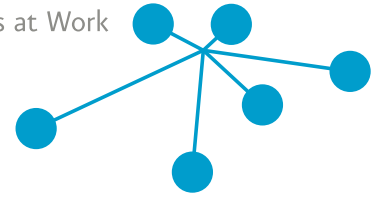


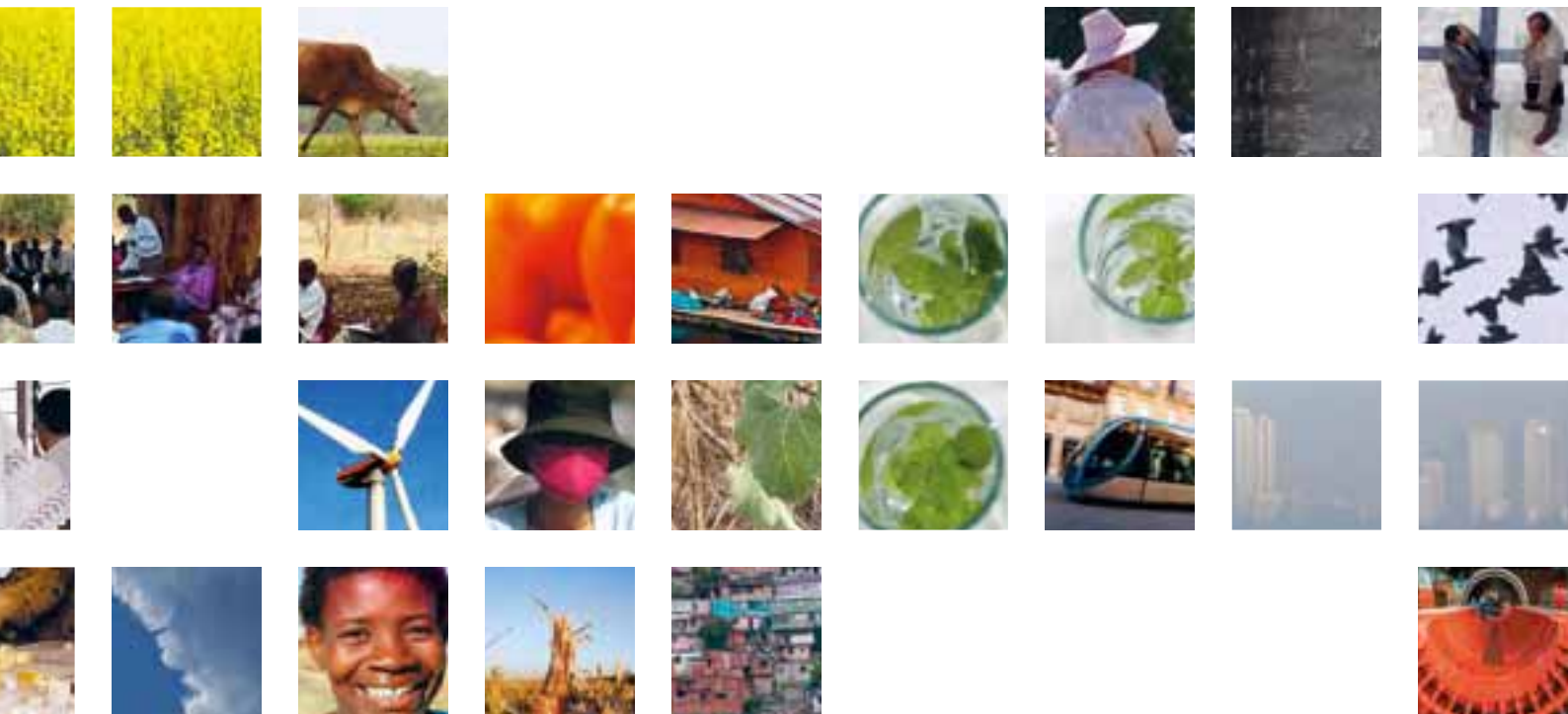
# A COMMON FUTURE

Sustainability Concepts at Work

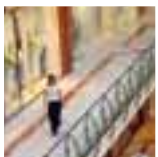
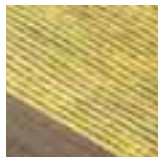


International Aspects of Sustainability – 1

## Sustainability—the Unfinished Business Challenges in International Cooperation



Essays by Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ)  
and Rat für Nachhaltige Entwicklung (RNE),  
edited by Günther Bachmann, RNE, Stephan Paulus, GTZ and  
Susanne Giwer-Marschall, GTZ



**International Aspects of Sustainability – 1**

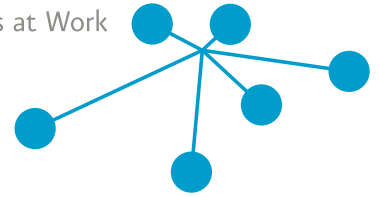
**Sustainability—the Unfinished Business**

**Challenges in International Cooperation**



# A COMMON FUTURE

Sustainability Concepts at Work



**International Aspects of Sustainability – 1**

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## Editorial note

Contributions by Members of the Rat für Nachhaltige Entwicklung (German Council for Sustainable Development) are recently held key statements and speeches that have been re-edited for the purpose of this reader. Chancellor Angela Merkel renewed the mandate of the German Council for Sustainable Development in June, 2007 after the Council was first established by Chancellor Gerhard Schröder in 2001. Appointed ad personam, the Members of the Council are advising the Federal Government in issues of the National Sustainability Strategy. They are also proposing projects, indicators or initiatives out of their own right. As a third task, the Council is asked to communicate the issues of sustainability thinking in the public. The work of the Council Members is facilitated by an office which, as of 2008, is located in the Berlin representation of the GTZ.

Council Members are: Dr. Volker Hauff (Chairman), Prof. Dr. Klaus Töpfer (Deputy Chairman), Oberbürgermeister Horst Frank, Dr. Hans Geisler, Prof. Dr. Ute Klammer, Prof. Edward G. Krubasik, Thomas Loster, Prof. Dr. Jürgen Rimpau, Prof. Dr. Georg Teutsch, Marlehn Thieme, Christiane Underberg, Michael Vassiliadis, Hubert Weinzierl, Dr. Angelika Zahrnt.

The Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) is an international cooperation enterprise for sustainable development with worldwide operations. It supports the German Government in achieving development-policy objectives. GTZ promotes complex reform and change processes and provides viable solutions for political, economic, social and ecological development. Its corporate objective is to improve people's living conditions on a sustainable basis.

Sustainable solutions to complex development questions are not available off the rack. This is why GTZ uses a mix of different forms of consultancy services including policy advisory services, technical and organisational consultancy. GTZ operates at government level and also cooperates with associations, industry, the local population and international donors. Within the company, too, the principle of sustainability is of pivotal importance. GTZ accepts its responsibility for its workforce and for the environment.



## Foreword

# Sustainability—the Unfinished Business Challenges in International Cooperation

**Bernd Eisenblätter and Volker Hauff**

We are happy to present this book, a joint publication of GTZ and the German Council for Sustainable Development. It demonstrates our common wish to foster sustainable development in national and international situations. The essays it contains are intended to show how the quest for sustainable development can provide orientation to all international cooperation. Readers will gain an insight into the global initiatives and development projects of GTZ, and they can find out about the work of the German Council for Sustainable Development, which focuses on domestic issues of sustainable development. By presenting complementary contributions, we hope this book will extend the respective outreach of our two organisations.

GTZ is a federally owned enterprise with worldwide operations in the field of international cooperation for sustainable development. Primarily commissioned by the German Federal Government, GTZ provides viable, forward-looking solutions for political, economic, ecological and social development in a globalised world. GTZ experts in more than 130 countries of Africa, Asia, Latin America and Eastern Europe, supported by the Head Office in Eschborn, promote complex reforms and change processes, often working under difficult conditions. One of the core competencies of GTZ is capacity development. This means that, by improving the capability of people and institutions to perform, GTZ helps to improve people's living conditions on a sustainable basis.

The German Council for Sustainable Development is appointed by the Federal Government to provide recommendations on Germany's domestic sustainability policy, to suggest exemplary projects and to strengthen the topic in the public sphere. The Council continuously urges the National Sustainability Strategy to broaden up and to include global links, to substantiate commitments by quantitative goals and indicators, and to get civil society involved. At the same time, the Council advocates a better global communication of German domestic sustainability options and choices.

In today's world, unattached to any states the forces of globalisation tend to marginalise nations and national politics. Indeed, no single state can shape the future on its own terms. In the realm of foreign policy and multilateral cooperation, however, national strategies and sustainable development policies do matter. They are challenging the notion of the flat world. When a country gains a reputation for successful and ambitious national achievements, this secures its credibility in the global context. If conceived in the spirit of sustainability,

national policies can lead to the creation of new markets, such as that for renewable energies. Sustainable national policies may open the way for local stakeholders and communities to participate in the global drive to develop sustainable lifestyles and patterns of consumption and production.

Strategies for sustainability do not promise a catch-all approach. Instead, we must reconcile competing goals and conflicting views; sometimes sustainability means nothing more than altering vested interests. That is why concepts of sustainable development should be understood as ongoing processes: they allow people to participate, they get the public committed, they help people make choices or they enable them to take controversial decisions. More often than not, sustainable development means facilitating new forms of public debate that cater for all three dimensions of sustainability: ecology, economy, and social affairs.

It is a widespread belief that economic reform must precede political reform and safeguarding the environment. But this sequencing of reforms is just a myth. In fact, it is often a major barrier to the promotion of democracy and the integration of environmental and social aspects in economic development.

More than thirty years after the Club of Rome assessed the limits to growth, the concept of sustainable development is challenging the limits to thought and the philosophy of growth as the ultimate goal. The world is asking for and discovering new and innovative models of growth that integrate economic development, social coherence and the protection of the environment. These can apply to the developing world, no matter how fast the emerging economies of the world are already developing. They are also true for the developed world where thinking sustainably means nothing less than rebuilding the welfare state.

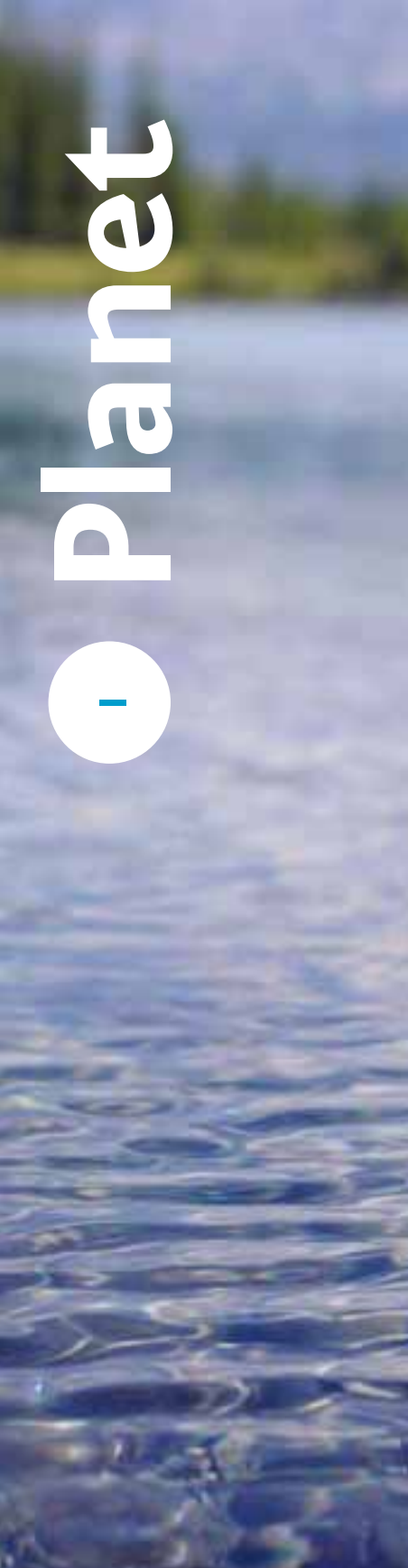
**Volker Hauff**

Chair of the German Council  
for Sustainable Development

**Bernd Eisenblätter**

Managing Director  
Deutsche Gesellschaft für  
Technische Zusammenarbeit  
(GTZ) GmbH

# Planet







# Twenty Years Brundtland Report: An Update

**Volker Hauff**

*Keynote speech given at a meeting with  
His Royal Highness Prince Philippe of Belgium,  
organised by the Belgian Federal Council for Sustainable Development,  
Egmont Palais, Brussels, 17 October 2007*



Twenty years after the release of the Brundtland Report, sustainable development is one of the key issues on the political agenda. In your country, in my country, in Europe and even in China and in the USA: Al Gore has done a marvellous job for all of us. The issue is at the top of the international agenda.

