join the modern world. For that purpose, they were even ready to turn their societies upside down in order to remake them in the image of the West. Rising income levels and increasing export earnings seemed to be the obvious road to attain a standing equal to the industrial countries. As a result of both historical shifts a global consensus emerged around "development" (Sachs 1992, Lummis 1992) as the supreme aspiration, which bound North and South together. Social justice, on the level of international politics, was therefore recast as catching up with the rich. Both the hegemonial needs of the North and the emancipatory needs of the South were nicely taken care of in this perspective.

Landslide

Our century, British historian Eric Hobsbawm claims, has already come to an end. The Short Twentieth Century, according to him, lasted from 1914 till 1991, bridging from the breakdown of 19th century civilization in World War I to the collapse of the Soviet Union after the demise of the Cold War. During most

of this period governments felt entitled to intervene in economic affairs for reasons of social welfare. In particular in the decades after World War II, with the disastrous consequences of massive unemployment in Europe in the early 1930's still at hand and communist destabilization looming, nation-states claimed an active role in guiding their economies for, as they saw it, the benefit of all citizens. However, the rapport between territory, wealth creation and governance, which provided the basis for the welfare state, began to disintegrate in the 80's and 90's. Hobsbawm calls it a landslide. "As the transnational economy established its grip over the world, it undermined a major, and since 1945, virtually universal, institution: the territorial nation-state, since such a state could no longer control more than a diminishing part of its affairs"

(Hobsbawm 1994, 424).

Before this landslide, states had been the centers of gravity, nationally and internationally. They were therefore in the position to forge a social contract between the wealthy and the poor and to redistribute resources accordingly. In the North, the welfare pact was based on an economy producing jobs, a state redistributing surplus, and on workers purchasing goods and paying taxes. In the South, the developmentalist state mobilized productive resources of all kind, claiming to cater to the needs of its population. And inter-nationally, the development consensus was in effect a social contract, which promoted a system of

bilateral and multilateral cooperation that was supposed to close the gulf between the haves and the have-nots. But the social contract was in all of these cases made possible by a certain congruence between the polity and the economy as both were to a large extent bounded by territory. Inasmuch, however, as the power of territories diminishes in the age of globalization, such social contracts are bound to unravel.

Indeed, the power of territories is on the decline and not just in the economic arena. Also satellite television, jobs abroad, cyberspace, and air travel converge in delinking place from community. A transnational sphere of reality has taken shape, which is oblivious of boundaries and cuts across national territories. Nevertheless, the emergence of the globe as an economic arena where capital, goods and services are able to move without much consideration for local and national communities has delivered the most serious blow to the idea of a polity, which is built of reciprocal rights and duties among citizens. As corporations attempt to take off for gaining foreign markets, they feel held back by the weight of domestic calls on their responsibility. The same holds true for the elites. As they aspire to catch up with the vanguards of the international consumer class, their old-style sense of responsibility for the disadvantaged sections of their own society withers away, because they themselves, instead of feeling superior with respect to their countrymen, feel now to be inferior with respect to their

global reference groups. Globalization thus undercuts social solidarity. Through transnationalization, capital is in the position to escape any links of loyalty to a particular society. It by far prefers not to be bothered by things like paying taxes, creating jobs, reinvesting surplus, keeping to collective rules, or educating the young, because it considers them mere obstacles to global competition. As the transnational arena becomes the frame of reference, the national community loses in relevance. As a result, in many societies a split opens up between the globally oriented middle class on the one side and – in terms of the world market – superfluous populations on the other. While globalization removes barriers between nations, it thus erects new barriers within nations.

Under the impact of that shift, the basis of the developmentalist state is cracking. More often than not, the states ally themselves with the globalizing forces and increasingly show disregard for the majority of their citizens who live outside the global circuit (Kothari 1993). They are ever more committed to promoting the insertion of their industries and middle classes into global markets and consider the non-competitive social majority a liability rather than a boon. While "development" still contained the hope of redistribution of wealth and power in favor of the poor, "globalization" redirects state action to providing better opportunities to the well-to-do in their scramble for international standing. As a consequence, the promise of develop-

ment for all, which was once the glue keeping states together across social and ethnic groups, crumbles and leaves the state with less legitimacy. In the wake of this shift, not the needs of people but the rights of corporations are the focus of politics in the era of globalization. Governments, therefore, are backing out from the development consensus; they increasingly consider the quest for justice outside their competence.

