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Critique of the Green Economy

Toward Social and Environmental Equity

By **Barbara Unmüßig, Wolfgang Sachs** and **Thomas Fatheuer**



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Edited by the Heinrich Böll Foundation

About the authors

Barbara Unmüßig has been President of the Heinrich Böll Foundation since 2002. She specializes in globalization, climate policy, national and international gender policy, promotion of democracy and crisis prevention. In 1991/92 she headed the UNCED project office of the German League for Nature and Environment (Deutscher Naturschutzring, DNR) and Friends of the Earth Germany as part of preparations for the Earth Summit in Rio de Janeiro in 1992.

Dr. Thomas Fatheuer studied social sciences and classical philology in Münster, Germany. From 2002 until 2010 he lived and worked in Brazil, for some of this time as head of the Brazil office of the Heinrich Böll Foundation in Rio de Janeiro. Since 2011 he has worked as a freelance consultant and author in Berlin.

Dr. Wolfgang Sachs studied theology, sociology and history. For many years he was a researcher at the Wuppertal Institute for Climate, Environment and Energy, guest lecturer at Schumacher College in England and honorary professor at the University of Kassel. He is a member of the Club of Rome. He has published widely in Germany and elsewhere on the environment, globalization and new models of wealth.



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P +49 30 28534-0 **F** +49 30 28534-109 **E** buchversand@boell.de **W** www.boell.de

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FOREWORD

The first United Nations Conference on Environment and Development, held in Rio de Janeiro in 1992, was once hailed as milestone for environmental policy. Yet it did not mark a real turnaround, nor did it usher in a socially and environmentally sustainable future. Since then all the important global environmental trends have taken a turn for the worse. In politics and industry decisions are still taken with scant regard for climate change, biodiversity loss or dwindling resources. This essay outlines the reasons why any radical rethinking on the part of the political and economic elites at the next conference on sustainable development – once again in Rio de Janeiro – is not to be expected.

Climate change, dwindling resources, food security, ecosystem and biodiversity loss all need to be treated as priorities and acted upon swiftly. Yet the Rio+20 summit is beset by major dilemmas. The global economic crisis cries out for more growth. Similarly, classical growth and development models continue to be viewed as the answer to the problems of poverty. Yet climate change and the growing scarcity of resources demand global restraint, moderation and shrinkage. We need a new “great transformation,” a new social contract between all nations that accepts the limits of what the planet can provide and strives for development premised on human rights. Instead we are offered traditional macroeconomic answers that by themselves to not resolve the problems.

It was hoped that the heads of state and government from all over the world who gather in Rio de Janeiro might take the planet’s limits seriously and at last take the necessary steps towards a low-carbon, resource-efficient and more equitable world. Twenty years after the first Earth Summit, it seems that this hope is to remain but a dream. In this essay we should like to highlight what will not be said in Rio – but needs to be said nevertheless.

The planet’s limits require bold and radical steps towards a global transformation. The green economy is seen as the new way forwards for “the future we want” – as the Rio+20 slogan puts it. At the Rio+20 conference this idea will feature in international negotiations for the first time. But what it is or is supposed to be is still hotly debated. This paper sets out the key tenets of the green economy, which invariably place the economy at the center of any discussion of sustainability. It is true that we shall save the planet only by working with the economy rather than against it. But is the economy really the focal point of all solutions? We aim to encourage critical examination of the existing concepts and to outline alternatives. Technology and efficiency play a prominent part in all concepts of the green economy. But to what end and for whom, we ask. Not everything that is “green” and efficient is also environmentally sustainable and

socially equitable. We need efficiency, we need to save resources, but we also need a policy of managing with less if the Earth's resources and its atmosphere are to be sufficient for everyone on the planet and if a life of dignity and without want is to be possible. Efficiency, consistency, sufficiency and human rights are the elements of a green economy, of wealth combined with moderation.

All the authors were active in the political arena, in writing and in research at the time of the first Rio Summit in 1992. That Earth Summit helped shape our thinking and actions, along with those of so many others. With regard to the environmental state of the planet and the economic and political constellations of power and interests in the world we are realists; the signs are not pointing towards a great transformation. But at the same time we are optimists, because we believe that humans have the will and the strength to strive for their wellbeing and their freedom — for a Buen Vivir!

Berlin, May 2012

Barbara Unmüßig

President of the Heinrich Böll Foundation

CHAPTER 1

Brazil – the fine line between abundance and over-exploitation

Anyone who has not been to Brazil for 20 years will be in for a big surprise in 2012. The nation and the entire continent have changed profoundly since 1992. Brazil in particular epitomizes the global dimension of this change: it has gone from crisis-torn debtor nation to self-confident global player. Having been for so long the “country of the future,” it seems to have finally found its present. Brazil has just overtaken Great Britain to become the world’s sixth-largest economy. Its new self-awareness as a nation was aptly summed up by the headline in the *Financial Times Deutschland*: “Global power at last.” Nonetheless, not all the specters of the past – such as disputes over major dam projects and rainforest destruction – have been finally laid to rest. Fierce debate continues to rage over the devastation of the Amazon rainforest, and the environmental price of progress is as relevant an issue as ever. A look at the past twenty years presents a far from clear-cut picture.

The decline of neoliberalism and the precarious process of consolidation

In 1992 the Brazilian president, Fernando Collor, welcomed the world’s heads of state to Rio de Janeiro. By the end of that same year he had been removed from office following allegations of corruption. Collor was the first president directly elected by the people following years of military dictatorship and a long transitional period. Two topics dominated his political agenda and the accompanying debate: the control of inflation and neoliberal reforms. The government’s first stabilization plan (Plano Collor) collapsed in 1992, and inflation levels soared to a staggering 1131 percent. The nation lurched into a new recession. This was felt all the more bitterly because in general the 1980s were considered the “lost decade” of Latin America. Brazil’s per capita GDP reached only 90 percent of its 1980 level, while in neighboring Argentina the decline was even more extreme. The political landscape was no less depressing. Fujimori was in charge in Peru, and Carlos Menem in Argentina. The continent was marked by authoritarian and populist figures, along with civil wars in Peru and Colombia. Also in 1992 – largely unnoticed by the world – a young officer languished in a Venezuelan jail following a failed putsch: Hugo Chavez.

At this time the “Asian Tigers” were attracting all the attention. Stories of successful catch-up development were emerging from South Korea and Taiwan. Latin America, on the other hand, seemed to be the lost continent par excellence.

In this context the neoliberal agenda could neither achieve short-term success nor point to long-term prospects, but nonetheless it exerted considerable influence throughout the continent: important state-owned enterprises were privatized in Brazil (and most other Latin American countries) during the 1990s. The extent of privatization varied from country to country, but by the end of the process the telecommunications sector had been completely privatized and the number of state-owned enterprises in the banking and mining sectors had reduced significantly. However, the wave of liberalization met with fierce opposition in almost every country – and neoliberal reforms became fragmented. As a result, Brazil's two major banks and the oil giant Petrobras remain under state control.

The Latin American miracle

Now, in 2012, the contrast with 1992 could hardly be more pronounced. Following a difficult period of consolidation during the presidency of Fernando Henrique Cardoso (1995-2002), a long economic boom began under Lula da Silva. Redistribution programs (e.g. “Bolsa Familia,” the state assistance program for the poorest of the poor) and a systematic lifting of the minimum wage have led to an impressive reduction in poverty. This success story is being repeated throughout the continent. The number of poor people in South America dropped by 17 percent between 1990 and 2010, and the number of extremely poor from 22.6 percent to 12.3 percent.

Old issues are almost forgotten. Brazil has gone from a major debtor nation to an emerging donor. Inflation is under control and the economy is growing steadily; record growth of 7.5 percent was registered for 2010. The economic miracle has helped to bring a remarkable level of political stability to the continent: Lula was not only re-elected – he also managed to have Dilma Rousseff, his preferred candidate, voted in as his successor in 2010. Presidents in many other nations of the continent have also been re-elected.

What is remarkable about Latin America's incredible stabilization and recovery is that it coincides with a political development that is generally described as a “shift to the left.” Progressive governments are in power in most countries. Hugo Chavez and Evo Morales in particular are seen worldwide as protagonists of an ostentatious shift away from neoliberal concepts. Lula on the other hand tends to stand for a more moderate version of leftism. Nonetheless, Brazil also views itself as an advocate of a post-neoliberal agenda. The state is the driving force behind an active development policy, privatizations are being shelved and public banks are a crucial planning instrument. Brazil's model for success could be formulated briefly as “active state intervention plus economic growth plus redistribution.”

Resource boom – the cornerstone of success

But Latin America's economic recovery is rooted in exhaustion of its natural resources. Growth depends heavily on a new resource boom: oil, gas, mining and the export of agricultural commodities and products have filled government coffers. This development is described as "neo-extractivism." The issue of the continent's dependence on natural resource exports is not new. The "neo" part is important, however, because left-leaning governments have used the income from this new commodity boom to drive social policy. One statistic alone will illustrate the extent of the economic upturn: between 2004 and 2008 mining exports from the Mercosur trade bloc plus Chile and Bolivia escalated from USD20 billion to USD58 billion.

In the past South America's left sharply criticized the extractivist enclave economies, but today it defends them as an indispensable component of development and poverty reduction. Furthermore, it maintains that they make a state more efficient. It also engages in a discourse on modernization that celebrates entrepreneurial and commercial success and stresses the use of scientific and technical innovation for the benefit of all society, particularly with respect to consumption potential (see Gudynas 2011).

The legitimacy of South America's left-leaning governments is therefore based on a combination of extractivism and redistribution, which is embraced as a model for success by both the authorities and large sections of the population. No wonder, then, that many governments and the social forces they represent profoundly mistrust the "green economy" discourse, sensing as they do the risk that environmental restrictions could stand in the way of their success. Oil extraction has a major part to play in Brazil, but the main contributor to the export-driven boom is the farming sector. Soy, sugarcane ethanol, meat and iron ore are the most important export products. The share of natural resources and minimally processed products (aluminum, cellulose) in total exports has increased considerably in recent years. From 2005 to 2011 the proportion of industrialized products dropped from 80 percent to 59 percent and in the same period the export of minerals and agricultural products rose to 41 percent.