When talking about sustainability today, we have to raise the energy and climate issues as the first and top issues. Climate change victimised us all. Nobody can hide from it. Nobody can simply buy protection. As Gro Harlem Brundtland, today the UN Special Envoy to the Secretary-General, recently put it: “It is irresponsible, reckless and deeply immoral to question the real danger of climate change.”

Today, any politics on sustainability have to start off with energy and climate. I say: Energy is the key issue, but sustainability is the frame. Energy policies need that broader frame of ecol-

ogy, economy and social aspects. But up until this very day, our energy and climate policy is still perceived as a single-silo policy. There is no comprehensive sustainability approach.

I would like to underline the importance of climate change in relation to equity, justice and freedom. Climate change puts our understanding of justice and democracy to test. The Indian Prime Minister was right when he said in 2002: “We do not believe that the ethos of democracy can support any norm other than equal per capita rights to global environmental resources.” I think it is good that the German Chancellor, Mrs Angela Merkel, recalled this during this year’s G8 Summit and is constantly repeating this insight.

I know: This is a vision. Some people say: This is unrealistic. My argument is a very simple one. In the history of mankind such far reaching visions have changed the world. Let me give you an example which might be a comparison. The American Revolution started with the vision: “One man, one vote.” This vision was for a long period the guideline. In my country, it took more than hundred years to bring this vision to reality; today it is regarded as a matter of course. But don’t forget: It took more than hundred years. Regarding climate change, we do not have hundred years to change the course of the world. We have to get the challenge of climate change right. It is a question of human dignity. It is about human rights and fundamental freedoms.

We are up against vested interests of those who are still benefiting from the deterioration of the global ecology. Only a low-carbon economy can lead us on the journey towards a sustainable economy and welfare. There are also a couple of things that encourage us on our way. They are sharpening our arguments, they are providing power and they are opening up new options.

- Economy: We learnt from Sir Nicholas Stern that a deteriorated ecology is a tremendous damage to the global economy. And the corporate sector is following up on this, accepting that there is a business case. Stern told us the simple economic truth: inaction is more expensive than taking the necessary actions now.
- Science: The IPCC told us that there is sound scientific proof of the man-made factors of climate change. And where there is a man-made cause of climate change, there should also be a man-made solution to it.
- Technology: There are promising new technologies. Priority one is energy productivity. Priority two are renewable energies. Solar and wind technologies are successfully entering the market. Biofuels can be an option if they do not create new problems by unsustainable harvesting of biomass for agrofuels.
- Diplomacy: There are new prospects for the Kyoto follow-up negotiations under the umbrella of the UN framework. This pathway, though, is still clouded by the stance of the US and the lack of trust between the industrialised and the emerging economies.
- Governance: National Sustainability Strategies are increasingly providing political back-up for action on local, regional and national level, and in the EU.

The World Commission on Environment and Development, in which I had the honour to be a member, worked from 1985 to 1987. We called our report “Our Common Future. A Global Agenda

for Change”. Gro Harlem Brundtland chaired this Commission. In those times, she was the Prime Minister of Norway, later she became President of the World Health Organization. She is now appointed Special Envoy of the United Nations Secretary-General on Climate Change. Our Report marks a point in history when awareness was growing that

- we risked overstepping limits in the world we share;
- we need to adapt our use of natural resources to the long-term carrying capacity of the planet; and
- unequal opportunity and unequal distribution of resources were at the heart of the problem.

The UN established the Brundtland Commission because a solution to these problems was not in sight. People found themselves stuck in controversies and policies, in a total gridlock.

The predominant thinking at that time was, it is either the environment you can protect or it is the economy you can develop. You cannot have it both ways. The Brundtland Commission faced this setting with a new political idea: a sustainable development is how we recommend facing the challenge of meeting the needs of present generations without compromising the ability of future generations to meet their needs. This political concept includes equity and justice, within and between generations. It was new in several aspects:

- New was the notion of equity and justice not only within generations, but also between generations.
- New was the clear idea of developing a shared understanding of the long-term goals for human life on earth.
- New was the idea of new governance instruments and of building collective action.
- New was the resoluteness with which we advocated the need for leadership and building trust with others.
- New—and the most powerful recommendation we came up with—was an idea about the process how to deal with our Report. In our Report we said: “Within an appropriate period of time after the presentation of the report to the General Assembly, an international conference could be convened.” This brought the Rio process on the agenda. We provided momentum. We experienced high expectations in 1992 in Rio. We also experienced the downs in the global follow-up of Rio. There was a multitude of gatherings, from Kyoto to Bonn, Marrakech and Delhi. The world adopted the Millennium Development Goals. Johannesburg in 2002 openly displayed both frustration and unwillingness.

Personally, I have to admit that we almost underestimated the impact this recommendation process would add to the overall effort. However, the process that started with Rio reached out to the people. It attracted the attention of politicians and parliaments, of foundations and the private sector. It is at the heart of political debate between the various stakeholders, on the various levels from the UN Commission on Sustainable Development to regional and local action. Basically, it provides the red thread and created something like a global community.

As for updating today the Brundtland message: We have to acknowledge that the world has changed dramatically: The Cold War ended. The stalled two-block confrontation gave way to a multipolar world. Powerful economies in the BRICS countries and elsewhere are influencing the structure of the world economy. Globalisation has added new opportunities and new questions. We have been watching failed states. Totalitarianism is on the rise, and the notion of security is now enlarged and discussed in the scope of energy and climate change. Communication in the global village tends to bring about new cultural features. Still, I'm convinced that the Brundtland Report holds some key issues that are valid solid today.

- Conflict prevention: The Report does not at all underestimate the issue of proliferation of nuclear arms. However, the situation has even worsened. Probably, the spread in use of nuclear weapons is already out of control. In general, arms trade is the one single problem with the most anti-development impact.
- Poverty: The Millennium Development Goals are a remarkable effort. There is progress in many places in the world. However, it is very clear: the business-as-usual approach will not come to meet the MDG requirements.
- Growth: Our pledge was that growth is about choice, about quality, and that means: about sustainability. Up until today, it is not yet understood nor implemented that dependence on finite resources and environmental damage is anti-growth politics. The perspective on growth has still deteriorated by inadequate economic thinking. It was Albert Einstein who told us: "You cannot solve the problem with the same thinking which created the problem."
- Energy and climate: In 1987, we compared climate change with the threat of nuclear war. This statement was highly criticised. But today we know: we were right. Now, the scientific evidence is overwhelming and the economics of climate change are clear. The Stern Report tells us what has to be done. It is time for action for a low-carbon economy.
- Food security: twenty years ago, the world produced more food per head of population than ever before in human history. However, food security and safety are more on the brink today than twenty years ago. Linking the oil price to the pricing of food is creating a new problem. That is exactly the most urgent threshold of bioenergy strategies.
- Urbanisation sprawl and megacities are putting themselves at risk in terms of resource consumption.

These are six issues of the Brundtland Report which are still valid today. It is beyond doubt: sustainable development has all characteristics that qualify for a major political momentum. And there are positive and encouraging trends.

- Take a closer look at Europe. The enlargement of the European Union is a great move. The Aquis Communautaire is an invitation to democracy and peace. We are on a good way to make it an invitation to sustainability policies as well. The EU sustainability strategy encourages us to think harder and to implement sustainability more effectively.

- Take a closer look at what happens in Asia in terms of growth and sustainability. It is encouraging to learn that nowadays we discuss sustainability at eye level. Asian countries are particularly interested in building technical and procedural know-how in order to build up resource- and energy-efficient industries within their countries and export environmentally sound technologies worldwide. Some say, we in Europe should never agree to standards that are not accepted by China and India. I think the opposite is true. We should never feel comfortable with per capita standards which we do not wish being implemented in China and India. In the long run, it is this philosophy that will lead to success. That is sustainability.
- Take a closer look at what happens in the United States on the regional level and in particular in the private sector. What you see are bottom-up movements with fantastic and inspiring initiatives of „Greening America“. You see emission trading, renewable energies increasing their share of energy supply, efficiency gains and the prospect to commercialise a low-carbon power plant.



We need to substitute fossil fuels through renewable energies. We need to become more energy-efficient in our production and our consumption patterns. We need to introduce new, clean technologies for the use of coal and gas. We need to tackle the carbon economy—by making it a clean economy.

The EU has adopted ambitious targets in February of this year. The decision was met on a 20% reduction of energy use through increased energy productivity by 2020, on an increase of the share of renewables to 20% by 2020, and on an increase of the share of agrofuels to 10% by 2020. I appreciate this approach, though we need more and stringent implementation. There is no deficit in goal setting, but there are deficits in implementation.

The Brundtland Report addressed the management of the commons. Still today, managing the commons is unfinished business. We have convincing targets. Goal setting is not the problem. Implementation is crucial, adequate management actions are missing.

To illustrate my arguments: Under the Kyoto regime, the EU accepted a reduction of 12% greenhouse gases by 2012. At the end of 2006, the EU reached a reduction of 1.7%. There was a

meeting of the heads of government early 2007; they said: The situation is serious and therefore we have to increase our targets to 20% by the year 2020—but: without discussing roles and responsibilities, without defining timetables and milestones, without establishing processes and technologies, without organising reporting and controlling systems. Not to speak of impact assessment and sustainability checks, where Belgium has an outstanding role. All these important things have not been taken into consideration. Therefore I insist: goal setting is not the problem, implementation is crucial.

The hazards of climate change can't be neglected; they can't be rejected or simply ignored. No country can just opt out when sea levels are rising. Those who ignore the effects of climate change—I want to be very clear—they act irresponsible, irrational and immoral.

We awfully need a revival of multilateralism. There is no doubt that we have to rethink the global governance and UN institutions as regards the environment and sustainability issues. The future of multilateralism is bound to legitimacy, credibility and trust—all of which I do not see well-guarded in the current system.

**The old market economy created the climate disaster as it once created the environmental pollution.** Fixing the problem requires providing market economy with a frame and giving it directions. That is exactly what the European emission trading system and other climate regulations are about. We need caps and targets for a new market economy to function for the environment. At the end of the day, we need it under the umbrella of the United Nations.

I suggest new stimuli and initiatives at the national level. National action towards global sustainability is the one most important factor. We have to design the business case for sustainability. Take the example of renewable energies. We need to adjust our industry and our R & D policy as well as foreign trade promotion to the demand that increasingly will derive from emerging economies. Europe can achieve to be the most competitive and the most dynamic knowledge-based economy in the world—but only if Europe is actively setting the standard. This standard setting is by no means a technical task. It is a core element of the European social and economic model. A low-carbon economy is as close as you can get to set new standards and to create new markets. This is what our policy-makers have to accept. Globalisation does not render national policies unnecessary. Properly performed, national pioneering gets rewarded internationally. A national strategy on sustainable development can play an important role as driver for innovation. The low-carbon transition needs long-term policy frameworks at the national level. This is why I want to point out the case of New Zealand. Prime Minister Helen Clark is the first leader in the world to proclaim a national way towards a low-carbon economy. And we see: once the overall goal is established, some other things fall into place, as for instance a national emission trading scheme for New Zealand.

If I were to single out the one most important overall challenge for sustainability strategies, the management instruments would be it. The command-and-control approach will not help us to face this challenge. Neither will the “let the business do it” approach yield the necessary effects. Standard perception of administration and business as mutual enemies cannot be


expected to settle the case. The management of the commons requires new ways, new institutions and processes with an engagement of the administration and the business community as well as the consumers. Measurement is a prerequisite for good management. You can only manage what you can measure.

