

**ACCEPTANCE SPEECH FOR THE GERMAN SUSTAINABILITY
AWARD, BERLIN,
WEDNESDAY, 29TH APRIL 2009**

Sehr geehrte Damen und Herren,

Gestatten Sie mir, Ihnen im Namen meiner Frau und in meinem eigenen Namen zu versichern, welch ein großes Vergnügen es ist, wieder einmal in Deutschland zu sein. Mein letzter Besuch liegt sieben Jahre zurück, und mit ihm verbinden sich schöne Erinnerungen. Heute habe ich die Freude, meine liebe Frau mitzubringen, und nun muss die Ärmste wieder eine meiner nicht enden wollenden Reden ertragen!

[On behalf of my wife and myself, can I begin by saying what a great pleasure it is to be visiting Germany once again? The last time I came was seven years ago and I have fond memories of that visit. Now I am delighted to bring my darling wife with me on this occasion who, poor thing, has to sit through yet another of my interminable speeches!]

I cannot tell you how touched I am that you should have even considered presenting me with this first German Sustainability Award. I am enormously flattered that you think my own efforts over the last thirty years to raise awareness of environmental issues are worthy of this singular recognition. I know, too, that you kindly gave me this award last November, so it was a wonderful sixtieth birthday present! I can only apologize that it has taken until now for me to be able to receive the prize, but I particularly wanted to be here with you in person because, if I may say so, Germany is a remarkable country, not least because of the important environmental leadership you have shown over the last thirty years. In many ways I cannot help wondering if it should not be me giving you this award!

Without the energy and endeavour of Stefan Schulze-Hausmann, none of us would be here this evening. I can only congratulate him on his initiative to draw out and celebrate individual and business behaviour in Germany which should be an example to us all. Another individual who deserves recognition, given his pioneering role in both the U.K. and Germany, is Professor Joachim Schellnhuber. His work at the Potsdam Institute, which I am much looking forward to visiting tomorrow, has been of the greatest possible importance and I am delighted that over the last few years he has been working closely with my own Business and the Environment Programme and the Cambridge Programme for Sustainability

Leadership, of which I am patron. Indeed, next month, in association with Joachim and the Potsdam Institute and under the auspices of the Cambridge Programme, I am hosting a symposium of Nobel Laureates at St. James's Palace in advance of the Copenhagen Summit. I can only hope that it will play a part in galvanizing the international community to take the kind of action that is so urgently needed at this crucial international gathering. In so many ways we are in the "Last Chance Saloon..."

As I said earlier, I really ought to be giving you this award because Germany has, of course, already met her Kyoto greenhouse gas emissions reduction target – indeed your reduction of more than twenty-three per cent comfortably exceeds your target. But it is your determination to go so much further that is the real inspiration. As the first industrialized country to target a forty per cent reduction by 2020 you are setting a hugely important example. This is the scale of cut that we now know the industrialized countries must make if we are to have a reasonable chance of stabilizing climate change at a manageable level. So I do applaud your inspirational leadership in showing not only that significant carbon reductions can be achieved, but also that moving to a more sustainable economy can provide considerable opportunities for employment and innovation.

I have been enormously struck by the fact that there are some 1.8 million people in Germany employed in providing environmental goods and services, and the delivery of the forty per cent cut in greenhouse gas emissions is expected to create another half a million.

It seems to me that the German example demonstrates admirably how there need not necessarily be a choice between on the one hand protecting our planet's life support systems and, on the other, creating jobs and securing the kind of innovative, balanced economic development that reflects the urgent need to live off income rather than Nature's rapidly depleting capital. The truth is that we can, and must, do both of these things, especially during a period of such desperate economic uncertainty. It would be so much more convenient obviously if it wasn't the case and business could carry on happily as usual – but it isn't, and we can't. Human ingenuity is truly remarkable, given the right incentives and disincentives, and by man once again learning to work in harmony with Nature and her genius, it will be possible to create a new, integrated world view.