Even government circles are watching this development – described as "reprimarization" of exports – with concern. But generally it is seen as a window of opportunity that should be utilized in order to bring about long-term structural improvements (investment in infrastructure and education). Superpower Brazil is therefore, as the national anthem says, "a giant by thine own nature." The reliance on nature of the Brazilian development model is reinforced by the energy sector. About 80 percent of electric power comes from hydroelectricity. Also, it has invested more systematically and successfully in the development of biofuels than any other country in the world.

The Brazilian government is currently trying to portray this energy model – based on low-emission sources of energy and renewable natural resources – as its version of a green economy. This is proving to be a quite different source

of conflict from that experienced in 1992. By focusing climate negotiations on carbon emissions, international environmental policy has supported development options that are now leading to socio-economic conflict over the issue of land use. The increased cultivation of sugar cane (for ethanol) and the spread of soy monocultures displace cattle ranches and drive their expansion into the Amazon, with the resulting destruction of ecosystems. Old ghosts – in new guises – are coming back to haunt us.

It all comes back to the Amazon

Brazil could showcase itself to the world as the perfect example of a green economy – if it weren't for the Amazon. In 1992 international interest in Brazil was focused on the logging of the greatest rainforest on the planet, fuelled by developments in the previous years. In December 1988 the murder of Chico Mendes shocked the world. With his physical blockades of forest areas threatened with clearance, the leader of the rubber tappers' union had become a global icon of the struggle against rainforest destruction. Then, in 1989, a protest against a mega-dam on the Xingu River hit the headlines. Indigenous people finally received international recognition as key players, and they enjoyed a large measure of success. The dam plans were shelved (at least temporarily), the World Bank retracted its commitment to provide a loan of USD500 million to the energy sector, and the government's highly ambitious plans to build 40 dams on the Amazon by 2010 were abandoned.

Amazonia had now become a symbol for failed development at the cost of the environment. In response, President Collor appointed internationally renowned environmentalist José Lutzenberger as Minister for the Environment. Lutzenberger told a *Spiegel* interviewer in March 1990 that Collor “(would like) to exonerate Brazil in the court of public opinion where it stands accused – deservedly, in his opinion.” And further: “What is happening in the Amazon is a war, an invasion. A coalition of large landowners and multinational corporations is plundering the country's resources at the expense of the people and the natural environment. Indigenous peoples and rubber tappers are being robbed of their human rights.” What a bitter critique from a government representative.

A disillusioned Lutzenberger resigned his post as minister before the 1992 Rio Earth Summit.

But much has happened since that time. Environmental policy is no longer primarily a marketing strategy, but has become an established and professionalized part of Brazil's political and legal system. Initially Lula also appointed a charismatic activist as Environment Minister. Marina Silva, a colleague of Chico Mendes, was the first minister to be named after Lula's election in 2002. This was another indication of the widespread concern about Brazil's international image. Marina held out for six long years, but then she too decided that enough was enough: the ministry was under constant pressure not to obstruct economic growth and the progress of major projects. Standing as the Green Party candidate

at the 2010 presidential elections, Marina Silva won 20 percent of the vote, a clear signal that the environment had now become a contentious social issue.

Izabella Teixeira, the current Environment Minister, is one of a new generation of ministers to represent Brazil. She is educated and holds a Ph.D. in environmental planning. She typifies the shift from heroic environmental protection to a pragmatic version which – in her own words – no longer seeks to prevent controversial projects, but to make them more palatable. In Rio in June 2012 she plans to present a success story to the world. The destruction of the Amazon rainforest has in fact been greatly reduced in recent years. In Copenhagen, Brazil announced its objective of achieving an 80 percent decline in deforestation rates by 2020.

Nonetheless, true success remains elusive. Ahead of Rio+20, Brazil is divided over a controversial new Forest Code. This bill provides an amnesty for past illegal logging and makes existing regulations more flexible. Although it has a clear parliamentary majority, NGOs and social movements in Brazil see it as an encouragement to further deforestation. They have initiated an international campaign against the bill, calling on the President to exercise her power of veto.

And yet another controversial issue will come up for discussion in Rio in June 2012. Ironically it was Lula's government that broke the taboo on constructing new mega-dams in the Amazon region. Two large dams are now being built along the Rio Madeira, and the plans for the Xingu that were shelved in 1989 are now being resurrected. Right in the middle of the Amazon region, construction is starting on the third-largest dam in the world, the Belo Monte. This has sparked widespread international criticism, yet the government continues to insist that the future of energy generation in Brazil lies in the Amazon. Although the potential for hydroelectric power plants in the vicinity of the major industrial centers is largely exhausted, the government sees a great future in the Amazon. According to the current Ten Year Energy Plan, 28 hydroelectric power plants will be built in the region by 2017. The International Rivers Organization claims that more than 60 dams are planned. Although the use of this potential will depend on many different factors, it is clear that the region will be key to Brazil's growth prospects. According to Raul do Vale of the Socioenvironmental Institute (ISA), the Amazon is now the country's "hydroelectric Eldorado."

The significance of this region for the government's current development model can be seen in the priorities it has set in the "Program to Accelerate Growth" (PAC), its key investment program. The phenomenal sum of 212 billion reais (about €0 billion) is earmarked for investment in the region by 2020. Energy, transport and mining will be the main beneficiaries of this investment, which aims to transform the Amazon into a driver of growth (according to the newspaper *Folha de Sao Paulo*). It is difficult to reconcile such investment with rainforest conservation, and this unresolved issue is polarizing the population of Brazil.

The ghosts of the past are still haunting us, therefore – it's just their features that have changed. The debate no longer focuses on a "green" versus a "brown"

economy – the green economy itself has become the subject of fierce argument. Agrofuels and hydropower are happily promoted by the Brazilian government as its contribution to a green, carbon-free economy – while being strongly criticized by conservationists and social movements for their costs to the environment and society. The farming sector is no longer represented by the old guard of major landowners, but has developed into a modern and productive branch of the economy. JBS-Friboi, the Brazilian slaughterhouse chain, has in its own words become the world’s largest “processor of animal protein.” This agribusiness is politically influential and has become a significant pillar of the government; at the same time it has learned to participate in the environmental discourse. Stakeholders such as the sugar and ethanol sector invest substantial time, effort and money in lobbying at environmental conferences. The former Minister of Agriculture, Roberto Rodrigues – today an eloquent advocate of agribusiness – is the public figure who most eagerly promotes the potential of a green economy in Brazil: he believes that Brazil could be the leader of the global green economy project – by expanding the development of agro-energy and hydroelectric power.

Such proponents of a green economy, however, reinforce the reservations of NGOs and social movements. Between the skepticism of the “old leftists” on the one hand and the vociferous backing of actors with dubious motives on the other there is little room left for a positive approach to the green economy. This is the fundamental difference between Rio ’92 and Rio+20. Since the old distinction between environment and development became less clear-cut twenty years ago – at least at a discursive level – “green” ideas have lost their innocence and are now themselves the arena in which antagonistic concepts collide. As the example of Brazil clearly shows, today’s world is even more confusing than it used to be.

From Rio to Rio

The United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992, also known as the Earth Summit, has been glorified by some into an almost mythical event. This is to lose sight of the reality. The international ecological and development movement gathered in Rio at that time by no means welcomed all the outcomes. It soon became clear that Rio '92 was not the historic crossroads for worldwide environmental policy and global equity that some had expected. The hoped-for “peace dividend” did not materialize. On the contrary, Rio '92 gave the world its first indication since the end of the East-West conflict of the hard road ahead. It revealed the numerous opposing interests within the industrialized nations of the OECD and the G77+ (a group representing the emerging economies and developing countries), and between global North and global South. The agenda and the decisions made were beset by conceptual inconsistencies and compromise.

Stalled agreements

The United Nations Framework Convention on Climate Change signed in Rio was originally due to include quantified CO₂ reduction targets. These were vetoed by the United States. Suggestions at that time that the convention might be adopted without the USA were an ominous forerunner of today's tortuous negotiations on multilateral climate change mitigation. Signatories to the Convention on Biological Diversity undertake to protect ecosystems, species and genetic diversity. To date, however, this convention has still not been ratified by the United States. The loss of biological diversity continues unchecked. Attempts to break the stranglehold on genetic knowledge of a few corporations (through prospecting, patents, etc.) have been unsuccessful. The Convention to Combat Desertification – a concession to the developing countries at the time – is virtually meaningless and, above all, ineffective.

Nevertheless, these 1992 conventions have created an important framework which is binding under international law, and work started on multilateral negotiations on the international climate and environmental crises. Agenda 21, a volume of 300 pages, was the key outcome of the first Rio conference. It sets out environmental strategies and guidelines for sustainable development aimed at reducing poverty and inequality while also protecting the Earth's natural resources. The document provided the impetus for many local initiatives: the

Local Agenda 21 process. Communities demanded a say in more equitable and more environmentally sound local policies. A number of the alliances between municipalities and communities – some on a transnational basis – are still in existence today.

Unfortunately the Millennium Development Goals (MDGs) of 2000 did not build on this 1992 action plan and, as far as environmental objectives are concerned, fall far short of what was achieved in Rio. Despite substantial regional differences, the major trends with respect to social and environmental inequality and poverty have not changed. The bottom 20 percent of the world population shares just two percent of global income. And about 25 percent of the world population still produces three-quarters of global carbon dioxide emissions – although the emerging nations have now caught up. A third of the world population depends on natural resources for its livelihood: the situation for many has worsened rather than improved over the past 20 years as a result of climate change, soil erosion, lack of drinking water, deforestation, species loss and land appropriation.

The Rio Declaration adopted by heads of state and governments in 1992 lays down important environmental guidelines for economic activity such as the “precautionary principle” and the “polluter-pays principle.” However, these are not applied consistently enough; if they had been, a good deal less environmental destruction and pollution of the biosphere and atmosphere would have occurred over the past 20 years.

What has changed most in the interim period is the economic geography of the world. Even at Rio '92 the conflicts of interest were more complicated than many people wanted to believe. Nonetheless, the decades-long North-South conflict dominated Rio '92. There were few cracks in the industrialized nations' negotiating power. Their objective was to improve the integration of the growing transnational environmental problems into the United Nations context. The developing countries stipulated that “development” as well as “environment” should be the watchword of Rio '92. The whole Rio Declaration sounds more like a declaration on development than one on the environment. The “right to development” was again enshrined in the document, and much diplomatic skill was invested in ensuring that not one sentence could be interpreted as a call to restrict development. This compromise was convenient to both industrialized and developing nations, because it allowed business to continue as usual regardless of the environmental crisis. It is precisely this attitude of “business as usual,” which is deplored today in every report on the state of the environment that needs to be overcome.