We have to come up with new forms of collective leadership. The National Councils for Sustainable Development are designed to stimulate an informed debate in the civil society. I am grateful to the Belgian council for the support and active contribution to the initiative that brought together national councils throughout Europe. I am grateful to Jan de Smedt, the Secretary-General of the Belgian Council, who played, and still plays, an important role in sharing European experiences. A lively debate and ambitious policies are what we need in Germany as well as in Belgium. Nobody has a final answer to all our questions around sustainability. Quarrel is inevitable. Most important is to find new ways to involve stakeholders. That is why I appreciate very much the initiative of our Belgian colleagues for this conference.

To end my talk, I would like to mention one issue where the Brundtland Report missed the point. In the past twenty years, the private and the public sector have developed tools and instruments to manage sustainability projects. But I do see two cultures, the private and the public sector. Those cultures seem to speak different languages. There is not much talk as to how to combine different approaches.

But we cannot afford this gap. We cannot afford our all too fragmented policies. I am afraid we will not be in the position to achieve the ambitious climate targets if we do not develop a new linking of the business case and the regulatory framework, the demand-side approaches and the consumption patterns and lifestyles. I advocate taking sustainability strategies seriously. I want to sum up with three points:

- We need more fantasy. We need more courage and trust in order to experiment with sustainability strategies.
- We need participation and dialogue between stakeholders from government, business, science, and civil society.
- We need leadership to manage the commons. Sustainability strategies should provide for public visibility and ambitious processes.

This is the core of the problem of sustainability policies—constantly since twenty years. And as for celebrating the 20-year anniversary of the Brundtland Report, I ask you to keep the words of the great Frenchman Jean Jaurès in mind: “Tradition means to keep the fire alive and not to admire the ashes.” 



# Meeting Global Challenges: The Contribution of National SD Strategies

**Klaus Töpfer**

*Keynote speech given at the conference*

*“European Sustainability Berlin 07” (ESB07),*

*June 2007;*

*transcript of the oral presentation*



Tomorrow, we have the World Environment Day, exactly twenty years since the Brundtland Report. I believe it is worth to stop a moment and to ask: Where are we with Sustainable Development today, for sure one of the success formulas in the world? As can often be experienced with a new and successful concept, there is a high risk that you come to something like inflational use of this term. The more this term is being used, the less it is really linked to its specific context. Therefore, I believe it is very important to stop a moment in this year and to ask: Where we are now and what is in front of us?

My friends in Germany know that I always quote an old Spanish philosopher, Balthasar Gracián. He said that **the most difficult part in running is to stand still**. That is exactly the moment we are in right now, twenty years since the Brundtland Report. We should stand still and ask, “What is it?”, “How can we find something like an Archimedic point?” and look for the surroundings and the structures. If we only keep running, we are seeing lots of trees, but we won’t see the forest anymore. Therefore it is good to have these interrelations, World Environment Day on the one side and twenty years Brundtland Report on the other.



It is quite interesting to mention here, with all the experts knowing much more than I know right now on this concrete topic, that the motto of this year's World Environment Day was decided by UNEP and by my good friend Achim Steiner, who is doing a great job to make UNEP going to an even higher level than I was able to do, and the motto is: "Melting Ice, a Hot Topic?" I fully agree with this. However, I have my problem with the question mark in this title. I believe that it is a very specific topic again that we are mentioning this question mark, because we are never sure that what is developed by science will always bring forth the right outcome. Also, in the IPCC (Intergovernmental Panel on Climate Change) Report you learn that there is 90% probability for climate change. I learned always that 100% never can happen, we have always to decide on risk, therefore 90% doesn't earn the question mark in real life, but it is good to mention it anyhow so that each and everybody know this one thing: We have to do more.

IPCC must go on, and hopefully they make in five or six years the next IPCC assessment report. Lots of politicians are coming back and say, "But if you are not sure, why should we act?" We know enough, we know that this can be and must be handled as soon as possible, because the longer we wait, the more extensive will be the cost side. This is the result of Sir Nicolas Stern. So, first let's always be scientifically honest, add a question mark where it is necessary, but don't allow taking this question mark as an alibi for non-action. That is the main topic. I am very sure that we have the legitimacy for action.



By the way, that links directly to the topic of precaution. You know that this is the Rio principle no. 15: that you have to act even if full scientific knowledge is not available. In Rio during the World Summit on Environment and Development, back in 1992, this was one of the most challenging topics. And it still is, if you are setting out to convince some people on the other side of the Atlantic to accept a precautionary principle. You need scientific knowledge to single out where there still are open questions and why you are deciding, nevertheless. Therefore, this is a scientifically approved approach. Of course, we have to cope with quite a lot of priorities in Sustainable Development. And I quote the Rio Agenda again, saying that countries are to adopt national strategies for Sustainable Development, and that they "should build upon and harmonise a value sector of economic, social and environment policies and plans."

So we need those national plans, and we need them on three pillars, on economic, social and environment policy. Therefore, **Councils for Sustainable Development** are not Environment Councils. They are councils on integration, and I believe we have to really underline and stress this to the public again and again. There are lots of people believing that Sustainable Development is Environmental Development. It is much, much more. Therefore, it is not a problem that we have, for example, in other countries as well a Council on Environment giving advice to the Government and the Council for Sustainable Development.

**But if we cannot prove that integration is possible, then the need for this council does not exist.** We, for example, have not only to ask for specific projects for the environment impact analysis. We have to ask for the Sustainable Development Impact Assessment. Because the integration of three targets is more challenging than optimising just a single one. We have to discuss in those councils also what are the trade-offs between the three topics. On the global level, this seems to be even more important, and you can see it in the development in our global conferences. I have repeated it again and again, 1972 in Stockholm, we started with United Nations Conference on the Human Environment. Twenty years later, in Rio de Janeiro, we didn't have the second United Nations Conference on the Human Environment, we rather had the United Nations Conference on Environment and Development.

And believe me, in those days (I was responsible in Germany and I toured the world to prepare), when you came to the Southern part of the world, they always mentioned the United Nations Conference on Development and Environment. In those days, they were convinced that the "D" is more important than the "E", and it was a result of the dominance of the developed countries that we called the gathering UNCED, and not UNCDE. Ten years later in Johannesburg, we had the United Nations Conference on Sustainable Development. I believe that was a clear signal for the need of integration. Therefore, once more, the *raison d'être* for those Councils for Sustainable Development is the integration part of those three topics. If we can do it, then I think we are successful.

I know it is always easy to talk about integration, but it is extremely difficult to practically do it in a government. When you look at the development of environment policy, you will see this. I differentiate four periods in environmental policies: We started with what we call the "high-chimney policy"—we didn't decrease the emissions, we rather increased the height of the chimney. We had also long tubes spilling waste water into the sea, which were a high chimney in a horizontal way. The second period was that we entered the end-of-the-pipe policies; we added a filter at the end and we saw that this was changing but not solving the problem, and then we came to the integrated-environment policy, at the third stage.

By the way, the Environment Minister is something like the "end-of-the-pipe minister". For a long time, when we looked at environment and agriculture, environment and transport, environment and trade, we were always regulating the end of the pipe. But then we came back and asked ourselves, "Is it not better to integrate it?" I only want to make this as a little footnote, with respect to the issues of international trade regulation. Do we want to integrate environment in the negotiations of WTO? Or do we want to single it out in a new organisation? To implement integration approaches in a way that you are not losing the perspective is

very difficult. Therefore, we have to prove again and again that we are not separating, but we are trying to integrate without losing the context of the one to the other. We are right now concentrated a lot on climate change. That is o.k., but we are neither an Environment Council nor a Climate Change Council, we are a Sustainable Development Council. We shouldn't lose sight of the other topics: biodiversity, chemicals.

Keep in mind: If you want to have the best of tomorrow but are not doing the good today, then the worst of yesterday remains.

In the preparation of the Johannesburg Summit in 2002, it was still an idea to make a "global deal" a negotiation target for Johannesburg. I was against the title, because I don't believe that we are "dealers". But the idea behind it was o.k. Developing countries are offering services to the world, but unluckily, these services are global commons, and they are not paid for this. That is a powerful topic.

The problem of our international agreements, and I cannot stop to underline it again and again, and you have to change it, is that they are developed in sectoral isolation and blindness. So, we must come to a much better integration in the chemical agenda. You cannot make capacity building for policies to safeguard the ozone layer and for minimising persistent organic pollutants, and at the end of the day, if you go with me to the Kenyan Government and ask where the experts for chemicals are, and if you find two of them you are very happy. So why are we not making this integration process also on the level of the global scale? I think we can do better.

→ I think a very important step forward is the EU process. What they decided in Brussels earlier this year is what I call an agenda of "three times 20 until 2020". It is not by chance that three times 20, because you have exactly reflected these three topics of energy policy, what we call the miracle triangle. We need to come to competitive energy structures, to increase energy efficiency—and 20% is increasing the competitiveness of this industry. Even if you had no link at all to climate change, you would have to drastically increase your energy efficiency.

The first 20 is mainly concentrated on the first target in this magic triangle of energy policy: competitiveness. Then, the second 20 is 20% renewable energy. We all know that the EU altogether and a number of Member States are extremely dependent on the import of energy. So, do your utmost to make those energies available which do not need to be imported. The 20% of renewable energy are necessary even without any link to climate change. My firm conviction is that those countries will have the advantages in the global markets which address best the ways and means to decrease the carbon intensity of their energy structure. So again, the good step forward in the EU is exactly the integration of the three topics of energy policy: competitiveness, supply safety and environment.

Of course, we know that it is not easy to convince others as well. Therefore, this "three times 20" is decided without the precondition that others do it as well. If others will be going further, we can go further as well. I believe that we have to underline this intensively.

Coming back to energy, let me just pick up one topic, coal. I am very proud that the German Council for Sustainable Development started the discussion on the clean-coal issues three years ago. This was a time when nobody was discussing it. We came to the conclusion, in a nutshell, that we cannot simply jump out of coal, but that we have to ask, “What are the perspectives?” You may know that I am quite intensively involved with China, and I don’t believe that until 2050 we will have the situation where we can run the global economy without coal. We will not. Hopefully we can decrease the amount of coal being incinerated, hopefully. If you see the development, not only in China, in India as well, also in other countries, then you become aware of this challenge.

What can we do? What can we do about **carbon sequestration**? What can we do with more decentralised coal use with a higher possibility of the combined heat-and-power circle? What can we do with new types of coal power stations? In Germany, the average efficiency rate in coal power stations is 35%. If you have a new coal power station, it goes up to 47%. So at least it is rational to come to a totally different structure of our coal power stations.

Of course, others are convinced that this is the wrong way. There is a debate on whether “clean coal” is feasible and whether clean coal contradicts other energy transition options. I don’t jump out of renewables, I don’t jump out of energy efficiency, but I think we have to discuss whether that alone is the right way or not. From my point of view, it is all too simple to say, “I am a purist, I don’t want to see anything other than renewables, and I am not interested in what the Chinese and the Indians are doing.” This is not responsible. We have to do our utmost to bring better technologies to the market in Europe. That is a chance for the environment, a new chance for economic stability.



Let me take another, second example only with a very short step. Our British colleagues, the British Sustainable Development Commission, were the first to publish a brochure emphasising the changing consumption patterns. If you didn’t have the chance to read it until now, please do it. It has a wonderful title: “I will if you will—towards Sustainable Consumption”. Changing consumption and production patterns: everybody is now praising it, because that is again integrating economic, social and environmental topics.

Some say changing consumption patterns means less consumption. Some are convinced that we have an overconsumption, and changing consumption patterns is to decrease consumption. This is a very risky perspective. I will never forget the discussion on consumption patterns when I was Head of the Commission on Sustainable Development. One morning, Mr. Nowitzki, Environment Minister from Poland, came back to the bureau's meeting and he was very angry. He said: "We are always discussing here in the Headquarters of the United Nations changing the consumption patterns, and then I go to my hotel room, switch on the television set, and what they are saying is consumption, consumption and consumption."