If I may say so, I have been particularly impressed by the way in which your scientists are stimulating debate about a “green new deal”, including the proposal that G20 countries should aim for at least a twenty per cent investment in their recovery packages for low carbon technologies. Such a shift of emphasis could not come soon enough because, as I said last month in Brazil when we were there, unless greenhouse gas emissions reach their absolute peak within about one hundred months – and now that is just ninety-nine months, ladies and gentlemen very nearly ninety-eight – it may well be too late to stop temperatures rising beyond dangerous levels. As you all know better than I, those levels would render unbelievably large parts of the world uninhabitable and lead to billions – yes, billions – of environmental refugees, with all that that means for global security as sea levels rise and there is massive disruption to global food and freshwater supplies. And on top of this, it would result in the extinction of millions of species and organisms – species and invisible organisms that we need for our very survival and which, of course, we take totally for granted. Ladies and gentlemen, it is for all these reasons that we simply have to act now – before we persist in testing the scientific evidence to destruction. This, of course, is the ultimate consequence of nearly 300 years of looking at the world from an entirely mechanistic point of view. We have been indoctrinated into seeing it as a whole series of fragmented, essentially meaningless constituent parts and have lost sight of the fact that it is a living, delicately balanced organism, of which we, as human beings, are a microcosmic image. Therefore, we cannot waste a single moment if we are to bequeath to our children - we all mind about our children and our grandchildren, at least I hope we do - a world fit for them to live in. That is why the Copenhagen Summit is of such profound importance to every man, woman and child on this planet. Climate change is undoubtedly the greatest challenge of our age. But I fear it is far from being the only global ecological challenge we face. Indeed, there is a danger that in tackling the climate challenge with all of our energy – as we must – we could lose sight of the fact that our continued existence on this planet is also dependent on a number of other absolutely essential natural ecological services. As you know far better than I, those services are all inter-related. They depend upon a vast array of interactions between different forms of life, the way in which energy flows and the many ways in which Nature recycles waste. We have been taking them for granted for far too long and, as a consequence, many are under intolerable strain. As a matter of interest, who do you think made the following statement – a contemporary astrophysicist or the ancient Chinese sage, Lao Tzu? “*The World and its particles are not separate,*

isolated things but, rather, one small particle contains the nature of the world just as the world contains the nature of each small particle; the nature of each is the same.” So that is an exam question for you all to answer.

In our human-centred world, with its emphasis on economics, and following decades of apparently unending material ‘progress’, it has become all too easy for us to assume that we can continue to take what we wish from natural systems which will somehow indefinitely replenish themselves. In the real world it unfortunately doesn’t work like that.

As someone who seems to be constantly accused of being “anti-science” in one way or another – merely through calling for a restoration of the essential balance between the rational and intuitive aspects of our humanity – it is perhaps worth reminding ourselves of one famous study published in 1998 which set out to estimate the value of Nature to the human economy by working out roughly what it would cost us to replace all the things that ecosystems provide to us for free if we could possibly do that. The value of rainfall, soil fertility, the work of pollinating insects, the coastal protection provided by coral reefs and mangroves, climatic stability and the medicines derived from wild species, among many others, were estimated to be worth about twice global GDP.

In other words, the part of the economy that we measure and seek to grow year on year is only about half the value of the part we don’t measure. Perhaps this is why natural capital is being depleted so rapidly – because we have yet to find adequate ways to express in bald economic terms the value of the services provided to us by Nature. I may not be an economist or an accountant or an investment banker, but I simply cannot understand how you can sustain the idea of “capitalism”, as we have come to know it, without capital – Nature’s capital. Do we ever think about that? Surely it is not beyond the powers of human invention to devise a gentler, more integrated approach which, above all, values these services properly in the entire accounting and auditing process, and in the way we run our economies under these increasingly critical conditions?

In the same way that early research showed that most people thought the term ‘biodiversity’ referred to a new washing powder, the expression ‘ecosystem services’ perhaps conjures up images of a small company set up to mow lawns and unblock drains. But whatever term we use, it really is essential that we find the means of building a much wider and deeper

understanding of the manifold ways in which all human life depends on Nature; of the consequences if we breach natural limits, and of the real value of services which we currently take for granted.