Changed power and interest constellations

The old political division between “North” and “South” means less today than it did in 1992. Globalization has in effect rendered the distinction useless, although

it still crops up repeatedly in the political poker game of international negotiations, particularly when it is in the interests of the emerging nations to use it.

Brazil, China, India – these nations represent the feat of economic “catch-up” in which the emerging markets are engaged. China did not feature as a major player at the Rio summit in 1992; at best it was concealed within the group of the 77+. But the Chinese economy has been growing at an average rate of 10 percent annually since the 1980s. Initially its growth was almost exclusively based on fossil fuels and natural resources. Also, it was geared towards the production and consumption systems of the North – as was the economy of Brazil, and to a much lesser extent that of India. For this reason alone, today’s power and interest constellations are no longer those of 1992. The growing economic significance of the upwardly mobile emerging nations has impacted on decision-making processes and also on majorities in multilateral political forums and international institutions such as the International Monetary Fund (IMF) and the World Bank. This political empowerment does not in any way signify that development orientation now has a lower impact on climate and natural resources, or that it displays more social responsibility. The governments of the emerging nations are doing their utmost to avoid becoming involved in setting boundaries for natural resource use or emissions of all kinds. In any case, most of the old industrialized countries have never restricted their emissions or resource use in absolute terms. Twenty years after Rio they are not exactly shining examples for others to emulate, and now they are facing the deepest economic and financial crisis since World War II.

The mistaken creed of development

Looking back at the Rio Earth Summit of 1992, a disastrous but nonetheless historically unavoidable error is revealed. The whole concept of “development as growth” was never questioned. The conference itself was entitled “Environment and Development,” and it was the Rio Declaration that coined the term “sustainable development.”

Important as it may be to highlight the positive interactions between the environment and development, they are nonetheless not entirely compatible. The ambiguity of the term “development” has concealed the fact that the concept is not automatically consistent with “the environment.” In some contexts development means building skyscrapers, cultivating high-yield crops and putting large numbers of cars on the roads – “catch-up development.” In others it means building wells, establishing hospitals and facilitating the transport of produce to regional markets. The term “sustainable development” is open to interpretation: does it mean “development as growth” or “development as equity”? Who should participate, who should benefit from it? How should distribution policy be structured at global, regional and local level?

The concept of sustainable development sheds no light on these points; it is devoid of any content. When both approaches to development are bundled

into a single package, the result can only be confusion or even deception. The debate on reconciling the economy and the environment is one outcome of this. A number of shortcomings of the much-quoted Earth Summit stem from this ambiguity surrounding the concept of development.

It did not take long for the idea of “sustainability” to become the new buzzword in Germany. It is now an empty cliché for anything and everything – sustainable pensions, sustainable households, etc. – an arbitrary term deprived of its original emancipatory and innovative power. The original intention of shaping ecological, social, economic and cultural dimensions in the interests of the future viability of societies – whether in the North, South, East or West – both together and in their interaction with one another, has been lost and has not translated into political action. Furthermore, the term “development as growth” was predicated on the expectation that the nations of the South would follow the example of the North. Not only that, but the poor nations were deemed to have a prospect of success only if they pushed through the transition from agrarian to industrial society by basing their development on fossil fuels.

All the agreements reached at Rio '92 are ambivalent: on the one hand they call for an ecological turnaround, and on the other they subscribe to the need for economic growth, free trade, privatization and deregulation. Within two years this ambivalence had disintegrated: Marrakesh had prevailed over Rio. In Marrakesh those same governments that had portrayed themselves in Rio as the saviors of the world now emerged as the vendors of the world. With the founding of the World Trade Organization (WTO) in January 1995, commitments to issues such as free trade became binding; the repercussions of these commitments were tantamount to an even faster sellout of the world's natural heritage. Any gains made following Rio were rapidly washed away by the waves of globalization. An apt description of the Rio paradox is: while Rio was good on rhetoric, Marrakesh was fast on implementation.

Avoiding responsibility

At Rio '92 the principle of common but differentiated responsibility and capacity to overcome social and environmental crisis was for the first time enshrined in an international document. All governments agreed to be accountable and promised equity – not only between nations but also within societies and between the generations.

This Rio principle did not exempt any government from the obligation to take systematic action. It correctly established the historic responsibility of the North for the global crises. Consequently the countries of the North agreed to bear the brunt of the structural changes needed to control emissions and utilize natural resources, and to assume a leadership role in this respect. In accordance with the principle of providing solidarity and support, they also agreed to increase their technology transfer efforts and development aid. However, the governments of the South were similarly called on to fight poverty and protect the environment.

This wonderful multilateral consensus has stalled, caught up in the neoliberal economic momentum.

Time and again, the industrialized nations quickly broke the Rio deal. They have not scaled back their expansion model. Despite increases in efficiency, the old industrialized nations have never relinquished their excessively large share of the planet's natural assets. They have not made room for the emerging and developing countries. The principles of shared responsibility and burdens, and the promises of the main polluters, have nowhere failed so miserably as in the field of climate change mitigation. The CO₂ emissions of the industrialized nations have steadily increased, instead of drastically sinking as they urgently needed to do. The North has overdrawn its environmental account to such an extent that the conflict over distribution of the "leftovers" could assume ugly proportions. Moreover, its financial transfers (for development and climate protection) lag far behind what has been repeatedly promised. The North has so far delivered far too little to take on the role of trailblazer for resource efficiency and emissions control.

For their part the developing countries have mistakenly taken the call for differentiated but shared responsibility as a banner under which to emulate northern consumption and production patterns, or alternatively to supply the North with mass-produced products and natural resources of all kinds.

Instead of heeding the key finding of Rio '92, that western consumption and production patterns cannot be copied on a global scale, the exact opposite has occurred. Vast amounts of natural resources and land and staggering amounts of fossil fuels are still being consumed today. The boom in the emerging countries has created powerful competition with the old industrialized nations for steadily dwindling commodities. The race for natural resources has begun. Competition for the "critical" new resources such as lithium, coltan and rare earth metals has dramatically increased. These are also the "materials" of the shift to sustainable energy systems and are pivotal for many future technologies in the communications, transport and military sectors. Natural resources policy therefore ceased to be a niche topic a long time ago. It is at the top of the political agenda of the industrialized and emerging nations. Securing the provision of resources for industrial production has become the favored topic of politicians, industrial corporations and international institutions such as the World Trade Organization (WTO).

The environmental price of globalization

The ecological price of globalization is high. The past few years have seen the largest rise ever in worldwide CO₂ emissions – and not only in the emerging nations such as China. According to International Energy Agency data, a record 30.6 gigatons of carbon dioxide were emitted worldwide in 2010. The multilateral climate negotiations have done nothing to change this and have in fact led to a glaring "gigaton gap" of up to ten gigatons. This gap must be reduced if we are to have any chance at all of achieving the targets set by the Intergovernmental Panel

on Climate Change (IPCC), i.e. a reduction of between 25 percent and 40 percent for the industrialized states by 2020 (compared to 1990 emissions levels).

Global demand for energy and non-energy related resources is leading to massive price increases, making investment in ever-riskier, more expensive and more damaging exploitation economically lucrative. This applies to deep-sea drilling and especially to tar sands and shale gas. Canada is the world's largest producer and exporter of oil from tar sands. In the province of Alberta tracts of land over an area the size of Great Britain are being transformed into lunar landscapes. The chemicals and waste are contaminating the local environment. Cancer rates are increasing among the indigenous population, and production is consuming copious quantities of water and energy. Climate protection has thus been reduced to a complete farce.

But it is not only in Canada that this particularly dirty type of unconventional oil is found. Prospecting, exploratory drilling and some pilot projects to test the feasibility of tar sand mining are also taking place in Nigeria, Madagascar and the Republic of Congo. In view of poor governance, high rates of corruption and sensitive ecosystems, the actual and potential impact of such projects are devastating.

Unlike areas such as climate change, biodiversity loss and desertification, the resource sector has no global regime or agreement to refer to, under which binding rules are negotiated. It is remarkable that such a vital sector is characterized by such a flagrant lack of regulation. Governments in the industrialized and emerging nations, and corporations, are busy staking out their claims in the worldwide race to secure scarce resources. They have little interest in international regulations.

Simulation of the North's model of production and civilization is also reflected in worldwide eating habits. Recent years have seen fundamental changes in the demand for food worldwide. Rising incomes are enabling the middle classes in various regions throughout the world to consume more meat and wheat (white bread instead of rice). Countries such as Germany that specialize in intensive livestock production import enormous amounts of animal feed. German livestock farming thus appropriates gigantic land areas in different countries for the cultivation of fodder. This land is no longer available to secure local and regional food supplies. According to a WWF study, in the past decade the EU has often made use of more than 30 million hectares of agricultural land outside Europe – in other words, it has virtually imported land. Between 2008 and 2010 Germany “consumed” almost seven million hectares of virtual land (WWF 2011). It has an agricultural area of approx. 17 million hectares within its own borders. By laying claim to another seven million hectares, therefore, it is increasing its land area by more than 40 percent. Germany's virtual land appropriation for soy – a vital animal feed – is about two million hectares (WWF 2011: 38). And the felling of tropical forests to make way for pastureland and soy continues.

Reversing the trend: a pipe dream

Twenty years after Rio we are faced with the reality that economic, climate and food crises are intensifying. Every day millions of people are discovering that the promise of salvation through production and consumption does not apply to them and that they, partly for environmental reasons, are likely to remain excluded in future. Policies and markets have created these crises that are unnerving humanity at the start of the 21st century. With this in mind, nostalgic references to Rio '92 are misplaced.

Another summit of heads of state and government in Rio de Janeiro in 2012 would need to take steps to reverse the trend, to initiate a “great transformation.” This will surely remain a pipe dream. In the light of the challenges facing our planet, the issues on the June 2012 agenda are devoid of all responsibility. Pussy-footing is not what the world needs. If the so-called “Sustainable Development Goals” to be launched at Rio+20 were actually guided by the hard scientific facts and placed appropriate limits on natural resource use and the atmosphere, then the effort and expenditure on the summit would be justified.