Furthermore, the landslide undermined not just the domestic but the international development consensus as well. For decades it was taken for granted that governments of the North, either directly or indirectly, would extend assistance to Southern countries in order to steer them along the path of development. With the rise of the neo-liberal worldview this understanding has withered away, and the claims of the South for more equity remain largely without echo. Particularly the notion – upon which the UN was built – that "the social advancement of peoples" would be a matter of international public responsibility has lost acceptance; private investors are hailed as benefactors of mankind instead. While in the development discourse the state was supposed to be the engine of transformation, this role is taken over by transnational corporations in the globalization discourse. Therefore, international agencies focus their attention on creating a worldwide "level playing field" for companies, whereas redistributive action between governments falls by the wayside. In the neo-liberal view, greater equity – if it

matters at all – is seen as expanding the reign of the law of supply and demand across the globe. Not more development cooperation but more investment opportunities seem to offer the prospect of catching up with the North. Whenever, therefore, the "right to development" is invoked today, it is likely to be a call of national elites to be more fully admitted to the global circuit of capital and goods, and not a call for greater solidarity with the majority world beyond the hustle and bustle of the world market.

Impasse

However, the more serious blow to the post-war idea of merging justice and development comes not from changing political but from changing environmental conditions. This is because the future, in the image of "development," is constructed as an infinite process of continuous improvement. Tomorrow's conditions, so the story goes, will always surpass today's conditions, if society is put in motion and managed in a rational way. "Development," during the decades after World War II, was nothing else than a reincarnation of the late 18th century idea of material progress, now only projected worldwide and considered attainable through planning and engineering within a few decades. Like progress, development is open-ended; it knows no point of arrival. Within such a framework, it became possible, domestically as well as internationally, to conceive of justice as an ever-increasing participation of ever more people in an ever-growing surplus.

The famous metaphor of the growing cake, which offers larger pieces for everyone without imposing smaller pieces on anybody, illustrates nicely how justice is understood when mankind is perceived as a net-gain community. The quest for justice, in this view, is best satisfied by the incorporation of ever more people in an open-ended global growth process. Given that the over-all size of the cake is growing, everybody will be absolutely better off, even if the relative size of the pieces remains the same. Easy to see that this notion of justice has prevailed for at least half a century, not only on the international level but also on the level of national welfare politics. And equally easy to see that it derives its attraction from the promise to achieve justice without redistribution. In other words, the dedication to growth has always been fuelled by the desire to sidestep the hard questions of justice.

Such an open-ended conception of justice and growth rests on a fundamental assumption, an assumption, however, which has become increasingly shaky in the last quarter of this century. For the long march to greater justice through expanding growth can only continue without getting stuck as long as growth generates more advantages than costs. Indeed, this expectation about the benign nature of growth has dominated Western thought ever since around 1800 (Brunner et al. 1984). It was largely taken for granted that the economic process will turn out to be a positive sum game, i.e. that the benefits accumulated will by far

outweigh all the burdens caused in the process. If this were not the case, and growth uncertain in its over-all outcome, society would have been foolish to opt for an unfettered pursuit of growth. What is looming behind this expectation, to be sure, is modernity's notorious optimism about the consequences of human action. After all, the moderns believe that the consequences of their action will on balance always be positive, while non-modern cultures tend to have a greater awareness of the fragility of human action, judging the outcome of such action as fundamentally uncertain. Such skepticism in the power of human action has been left behind by the moderns; the belief that economic growth, taken everything together, will eventually result in a higher state of welfare for everybody follows from this rosy outlook.

But this optimism about the future – after it had already been shaken by the catastrophic events of this century in the heartlands of Europe – has been finally shattered by what is somewhat euphemistically called the ecological crisis. Far from being just a transitory phenomenon, the emergence of biophysical limits to economic growth redefines the conditions of wealth creation for the century to come. The open-ended nature of growth cannot be taken for granted any longer; on the contrary, it appears that growth itself is undercutting its own prospects to a point that its finite nature becomes obvious. From the local up to the global level, it has become evident in many instances that the sources (water,

timber, oil, minerals etc.), sites (land for mines, settlements, infrastructure), and sinks (soils, oceans, atmosphere) for the natural inputs of economic growth are becoming scarce or being put in turbulence. From now on, material progress has to operate under multi-layered constraints. Even though economic growth has lasted just for several generations and has been limited to a minority of the world population, its finiteness has already become apparent.