That is why I want to commend, ladies and gentlemen, if I may, a recent report commissioned by your country's Federal Environment Minister and the EU Commissioner for the Environment. They invited Pavan Sukhdev of Deutsche Bank to lead a team looking at the economics of ecosystems and biodiversity. The Report of the first phase of this work has now been published. It is a remarkable document, setting out a clear framework – based on science and economics – for valuing ecosystem services, and identifying policies to enable further progress in this area. But it also contains insights and advice of a different sort, which policy-makers need to hear. Any economist who can write this, for instance, deserves a wide and attentive audience and I quote -

'Above all we need to regain a sense of humility about the natural world. As traditional peoples have long understood, we must ultimately answer to Nature, for the simple reason that Nature has limits and rules of its own.'

If I may say so, that very much sums up the view I have held, and tried to express, during much of my life. Perhaps that economist has also been accused of being “anti-science” as, I know, have various eminent scientists who express serious concerns, based on evidence, of, for instance, what we are being told is the only solution to feeding the world – G.M. technology. But that is another story, for another time – you will be glad to hear!

An earlier and much larger study, the Millennium Ecosystem Assessment, went so far as to say that we might very easily not meet the Millennium Development Goals on poverty alleviation if we continue to destroy and degrade natural habitats and ecosystems in the way that we are doing now. This particular assessment was the most comprehensive stock-take of Nature ever undertaken and its findings should galvanize transformations in how we approach development in the decades ahead. But will it, ladies and gentlemen, before we irreparably compromise its future by continuing to treat Nature as some sort of inanimate machine?

The Millennium Ecosystem Assessment, for example, revealed how roughly sixty per cent of the ecosystem services that support life on Earth – such as fresh water, wild fisheries, air and water regulation, regional climatic

regulation and natural pest control – are being degraded or used unsustainably. The review looked at twenty-four different ecosystem services and found that fifteen of them are suffering ongoing degradation. It concluded that humans have changed ecosystems more rapidly and extensively in the last fifty years than in any other period. More land was converted to cropland in the thirty years after 1950 than in the 150 years between 1700 and 1850. More than half of all the synthetic nitrogen fertilizers, first made in 1913, ever used on the planet has been used since 1985. As a result of our collective demands, some ten to thirty per cent of the mammal, bird and amphibian species are currently threatened with extinction.

There have, thank God, been many positive steps – especially during the last thirty years – with the designation of thousands of new national parks and other protected areas and the protection of species and regulation of different kinds of pollution, but it is still not enough. As I said earlier, it would seem that part of the challenge is located in our persistent tendency grossly to underestimate the economic value of Nature.

Although our attention at this time of economic stress is drawn elsewhere, how we might better reflect Nature's value to us is perhaps an especially pertinent question, for alongside the credit crunch are now arrayed not only a climate crunch, but also a resources crunch and a Nature crunch – and I might even add, if I wanted to push things further, an architectural crunch! All of them are related. For example – and you must forgive me if I am teaching German grandmothers to suck eggs! – deforestation contributes to greenhouse gas emissions, and both the associated loss of eco-system services and climate change will have a major impact on economic development and efforts to alleviate poverty. It seems to me that we cannot easily find solutions to any one of these challenges without seeing the connections between them.

Indeed, about a fifth of carbon dioxide emissions arise from deforestation, especially the clearance of the tropical rainforests. That is not all, however, for not only do rainforests store carbon – year on year they absorb about fifteen per cent of the emissions coming from fossil fuels. So while they are about twenty per cent of the problem, this is the point, they are in reality some thirty-five per cent of the solution.

The rainforests also produce much of the world's rainfall. From the Amazon basin forests alone some twenty billion tonnes of water are evaporated into the atmosphere *every single day*. This not only falls back onto the forest, but also far away on farmland where it enables crops to grow. Clouds spawned over the Amazon sustain farming in southern South America, and even supply some of the rains that fall on the prairies of the U.S.A., one of the world's most important granaries.