Those who use the term “sustainable development” today, however, as many non-governmental organizations and developing country governments do, presumably intend to highlight their concern for the social dimension and for issues of global and community equity. However, the latitude for interpretation of the term, its haphazard and diverse use – development as growth, sustainable growth – is here to stay. Civil society organizations have not succeeded in expressing it more succinctly over recent years and defining it as equitable development. A 1980s term that was formerly emancipatory and critical of the system has been absorbed by Realpolitik and the economy, as well as ruling institutions and mindsets, and associated with meanings and reform options that are acceptable to them. We must not forget this fact as “sustainable development” is now played off against “green economy,” the new buzzword of the Rio+20 process.

Green economy – the new panacea?

Since the Rio Earth Summit in 1992 the world has experienced a series of financial and economic crises, such as those in Asia (1997/1998) and Argentina (1998/2001); in March 2000 the New Economy bubble burst and the failure of Lehman Brothers in September 2008 triggered the biggest financial and economic crisis since the Second World War. The devastating national debt crises in which many European countries are mired have taken financial market instability to a whole new level. Aid packages, protective shields and cheap government loans running into dizzying billions of euros have been made available to rescue big banks and latterly even whole countries from bankruptcy. Deregulation of the financial markets enabled financial market players to make astronomical profits by continually bringing onto the market new products that circumvented all monitoring and supervision (and in some cases continue to do so). The state of the financial markets, however, along with the various environmental and social crises, has prompted a revival of criticism directed at capitalism and growth. Calls for a different economic paradigm are intensifying and discussion of the need for new models of prosperity and alternative lifestyles is not confined to niche segments of society or academic circles. Criticism of the very basis of the production and consumption patterns of industrialized society is clearly on the increase and the search for alternatives is back on the agenda.

Alongside the discussion of issues of principle, the debate on the green economy is gathering pace. Hitherto spearheaded largely by environmentalists and green parties, the green economy is now a concept espoused by the European Union (EU), the Organisation for Economic Co-operation and Development (OECD), the various organizations of the United Nations (UN), by think tanks, universities and sections of the business community itself. The starting point of all deliberations on the green economy is the impending threat of climate change and resource scarcity (“peak oil,” “peak water,” “peak land”). Decarbonizing the global economy – preferably within the two-degree warming corridor, with extensive investment in resource efficiency and renewables – is a declared objective of all protagonists of a green economy. None of them consider the “business-as-usual” scenario to be an option. This is an assertion repeated over and over in the plethora of publications and studies centered on the idea of the green economy.

This welcome common ground very soon reveals itself to be riddled with fault lines. This is evident even in the great variety of terms in circulation, which often cause confusion over concepts. The United Nations Environment Programme, UNEP, speaks of the “green economy,” while the OECD and the World Bank refer sometimes to sustainable growth and at other times to green growth. There is also talk of “greening the economy.” Meanwhile the idea of a “Green New Deal,” which was introduced into the debate during the global economic crisis of 2008 – primarily by UNEP – to stimulate “greener” economic recovery packages, may have lost some of its sheen internationally, but it remains a topic of discussion, especially among German and European Greens. Considerable technological hopes are also being pinned on the bio-economy, which many believe will promote the transition from an oil-based economy to a bio-based one. Bio-economy strategies are currently being driven forward by the German government and the Obama administration in the USA. While there is a certain degree of overlap between bio-economy and green economy issues, a conceptual distinction needs to be drawn between the two. The UNEP and OECD proposals are explicitly contributions towards the Rio+20 conference, at which it is envisaged that a “green economy roadmap” will be adopted. “Sustainable development,” the buzzword at Rio 1992, may well be displaced in 2012 by the “green economy.”

All these terms conceal very disparate estimates of the levels of economic growth and natural resource use the planet can still sustain, and of how much of these would be needed to reduce poverty. Equally diverse are the views on who should benefit from the green economy. Should it be the growing global middle classes? The McKinsey Global Institute talks of three billion consumers joining the middle classes in the coming years. This thinking focuses on the fear that important mineral and natural resources are dwindling too quickly. The answer lies not in changing consumption patterns and lifestyles, a kind of “disarmament program” for resource use. Instead, the solution being proposed is to increase productivity and efficiency through technological innovation, but also to improve the availability of resources. Using green economic policies to combat the poverty affecting more than two billion people is closer to the thinking of the UNEP Green Economy Initiative. Who should benefit from the green economy? All of humanity? And how can we ensure that we keep the green economy within ecological limits? This leads us to the question of “how?” By what means? Using what instruments and what measures?

The green economy according to UNEP

UNEP has positioned itself as the leading player in elaborating the idea of the green economy – its report “Towards a Green Economy” runs to over 600 pages. UNEP defines the green economy as one that results in improved human wellbeing and social equity, while significantly reducing environmental risks and ecological scarcities and facilitating sustainable resource management. The

report notes that all global problems have a common basis, namely the misallocation of capital: during the past two decades, it says, most capital has been poured into property, fossil fuels and financial market products including derivatives. By comparison, relatively little has been invested in renewable energy, energy efficiency, public transport, sustainable agriculture and conservation of ecosystems, biodiversity and water resources.

UNEP therefore advocates targeted investment in ten key economic sectors (including energy, agriculture, urban development, water, forestry, fisheries and ecosystem services), with a view to enabling a rapid and effective transition to greener and more poverty-focused development, and underpins its arguments with an impressive array of facts and econometric calculations. It proposes spending two percent of current global GDP (equivalent to approximately USD1.3 billion) annually to finance these investments. UNEP believes that this investment would be sufficient to provide an effective stimulus for a lower-carbon, more resource-efficient global economy. UNEP in this regard remains true to its mandate as a program and contents itself with identifying economic niches rather than setting out ideas for structural changes that might result, for example, in a moratorium on the development of new oil and gas fields. Trade regulations, it says, should help to favor environmental goods and services on the world market. Yes, even UNEP calls for this. However, the UNEP report has little to say on how trade regulations would need to be designed in order to decarbonize the global economy and make it more resource-efficient. The report goes furthest with its proposals on organic agriculture and sustainable urban development. One of the most important and far-reaching demands made by UNEP is its call for the abolition of environmentally and socially harmful subsidies in the agricultural and transport sectors and for coal and oil. National governments are viewed as vital regulators; it will not be possible to implement the green economy without clear statutory provisions and national regulatory frameworks.

Monetizing nature – a way out of the ecosystem crisis?

One of the polemical slogans in the debate around Rio+20 is “monetizing nature.” In the eyes of Pablo Solon, former Bolivian ambassador to the UN and an influential intellectual in Latin America, the green economy is in essence an attempt to establish a new way of commercializing nature. “Not only does it seek to commodify materials from nature, but also nature’s processes and functions. For example, in future timber will not be the only forest commodity to be up for sale; forests’ CO₂-binding potential will also be a marketable commodity.”

In recent years UNEP has indeed been a leader in the debate on the revaluation of nature, which includes the use of market-based instruments to help preserve ecosystems. Whether in the context of forest conservation or biodiversity in general, UNEP seeks to protect ecosystems by valuing the services they perform both for humanity as a whole and for people whose lives depend directly on them (and, for example, incorporating these valuations into calculations

of gross national product). However, UNEP also wants to assign an economic market value to ecosystem services and invest in them in the long term: “A green economy values and invests in natural capital.” In UNEP’s view, ecosystem services are seriously undervalued as economic factors: “These so-called ecosystem services mainly take the form of public goods and services whose economic invisibility has been, up to now, a key reason for their undervaluation, mismanagement and ultimately loss.” (UNEP 2011: 22). A green economy must increase this “natural capital.” This is a reformulation of the old idea that it is easier to protect ecosystems and biodiversity if it costs money to use them. The economization of climate protection began some time ago with emissions trading and the Clean Development Mechanism, but – except in Europe – no concomitant emissions reduction policy was put in place.

As the public coffers are already empty in the wake of the recent financial and economic crises, it is UNEP’s view that additional market incentives are needed to encourage the private sector to invest in environmental conservation. Since the climate negotiations in Bali in 2007, REDD (Reducing Emissions from Deforestation and Degradation) has therefore been regarded as a promising instrument for global forest protection. For UNEP it is a unique opportunity to transform non-sustainable forest use (logging for the timber trade and livestock production) into green use by shifting the emphasis onto ecosystem services (soil conservation, water resources, biodiversity), for which payment is then required.

The prospect of turning nature conservation into a source of profit has captivated economists and nature conservationists alike and raises understandable hopes: “If we were at last able to capture the value of ecological services, and especially the services of natural ecosystems, in other words, to incorporate them into our pricing systems, this would be a major key to securing our future” (Succow 2009).

But what exactly does it mean to “capture the value of ecosystems”? Not all monetization pathways lead straight to commodification of the natural environment. Establishing monetary value – even approximately – is for example important when it comes to measuring damage. What penalties should be imposed on the operators of Deepwater Horizon for the damage to ecosystems in the deep ocean in the Gulf of Mexico? What damage is caused by a ship that ploughs through a coral reef? It certainly also makes sense to weigh up whether, for example, it is more costly to invest in water treatment or in the protection of water sources. According to TEEB (The Economy of Ecosystems and Biodiversity), an initiative spearheaded by UNEP, putting a price on nature would make life easier for decision-makers in politics and industry, and moreover, do it in a language that they understand. It would help businesses to recognize risks and enable politicians to perceive the hidden costs and long-term consequences of their actions.

Advocates of the monetization of nature rarely spare a thought for the social context within which “ecosystem services” are provided; indeed, such terms all

but obscure the social context. After all, it is not industrious nature itself that is to receive payment for ecosystem services, but its owner. But many of the last intact ecosystems are located in areas occupied by indigenous peoples and local communities. Their traditional ownership rights are jeopardized by new market-based instruments. The most vigorous critics of the UNEP concept point out that natural resources are being commodified in order to make them more attractive to the private sector, thus making them vulnerable to commercial exploitation. Capitalizing on “ecosystem services” has come under fierce attack as a new stage in the privatization and commercialization of the natural environment. Instead of joining forces with local inhabitants to protect natural resources from commercial exploitation, so the accusation goes, business is turning nature into a commodity and not infrequently driving out the local population.