The principal ecological constraints are by now well known (e.g. UNDP 1998, 65-68). On the side of fossil inputs for economic growth it is less the availability of resources in the earth which is presently threatened but the availability of biospherical sinks for absorbing gases which are released while these resources are burned. As the greenhouse effect gathers momentum, climatic turbulences are likely to appear which, among other things, will cause crop failures, flooding, hurricanes, droughts, and an increased rate of losses in biodiversity. On the side of biological resources for growth it is rather the long range availability that is at stake. In the course of the last fifty years, for example, one third of arable land has been seriously degraded worldwide; one third of tropical forests, one fourth of the available freshwater, one fourth of the fish reserves have disappeared; not to mention the extinction of plant and animal species. As it stands, a change in these trends is not in sight, on the contrary, in most dimensions the pressures on nature are bound to increase.

However, ecological constraints represent only half the story. They are exacerbated by the fact that the rule of thumb that 20% of the world population consumes 80% of the world's resources, still holds true. In the global context, the industrialized countries have already overshoot their limit by far; they are living well beyond their means. The "ecological footprint" (Wackernagel-Rees 1996) they produce is larger – and in some cases much larger – than their own territories; they have to tap into the resources available from other countries. In fact, the OECD countries surpass the permissible average size of such a footprint by a magnitude of about 75-85%, while only nine out of 52 analyzed countries remain below this permissible average all together. As matters stand today, the wealthy 25% of humanity occupy a footprint as large as the entire biologically productive surface area of the earth (Wackernagel 1997). Sure enough, the rest of the world cannot imitate such a level of resource consumption; any emerging country is well advised to remain considerably below that level in their industrial development.

Consider, for instance, the greenhouse effect, oceans and terrestrial biomass are capable of absorbing 13-14 billion tons of carbon dioxide each year, a volume the world could afford to release without harmful consequences through the burning of wood and fossil energies. If one divided this admissible budget by today's world population of 5.8 billion, everybody was allowed to emit 2.3 tons of

CO². However, the average German citizen at present accumulates nearly 12 tons (and the average U.S. citizen 20 tons) of carbon dioxide emissions every year. It follows that a country like Germany under present circumstances has overdrafted its carbon budget by a factor of five. Still, this rough calculation is rather favorable for developed countries as it considers only present greenhouse gas emissions and not their increase over the past two hundred years, of which more than 80% have been produced by industrial countries (Sachs et al. 1998, 72). In any case, the German level of 12 tons, short of major climate disruptions, will not be attainable by developing countries. For if all countries followed the German pattern of production and consumption, the world would annually release 67 billion tons in the atmosphere. Given that only 13-14 billion tons are tolerable, mankind would be in need of five planets to have sufficient sinks for CO² – but it has only one. A similar argument holds true for living resources, like fish, as well. Despite the fact that fish is essential for the food supply in poorer countries, Japan, Europe, USA and Russia account for more than 40% of the catch; although they comprise just a little more than 20% of the world population (op.cit., 75). This way, a global commons, like ocean fishing grounds – a quarter of which are already exhausted and nearly half of which are already exploited up to the biological limit – is excessively appropriated by the rich. Patterns of fish consumption (including animal feed) are sustained, which could

spread to the rest of the world only at the price of eliminating any fish from the seas altogether.

Climate change is the most obvious example, and other emerging limits tell a similar story: global equality on the level of the highly industrialized countries would seriously undermine the biosphere's hospitality for man. Given these historically new circumstances, the message implied in the metaphor of the growing cake has become dangerously misleading. The prospect of greater equity cannot lie any longer in the perspective of ongoing growth. To be sure, there is no eternally fixed relationship between the monetary and the physical size of an economy, but up to the arrival of the post-industrial society economic growth has always implied correspondingly higher inputs of energy and materials, while this connection weakens under post industrialism, albeit on very high absolute levels of resource consumption. Assuming, for the time being, a close link between monetary and physical growth, it is not exaggerated to say that, beyond a certain threshold, conventional economic wealth is intrinsically oligarchic; it could be democratized across the globe only at the price of biospherical disruption. Moreover, in a closed space with finite resources, is the under consumption of one party, which is the necessary condition for the over consumption of the other party. From this angle, it is erroneous to assume that economic growth evolves like a positive sum game; on the contrary, growth is accumulating adverse side

effects at such a scale that it is heuristically useful to regard it rather as a zero-sum-game. Or to refer to another metaphor dear to the protagonists of growth: the rising tide, before lifting all boats, is likely to burst through the banks.