The rain produced by the Amazon and other rainforests also powers hydroelectric dams. In Brazil some eighty per cent of the electricity generated comes from large hydro dams that are in part powered by the rainforests. The rainforests are also home to many of the world's remaining indigenous peoples and harbour at least a half of all the land species found on our planet. In short, saving the rainforests is not an option; it seems to me that it is an absolute necessity. And doing so would be the quickest, easiest and cheapest way of buying time in the battle against climate change before all sorts of other technologies are brought on stream which might help the situation.

The question today is not therefore one of *if* we should do it, it is very much one of *how* – and how quickly at that, for the longer we all argue about minutiae and statistics – and various vested interests – the more rainforest disappears and therefore the more likely it is there will be no rainforest worth speaking of by the time any agreement is reached.

Most of the rainforests are, of course, located in poorer countries where the trees, the fauna and flora, and the land beneath them, have historically been a source of economic development. This is why the clearance of these unique ecosystems, with their associated biodiversity so essential to human survival on this planet (the only one we have, after all), strikes me as axiomatic of the wider struggle we face in achieving a more sustainable view of progress, whereby improving the wellbeing of people and ending poverty need not entail the large-scale degradation of ecosystems upon which we all so fundamentally rely. This is why about eighteen months ago I set up my Rainforests Project in response to the deep concern of various experts who came to me in despair – I don't know why they came to me but they did in despair - at the whole situation. The aim has been to consult as widely as possible and to seek out solutions to this apparently intractable problem by working with the private, public and N.G.O. sectors to create a global partnership.

Happily, we are making progress, not least through helping to build a new international consensus on how countries can work together in meeting this shared global challenge. Proposals are beginning to emerge as to how the 10-15 billion dollars per year needed to make a significant impact might be mobilized. Far from being a charitable hand-out, I see the transfer of money to save the rainforests as equivalent to paying a utility bill for gas, water or electricity only that, in, this case, it is for the climatic and other services that are so essential to the whole world.

Securing the finances needed to combat the forces of deforestation will require innovative new partnerships and funding mechanisms. Several proposals have been put forward. One that emerged from my Rainforests Project involves the issuance of new government-backed rainforest bonds. These would be offered to the investment community and could provide companies in, for example, the pensions and insurance sectors with guaranteed returns while, at the same time, making available some of the significant resources needed to help slow down deforestation. The money could be paid back using a whole range of different funding streams, including auction revenues from emissions trading schemes, a tool that I know the Government of Germany is already using to support international climate projects.

If the finances are targeted correctly, there could be a major positive impact on poverty, by providing education, health care and funding for sustainable farming and agro-forestry schemes, which includes the restoration of the vast areas of already degraded land that surrounds the rainforests. According to U.N.D.P. there are some eighty million hectares of degraded land in Brazil alone. In Indonesia it is in the region of 45 million. So not only could it help to alleviate poverty and offer economic benefits, it may also heal some of the damage to the region's ecology.

It seems to me the opportunity we have for saving the forests could be a powerful example of the kind of vision we should embrace for the future – in which economic development, improving people's lives and saving the natural capital and ecosystem services on which we all depend go hand-in-hand, rather than being seen as choices. In this regard, I know there are many wonderfully innovative, appropriate and beneficial projects being carried out in many parts of the world – where the challenges are greatest – by voluntary organizations, charities and N.G.O.'s, helping to demonstrate

such an integrated approach. What it needs, if you will forgive me for saying so, is for these erstwhile “alternative” projects to become more mainstream, thereby creating a genuinely human, community-based form of globalization – “from the bottom up”, if you like, – rather than the current model which is unfit for purpose and helps to destroy people’s cultures and identity and goes against the very grain of their existence.

It is a matter of enormous encouragement that the Government of Germany has demonstrated an exemplary willingness to show leadership in these complex issues. Indeed, I was delighted a few weeks ago at the time of the G20 gathering in London to arrange a meeting with Chancellor Merkel, other national leaders and the heads of international organizations to discuss how it might be possible to find ways to mobilize from the developed part of the world where, after all, many of the critical issues now confronting us have originated, the resources needed to help the rainforest countries protect and sustain these critical ecosystems. I could not have been more encouraged by the willingness of the Chancellor and other Leaders to establish an international Working Group to examine the ideas of my Rainforest Project in more detail and, thanks to Prime Minister Berlusconi’s interest, to include discussion on this issue during the G8 meeting in Italy.