Twenty years of Sustainable Development Concept, twenty years after the Brundtland Report, opinion polls show that the term Sustainable Development—in German: Nachhaltige Entwicklung—is not known by the majority of people. Therefore, we must not discuss our issues in a university style, the first two semesters, but we have to act and, by doing so, reach out to the people. There are **quite a few challenges for the European Union**, and I want to mention at least five of those.

First, I think we have to redirect the structural funds. Thanks to the European Parliament, we got a new article, as you know, to the funding package, it mentions the obligation of taking sustainability into account. It fits very nicely into what I asked for before. We have to go beyond environment impact analysis. We have to go to Sustainable Development Impact Assessment, we need systematic guidance and implementation rules for this new article. So, my first point is: redirect structural funds.



Second, we need to build up the demand side of sustainability policies. We must not forget that others are interested in this as well. I never dared to mention changing consumption patterns in development countries, because I was convinced that this is a little bit cynical to ask for in countries where the need for basic food is the main topic. However, I learned a totally different story in China. They ask for changing consumption patterns because they are convinced that the western type of consumption can never be the basis for their development model.

Number three, make communication and Sustainable Development fancy. That is linked with consumption patterns. Do whatever is possible to integrate it fully, and avoid everything that sounds like some theoretical idea of a minor group of believers.

Fourth, I didn't mention it in full detail, invest into sustainable research and development. I believe we will see this very clearly in the overall framework of climate change.

Fifth, link up with local communities. If you go back to Rio and you ask me what the success story of Rio is, it is without any doubt the Local Agenda 21. Lots of cities working in this agenda process made much more than only to decrease energy use—they changed the way of thinking, and therefore we should do our utmost to encourage this process.

These were some of those ideas that I wanted to mention, and I hope that it gives you one or the other idea to discuss in the next hours. 

## The Brundtland Report still Sets the Agenda of Unfinished Business

Volker Hauff

OECD side event to the 15th UN CSD celebrating the 20th anniversary of the Brundtland Report, New York, 10 May 2007



Dear Gro Harlem Brundtland and dear Jim MacNeill, I appreciate that OECD has brought us together on the occasion of the meeting of the UN Commission for Sustainable Development. I thank you both, Gro Harlem and Jim, for your fulminant statements. All I would like to add can be packed into a short message to our audience: I want to encourage everybody to take the Brundtland Report serious.

To my mind, the report has been highly helpful and effective at the time we published it. Its solid basis still provides insights and gives orientation. Thus, read it. Read it again and decide by yourself what has to be criticised, what would have to be modified if written today, what you would add from today's perspective, what should be deleted because it turns out to be wrong.

Tradition means to keep the fire alive and not to admire the ashes. The great French politician Jean Jaurès said this at the beginning of the 20th century, and he can be more to the point today. That is exactly what I advocate. **To celebrate the Brundtland Mission and Report means to update the rethinking of unsustainable trends, and also criticising politics and the lacking ability to address vital concerns of our planet.**





Our Report was helpful: The most powerful recommendation we came up with in our Report was the following: “Within an appropriate period of time after the presentation of the Report to the General Assembly, an international conference could be convened.” This brought the Rio process on the agenda. It provided momentum. In the follow-up, we also see the idea cooling off in some parts of the world. We see complacency. We see selfish uses of the word “sustainability”. But, nevertheless, today we are beyond every doubt of the evidence of non-sustainable trends associated with the most crucial economic, social and ecologic indicators.

Our Report laid out a solid basis: Look at the recommendations addressing population issues, food security, species extinction, energy supply, industry and the urban challenge—those recommendations have proven to be right.

Our report raised critical points that stay in our faces right up to now: If I were to single out the one most important remaining challenge, the management of the commons would be it. Basically, what I see has emerged in the last twenty years are two cultures: The private sector has improved sustainability management, as has the public sector. Some frontrunner enterprise improved Corporate Social Responsibility performance, sustainability reporting and supply chain management. The financial market developed new tools for rating and ranking the sustainability performance of enterprises and thus for measuring efforts in the business community. The public sector agreed to international conventions, stepped forward with partnership projects, set up national and regional sustainability strategies and set up independent national Councils for Sustainable Development.

Management approaches are the crucial part for any success Sustainability Strategies might deliver in the future. That’s why all these efforts are good news. But none of those elements are interlinked with each other. **The two cultures—the public and the private sector—are not communicating when it comes down to sustainability management.** Managing the commons, however, asks to compile and combine these efforts. Since the days of the Brundtland Report, I do not see this question addressed properly and adequately.

You can only manage what you can measure. That old saying is true. We know that measurement is no panacea for good management. But I am sure measuring sustainability with indicators, targets and performance criteria is as close as you can come to a good start into a workable management approach. And that exactly is true for the private and the public sector as well. Kept separated, the two cultures will not be delivering what is necessary. What the two cultures are doing is government. What we need is governance in a crossover sense.

In substance, we are making progress. In Germany, we are about to meet the first-round Kyoto targets. The innovation that renewable energies bring to society and technologies are quite a big story in Germany, as is the improved dissemination of sustainability research results. We steadily improve the recycling economy. The market for organically farmed food is booming. We have a national sustainability strategy.

**Despite all progress made in Germany, we must clearly confess that we are no way nearly on a sustainable path into the future.** With regard to the even modest climate goals on

the global level, our carbon emissions are still far too high. The German energy policy is neither consistent nor efficient. In general, the answer we are giving to climate change is inadequate. The point is not just to mitigate carbon emissions and arrange for adaptation. Rather, what we have to ask is how do we increase energy access and energy security throughout the world, and address climate change seriously simultaneously—the big word in this sentence being the “and”. We have not yet tipped the turnaround point as regards the problem of ever-increasing land consumption.

In Germany, we have a National Council for Sustainable Development, which I have the honour to chair. Established in 2001, the Council is advising the Federal Government on sustainability issues. The Council is an independent stakeholder body. We have initiated a network of SD Councils of EU Member States that is helping us to build capacity.



When work started out for the German National Sustainability Strategy, the key advice given by the Council for Sustainability was trifold: **Don't believe in government as the only actor. Don't reduce the national strategy to the national focus. Don't be bold in headlines without delivering numbers.** Instead, we said get civil society and the private sector involved, go for the bigger picture and reach out for some serious international dialogue efforts, use indicators, targets and timetables.

Bringing the public community together with both the business community and the scientific community is nothing less than asking for a new political style and new governance items. For this, the Brundtland Report had laid the seeds successfully.

In order to cascade political action, you have to solve one of the big mysteries of politics. You have to find the next step which

- opens the door for further action;
- enables further steps;
- attracts and encourages more people to get themselves involved;
- opens the eyes for truth.

To direct the way to this step is leadership. That's what the Brundtland Report was about. That's what we owe Gro Harlem Brundtland.

Thank you, Gro, for taking the first step in 1987, for your steady and firm stand on Sustainable Development ever since, for your admirable ability to transform complex analysis to political action, for your fine humour, which helped us to bring the Brundtland Report to a good end.



# Sustainable Development in International Cooperation

**Bernd Eisenblätter**



## **Introduction**

Especially in the field of international cooperation, we feel a particular responsibility to adhere to the principle of sustainability and to demonstrate that the project aims and results are based on the concept of sustainable development. GTZ is a federally owned company for international cooperation and sustainable development. Our corporate objective is to improve people's living conditions on a sustainable basis. Hence, sustainable development is our company mission statement. In the following discussion, we aim to demonstrate how we contribute to implementing sustainable development in our work and how we enable our partner countries to understand and to integrate sustainable development in their policy decisions.

## **International cooperation for sustainable development**

Since the World Summit in Rio de Janeiro in 1992, considerable progress has been made on the international level in the definition and operationalisation of sustainable development. Rio has established sustainable development as a normative, international guiding principle of the global community which has been largely accepted by the global economic players, the civil society and politics.

In 1992, when this guiding principle was prominently presented to the global public, the dynamics of globalisation were not yet very much noticed and the discussion around the Millennium Development Goals was not yet on the political agenda. In the light of globalisation and the resulting new challenges for developing countries and countries in transition, the General Assembly of the UN adopted the Millennium Development Goals in 2000 and committed to globally strengthen the efforts for international development for a sustainable future for “One World”. The plan of implementation as adopted in Johannesburg in 2002 made reference to the Millennium Declaration of the UN and further committed participants to undertake concrete actions and measures at all levels and to enhance international cooperation. Since the World Summit 2002, there has been a paradigm shift towards the strategy of sustainability, which means that the focus is now on conceptual approaches and methods in order to implement and reach sustainable development. Our responsibility for future generations in our country and any other country in the world makes it necessary to postulate the principles of sustainable development as guiding principles in politics on international, national and local level.



Sustainable development is a principle to which nowadays any organisation involved in international development would subscribe. The conceptual approach of the three pillars of sustainable development—economic development, social justice and a responsible use of natural resources—is being accepted by all the relevant stakeholders in politics, in the private sector and within the civil society. In this respect, sustainable development has become a “sine qua non” for policy-makers and implementers on national and international level. However, when it comes to implementation and operationalisation of sustainable development, the concept remains a goal to be reached in future or when a development cooperation programme is terminated.



The world community is in a negotiation and learning process aiming at fostering economic development, while respecting the principles of sustainable development. **Any such process has to deal with vested interests that hinder fast progress in the international community towards sustainability.** It also reveals the underlying North-South conflict, which is still eminent and in which important aspects on responsibility, economic growth and trade relations still need to be defined. On a country level, that means that trade-offs between conditions for economic development and environmental protection or between policies for economic growth and social transfers need to be addressed. The specific characteristic of the

concept of sustainable development and its special value is the continuous reconciliation of interests between the protagonists of the three different pillars.

International cooperation can play an important role in supporting countries in their processes of developing sustainability strategies. International cooperation can in particular contribute on building capacities, on creating awareness as well as on moderating the discussion process with different stakeholders. The implementation of the concept of sustainability can be seen as the biggest challenge of the 21st century, but at the same time it is an indispensable necessity.

### **Guideline for implementing sustainable development**

Sustainable development cannot be implemented by international agreements, adjurations or formulas. Instead we have to learn to think and deal jointly in the spirit of sustainable development. In order to do that, there are guiding principles that help to operationalise and to internalise the sustainable development aspect in policies and projects. We feel that international cooperation and our work are a very important vehicle in fostering sustainable development by making use of methods and approaches that have been developed out of our work with our partners. Sustainable development has become an integral part of the mission and values of international cooperation.

**One big challenge is to organise our societies in a way that provides the necessary institutional structure, the rules and regulations, and the competencies of actors that are required to define sustainable development goals.** Sustainable development goals would be defined to be those that integrate social, economic and ecological considerations in such a way that the interests of future generations are reflected in the decisions. Social justice is a very important feature of sustainable development strategies: without adequate participation of different groups of society (private sector, civil society, young and old, rich and poor people, women and men), the risk of social unrest and conflict is high. Conflicts, however, represent one of the major challenges and risks to sustainable development.

There is no country with ideal participatory governance structures. However, historic evidence supports the argument that democratic societies provide a solid base to organise successfully the political negotiation process required to define the development goals of any society, and also to define the milestones of the process necessary to reach the goals.

Democracy is based on participation and transparency and requires the rule of law to ascertain those groups and members with opposing views that they will not face political repression or injustice. In many societies, democracy is still a recent phenomenon and has to be strengthened and further developed. The guiding principles that form the basis for the cooperation are democracy, rule of law, and human rights. These underlying principles are necessary for the establishment of multi-stakeholder discussion processes and are an integral part of the German international cooperation. The fostering of good governance means the participation of civil society, transparency in decision-making processes and the budgetary process, as well as accountability.

In the majority of the countries we are cooperating with, our work focuses on the priority areas of democracy, civil society and public administration. It makes major contributions to strengthening state decision-making under the separation of powers. A particular concern is parliamentary control over government actions. Inter alia, we are assisting Montenegro, which is seeking to establish efficient and democratic state institutions, in setting up a supreme audit institution that is independent of the government. To do so, government and parliament need to develop awareness of the issue and be offered advice on legal and administrative questions. Equally important is the networking with European institutions, parliaments and audit offices in neighbouring countries. This cooperation affords the opportunity to strengthen parliament in its ability to make government answerable for its actions. The project is an example for the underlying values which form part of our work, as well as the process-oriented approach in which we combine technical legal advice with capacity development and policy advice.