The illusion that growth can be relied on as a positive-sum-game could be sustained because the costs associated with it remained invisible for a long time. What rendered them largely invisible is the fact that they have been successfully shifted elsewhere. Indeed, the novelty brought home by the environmental crisis is not the recognition that growth injures nature, but the experience that unpleasant consequences can no longer be kept at a distance. After all, the creation of economic value has always been the art of internalizing benefits and externalizing costs. How benefits and costs are separated out, and who is able to retain the first while shifting the latter elsewhere is obviously a matter of power; it is for this reason that power has always been an essential ingredient of value creation. Reaping value is made much easier when – mediated through power – a gradient can be established which makes the benefits accrue to the center and the costs slide off to the periphery. Above all during the industrial age, fossil materials and energies could increase the power of money only in as much as the social and environmental costs involved didn't have to be accounted for by the economic actors. What appeared as value in official accounts showed up, so to say, as disvalue in the imaginary accounts of future

generations, distant countries or humble people.

Because in the history of progress, time, space, and social class have been the major dimensions along which costs have been shifted out of sight and out of mind. As to the dimension of time, it was unrecognized practice for more than a century to move some of the bitter effects of economic progress along the axis of time to future generations. As a consequence, there is by now little doubt that the depletion of fossil reserves, the degradation of soils, the loss in bio-diversity, and the change in climate will diminish the chances of posterity to lead flourishing lives, at least in the sense of today's aspirations. As to the dimension of space, the rise of Western nations was greatly facilitated by their power to concentrate the social and environmental costs of resource mobilization in geographically remote areas. Large distances protected the centers from feeling the bitter effects of mining, monoculture, and deforestation, effects that had mainly to be carried by colonized peoples around the world. And finally with regard to social class, the consumer classes often succeeded in passing on environmental burdens to less advantaged groups, leaving them the noise, the dirt, and the ugliness of the industrial hinterland in front of their doorsteps. Particularly hit are those groups – as can be observed in many Southern countries today – which derive their livelihood directly from the free access to land, water, and forests. Building dams and extracting ore, drilling

groundwater wells and capitalizing agriculture for the benefit of the urban classes often degrade the ecosystems they live from. More often than not, small peasants, artisans, and tribals are displaced and subsequently marginalized in order to step up the resource provision for the dominating middle class (Gadgil-Guha 1995).

However, nowadays the distances, which once safely separated places of accumulation from places of exploitation and winners from victims, shrink. Costs shifted to the future already spill into the present, geographically there are few frontiers of exploitation left and socially the powerless come closer, be it through television or migration. As with globalization in general, the world has become a smaller place, not only for goodies but also for troubles. Costs of economic growth, which once accumulated in a fragmentary and small-scale manner had been shifted to distant points in time and space, now coagulate more and more into limits. It is as if the latency period of industrial affliction were finally over, making the illness break out in many places simultaneously. The old thermodynamic truth that production generates both wealth and waste is looming large, as with the globalization of wealth production also the waste production is closing in upon the planet. For that reason, the notion of the "world risk society" (Beck 1985) adequately captures the present historical constellation. For with economic growth the manufactured risks seem to grow at a faster rate than the rich-

es produced. Justice at the beginning of the 21st century, therefore, will be more concerned with the reduction of risks than with the redistribution of riches.

The New Color of Justice

In a world risk society it has become obsolete to turn the desire for justice into a demand for more and an accelerated economic development. As the environmental space available for humanity is finite and in some respects already overstretched, conventional growth of an enormous physical scale is bound to heighten the various threats. And these threats, there is no doubt, will make everybody, but particularly the poorer countries, worse off. This shift towards a world risk society profoundly modifies the background conditions for the relationship between rich and poor, between Northern and Southern countries. Previously, at the time of President Truman, the worldwide development project could still appear as a global positive sum game where all could be expected to eventually gain; there was no suspicion that the journey towards modernization could at some point be overtaken by a rising flood of risks. Under the new historical constellation, this certainty has vanished, turning the unfettered pursuit of conventional development into a doomed adventure. As a consequence, the demand for justice and dignity on behalf of Southern countries threatens to accelerate the rush towards biospherical disruption, as long as the idea of justice is firmly linked to the idea of development. Delinking the

aspiration for justice from the pursuit of conventional development becomes vital for rescuing the ideal of justice as “development” falters and for inventing paths of social improvement, which do not systematically overstep the limits of nature.