Little attention has so far been given to the tendency to turn all types of natural resources into tradable goods, thereby tying resources such as soil, water and forests even more tightly into monetary loops and trading them as commodities on the global financial markets via financial instruments and products such as derivatives. In the search for new investment opportunities, it is not only raw materials and food markets that are to be rendered attractive to profit-seekers, but also soils and forests, and most notably their capacity for storing CO₂. Assigning a monetary value to ecosystem services or to the environmental costs of climate change (e.g. by way of CO₂ emissions trading) or biodiversity loss opens the floodgates to the financialization of natural capital. “Climate and environment policy are being made compatible with financial speculation,” according to the analysis of Elmar Altvater (2012). Since we are dealing with an all-out wave of financialization, we need a comprehensive and nuanced debate on the “economics of ecosystems and biodiversity” that is being aggressively promoted by UNEP. The debate needs to be nuanced because the search for solutions in the climate, resource and poverty crisis is not well served by dismissing all aspects of the green economy and all market-based instruments out of hand as “greenwashing,” green capitalism or as a wolf in green sheep’s clothing, a view expressed increasingly vociferously in the run-up to the Rio conference.

Green growth according to the OECD

The OECD, the association of industrialized countries (including Mexico and South Korea), has been debating a greener growth approach since 2009. In May 2011 it presented its strategy for achieving this in *Towards Green Growth*. The starting point for the OECD’s deliberations is the risk of climate change and concerns about the drastic decline in certain resources, unchecked biodiversity loss, overfishing, and the growing scarcity of land and water. “We need green growth because risks to development are rising as growth continues to erode natural capital,” states the OECD report (OECD 2011a: 4). New sources of growth can be opened up through increased productivity (efficient use of energy and resources), through innovation (new ways of creating value and addressing

environmental problems) and through new markets (stimulating demand for green technologies, goods and services). The strategy for green growth is intended to be a lens for “looking at growth” and avoiding “crossing critical local, regional and global environmental thresholds” (OECD 2011a: 7). By pushing these frontiers outwards, innovation can help to “decouple growth from natural capital depletion” (OECD 2011a: 10). Investing in more efficient use of natural capital is therefore viewed as essential for securing raw material and resource inputs for the economy. Internalization of environmental costs (e.g. setting a high price for CO₂) is advocated as an incentive for innovation, as is the removal of subsidies that damage the environment. Development of renewable energies and environmental technologies will create many millions of new jobs – the OECD estimates that up to 20 million new jobs could be created worldwide by 2030 in the field of renewable energy generation and distribution (OECD 2011a: 15).

There are several notable features in this green growth strategy, particularly the call for rigorous internalization of environmental costs, as well as the comment that “not every situation lends itself to market instruments” and that “in certain cases well-designed regulation [...] may be more appropriate or an important complement to market instruments” (OECD 2011a: 8). As might be expected, the familiar ordoliberal principle of establishing a framework that creates confidence and security and makes planning possible is also reflected in the OECD strategy. If, as is planned, this strategy is now taken on board in OECD country reports and additional sector studies are conducted to bring greater clarity, then progress will have been achieved compared to a blanket “growth at all costs” strategy.

In line with the OECD strategy, the McKinsey Global Institute published a paper on the “resource revolution” in November 2011. Here too, the focal point of the paper is the warning that resource scarcity will a) lead to very high and volatile prices, and b) mean that important production factors may no longer be available at all. The only answer is productivity, efficiency, innovation and investment to the tune of billions targeted especially at the “resource system” to ensure that future demand for resources can be met. The “challenges,” in other words the high costs of energy and raw materials, are contrasted with the great variety of economic “opportunities” that can inject new vitality into the economy.

Bio-economy – the rise of the bio-masters

Bio-economy is a relatively new concept that is cropping up with increasing frequency and often in the context of the green economy. The bio-economy focuses similarly on technological innovation to enhance efficiency and the use of natural resources for food, energy, pharmaceuticals and the chemicals industry.

The German government’s “National Research Strategy BioEconomy 2030” is “striving towards a natural cycle oriented, bio-based economy that is in accord-

ance with technology and ecology” and as a knowledge-based bio-economy uses biological processes – from the level of genes to the entire ecosystem. The complex building blocks and blueprints of biological systems need to be better understood in order to be better able to exploit them technologically “for the benefit of mankind and the environment” (Bundesministerium für Bildung und Forschung 2010). The aim of the bio-economy is to develop these components technologically to make them more efficient and more “sustainable.” This approach also seeks to include economic, environmental and social aspects and consideration of entire value chains. The objective is to shift from an oil-based to a bio-based economy. At the same time the international competitiveness of Germany’s chemical and pharmaceutical industry, biotechnology companies, and small and medium-sized seed companies and plant breeders operating transnationally will be maintained and enhanced. German government research funding is being greatly expanded in order to provide fresh impetus for technological innovation.

In Washington, too, the White House has released a “National Bioeconomy Blueprint” (April 2012). It follows on from the 2009 report by the US National Research Council, *A New Biology for the 21st Century*, and highlights the potential of technological innovation for health and food in the future, emphasizing the importance of research to free the USA from its dependency on oil and enable production of new, non-oil-based goods. Research to boost competitiveness is also at the forefront of the US strategic program. Financial resources for research and investment in future technologies need to be integrated and mobilized at an entirely new level for this purpose, including by developing public-private partnerships and a regulatory framework that creates a positive environment for the market (e.g. safeguarding property rights by means of patents etc.). US income from various biotechnologies (excluding the agricultural sector) was already estimated at as much as USD100 billion in 2010. The high growth rate of the US bio-economy is put down to the multitude of possibilities opened up by biotechnologies, genetic engineering and genomics. Synthetic biology – in other words direct alteration and use of micro-organisms and plants, re-design of proteins in organisms, and access to and management of important bio-information – is considered to be the most crucial field of activity for the future.

Who are the “bio-masters” of tomorrow? This is the question posed in view of developments relating to the green economy and in particular in the bio-sciences and bio-economy by the non-governmental organization ETC Group, which for many years now has turned the spotlight on the corporate strategies of the major multinationals in the energy, chemicals, pharmaceuticals and food sectors. In the 21st century, says the ETC Group, biology will take on the role that was played by fossil fuels in the past 200 years of industrialization. The desire to control so-called green fuels and crucial food plants by way of high-yielding varieties or genetically modified seed is driving the corporate policy of major industry players such as Monsanto, Procter & Gamble, Chevron and BASF. Big Energy, Big Pharma, Big Food, and Big Chemical are constantly entering into

new alliances and creating new technology platforms, according to ETC Group research. Interest in every form of life and biomass – from algae to sugar beet – has increased dramatically in recent years. Everything is being considered in the search for new industrial products that could reduce dependency on, and ultimately entirely replace, petroleum-based chemicals and ensure control of food production. Producing synthetic DNA is the ultimate aim of synthetic biology; this is seen as the biggest future growth market.

A handful of large transnational corporations in the USA, Europe, Japan, China, and other Asian economies are striving to gain strategic control of entire value chains – genetic and technical information, production processes, and production factors such as energy, biomass, water and land. As far as they are concerned, this is the goal of the present technological innovations. In the absence of political action to prevent it, there is a clear and alarming tendency here towards concentration of power. This can be seen in the food sector; most food production and marketing is controlled by a few large agricultural companies and the agricultural industry. Production of fertilizers, pesticides, seed and genetically modified seed is largely concentrated in the hands of a few conglomerates – the same ones that control the global food market.

The powerful seed, fertilizer and pesticide lobby is intent on securing market power in this area for itself. Its representatives exert increasing influence on policy-making everywhere in the world. This is why access to intellectual property rights is part of the repertoire of economic negotiations and of innumerable bilateral trade agreements between industrialized and developing countries. Small farmers and rural workers rarely have the power to defend themselves against the conditions imposed by global corporations. Robust farmers' organizations able to negotiate in the interests of smallholder farmers are lacking, as are trade unions to represent the rights of rural employees.

Sadly, this concentration of power is not on any political agenda. In the political sphere and among the general public there is little awareness that the problem even exists. No political lessons are being learned from the concentration of power in the hands of large financial market players and “systemic banks,” which have used it to extort political capital (they are “too big to fail”). On the contrary: in global competition what matters is for players to position themselves rapidly and strategically with bio-economic and green innovations. In this context governments are supporting large corporations and small and medium-sized businesses with a transnational presence by providing financial and research-oriented incentives and programs, and by helping safeguard proprietary rights (from land to patents) they are encouraging this private-sector run on all sorts of resources and the code of life itself.

Technological innovations and efficiency will continue to point the way towards a more resource-efficient economy in future and help to push back ecological limits. However, every strategy for a green economy or a new bio-economy should be asking the question: technology and innovation, yes, but for whom? Who controls them? What are the potential social and ecological

consequences? Are they adequate, or are they merely a strategy to avoid or delay a long- overdue turnaround towards a “policy of less”? These questions are quite rightly becoming an area of growing controversy between governments, industry and civil society.

None of the green economy strategy papers – from OECD to UNEP – tackles the issues of power and distribution of resources. They are simply omitted. Clearly, as far as these organizations are concerned, all new initiatives and programs take place in an arena where power and interests do not exist. Both organizations – UNEP more explicitly so than the OECD – support the role of the state as a framework-setting institution whose task it is to remove environmentally harmful subsidies, formulate legislative standards, implement sustainable industrial policy and above all promote research. Drastic command-and-control measures to limit energy and resource consumption (“caps,” large-scale nature conservation measures, bans on resource extraction in sensitive ecosystems such as the Arctic or the deep ocean) are no longer seriously considered as policy options. Setting limits scarcely features as a priority, let alone a requirement, in the minds of the protagonists of the green economy.

Technology and efficiency as a cure-all

In every transformation strategy and every concept of a green economy, pride of place goes to technological innovation. Such innovation is seen as the way to enhance the productivity of resource use and find substitutes for scarce resources. Actual and potential negative social and environmental effects are overlooked, especially in the case of large-scale technological solutions. Not everything that is regarded as helping to combat climate change – ocean fertilization, vast mirrors in space, nuclear power, mega- dams – can be considered socially and environmentally acceptable. The same goes for genetic engineering, which, it is claimed, will help overcome the food crisis. The consequences of such technologies for humans and the environment are sadly not being assessed with appropriate care and weighed up politically. It is therefore a matter of urgency to include assessment of all aspects of the consequences of technology on the political agenda. In the light of the interwoven nature of global economics, it is no longer enough to do this at national level. In this regard, Rio+20 could pave the way for an initiative at UN level for assessing the consequences of different technologies.