→ While capacity development for increasing competent participation of different stakeholders is one big challenge, **the second big challenge is to organise and manage the negotiation process that would allow the balance of social, economic and ecological dimensions**. In the long term, the goals of economic development, social equity and of maintaining a sound environment are complementary and can thus lead to a win-win situation, but frequently stand in competition to each other. Poverty reduction in developing countries requires pro-poor economic growth, which can be detrimental to the environment. In this case, the concept of sustainability requires the initiation of a process for seeking a balance of interests. In the best case, this can lead to finding solutions that benefit both sides and generates a win-win situation. However, we have to understand that this cannot always be the case and that there are more areas of conflicting interests in such an approach. The concept of sustainable development provides a normative framework for autonomous parties to negotiate and settle differences in a spirit of partnership. It is apparent from the international discussion on sustainability: issues of power and vested interests play a key role in striving for sustainable development at local, regional, national and international level. **A major aspect in sustainable development, therefore, is to see it as a process of searching and learning, not as a final state to be reached at some point in time**. It entails the ongoing search for new solutions to economic, social and ecological problems in different social, cultural and historical settings.

In international cooperation, this negotiation process and the search for workable compromises can be and need to be supported. GTZ has a strong focus on building the relevant capacities in our partner countries based on the concept of a social market economy to enable the different stakeholders to participate in the discussion process and to allow the initiation of such a process. The process takes place in a highly political context and consequently needs to be addressed.

#### **How can we support this process?**

A shift in attitude and values can be adequately addressed by a holistic approach. GTZ is engaged in all sectors of importance for sustainable development, from economic develop-

ment and good governance to basic social services, environment policy and rural development. In addition to the combination of the three pillars (ecological, economic and social), it is important to initiate and to establish the discussion process with all relevant stakeholders from governmental and private sector, and civil society. This process should not only be held at national, but also at regional and local level, allowing the exchange of experiences, conceptual approaches and guidelines. The different levels need to be addressed in a different way and need specific support and inputs. **It is important not to produce any blueprints, but provide individual assistance based on the specific cultural, local and economic situation of a country.** The holistic approach integrates different methods of advice which include policy, organisational as well as sectoral advice.

In 2005, for example, GTZ together with the RNE has initiated a new kind of international dialogue on the question of how economic growth can be put on a basis which supports nature and society. Together with the BRICS (Brazil, Russia, India, China and South Africa) countries, we have conducted a dialogue in two stages: in the first instance, six national conferences were held, after which representatives from these conferences came together for an international dialogue. The project was based on a process-oriented concept taking into account that sustainability cannot be achieved through state intervention alone, but must be developed by the political, social and economic forces involved. This multi-stakeholder approach involved high-ranking figures from politics, business, science and civil society. The participants appreciated the opportunity to exchange ideas, to learn from other countries' experience in developing a national sustainability strategy, and to discuss issues of difficulties and risks.

Water is a cause of conflict in many countries. How best to manage this vital resource is hotly disputed. Even small changes rapidly develop into highly sensitive political issues, because vital interests are involved, be it irrigation agriculture, access to water rights or municipal water supply and waste water disposal. Substantial amounts of money are at stake and certain interests may benefit greatly from not changing the system. In many countries we support water sector reforms. This support comprises not only transferring technological know-how and providing advice to water supply and waste water disposal utilities. The prime focus is on striking a balance between different interests. We consider the participation of the population in reform efforts as a key to success. Our innovative approaches range from "water parliaments" to supporting consumer associations. Advice is given to governments in concentrating on their core tasks, in decentralisation and separating policy-making from regulatory supervision and services in the water sector. Consumer associations are also supported as points of contact and as advocates of the interests of the underprivileged groups.

**Development is understood as a permanent process that can only create a certain dynamic if the participants of all relevant levels have the capacities to meet the challenge of development.** Any society will have their individual aims and will design their own way how to get there. The concept of sustainability includes a social process of change which results in new views, values and behaviour. The initiation of a discussion and negotiation process aiming at balancing conflicting aims in itself implies the critical review of the own values and behaviours and can lead to a change in behaviour. As already stated above, according to our understanding, sustainable development is asking for a professional change management in

order to achieve a change in values and behaviour. This follows a process-oriented approach where the process and the management of the process are already part of the implementation of a sustainability strategy. The capacity of partner institutions needs to be enhanced in order to empower them and to enable them in the long term to take the responsibility and initiative in their own structures. In this sense, it is important not to replace the partners' local efforts, but to help them to participate in negotiation processes for sustainable development on their own. This often requires a **professional and effective change management process**, as discussed above. In this process, we often act as a moderator between different levels and different conflicts of interest aiming at integrating disadvantaged groups and ecological aspects in the strategy process. In such a process, representatives of different stakeholders are encouraged to sit down at a table together to negotiate conflicting interests, for example ideas for an urban redevelopment scheme in Egypt, when farmers want to establish a cooperative on an oil palm plantation in West Sumatra, or when criminal law is reformed in Chile.



In the public-private partnership project “Common Code for the Coffee Community”, for example, GTZ supports coffee producers, the coffee industry and trade, non-governmental organisations and trade unions in reaching agreement on defining standards for sustainable coffee production, processing and trade. The focus is on large quantities of coffee beans on the shelves of supermarkets in Europe, Japan and the USA. The idea is to apply a basic standard which comprises social, ecological and economic elements in the face of diverse interests. GTZ, in the role of an external moderator, facilitates the negotiation and implementation of joint codes of conduct and practices. These have been developed jointly in a transparent, participatory process by all stakeholders and have been tested in different projects with partners in Africa, Asia and Latin America. Put to widespread use, they can contribute to reducing poverty in the rural coffee regions of the world. By applying efficient cultivation and processing methods, the coffee planters can produce sustainable and hence higher-quality coffee and earn a stable income. They maintain biodiversity and improve the working conditions of their employees. Trade and industry benefit from the secure supply of sustainably produced coffee beans. At the same time, they assume the responsibility for good business practices, environmental protection and human rights in the countries of origin.



## Outlook

Development is a permanent process and cannot be fully planned ahead. **Sustainability is understood as a negotiation process and a process of learning and searching for viable and sustainable solutions.** Sustainability as a development goal cannot follow a clearly defined timetable nor be accompanied by clearly defined indicators. The implementation of the mission statement of sustainable development is a process which takes place at different levels—designing a regulatory framework, creation and strengthening of institutions, initiation of a discussion process within the civil society—and is more than just a management task. The focus is on the **capacity development of the stakeholders** involved and at the ability of the partners to initiate a negotiation process and to establish the necessary structures. The dialogue between national stakeholders and international partners still needs to be identified and continuous efforts need to be made to further develop the concept of sustainability and to integrate this aspect in any political decision. In our approach to international cooperation, the concept of sustainability is an integral part. It is reflected in all aspects of our work, be it reform of administration, legal reform, land reform, urban development, economic development, social system development etc. «

## Environmental Threats and the MDGs

**Cornelia Richter**

*Speech held at the occasion of  
Delhi Sustainable Development Summit 2006,  
New Delhi, India*



I am delighted to have the opportunity to briefly share a few thoughts with you on some of the environmental threats we are facing today, and how they relate to achieving the MDGs.

I am not an environmental expert myself, but rather a generalist committed to international cooperation for sustainable development, which is the mission of my organisation, the GTZ. And yet, from that perspective, in our discussions on MDGs, partnerships and governance we must take into account some of the recent trends in the environmental sphere. They clearly remind us that events like DSDS are timely to build effective partnerships and governance systems to deal with some of these challenges.

Let me share just a few recent facts and trends which have come to my notice:

- In early January this year, just a few weeks ago, Munich Re, one of the leading international insurance companies, has published estimates on economic damages caused by disasters during 2005. The figures are stunning, as they exceed by far figures for 2004, the year of the Tsunami disaster, which was considered the worst year ever. In 2005, worldwide damages by disasters are estimated to be more than 200 billion US\$, against

145 billion US\$ in 2004! Worldwide ODA is around 80 billion US\$, just to give you a comparison. It is difficult not to think of the hundreds of thousands of people killed by the Tsunami and other disasters, and the millions of people affected, but allow me to focus on the economic figures for a moment. These figures state that within the last forty years, disaster-related damages have multiplied by a factor of over 12! And this escalation in costs is basically related to increased incidence of storms and floods, with the bulk of them being climate-related disasters. They alone account for more than 90% of the insured damages. Thus, according to Munich Re, economic risks related to climate change have become a reality, with ever-increasing influence on world markets and economic development.

- In spring 2005, the so-called “Millenium Eco-System Assessment” (MA) was published, commissioned by UN Secretary-General Kofi Annan. This report is interesting, because it looks at tangible services we obtain from ecosystems, and not the environment as such. It concludes, first, that approximately 60% of the ecosystem services examined are being degraded or used unsustainably, including fresh water, fisheries, air and water purification, and the regulation of regional and local climate, natural hazards and pests. The full costs of the loss and degradation of these ecosystem services are difficult to measure, but the available evidence demonstrates that they are substantial and growing. Second, there is evidence that changes being made in ecosystems are turning into severe consequences for human well-being. Examples of such changes include disease emergence, abrupt alterations in water quality, the creation of “dead zones” in coastal waters, the collapse of fisheries, and shifts in regional climate. Third, **the harmful effects of the degradation of ecosystem services are being borne disproportionately by the poor**, are contributing to growing inequity and disparity across groups of people, and are sometimes the principal factor causing poverty and social conflict. According to the MA, the degradation of ecosystem services could grow significantly worse during the 50 years ahead of us and is a barrier to achieving the Millennium Development Goals.
- Equally in 2005, WWF, IUCN and the Global Footprint Network published a report (“Europe 2005—The Ecological Footprint”) containing important news. The “Ecological Footprint” concept measures our use of ecological resources such as food, or energy, or sinks and translates these into land surface required to produce these services. According to the report, **humanity requires 2.2 “global hectares” of productive area per person to sustain current lifestyles**, with a variation between roughly 10 hectares in the US, 5 in Europe, and very low levels in many developing countries. But the Earth currently has just 1.8 global hectares available per person, and bio-capacity per person is prone to further decline due to degradation on the one hand and to population growth on the other. In 2050, 9 billion people will live on this planet, as compared to today’s 6.3 billion. In his foreword to the report, Tony Long, Director, WWF European Policy Office, states that “humanity’s annual demand for resources is now exceeding the Earth’s regenerative capacity by more than 20%, and it keeps growing... In 2005, overshoot is no longer a hypothesis, but a reality.” And we know that where there is overshoot, there will be collapse.

- On 30 December, 2005 AFP reported about China, a country that is so successful in achieving some of the MDGs: “China’s environmental bureau said on Wednesday that underground water in 90 percent of Chinese cities was polluted and that the situation was getting worse. The pollution is generally caused by industrial waste from factories or untreated human waste discharged into rivers and then seeping into the ground. In a report on Wednesday, Xinhua news agency quoted E Jinping, vice minister of water resources, as saying, about 300 million Chinese rural residents, or one-third of the total rural population, drink unsafe water. Previous government reports have said, more than 70% of China’s rivers and lakes are polluted, while about 400 of China’s 600 largest cities suffer from water shortages.”

These trends and figures need to be considered not only by the converted, but by all leaders in governments, business and organisations. It seems clear to me that we cannot discuss economic and social strategies to achieve the MDGs in a meaningful way without taking into account the environmental dimension. There is evidence that the MDGs cannot be achieved, and even less sustained, if we do not succeed in reversing current trends of environmental degradation.