I am not sure how much longer you can all endure the monotonous torture I am inflicting on you – I fear I am testing your sustainability to destruction, as well as how long I can sustain this speech – but I’ve had a year to plan this one – but, having looked at the essential ecosystem services provided by the rainforests, I feel I must touch very briefly before I end on the critical, but even more overlooked, services provided to mankind by the world’s oceans. This is another area where we take everything for granted. Over the years I have tried, unsuccessfully, to draw attention to the issue of over-fishing and the ruthless destruction of the world’s fish stocks by unsustainable fishing practices.

The shocking reality is that, according to the United Nations, up to seventy-eight per cent of the world’s fisheries are either “fully exploited”, “over exploited”, or “significantly depleted” with some species fished to commercial extinction.

Given these facts, it is surely madness to continue to try to extract more and more fish out of the sea? Over-fishing is a significant global problem that threatens the ability of our growing world population to feed

itself - and particularly those fishing communities on the coasts of many developing countries. Individual fishermen do a good job of harvesting the sea for our benefit, working in all weathers in harsh conditions. And in economic terms they respond, like the farming community ashore, to the opportunities open to them at the time – particularly through the availability of ever-bigger boats and of ever-more sophisticated forms of technology which are intensely destructive of the marine environment which, in turn, provide their livelihood and the source of our food.

The ecosystem services approach allows us to see that fisheries are an integral part of the marine environment and cannot be considered in isolation. This is important because many current fishing methods result in comprehensive environmental destruction, either of the physical environment or of other species which make up the marine food chain.

The impact of fisheries on other species is rarely assessed comprehensively, but the so-called ‘bycatch’ can be up to sixteen times as great as the catch of the target species. This level of environmental damage and obscene wastage would not be acceptable in any activity taking place on land, so it is hard to see why it should be acceptable at sea.

These are, I realize only too well, highly complex issues but, as with so many subjects that confront us in today’s world, unless we take urgent action soon, then it might well be too late – as it has been with the Newfoundland cod fishery which totally collapsed through over-fishing two decades ago and has never recovered. The same is about to apply to the Blue Fin Tuna – one of Nature’s greatest gifts to human nutrition. It would be a scandal of monumental proportions if such a species were to be fished out. Why on earth are we incapable of taking the sensible course of action? Why are we unable to create a network, for instance, of marine conservation areas, or “no-take zones”, which would allow fish to breed unmolested and for the surplus created to be harvested sustainably outside those areas? Are we losing our senses? I still believe strongly in the ‘precautionary principle’ because the Millennium Ecosystem Assessment has already pointed out the challenges we face.

I fear that our grandchildren will not care very much about whether in these early decades of the Twenty-First Century we managed to sustain Twentieth Century-style economic growth. What they will be far more concerned about is the state of the Earth’s climate; about whether there is

sufficient food and water; about the security measures and economic resources needed to cope with millions of environmental refugees. That, in turn, will rely upon both a different, more holistic way of looking at economic growth and the emergence of a genuinely sustainable economy that not only takes care of people and our planet as well, but also breaks the conventional mould in terms of how we look at the world and how we develop a form of globalization that empowers local communities and local cultures that have so often contained the accumulated wisdom necessary to maintain their environment. Enabling this to occur seems to me to be not only our most urgent priority, but also our greatest opportunity.

Lassen Sie uns daher diese Chance gemeinsam nutzen. So können wir der Geschichte zuvorkommen und den Fortschritt so gestalten, dass er den längerfristigen Interessen der Menschheit sowie der Vielzahl von Lebewesen, mit denen wir uns diesen einzigartigen Planeten teilen, gerecht wird.

[Let us therefore work together to seize the opportunity, and in so doing to anticipate history and to put in place the kind of progress that reflects the longer term interests of humanity, as well as the myriad other life forms that share this unique planet with us.]

ENDS