A resource and efficiency revolution – this seems to have become the be-all and end-all, the mantra of our time. The greatest hope rests on decoupling gross domestic product (GDP) from resource use; this is part of the credo that the environmental and food crisis can be halted by means of technology. Decoupling is crucial, and reducing resource consumption in absolute terms is urgent. But the question is, how can this be achieved?

The first answer is efficiency – by using energy and materials more efficiently. More than 90 percent of all materials and energy mobilized for the manufacture

of consumer goods are consumed well before the finished product stage – e.g. waste material excavated in the mining industry, waste heat from power plants, soil loss in mechanized farming, waste from timber or metal processing, grain in livestock farming, water in metal finishing, and transport costs associated with fuel supply. The lower its resource use, the more eco-efficient an economy is. A great deal can be achieved using alternative technologies, processes and products that drastically reduce the consumption of energy and materials. An efficiency strategy will have great potential if supportive policy measures – such as statutory standards, reduced subsidies for fossil-fuel-based products, efficiency standards for housing, machinery and equipment – are also put in place.

However, attention must be paid to the rebound effect. This is the effect that occurs if efficiency improvements enable other resource-intensive activities to take place, thereby negating any saving or efficiency gain. There are some notorious examples of this: the benefits of more efficient heating systems being lost as a result of living space being increased; the benefits of more efficient engines being eroded by an increase in vehicle weight and speed; the benefits of more efficient production lines being cancelled out by expansion and an increase in the vertical range of production. This phenomenon particularly affects those situations referred to as win-win scenarios that promise environmental benefits in tandem with economic gains: these in a sense have a “built-in” rebound effect due to the higher financial gains. Moreover, it is emerging economies that are worst affected by the rebound effect, since they are starting from a lower base in terms of equipment and machinery.

The efficiency revolution is nevertheless touted as the *ultimate* panacea, despite the fact that more recent research has shown that various rebound effects – financial, material and quantitative as well as psychological – will prevent consumption from staying within ecological limits. To date, according to a report published in December 2011 by the German government’s study commission on “Growth, Wealth, Quality of Life,” “economy-wide analyses of the causal effects of efficiency on resource use have been few and far between.” Later on, the authors state “as regards the decoupling strategy, what stands out the most is that although consumption of certain resources has increased less rapidly than GDP (*relative* decoupling), the number of cases where there has been an absolute reduction in resource consumption (*absolute* decoupling) is close to zero” (Madlener and Alcott 2011). The conclusion: more efficient use of resources must go hand in hand with more moderate goals; unless there is a revolution in terms of sufficiency, the efficiency revolution lacks direction.

The second answer is consistency – by switching to more environmentally sound technologies. While still including an efficiency strategy, more sophisticated concepts of a green economy place considerable importance on a strategy of consistency, in other words on ensuring that industry is compatible with the natural environment. How can we exploit nature without destroying it? Technologies from the pre-fossil fuel era may provide clues: the three-field crop rotation system, timber-frame construction, windmills, sailing ships. They always follow

a similar logic. Humans must learn to fit in with natural flows before they can harness and manage them for their own benefit. Today, however, in the post-fossil fuel era, we have a different arsenal of technologies at our disposal. Biotechnology and informatics, bionics and engineering can also operate according to this same logic: making clever use of nature without impairing its regenerative capacities. Renewable energies are the most prominent example of this type of strategy; organic farming is another. Wind, solar power and geothermal energy, just like micro-organisms and nutrients, are all natural flows which in principle may be harnessed for the benefit of humans without destroying them. Compared to the efficiency strategy, a consistency strategy has the distinct advantage that the direction of technological development is a sustainable one, while efficiency strategies may lead down a blind alley.

The downside is that the consistency strategy very quickly comes up against constraints if applied on a large scale. Even renewable energy and resources, after all, are not limitless; most notably, there is very little scope for expanding the total land available for bio-energy and biomass production without putting food production and nature conservation at risk. We have known for a long time that finding a substitute for a scarce resource is no straightforward matter. For example, available arable land has fallen from 0.45 ha per capita to less than 0.25 ha in recent decades. And there is more: the more technology is integrated into natural cycles, the more effectively natural rhythms and capacities act as a brake on excessive demands on their performance, unless fossil fuels are once again resorted to. Neither efficiency nor consistency strategies will be able to achieve their objectives unless accompanied by the principle of sufficiency – prosperity with moderation instead of unbridled excess. This, however, is conspicuously absent from all of the green economy concepts.

A blind spot: human rights

In all green economy or bio-economy scenarios, political, social, economic and cultural rights are largely left out of the picture. It is all the more serious, then, that (other than making reference to labor market effects) none of the deliberations on a green economy include considerations relating to human rights, issues of distribution or democratic rights of participation as key components of a green economy. Surely one might reasonably expect a UN body such as the United Nations Environment Programme to integrate into its thinking on a green economy the most important standards and parameters of international environmental law and human rights. Who else is supposed to bring together the principles, rights and standards newly enshrined in international law (polluter-pays principle, precautionary principle, right to water, right to food), if not the United Nations? Making a passing reference to the three dimensions of sustainability is woefully inadequate here. The social dimension is viewed almost exclusively from the angle of the labor market and potential poverty reduction. But social and political rights are much broader than this. Governments have an

obligation to enforce them and businesses are required to implement them. The green economy needs a clear social compass with distributive policies favoring ordinary people and the poorest fifth of the population in every society, and favoring the poor and very poor in developing countries and emerging economies. Democratic control and social participation as the basis for economic action are blind spots. None of the current documents – from UNEP to the OECD – covers these adequately or even in outline.

Sadly, the unholy alliance of governments of industrialized countries, developing countries and emerging economies is united on this issue too: human rights and democratic principles all too often fall by the wayside when it comes to defending the interests of economically powerful lobby groups and countries' national interests. The industrialized countries, for example, are not particularly interested in the day-to-day consequences of climate change for human rights or the social consequences of bilateral trade agreements – as long as they do not occur at home. And emerging economies and developing countries (together with some companies based in industrialized nations) still show woefully little interest in ensuring that their populations enjoy social standards, employment rights and democratic participation. It is unlikely, therefore, that much breath will be wasted in Rio on political, social, economic and cultural rights.

The basic tenet of a human rights perspective could be summarized as follows: survival takes precedence over a better life. General human rights take priority over a higher standard of living – in the North as well as in the South. In times of large-scale shortages, environment and resource policy also determines who gets how much of the global environmental space. At present this space is divided up with a startling lack of equity. In the absence of a distribution system that is equitable in terms of resource and climate aspects, the closer resource use or atmospheric pollution gets to the limits of sustainability, the smaller the share left for the marginalized majority of the Earth's inhabitants. In order to give precedence to basic needs, therefore, a more cosmopolitan resource and environment policy needs to promote a reduction in consumption of resources in industrialized countries. Around one third of the world's population depends on direct access to natural resources. They often derive their livelihood from ecosystems such as savannahs, forests, rivers, lakes, fields and coastal areas whose resources are even more highly sought after by public and private-sector firms. Natural and cultural spaces are being lost irretrievably on an almost daily basis. This situation is unlikely to change unless demand for natural resources is significantly reduced. Then, for example, prospecting for oil and tar sands in the rainforest will no longer be worthwhile. Not until we curb our craving for beef steak can we prevent even more land being allocated for pasture and fodder production. In short, "resource-light" production and consumption patterns are the basis for global resource management that is compatible with human rights.

All concepts relating to the green economy place the economic sphere at the centre of any debate on future viability. According to this view, we can only save the planet with the economy, not against it. So do all solutions revolve around

Homo oeconomicus once again? If we are looking for new models for society that accept human rights, equity, cultural diversity and democratic participation as fundamental principles while at the same time aiming to stay within ecological limits, we are tasked with nothing less than reinvention of the modern age.

Blueprint for an economy of moderation

No matter what angle one considers it from, a green economy must find an alternative to the lack of moderation that has accompanied industrialization. The fossil economy has grown out of all proportion to nature and is bringing the biosphere to its knees. And it is not just the physical size of the fossil economy that needs to be addressed; the scale of the social impacts of the economic system must also be reviewed. Just as a new balance between the economy and the natural world is needed, so must a new equilibrium between the economy and the social order be found. It is hard to see how an economy could contain its resource flow within physical limits without placing social limits on the expansion of the economic system. It is impossible to abandon the world of fossil fuels and leave the mental world untouched. Technology must have a counterpart in the social culture, and vice versa. In short: without a moderate economy there can be no green economy.

At the 1992 Rio Earth Summit there was at least a hint of social reform linked to reduction of pressures on the natural environment. Under the slogan “sustainable production and consumption patterns,” Agenda 21 called on countries and communities worldwide to work towards an economic style that encompasses all countries, rich and poor, without driving the biosphere to ruin. Since then, however, attention has become focused on the introduction of sustainable, efficient and environmentally friendly production patterns; changing the consumption patterns of the world’s middle and upper classes has been neglected. Discussion no longer centers on the major hindrance to sustainability represented by the space-hungry, material-intensive lifestyle of the affluent population. If social inequality around the globe receives any mention in the strategies of the green economy, thoughts turn immediately to tackling poverty. Leaving the poor the forests and the fish, the pastures and the fields and sparing them from mines and oil extraction – so far, so good. But can the task of alleviating poverty be separated from alleviating wealth?

An economy of sufficiency

The green economy as we understand it must foster not only technical innovation but also the art of restraint. Too many goods, too much speed, excessive

distances, an overdose of stress at work and too many areas of life, such as school and culture, where the maxims of competitiveness and efficiency hold sway – moderation is alien to today's economy. That is why for us the art of restraint is part of the vision of a viable economy. There is no evading the question of "How much is enough?" The right balance between excess and deprivation is to be found in sufficiency. On the one hand sufficiency targets excess, because excess burdens individuals and society with all sorts of costs. And on the other it targets deprivation, because many people are without the bare necessities of life. The global middle classes are often afflicted by excess, while the majority of the world's population suffers from deprivation.

The idea of sufficiency must form part of the concept of the green economy, just as the idea of "more and more" was built into the fossil economy. Over the last 200 years the economy has freed itself from its natural and social bounds; now it must impose political bounds on itself for the sake of both nature and society. The economics of the last two centuries have been driven by an imperative of constant increase; now we must turn our minds to economic disarmament and rediscover an economy of moderation. In environmental terms this means that, in order for the economic system to be transformed, sufficiency (wealth in moderation) must take its place alongside efficiency (the smart use of resources) and consistency (compatibility between industry and nature). "Better," "different" and "less" are the triumvirate of sustainability.