This is not only true for MDG 7, which is explicitly addressing environmental matters, but as well for most of the other MDGs. How will we raise income and nutrition levels (MDG 1) if agricultural land is more and more prone by droughts and floods? How do we alleviate poverty in a country like Bangladesh while—due to climate change—rising sea levels might cover two thirds of the country’s surface in not too far a future? How will we increase the ratio of girls in schools and the share of women in wage employment (MDG 3) if they have to cover ever-increasing distances to collect drinking water and firewood? How will we ensure access to safe drinking water while growing cities and industries pollute our rivers and groundwater? How do we ensure improving health conditions for 80% of Africa’s people, who are depending on medicinal plants and traditional knowledge, while biodiversity losses are speeding up in unprecedented ways?

Environment is in all the MDGs and is far from being a luxury to be dealt with later. Having said that, let me turn to the issue of partnerships and to opportunities which lead our discussions. There are many aspects to that, ranging from international negotiations on climate change or biodiversity, national policies and programmes, agenda setting, incentives, corporate strategies down to local initiatives. There are long-term visions and small, practical steps. But one thing is important: time matters. **The longer we wait, the more expensive the investment required and the greater the risk that critical ecosystems will be eroded beyond the point at which they can easily recover.**

Let me focus on concrete partnerships for sustainable development by giving you a few examples of what we do within GTZ. We, being both a partner in many development projects and a facilitator, bring potential partners together and help them to find sustainable solutions. Our work requires technical expertise. But this is not enough. We are very conscious that moving towards sustainable development requires holistic thinking, participation, negotiation, dispute resolution, value-based approaches and a shared vision of all stakeholders. This is why

we invest a lot not only in our technical expertise, but also in methodology, process management and intercultural competence. Here are some examples:

- Being active in more than 100 countries all over the world, we know that there is much to learn from one another, be it South-South, North-South or South-North. This is why GTZ, in partnership with the German Council for Sustainable Development, initiated the dialogue BRICS+G on “Sustainability and Growth”. BRICS+G stands for Brazil, Russia, India, China, South Africa and Germany. In national workshops and international high-level conferences, leaders in administration, business, academia and civil society from these countries discussed the potential pathways for reconciling sustainability and growth. GTZ facilitated the process. The initiative was met by great demand and very positive reactions.
- In June 2004, the former German capital city Bonn hosted the International Conference for Renewable Energies. This conference kick-started a whole series of international partnership processes aiming at a global transition towards a sustainable energy future. GTZ is proud to having been associated with the Bonn Conference, for which GTZ hosted the Conference Secretariat. As a central follow-up to this event, the Renewable Energy Network for the 21st Century, in short “REN21”, was formed. This network brings together the leading global stakeholders and decision-makers from different sectors with a view to promote policies for the expansion of renewables. The Steering Committee of REN21 has asked GTZ, together with our friends at the United Nations Environmental Programme and at the International Energy Agency, to jointly host the International Secretariat for this important and innovative global policy network. The Secretariat will open its doors this month in Paris.
- Another example, more related to very practical issues at the level of companies, is our PREMA concept, a concept based on experiential learning and interaction. The trademark PREMA® stands for “Profitable Environmental Management” and offers a promising, positive view on “environmental issues” through its basic message: “You can do more with less” by increasing resource efficiency and productivity in your business. The results of GTZ’s “product family” PREMA® are demonstrated by some 300 case studies from all over the world. They include tangible effects, in terms of economic returns, more efficient use of resources, less pollution and positive effects on organisation and workplace safety, with very short payback periods. This is what we call the “triple win approach”. What is important about PREMA® is that it works with small and medium-scale companies, while more formal approaches such as ISO 9000 and 14000 normally don’t suit these clients.
- In many countries, GTZ supports water sector reforms. The support comprises not just transferring technological know-how and providing advice to water supply and waste-water disposal utilities. The prime focus is on striking a balance between different interests. We consider the participation of the population in reform efforts as a key to success. Our approaches range from “water parliaments” to supporting consumer associations. Proposing a range of water supply management models can help

to give direction to the discussions and make them more objective. The case of water illustrates particularly well that harmonising economic, social and ecological goals requires a holistic and participatory approach. The technical term is “integrated water resource management”, the only way to ensure equitable access to water, especially for underprivileged sections of the population, the protection of the environment, and the economically efficient management of water resources and water distribution.

- In the public-private partnership project “Common Code for the Coffee Community” (4C initiative), we support coffee producers, the coffee industry and trade, non-governmental organisations and trade unions in reaching agreement on defining standards for sustainable coffee production, processing and trade. The focus is not on niche markets such as fair-trade coffee or organic coffee. It is about the large quantities of coffee beans on the shelves of supermarkets in Europe, Japan and the USA. GTZ, in the role of an external moderator, facilitates the negotiation and implementation of joint codes of conduct and practices. By applying efficient cultivation and processing methods, the coffee planters can produce sustainable and hence higher-quality coffee and earn a stable income. They maintain biodiversity and improve the working conditions of their employees. Trade and industry benefit from the secure supply of sustainably produced coffee beans (4C coffee). At the same time, they assume the responsibility for good business practices, environmental protection and human rights in the countries of origin. So, the coffee has a good and sustainable aftertaste for consumers as well!
- In national parks in Africa, in Benin for example, GTZ has organised cooperation between nature conservation authorities and the local population. This serves the interests of both environmental protection and poverty reduction: as it benefits from tourism and hunting, the local population is interested in protecting the park. Village group representatives increasingly help to manage the park. Thanks to alternative sources of income from rice and vegetable-growing, the standard of living of the people in the surrounding areas has risen. Women have improved their social position. Local customs are now respected, such as allowing ceremonies in the hunting zone. The population accepts the biosphere reserve because it benefits from it. A local leader describes the change as follows: “The park was not for us. We saw tourists come and go, but we didn’t see any meat or money. If we came close to the park, we were threatened and chased away. Things are quite different today.”
- Let me give you one more example: Hazardous waste is a major problem in many developing countries, creating enormous risks in terms of health and environment. Holcim, one of the world’s largest cement producers, works with us in establishing technologies, but also rules, regulations and standards for co-processing, i.e. substituting fossil fuels and raw materials by defined wastes in cement production. In a strategic partnership, GTZ and Holcim, along with an international expert team, implement this project in countries like China, India, Chile, Mexico, Morocco and the Philippines. To set an international standard, guidelines on co-processing have been developed. These guidelines are welcomed by international organisations such as UNEP and the Basel Convention, but also by government authorities, the private sector and the WWF. They

are accepted as the most comprehensive document on co-processing so far available. In the end, this project creates benefits for developing countries in terms of reducing all kind of waste, and for industries in terms of reducing fuels and raw materials as well as CO<sub>2</sub> emissions.

These are a few practical examples of what we can do, being a service provider specialised in international cooperation for sustainable development. Others can do many other things, and many things can be done together.

What about establishing an annual international award for cities with relatively low ecological footprints, motivating responsible municipal leaders to direct innovation in the right direction? What can business firms do to further spread the idea of corporate citizenship? What about the proposal to fix a price for using global public goods such as the oceans or air space, investing the returns into sustainable development projects? What are governance systems at the various levels which prove to work towards sustainable development, and how do we promote them?

**The goal is clear: joining hands to achieve the MDGs and to move towards a sustainable development path.** This will require lots of concrete actions at all levels—and some of them will hopefully originate from this meeting.

Thank you! «



# People







# Public-Private Partnerships for Sustainable Development

Paula Marie Hildebrandt, Lothar Rieth and Torsten Sewing



## Introduction

Business can only thrive in a sound environment. It depends on legal stability, conditions that permit confident planning, functional training institutions, reliable political governance, healthy employees and a clean natural environment—all of which are also examples of key activity areas of development cooperation. Being confronted with stagnating rates of Official Development Aid (ODA) and concomitantly increasing flows of Foreign Direct Investments (FDI), development organisations increasingly adjust their efforts and try to tap on the material and non-material resources of private actors. In many cases, the classical division of labour between public and private actors can no longer be maintained. As the business community increasingly values the difference made by development efforts, the development community in turn has to acknowledge that **business with its resources, such as financial capital, technical and management knowledge and expertise, is key to achieve development goals**. Voluntary forms of corporate engagement to deal with regulatory as well as compliance gaps have gained importance. Different forms of industry self-regulation can be considered a potential new source of global governance, even if those standards are voluntary (Gereffi, Garcia-Johnson et al. 2001).

As a consequence, partnerships between business and state actors and civil society have been promoted as an alternative paradigm.

The first promising examples in the policy areas of the environment (e.g. the Forest Stewardship Council), health (e.g. the GAVI Alliance) and labour (e.g. the Social Accountability 8000 standards, Fair Labour Association) have shown that sustainable development can greatly benefit from combined efforts in the form of joint financing and complementary strategies of public and private actors. These initiatives have established themselves as a complementary mode of delivery to classic development cooperation.

However, there are constraints on both sides of the potential partnership: While a majority of business actors still reacts very hesitantly when it comes to engaging in any sort of what they see as a political activity, there are objections towards the legitimacy of private actors in development cooperation, too (Brühl, Debiel et al. 2001).

This article aims to illustrate the potential of public-private partnerships in development cooperation. It builds on GTZ's experiences from the implementation of the PPP programme of the German Federal Ministry for Economic Cooperation and Development (BMZ). *Firstly*, the overall opportunities and the importance of partnerships for development cooperation will be discussed briefly. *Secondly*, the necessary management competencies to broker partnerships will be introduced, which will then be exemplified by describing the different roles GTZ takes on as a project partner and as a facilitator of the dialogue between stakeholders as well as for capacity development. In the *final* part, these roles will be critically analysed with regard to the current and future role of GTZ in brokering partnerships.

### Partnerships and development cooperation

Partnerships can have a national, regional or global reach targeting issues of public concern, such as corruption, health and environment. They create awareness and very often link already existing but somehow isolated activities. And, they are important vehicles in bridging the organisational logic of distinct organisations by creating consensus among different groups of people from the government, business and civil society—they are time-bound and issue-specific. Thanks to their capacity to develop unusual and new skills, processes and strategies, the partnerships can be considered as global societal change agents (Wadell 2003).

As **for the private sector, the potential of new markets in developing countries still remains to be discovered by many companies**. Investments in the research and the development of new sustainable products and services are needed in order to harness new markets in poor countries as an active opportunity-seeking, demand-driven and bottom-up process, in the sense of the “bottom of the pyramid” approach (Prahalad 2005). Moreover, new pro-poor products and services, which today still constitute the exception, have yet to be explored.

In general, partnerships in a development context can be differentiated according to a number of criteria, such as the membership, the purpose, the nature of the partnership prod-

uct and the source of financing. For example, the Kimberley Process involved public as well as private actors (governments, NGOs and the diamond industry) in order to regulate the illicit trade with diamonds, whereas the Forest Stewardship Council consists mainly of non-state actors (companies involved in timber trade, NGOs, indigenous people and certifiers) that collaborate to promote sustainable forestry.



However, despite being a very valuable policy tool, **partnerships will never be a panacea for all ills of the development agenda**. The setting-up and implementation of partnerships will not absolve governments and other public institutions from doing their homework and from responding to the constantly changing environment of development cooperation. Partnerships can complement these efforts, but they do not substitute traditional forms of development assistance in an equitable and sustainable way. For partnerships to be successful, the *focus* always has to be very clear and *goals* set have to be realistic (Huckel, Rieth et al. 2007). No partnership will ever be able to remove structural deficits such as governance failure within states; yet, partnerships can provide a stimulating and goal-oriented approach to make a significant first step in finding possible remedies to mitigate the pressing social and ecological problems.

Looking more closely at the implementation side of partnerships, there are also clear limits to *the number and the diversity of actors* that can be involved in effective partnerships. A constructive dialogue will only be possible among actors who bring the necessary openness and willingness to work in partnership and who do not call into question the general potential positive contribution of the partner. During the implementation process, a *central coordination unit* (which could be bi- or tripartite) might be helpful in overcoming potential communication gaps and in smoothing sometimes cumbersome internal voting and decision-making procedures.