Certainly, “development” contains a noble hope whose roots reach back to the first half of the 19th century, the founding period of socialist thinking. Impressed by the rapid advances of technology, it was the socialist intuition that said there is a floor of minimal technological progress below which equity could never be achieved. With all the advances in agriculture and industrial technology before their eyes, progressives of all shades believed that this floor was reached and that from now on nobody would have to go hungry anymore. As a consequence, they have worked for rationalizing society and spreading technical progress in order to uplift the poor, first in Europe and then in the rest of the world. Although, the assumption that a certain level of technology is indispensable for overcoming chronic scarcity contains more than a kernel of truth, it is about to reveal itself as dangerously one-sided. For the emerging biophysical limits suggest that there is also a ceiling to nature-intensive development beyond which equity cannot be achieved any longer. Chemical agriculture, the automobile society or meat-based nutrition are cases in point. These levels of development are structurally oligarchic; they cannot be generalized across the world without putting everybody in jeopardy. Given the

fact that the 20% who enjoy the highest income of the world population lay claim to 85% of the world's timber, 75% of its metals, and 70% of its energy (UNRISD 1995), there is no way – even taking a considerable saving potential into account – that their lifestyle can serve as the imagined standard of equity. For this reason, the socialist intuition of the 19th century today has to be complemented by the environmentalist insight of the late 20th century that justice calls for an upper limit to material-intensive development. It appears that this insight is making some headway into official circles, given that the 1998 Human Development Report of UNDP affirms that “the poor countries have to accelerate their consumption growth, but they must not follow the road taken by the rich and rapidly growing economies in the past half a century”(UNDP 1998, 8).

It is, however, often overlooked that environmental consumption on part of the rich, globally and nationally, has an enormous bearing on the possibilities for achieving greater social justice. One reason for that is the confusion that is often made between cleanliness and sustainability. It is true, for 25 years environmental policy has largely focused on cleaning and protecting air, water, and soils. Regulators concentrated on reducing the flow of harmful substances into nature, and filter technologies were mounted at the end of the pipe in order to control emissions at the tail end of production. If the environmental crisis is defined in terms of too much pollution,

the issue of justice enters only when the social distribution of harmful impacts – who gets polluted more than others? – is considered. The environmental justice movement in the US, for instance, has mobilized protest around the frequent siting of polluting industries in non-white areas. But the issue of justice acquires a different and probably more fundamental relevance if the environmental crisis is defined in terms of excessive resource use. Such a shift in attention from the tail end to the front end of the economic cycle, however, is overdue for ecological reasons. For even a clean economy could cheerfully continue eroding soils, cutting down forests, degrading biodiversity, and heating the atmosphere. What really matters is the sheer volume of material input, not so much the pollutants in the output (Schmidt-Bleek 1994). After all, the average German consumes about 80 tons of energy and materials annually and the average Dutch or US-American even 3-7 tons more (Adriaanse et al. 1997, 12). These megatons of materials and energy have to be mobilized, at home or in distant countries, for keeping the entire volume of goods and services on offer. It is this voracity of the industrial system, which puts pressure on biospherical sources and sinks including the people connected to them. For this reason, not a clean but a lean economy is the implicit utopia of sustainability. It means making the systems of wealth creation less dependent on resource use. Seen in this light, the issue of justice does not in the first place concern the social distribution

of pollution but rather the social distribution of resource consumption.

The resource perspective, of course, becomes particularly significant when the over-all availability of sources and sinks is limited. Under such circumstances the question of “Who takes how much?” acquires utmost political importance. This question, however, does not arise in a pollution perspective, which moves developing areas into the focus of attention since pollution tends to be more intense there. It arises only in a resource perspective where over consumption is defined as the critical problem that industrialized countries are put on the spot. For rich countries may be relatively clean, but they remain, at the present state of affairs, always omnivores. One way to conceptualize the resource perspective in a context of finiteness is the notion of environmental space. It signifies the total amount of energy and materials, which can be utilized by a given society without hurting neither the principle of ecology nor the principle of equity (FOE 1995, Carley-Spapens 1998, Sachs et al. 1998). According to the principle of ecology this amount is limited by the earth’s carrying capacity, like the availability and renewability of resources or the absorptive capacity of natural systems. And the principle of equity confines this amount to a size, which can be reconciled with the equal claims of other countries on the patrimony of resources in the world. In this sense, a society can be called sustainable when its demands on nature do not exceed the environmental space it is

entitled to use. Fusing an ecological and a social notion of space, the concept of environmental space therefore captures the two central concerns of sustainability at once, the concern for ecology and the concern for equity. It allows us to rephrase the crucial question of environmental justice as follows: are the rich countries capable of living without the surplus of environmental space they appropriate today?