We know from everyday experience that self-restraint can be beneficial. Too much food makes us lethargic and is bad for our health; too much sport is addictive and puts the body under stress. It is possible to have too much of a good thing. In the same way the benefits of the fossil economy can backfire. In terms of time it offers great speeds – which, however, frequently end in queues and traffic jams. Geographically it creates global networks, for which the price to be paid is the decline of the local economy. And finally it produces an almost infinite range of goods, which in turn contribute to satiety and the accumulation of waste. That a high standard of living does not necessarily result in a high quality of life – indeed, that an excessive standard of living can reduce quality of life – is one of the lessons that affluent societies are now having to learn. In view of this the aim of the sufficiency perspective is to remove excess and bloating so that suppressed quality of life can come into its own. This opens up the prospect of a double dividend: lower economic output not only saves resources but also makes space for a better life.

Slower speeds. When one considers that high speeds are disproportionately heavy on resources, it makes sense to introduce self-restraint as a design principle. For example, cars, trains and – in a different way – airplanes too can be designed for moderate speeds. Thus a cautiously engineered fleet of cars in which no vehicle can exceed a maximum speed of, let us say, 120 kilometers per hour uses significantly less fuel and can adopt a different approach to materials, weight, safety features and styling; in other words, it allows a new generation of automobile technology. In similar fashion, trains can be limited from the design

side to around 250 kilometers per hour – a threshold beyond which energy costs rise disproportionately. The design of cautiously engineered vehicles and drive units is the technical expression of the 21st century’s utopian vision of living elegantly within natural boundaries.

More regionalization. Speed leads to greater distances. That is why fossil-driven acceleration has led to the development of far-reaching networks at national, continental and global level. First the railway and the truck, then the airplane and the container ship and finally the Internet have dissolved local connections in business and everyday life and replaced them with links to supra-local and supra-national centers, usually in faraway places. Grapes come from Chile, computers from Taiwan, and even the ingredients of one’s organic muesli have already travelled hundreds if not thousands of kilometers. In the process the regions, the local communities, become little more than platforms for the implementation of supra-local sales and production strategies. But environmentally friendly wealth will have to strike a new balance between distance and closeness. It is obvious that supply systems with less intensive transport requirements will be needed if we are to prepare for the end of the age of cheap oil. In addition, a green economy must be in tune with natural cycles; it must obtain and process energy resources, building materials, textiles and food from regional ecosystems. To a certain extent this revives the material basis for a regionally focused economy. After the triumph of globalization, we await the renaissance of the regions.

Considered consumption. This renaissance is good news for a society that wants to reduce the total quantity of handled goods to non-harmful levels. For it is essential to ask whether there is any sense in an economic system that at times of widespread scarcity uses valuable natural resources to satisfy ever more needs via market products, offers a hundred variants of each market product and allows all one hundred variants to quickly become obsolete so that they can be replaced with brand new products. However – does this need to be emphasized? – a strategy of quantitative sufficiency is at cross-purposes with the drivers of a type of capitalism that is programmed for survival of the fittest: only those who succeed in adding value in the face of a falling number of goods can hope to remain viable. It is also becoming apparent that by endlessly generating wants the consumption society is departing from its real purpose of improving people’s lives. Over-abundance and obsolescence cycles tend to overtax people’s ability to maintain perspective and take decisions. Everyone would do well to learn a completely new skill – to reject things, select things, to say no. “Nothing in excess” – over the past two and a half thousand years the ancient motto of Delphi can rarely have been as apt as it is in the present era of the hyperconsumption society.

Social commons as an economic factor

In all the old industrial countries the times of high economic growth are past. Experts now argue over whether we should expect a slight rise in economic output year on year or zero growth punctuated by upswings and downswings. Yet that takes no account of the green transformation of society and the economy. A strategy of eco-efficiency (“better”), environmental sustainability (“different”) and self-restraint (“less”) has fewer prospects of growth. In a post-growth society the renewable sectors of the economy will need to grow while the fossil ones shrink, but on balance it must be assumed that in the long term growth rates will be negative.

How will a non-growing economy work, if everyone has a lower income than before? To this key question, which will define the next few decades, there are broadly speaking two answers – a reactionary one and a progressive one. The reactionary answer involves enduring a period of loss of growth accompanied by increasing inequality, social exclusion and impoverishment. The progressive one sees us investing in a new model of wealth that ensures that everyone has enough, because it is based on a different equilibrium between the economy and society. The progressive answer does not just fall from the sky; we must prepare for it over the forthcoming years and decades. Strengthening society as against the economy needs new types of infrastructure for different ways of thinking.

The commons are a fundamental feature of our present reality. People can only survive and thrive if they have access to nature, to family and friends, and to language and culture. While this may seem obvious, it is hard to find a public and political language in which to talk about the commons. If we speak of the economy, the concepts of the market and the state dominate everything else. If we speak of politics, what comes to mind is the polarization of right and left.

Hardly anyone mentions the commons – as though nothing of significance exists outside the market and the state. These two concepts are like two communicating tubes: a lot of market on one side and not much state on the other; not much market on one side and a lot of state on the other. Yet historians and anthropologists have long been at pains to point out that exchanging goods via the market or via the state are only two ways in which goods can be distributed – there is a third way: exchange in the community. The first way is governed by the principle of competition and the second by the principle of planning, while in the third the emphasis is on mutuality. In any society the three distributive principles usually mingle, but over the last two centuries something new has happened: the principle of mutuality has steadily lost ground. Since Adam Smith the relationship between the market and the state, between competition and planning, has become the main dispute, while the principle of mutuality has become the big loser. Social groups such as families, relatives, neighborhoods, networks of friends, cooperatives and similar economic forms have been sucked into a vortex of decline from which by turns the market and the state have emerged victorious.

In a post-growth society this development must be reversed. Or rather: it must move forwards. The commons are another source of wealth in addition to the market and the state. They form the basis of social communities, especially at four levels:

- *Firstly*, at the natural level all humans depend on water, forests, soil, fishing grounds, species diversity, countryside, air and the atmosphere and on the life processes embedded in them. As biological beings they have a right to natural assets, regardless of and with precedence over any private ownership of natural stocks.
- *Secondly*, at the social level places such as squares, parks, courtyards and public gardens, as well as post-work leisure, holidays and free time, are essential if social networks are to develop.
- *Thirdly*, as far as the cultural level is concerned, it is obvious that language, memory, customs and knowledge are basic to the creation of any material or non-material product. As cultural beings, the spirits and fates of every person ultimately rely on the achievements of others.
- And finally, *fourthly*, at the digital level: production and exchange on the Internet work best if access to stored data is not impeded. For free navigation in the virtual world it is important that neither software codes nor the wealth of uploaded documents, sounds and pictures are locked away by excessive property claims.

Restoring the strength of the commons requires a different perspective on the economy. What actually is property? And what legitimates the ownership of property? What sounds like a philosophical discussion has practical consequences. If the concept of property does not discriminate clearly between possession and use there is little hope either for the shepherd who lets his sheep graze here one day and there the next, or for the Internet surfer who downloads articles and pictures. And what actually is competition? If competition is understood as “co-striving” (and the German word for competition, “Konkurrenz,” has the same Latin root as the English “concur”) rather than as “survival of the fittest,” then small traders and software specialists can breathe again. And what does creating value actually mean? If it means only monetary value created by selling goods and services, then work in the home, neighborhood services, community organizations and peer groups are left out in the cold. And – the most fundamental question of all – what actually is money? If we make no distinction between money as a means of exchange and credit and money as a means of enrichment and speculation, the whole economy is listing dangerously – in nautical terms it is a disaster waiting to happen.

Looking at the economy from a different angle reveals important aspects that could be relevant to a no-growth economy. Alongside the formal economy there is a relational economy that is concerned not with material things but with relationships between people. The ambit of the relational economy is wide and can range from traditional associations such as sports clubs and church

communities, together with businesses of the classical type such as shops and repair services, to post-modern manifestations such as car-sharing schemes and community solar energy projects. Different forms of commitment can arise: friendships, self-help groups and neighborhood services as well as welfare organizations, local businesses and Internet services. Forms of the relational economy can be found in different sectors: relating to food, the care of the sick and elderly, service provision and everyday needs, and in sports and entertainment.

At the core is an economy that is built on social relationships, a “care economy.” It cares for children, young people, the sick and the elderly. It brings together parents, educators and carers of all types. Of course it also demonstrates the difficulties that a relational economy has to contend with: care work, family relationships, local communities and private organizations will need to be financially and structurally reorganized. This reorganization must also extend to relationships between the genders if the inherited gender-based division of labor that is predicated on gender hierarchy is not to become even more firmly entrenched. The “care economy,” and with it the whole concept of the relational economy, will be derailed if men and women do not participate equally. Caring must undergo a political and social reevaluation. In the process, paid and unpaid work must be redistributed – not just between the genders, but primarily so.

Moreover, the relational economy appeals to different motives and norms than the market and the state. Competition and achievement, routine and loyalty certainly occur and can be a component of the social commons, but they can never replace voluntary action and self-organization, cooperation and enterprise. Whether in the development of Wikipedia or of urban community gardens or in the running of old people’s clubs and nursery schools – the virtue of cooperation is writ large. Cooperation, with all the attendant difficulties, is held in higher regard than competition, shared curiosity is valued more than hoarding egotism. Things are more successful if they are done with passion, commitment and a sense of responsibility – this is an old lesson that classical business administration has been slow to learn.

How can an economy function without growing? This is a big question that cannot be answered without considering the hidden dimensions of wealth – and in particular of the care economy. One of these dimensions is the social commons. Although private wealth is the most frequently highlighted aspect of wealth, all the variants of community wealth are just as important. Moreover, they harbor the opportunity of creating forms of a “distributed economy” based on the model of distributed energy production – in other words, forms of local production that are linked, globally if necessary, via the Internet. Above all, though, it has become possible to imagine a form of wealth with less money. Because in the social commons services are not provided for monetary reasons, but out of a sense of community spirit, interest or solidarity, needs can be met with a lesser investment of money. For example, just as Wikipedia would be unaffordable if all the authors and editors had to be paid a fee, older people in a housing project provide caring services for each other that could never be paid

for from public care budgets. The reinvention of the commons is therefore vital to the creation of an economic order for the 21st century that has been freed from the dictate of growth.