Another aspect that is often forgotten when engaging in partnerships is that there are seldom immediate rewards: setting-up and working in partnerships requires *long-term commitment and perspective* in order to circumvent problems and solve difficulties that all actors involved in partnerships will face. Working closely with business has frequently been labelled as a “paradigm shift” and is now widely accepted within the donor community. Nevertheless, aligning with profit-driven entities has originally not been part of the public sector’s organisational culture; it still requires a lot of mediation.

Indeed, working in partnerships is accompanied by risks and by uncertainty for all actors involved. What is therefore essential to the successful implementation of partnerships is a clear goal-oriented approach that is *closely aligned to the core interests* of all participating actors. It is crucial to remember that purposeful partnerships in the field of development cooperation are neither about charity nor about mere public relations.

Even if the final jury is still out on the benefits achieved by the multi-stakeholder approach to partnerships, a number of complex initiatives, such as the Kimberley process, have set certain standards to engaging in a transparent and dialogue-oriented partnership. These standards are much opposed to hierarchical “top-down” types of regulation and provide working exam-

ples to collectively balance and bring about positive change in developing countries' economies, environment and communities.

### Brokering development partnerships

Different organisational cultures require distinct responses to the logics, the cultures and the attributes of each partnering organisation. Thus, brokering partnerships must be seen as a complex task. A broker has to take into account how interactions emerge, how they evolve and how issues are framed in the process (Beaulieu and Pasquero 2002).



**Criteria for successful partnerships include sophisticated, effective management systems and a high degree of legitimacy and/or accountability.** A broker operates as an active “go-between” or “intermediary” between different organisations and sectors (public, private, and civil society) which aim to collaborate as partners in a sustainable development initiative (Tennyson 2004; 2005). The more complex and ambitious the project, the more vital is the broker’s role (Tennyson 2004). Brokering begins with the original idea of collaborating with potential partners and—by showing the differences to traditional approaches—explaining how this collaboration can work. Hence, a good broker should also be able to encourage the partners to “walk the talk” and to practice what was agreed on in a dialogue (Holliday, Schmidheiny et al. 2002). Yet, agreements and common understandings need mechanisms for implementation.

Thus, a broker should be able to facilitate and to coordinate the process and at the same time to take part in implementing the agreed partnership. To perform these two key functions, a broker should be able to carry a certain level of risk and should also be accepted as legitimate by all other participating actors of the process (Tennyson 2004).

Development agencies, such as GTZ, possess a wide range of competencies on the technical, operational as well as on the strategic conceptual level to effectively and successfully broker partnerships. Far from being a mere financing instrument, partnerships increasingly com-

plement traditional development approaches. It might even be described as a new mode of delivery. Indeed, PPP have become an important element of German bilateral development cooperation in order to pool resources and integrate partners from private sector and civil society by making use of their specific resources and competencies.

### Opportunities for PPP

→ Due to its participatory approach, the German PPP programme is often highly appreciated by local governments and communities. **In many partner countries, GTZ is perceived as a platform provider with convening power and access to all relevant stakeholders.** Moreover, an extensive experience in large and complex projects around the world provides a basis for replicating and scaling up individual partnerships to broader initiatives—a strong imperative for the validity of public-private partnerships as conceived by the BMZ.

A long-term goal is to integrate the cooperation with the private sector into the regular technical cooperation portfolio. To achieve this goal, German Development Cooperation works as:

- a) project partner for PPP,
- b) facilitator for multi-stakeholder initiatives,
- c) provider of capacity development.

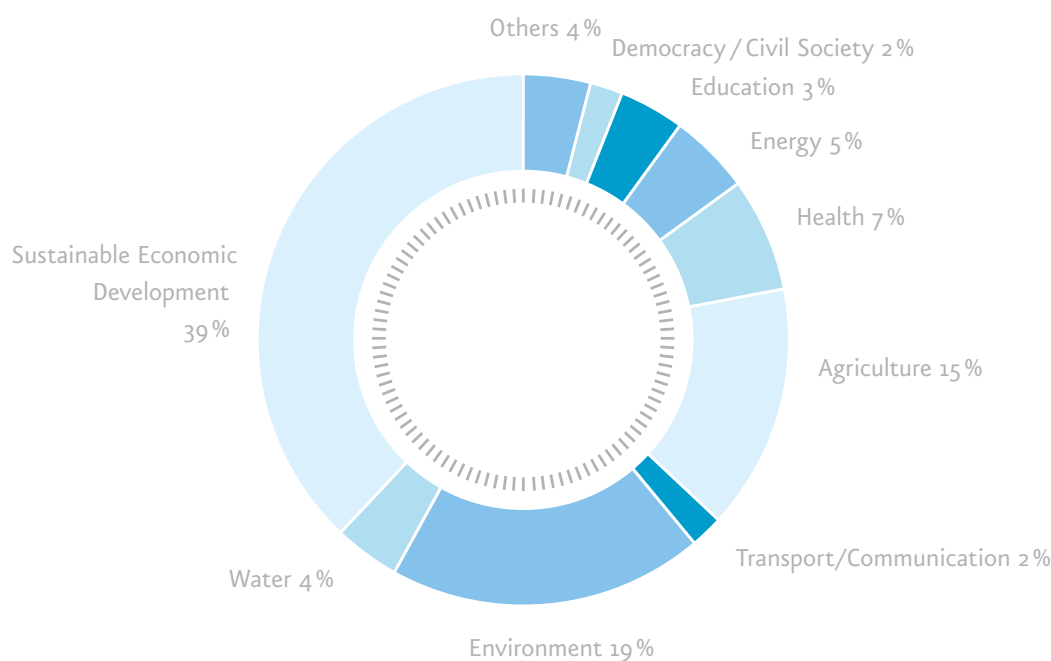
#### Ad a) Project partner for PPP

Implemented in 1999, the PPP programme soon attracted widespread interest among the business community. Businesses are encouraged to approach GTZ or other implementing agencies like DEG or Sequa with a first project proposal. On this basis, the partners jointly elaborate on the concept, determine the individual contributions and plan the implementation. After having passed the internal quality checks, the final decision to approve the project proposal lies with the BMZ.

→ By sharing the financial risks and complementing each other's expertise, both project partners are not only able to learn from each other but also to achieve more sustainable outputs and outcomes. In general, the design and the process of PPP measures are based on the principles of trust, flexibility in design and process, and accountability. **The PPP programme has included a broad range of engagement opportunities for companies,** such as:

- introducing HIV/AIDS workplace programmes,
- supporting the use of modern technology when entering new markets which directly benefit the poor,
- assisting in introducing and operationalising social and environmental standards into responsible supply chain management,
- improving the quality of locally produced goods, or
- strengthening the regulative environment for private investment training.

Experience made in the last years demonstrates the wide sectoral variety of the application of the PPP instrument.



PPP projects 1999–2006: sectoral overview (Source: GTZ)

As of 31 December, 2007, GTZ has implemented 771 PPP projects, of which 475 have been co-financed as stand-alone projects and 296 have been integrated into larger projects of technical cooperation.

Partnering with a single company to share complementary resources and expertise still constitutes the bulk of PPP projects; however, an increasing number of projects include a wider variety of stakeholders. These alliances have led to a number of positive development effects, such as higher impact, more visibility and added inclusiveness.

#### **Ad b) Facilitator for multi-stakeholder dialogues**

On behalf of the German Government and in close collaboration with the German Branch of the International Chamber of Commerce (ICC), GTZ acts as the coordinator of the German Global Compact (GC) Network, i.e. it organises and regularly brings together state, market and civil society actors.

Although often misunderstood, the **Global Compact** is neither a code of conduct nor a regulatory instrument. It **is an action-oriented learning and dialogue platform** that promotes the implementation of its ten principles in business activities (Nelson and United Nations 2002). As an “inter-organisational network” (Ruggie 2002; Kell and Levin 2003) with an expanding set of nested local networks, the Global Compact is particularly well suited to foster the dialogue and the link between good corporate citizenship and the development agenda. Within a rather loose network of heterogeneous actors (companies, business associations, government actors, civil society organisations, think tanks, trade unions, academia, and service provid-

ers) who have different interests and who pursue to some degree divergent goals, the Global Compact provides a neutral platform to exchange best practices and to identify areas for collective action and partnerships.

Another example for the facilitation of multi-stakeholder dialogues is the work of GTZ's Office for Social and Ecological Standards, which organises round tables on codes of conduct and develops participatory approaches in designing, implementing and verifying standards. It also advises the German Government on voluntary certification and codes of conduct (for further information, see "Social and Ecological Standards in International Trade—Impacts and Challenges" in this reader, p. 67).

#### **Ad c) Provider of capacity development**

Capacity development is defined as the process of strengthening the abilities or capacities of individuals, organisations and societies to make effective and efficient use of resources in order to achieve their own goals on a sustainable basis. There is a demand for PPP schemes in developing countries. Building on the experiences from the outlined bilateral partnership activities, German Development Cooperation can provide the **capacity development needed by public actors in partner countries to develop and implement own collaborative public-private and multi-stakeholder partnerships.**



#### **Linking the three roles**

Summing up, there are three roles for an organisation like GTZ to promote the partnership agenda in development cooperation: engaging directly as a partner in PPP projects, coordinating multi-stakeholder dialogues which lead to new collaborative approaches and partnerships, and helping to build the capacity for tailor-made partnership schemes in partner countries.

On the *strategic* level, GTZ acts as a provider of Government advisory services—and this function is complemented by the expertise on partnerships with the private sector. By advising on what may develop into new structures connected to governments in partner countries, it provides a political environment for PPP to thrive in.



On an *intermediate* level, GTZ pursues a two-fold strategy. It acts as a convener, raising awareness and providing multi-stakeholder forums on the role of business in society. Moreover, it identifies marketable ideas, contributes to the development of norms and standards, and pools potential partners for a more specific, issue-oriented approach in tackling challenges in development cooperation.

On the *operational* level, GTZ engages in PPP as a partner, tapping additional material and non-material resources from public and private actors.

On each of these various levels, the roles of public development cooperation are different. These roles are intertwined and they complement each other. Developing capacity for PPP in partner countries often depends on the success of earlier projects. New partnerships are often inspired by structured policy discussions among various stakeholders, and vice versa. And the results, experiences and information gained during individual PPP projects provide valuable insights and impulses for new initiatives on a strategic level.

### Conclusion and outlook

Partnerships with the private sector are no longer a new instrument in development cooperation. The concept has indeed triggered processes that have dissolved former antagonisms between public and private actors. A sometimes adversarial or confrontative mode of interaction has been replaced by a more cooperative and constructive mode of engagement. **There is still a lot of potential to further develop the partnership concept.** For example, in countries and regions where official development assistance is phasing out or declining, partnerships might constitute a useful instrument, or “mode of delivery” for development cooperation, to sustain the results of previous efforts.

Moreover, more and more public institutions in developing countries start to partner systematically with the private sector and other non-state actors. In the future, partner-country-based partnership schemes are likely to play a more important role in development cooperation than donor-driven partnership activities. In this sense, developing capacity for PPP within partner countries is at the core of a joint project of GTZ and the International Business Leaders Forum (IBLF). With members such as Shell, BP, Rio Tinto, Nike, Cisco and Microsoft, the IBLF promotes business as an engine for sustainable development.

The project aims to transfer knowledge on partnerships to governments in a few selected developing countries, thus enabling them to address development challenges in collaboration with the private sector and civil society. Case studies and training programmes will introduce partnership models and processes to governmental actors of development countries in a comprehensive way and serve as a guide for the practical implementation and the institutional handling of partnership projects.

While new and promising partnership tools and approaches evolve, one should not be mistaken that **innovative cross-sector cooperation is still far from the mainstream.** The majority still suffers from the gap that Volker Hauff observes: “I do see two cultures, the pri-

vate and the public sector. Those cultures seem to speak different languages.” (see p. 22 of his Brundtland speech, October 17, 2007) And without a doubt he is right in concluding: “But we cannot afford this gap.” «

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# Making Emission Trading Work for Sustainable Development: What International Cooperation Can Achieve for the Public and Private Sectors

Anja Wucke and Holger Liptow



## The challenge

Climate change presents one of the greatest challenges to sustainable development in the 21st century. The latest scientific findings paint a clear picture: the rise in global mean temperature and its adverse effects are already appreciable and are mounting. To limit this temperature rise to a tolerable level of 2° C, which is the goal that the EU has set, global greenhouse gas emissions will need to be reduced by 50 to 80% by the year 2050.