However, conventional development thinking continues to implicitly define equity as a problem of the poor. Facing the gap, which separates the rich from the poor, developmentalists perceive this gap in the first place as a deficit of the powerless and not as a fault of the powerful. They see a lack of credit, education or tools and advocate remedies for bringing the poor up to the task. They launch themselves into raising the living standards of the poor towards the level of the rich. In short, it was the poor who had to be developed in order to achieve greater equity. But designing strategies for the poor, developmentalists work for lifting the bottom – rather than lowering the top (Haavelmo-Hansen 1991, Goodland-Daly 1993). The wealthy and their way of producing and consuming remain entirely outside the spotlight as always in the development discourse where the burden of change is solely heaped upon the poor. However, with the emergence of biophysical limits to growth, the classical notions of justice, which were devised in a perspective of finitude and not in a perspective of infinity, acquire new rele-

vance. Justice is about changing the rich and not about changing the poor. It was only after the enlightenment, as optimism in progress had firmly settled in, that justice was discussed in terms of promoting the poor rather than of converting the rich. In a world of environmental finitude this tradition of thought is bound to surface again. Today, any debate on equity will have to focus in the first place on lowering or at least transforming the top instead of lifting the bottom. Against the backdrop of drastic global inequality in resource use, it is the North (along with its outlets in the South) that needs structural adjustment. Over and above redistributing riches, the North is called upon to shape its patterns of production and consumption in a way that Southern countries are not deprived of what they are entitled to use.

Given that the Northern consumer class occupies the available environmental space – the patrimony of nature on the planet – to an excessive extent, a systematic retreat from using other people's land and share of the global commons, like the atmosphere and the oceans, is the most important step to be done in the spirit of global responsibility. Northern economies weigh heavily on nature and other peoples; it is this weight that has to be reduced. The environmental space (Opschoor 1992, Friends of the Earth 1993, Spangenberg et al. 1995), which can be legitimately claimed by a society, is delimited by environmental constraints on the one side and by the rights of other societies on the other. In a way, both cri-

teria can be seen as expressing different dimensions of justice. The first speaks about equity between generations, and the second about equity within one generation. While the first criterion has been widely celebrated after the Brundtland Report, the second one remains the object of hot debate. Some argue that rights to resources are to be distributed according to historical achievement, others point to varying degrees of responsibility for resource consumption in the past, while again others invoke different resource needs in different climate zones. Yet the only morally defensible rule is that all citizens of the globe should have an equal right to the world's natural resources. However, such a rule should not to be mistaken as a planning objective for planetary redistribution; it is rather a moral principle guiding one's own behavior. Loosely improvising the Kantian imperative, it makes sense to say that a society can only be called sustainable if the maxim of its action is such that this maxim can be the maxim of every other society. Justice above all requires circumspection and self-critical conduct; the principle of equal right of all people to the world's resources is a yardstick to make one's own society a fair global player.

Industrialized countries, as recent research has shown (Tomorrows World Factor 10 Club 1995, Sachs et al., MacLaren 1998), if they aspire to become good global neighbors, will have to bring down their use of energy and materials by a factor of 10 within the

next fifty years. In other words, if they intend to take sustainability seriously, they will have to reduce their resource weight by 80-90% with respect to the year 1990. No doubt, this enormous challenge will amount to a civilizational transition of sorts, bringing both technological talents and new public virtues to bear. It will amount to both an efficiency revolution giving a new shape to technical progress and a sufficiency revolution-giving rise to a certain disinterest for monetary and material growth. But sufficiency had been the hallmark of justice

before the dreams of infinity have taken over; sufficiency in resource consumption is now bound to become the axis around which any post-developmental notion of justice will revolve. In future, for industrialized countries and classes, justice will be about learning how to take less rather than how to give more. Who calls for equity will have to speak about sufficiency. The anniversaries of both the Brundtland Report and the Earth Summit will remain lukewarm events, if this truism continues to be kept in diplomatic disregard.