Wealth in diversity

The connection between money and happiness has always been tenuous. Does money make people happy? Is a rich man or a poor man more likely to be happy? Generations of scholars have asked how economic goals can be united with a society's other goals. Yet since global financial capitalism gained power over the economy, the old relationship between money and happiness has collapsed completely: national income has become detached from the development of wealth. In fact a high national income can have a downright destructive effect on wealth. It is certainly not necessary to think of the natural world in this connection; one has only to consider what the pursuit of economic growth at any price has done to communities and societies. A good 230 years after Adam Smith, whose book *An Inquiry into the Nature and Causes of the Wealth of Nations* ushered in the economic era, the concern that originally lay at the heart of all economic activity – the wealth of nations – has evaporated to the point of being unrecognizable. And yet the real goal of economic activity is not to increase profit or power but – it seems hard to believe nowadays – to promote the wealth of people and the environment. But what is “real wealth”?

The question of wealth is back on the agenda – in both the southern and northern hemispheres. If wealth is not to be equated with growth, what then is the metric? Are there various versions of wealth? What are the objectives of wealth, and what are the means by which it can be achieved? This is the basic question that drives many social movements, underlies public debate and is reflected in the work of statistics offices and parliamentary commissions. It affects the discussion of the green economy in Europe and of the “ecological civilization” in China and drives the debate on the “sufficiency economy” in Thailand, the “Islamic” economy and “Buen Vivir” in the countries of the Andes. Virtually none of this is mentioned in the UNEP report on the green economy, let alone in the Rio+20 documents.

Addressing the issue of wealth means taking steps to free society from the economy. And more: it means pushing back the economy until the market society becomes a market economy. Karl Polanyi, who formulated this idea, meant by this that the equilibrium between economy and society must be redefined. According to Polanyi, a society *has* an economy, rather than *being* an economy. The dividing line between economy and society has always been disputed and is largely culturally determined. Cultures differ in their understanding of nature, work, family, gender relations and spirituality. But one thing unites them: they

rate social conditions on a scale of “good or bad” and not (only) on a scale of “efficient or unproductive.” The first distinction involves a moral judgment that is influenced by each culture’s “big narrative,” its sense of space and time. The second distinction is an economic judgment that rates circumstances according to output, productivity and competitiveness. Here too there is a big narrative, namely that of how abundance of goods and economic power can be acquired. The economic way of thinking colonizes other areas of life such as childrearing, family, health care, culture and free time, the norms and values of which in fact have little to do with economic efficiency and competitiveness. Each of these areas of life has different key concepts, practices and styles of thought, which vary according to profession and culture. Although the mentalities of the different areas of life are constantly changing, they are culturally influenced and guide ideas and actions. Breaking the monopoly of the economic narrative in public affairs is a cause that unites countless opposition movements throughout the world.

In the North there are numerous initiatives that are attempting to restrict the hegemony of the economic world view. These initiatives are resisting the trend that, in the name of ever-greater economic efficiency, views work, education, urban planning, art and social relationships – in fact life – solely in terms of function. Rather than invoking cost/benefit analyses, they apply criteria of good and equitable living. It is no accident that the discussion of the concept of wealth is flaring up again in the North. Many people are of the opinion that the central concept of economics, the gross national product, is misleading and needs to be replaced by other measures of wealth. For example, it is inappropriate to speak of social wealth if inequality is constantly increasing and the wealth of the individual is bought at the price of poverty of the many. Similarly, the term social wealth is out of place if – as the UNEP report on the green economy points out – supplying agricultural products and goods and services means damaging local ecosystems and the global biosphere.

Another area in which the economy needs to be curbed is the ordering of the financial markets. How can the decoupling of the financial system from the real economy be reversed? Reimposing strict limits on the financial system and giving money an appropriate role is an increasingly important litmus test for a political system that does not just administer but takes control. A further area, and a bone of contention throughout the history of industrialization, is work. The contentious issues range from disputes over the length of the working day to the increasingly insecure nature of employment, from arguments about assembly line work to executive pay, but they all revolve around the question of the extent to which the economy can exert power over the life of the worker. In particular, the most important question of all has been ignored: what is good work? Good work is certainly a satisfying, indeed a challenging activity, but does that include work that harms people or the environment? Soon the issue will be good work for all without economic growth. Is there an economic theory of this, quite apart from the practical implications? In addition, a conflict about the limits of econo-

mization is taking place in areas such as health, social care and education. It is revealed even in the language: patients become users, recipients of care become clients, students become customers. By contrast, many groups want the motives of care, commitment and autonomy to be brought to the fore. What is health, what is care, what is education? Such questions, asked anew each day, are the stuff of which the non-economic narratives are made. To take an example from urban planning: what is a good city? For whom is it there and for what purposes? Tunnels and urban motorways, deserted inner cities and sprawling suburbs – it is how these issues are handled that determines whether urban planning is nothing more than economic planning or whether it is the creation of a life-enhancing environment for all citizens. What constitutes successful urban redevelopment – what are its criteria of beauty and functionality? These are questions that are vigorously debated everywhere. Cities are living organisms – if they were designed only to be efficient, they would be inhospitable places with no urban quality. Good cities – like the search for the good and equitable life – are diverse, non-uniform and above all dynamic.

The South likewise has its idea of the good life, although embedded in a different cultural context; but here it is viewed as contrasting with conventional economic development. For the rural population on the margins usually suffers from development; it is these people who bear the consequences of economic growth. As the government and industry, the urban middle classes and the rural elites drive development forward, the land, habitat and cultural traditions of the indigenous population, small farmers and fishermen come under pressure. Dams displace native peoples, industrial agriculture shrinks the markets open to farmers, floating fish factories marginalize local fishermen, supermarkets undermine small shopkeepers. Economic growth often has cannibalistic features: it devours the natural environment as well as the people, spewing out wastes and emissions of all sorts in the process. The shiny side of development has a shadow side of displacement and dispossession. This is why economic growth regularly produces poverty as well as wealth.

It is for this reason that the Buen Vivir movement is now being proclaimed a community goal. Having emerged among the “indigenas” of the high Andean plateaus, the movement has spread to the urban classes and many different countries. In 2008 Buen Vivir was enshrined in the new constitution of Ecuador and in 2009 (as “Vivir Bien”) in that of Bolivia. Buen Vivir is interpreted in different ways, but five main elements can be identified.

Firstly, the good life is contrasted with development, which is seen as unilinear and imposed from above. According to this view, development is a mental process as well as a socioeconomic one. The aim is nothing less than a decolonization of the imagination.

Secondly, there are different narratives of Buen Vivir in different cultural traditions. Indeed, there are different nations – the Bolivian constitution describes the country as plurinational – each with their own language, history, social forms

and ways of adapting to natural conditions. Biological diversity begets cultural diversity and vice versa.

Thirdly, it is a community-based narrative that emphasizes relationships with one's fellow humans, the plant and animal world and the cosmos instead of starting with the individual as the Western tradition does. Buen Vivir means living well with the surrounding world, which includes both the natural environment and other people.

Fourthly, the forests, land and seed are to be tended jointly; collective work and machines are also common property. Social rules and methods can change, but in ways that the community decides.

Fifthly and finally, nature is the basis of humans' existence and they are part of the community of all living beings. Mountains and rivers, plants and animals are included in the common narrative as living subjects with whom one can converse.

More and more often, however, the Buen Vivir movement finds itself in conflict with governments, even though they may be supportive of its ideology. Despite the noble principles, the old order has not changed: the indigenous population and their environment must pay for the development of the cities and the economic power of the nation. Disputes over mining and oil reserves, battles over highway construction and deforestation are on the agenda. Development as growth remains the dominant strategy. Above all, the mountains and the jungles that are home to indigenous peoples and are habitats for wildlife are the source of minerals such as gold, iron ore, oil and lithium; even governments that are sympathetic to Buen Vivir cannot avoid thinking of their budget deficits and the opportunities for making money that the (global) economy presents.

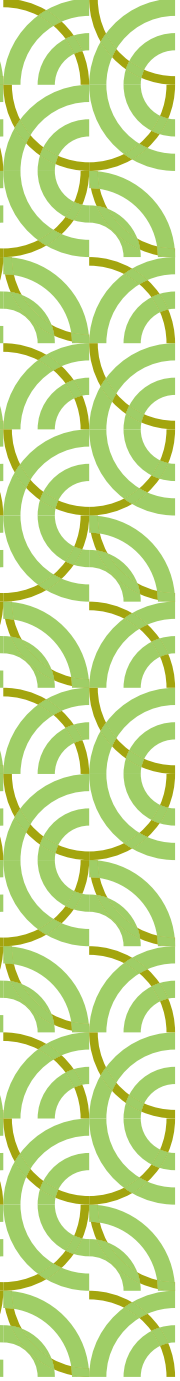
In Asia, especially in Bhutan, Thailand and neighboring countries, there are similar movements that oppose conventional development thinking. Wherever the Buddhist tradition still flourishes, interest in the new economy is growing. Activists and community organizers are attempting to create a "sufficiency economy"; in Thailand the concept was promoted by the king and for a time in the period that followed the premiership of Thaksin (prime minister 2001-2006) it entered government language. The idea of the sufficiency economy has its roots in the Buddhist view of humanity; the aim is to find a middle way that steers between deprivation and luxury, in the same way as between tradition and modernity. Economic activity is to be governed by sensible criteria and consider the long-term consequences for the environment and the community. In terms of economic structure great value is placed on resilience – the ability to withstand major changes and disasters.

Like Buen Vivir, the concept of the sufficiency economy is driven by serious reservations about the prevailing economy with its emphasis on striving for profit and its indifference both to nature and people. The criticism, in both northern and southern hemispheres, of past economic certainties can teach the green economy a great deal as it searches for what J. C. Kumarappa calls an "economy of permanence."

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Natural resources are back on the agenda. After the rise of new economic powers such as China, India, and Brazil, global competition has perceptibly increased strategic concerns as regards high commodity prices and possible supply shortages. Germany, the United States, and many others have formulated raw material strategies that put concern over access and supply at center stage – but the environmental and the socio-political dimensions are widely neglected in these strategies.

This paper underlines a new dimension of international relations and pleads for new approaches, called international resource politics, which can be used for ongoing debates concerning a green economy and transition strategies.

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