There is an urgent need for action now to make economic development less dependent upon fossil-fuel energy sources, to make efficient use of existing resources and to limit the degradation of tropical forests. The GTZ, as a company operating in the context of international cooperation for sustainable development, is rising to the practical challenges of climate change mitigation and emission trading and is assisting state and private-sector actors in their efforts to attain emission reduction targets and fulfil commitments. The specific contribution of the GTZ with regard to emission trading is set out below. We first set the stage by presenting the fundamentals of emission trading systems.

### The Kyoto Protocol, the commitments and new markets

→ **The Kyoto Protocol establishes the obligation of industrialised countries to reduce, or at least limit, their greenhouse gas emissions** over the period from 2008 to 2012. The USA—the country with the highest level of emissions to date—has refused to sign the Protocol. All developing countries, including all newly industrialising countries, OECD members such as Mexico and South Korea as well as the Gulf states, which have high levels of per-capita emissions, have not yet committed themselves to any emission reductions.

As a part of implementation efforts in Europe, emission allowances have been assigned to approximately 12,000 installations operated by private and state-run companies. These installations include large-scale combustion plants, mineral-oil refineries, coking plants, iron and steel works, and installations operated by the cement, glass, lime, tile, ceramic, pulp and paper industries. Taken together, these installations are responsible for 40% of EU-wide CO<sub>2</sub> emissions. These emitters must furnish proof of sufficient emission allowances at the end of a given year, or make penalty payments for units emitted in excess of their allowances.

In order for greenhouse gas reduction commitments to be achieved at the lowest cost, the EU allows trading in emission allowances among the companies obligated to limit their emissions. → This is handled under the **European Emission Trading Scheme (EU ETS)**, which is designed to attain the overall EU emission reduction target in the most cost-efficient manner.

In Germany, up to 22% of the emission reduction target of an installation can be met through certified greenhouse gas reductions generated by projects outside the countries participating in the EU ETS. Such projects are planned, approved, carried out and monitored according to the rules of the Clean Development Mechanism (CDM) or the Joint Implementation (JI). These rules were set in agreements adopted during the Kyoto Protocol follow-up process.



The GTZ has worked for many years in a variety of sectors in its partner countries. Through its projects and programmes in the fields of energy, waste management, transport, industry, forestry, agriculture and urban development, the company has access to institutions and networks of relevance to greenhouse gas emission reductions in partner countries. GTZ is, therefore, well placed to assist both state actors and private-sector players in establishing and implementing an international emission trading system.

## The project-based mechanisms

The **Clean Development Mechanism (CDM)** is an instrument designed to integrate developing countries in the international climate regime and in the trade in emission credits generated by projects with net greenhouse gas reduction impacts.

Joint Implementation (JI) is an analogous mechanism for trade in emission credits between states that have committed themselves to reducing emissions under the Kyoto Protocol. These include, among others, Russia and Ukraine.

**According to the Kyoto Protocol, CDM projects should not only bring about emission reductions as opposed to a “business as usual” scenario, but they should also make an appreciable contribution to sustainable development;** this aspect is checked as part of the approval procedure in the developing country.

In order to take part in international emission trading, states must establish authorities which approve CDM projects, and must adopt rules governing the associated administrative procedures. This new mechanism makes it essential to train human resources and to update knowledge continuously. While this applies equally to industrialised and developing nations, it presents particular challenges to the latter.

Companies whose installations exceed the emission allowances assigned to them must develop a strategy in which they prioritise the most favourable and least costly options for reducing greenhouse gas emissions. To do this, they must either strengthen their own personnel capacities or pay for consultancy services. This presents particular challenges for small and medium-sized enterprises, particularly as emission trading is not a part of their core business and their experience with international transactions is limited.

There are more than 1100 registered CDM projects at present. More than 3000 are at an advanced stage of preparation. In 2007, over 25% of certificates were generated by projects in the field of renewable energies, while some 40% came from energy efficiency and fuel switching projects. Almost all countries around the world have now established Designated National Authorities (DNA) for CDM project approvals.

In parallel to the “compliance market”, which is driven by buyers who must meet reduction commitments under the Kyoto Protocol, a second market has emerged for voluntary emissions offsets by companies, organisations and individuals. The “voluntary market” is guided by the CDM rules but not bound by them.

Besides the emission reduction commitments of specific companies, both markets also present new opportunities for the private sector. Services to identify, plan and monitor CDM/JI projects present employment opportunities. Opportunities also arise to co-finance climate-friendly infrastructure in companies and households in developing countries. In an ideal case, improved prospects of gaining access to credit for investments in developing countries arise through foreign direct investment based on proceeds from the sale of certificates.

→ **Establishing a new market involves major efforts to improve information, qualification, training, advisory services and institutional development as well as learning from practical examples such as pilot projects.** “Capacity development” is the term used in international development to encapsulate all these efforts.

### **On the quality of certificates and emission trading projects**

The rules established for the project-based mechanisms aim to ensure that the offset mechanism works. If a source of emissions would be reduced in the developing country even without the incentive provided by the proceeds of certificates, the transfer of technology, or further benefits, then the reduction would not be additional to “business as usual”. This is a point of great relevance to the sustainability of projects and is therefore discussed in greater detail below.

In order to do justice to the concept of project sustainability, emission reduction certificates and CDM projects must be defined in terms of variations in quality. The qualities are defined essentially in terms of the ecological integrity of an emission reduction project and with respect to the additional benefit that goes beyond greenhouse gas emission reduction.

The EU has excluded emission reduction certificates that result from CDM projects in the fields of forest management and nuclear power, as well as those from hydropower plants with capacities greater than 20 megawatts, if they do not meet the standards of the World Commission on Dams. A number of EU countries have established rules on how to furnish proof of compliance with the criteria of the World Commission on Dams for CDM projects involving energy production from large-scale hydropower. The harmonisation of these rules is currently under way alongside discussions with non-governmental organisations (NGOs) on how to render them operable.

A further crucial factor determining ecological integrity is the “additionality” of a CDM project. Each certificate issued by CDM projects in developing countries increases the volume of emission permits available to industrialised nations. It is therefore essential that these emission reductions are “real, measurable and long-term”. Furnishing proof of this is not always easy and remains a key point of criticism of the CDM, despite repeated improvements to the UN rules governing verification.

Another important quality-related point that continues to attract criticism, especially from NGOs, is that of CDM projects designed to reduce emissions of nitrous oxide and hydrofluorocarbons (HFCs), which are known as industrial gases. The UN rules permit such project activities. They are sometimes highly profitable, but scarcely deliver any additional benefit for sustainable development such as boosting employment or reduced air pollution. On the contrary, HFC projects create incentives that work against the Montreal Protocol on reducing ozone-depleting substances.

In response, a group of NGOs has joined to develop a “Gold Standard” for JI and CDM projects. Gold Standard projects are limited to renewable energy or energy efficiency projects and specify requirements for the involvement of affected communities as well as demand proof of a project’s impacts on sustainable development, e.g. the creation of jobs.

**Initiatives launched by environmental NGOs and by the private sector to establish standards for the voluntary market have become particularly important.** The reason is that the voluntary market is driven by buyers interested in certificates mainly for reasons of Corporate Social Responsibility. Standards of social and ecological integrity that meet the criteria of environmental NGOs are the key issue. Various standards initiatives have therefore emerged to regulate the voluntary market, to assess the emission reduction potential of forestry projects and their additional benefits, including biodiversity, as well as various other aspects.



### **The emission trading services provided by international cooperation**

The specific tasks and challenges arising from the comprehensive rules and guidelines for emission trading are distributed among the various stakeholders, and market opportunities are emerging for new types of services. GTZ helps state and private-sector players to perform their new roles and functions, and facilitates their access to the markets. GTZ works for governments in developing countries on behalf of the German Federal Government, its principal client being the German Federal Ministry for Economic Cooperation and Development (BMZ). The private sector can also be a client of official Technical Cooperation, for instance, in the context of capacity development for the CDM. GTZ acts on behalf of German private-sector companies by providing matchmaking services, i.e. bringing together emission reduction credits from CDM projects with German buyers wishing to purchase these. GTZ International Services is the department of the company performing such services. Moreover, GTZ has also been commissioned by the German Environment Ministry (BMU) as of mid-2008 to assist small and medium-sized German enterprises in gaining access to emission rights from CDM projects. This broad range of services rendered for public and private clients is set out in greater detail below.

The table below summarises the range of CDM-related services rendered by GTZ. The range of services is broad and is tailored to the requests received from clients and partners in developing countries.

#### **Range of CDM-related services delivered by GTZ**

- Support for developing countries to enable their participation in the international climate policy process
- Dissemination of general knowledge on the CDM, emission trading and climate policy
- Creation of the conditions for CDM preparation in developing countries
  - Establishing Designated National Authorities
  - Performing national CDM strategy studies
  - Conducting sector studies of greenhouse gas reduction potential
  - Carrying out feasibility studies for potential CDM projects
  - Developing CDM Project Identification Notes (PIN)
  - Formulating Project Design Documents (PDD)
- Further development of the CDM
  - Developing baseline and monitoring methodologies
  - Elaborating programmes of activities
  - Conducting pilot activities for sectoral approaches
- Trade in and procurement of emission rights
  - Sourcing and matching buyers and sellers
  - Brokerage and purchase
- Provision of support for the validation, registration, monitoring and verification of CDM projects

#### **International cooperation—a partner for developing countries**

BMZ, the German Development Ministry, has made the promotion of climate change mitigation a priority of its development cooperation portfolio and, hence, was the first state client of GTZ for CDM-related activities. Indeed, it has remained the most important client in this field to this day. Capacity development has always been GTZ's main focal area, in relation to a broad range of CDM themes. Acting on behalf of BMZ, GTZ collaborates closely with multilateral organisations in the realm of international cooperation such as the World Bank and the United Nations Environment Programme (UNEP).

→ **Consultancy services have concentrated on building institutional and human capacities in relation to the CDM.** This has involved establishing Designated National Authorities (DNA), developing national CDM strategies and preparing country-specific CDM pilot projects.

Working together with the World Bank, GTZ has assisted with the development of national CDM strategy studies in China, Chile and Indonesia. These studies informed the process for drafting national CDM policies, recommending institutional changes for the establishment of



Designated National Authorities, appraising the CDM project potential in a range of sectors, notably the energy sector, as well as identifying initial project approaches.

In many countries, advice on country-specific CDM projects has continued beyond the strategy studies. For individual sectors such as energy, waste management and industry, GTZ has supported studies of greenhouse gas reduction potentials, assessed the feasibility of CDM project approaches and supported the pilot preparation of Project Design Documents. GTZ has always involved the host-country private sector directly in these activities.

GTZ also promotes the further development of the CDM through the production of methodologies for baseline determination, the monitoring of new CDM project types, and the pilot implementation of the new programmatic CDM, which revolves around “Programmes of Activities” (PoA). The PoA approach presents excellent opportunities to financially support and give broader effect to state programmes—such as those designed to boost the use of renewable energies and contribute at the same time to emission reduction—by integrating them within the emission trading system. This is attractive for states and the private sector alike; the former gains financing options for its programmes through the CDM, while the latter is freed of the risks and costs of PoA development, e.g. for its growing complexity compared to a standard CDM project.

India plays a prominent role in the CDM-related work of German Technical Cooperation. To this day, India, besides China, has developed and implemented the largest number of CDM projects. Operating within a component of the Indo-German Energy Programme, GTZ has carried out fundamental capacity development measures to select and develop CDM projects together with its Indian partners since 2003. At present, GTZ is focusing primarily on methodology development and on the pilot development of PoA. **India has been a primary recipient of the GTZ’s CDM-related advisory services based on its major potential for greenhouse gas emission reduction, the CDM entrepreneurial spirit in India, and India’s integration within the Indo-German energy efficiency programme.** All three factors presented the ideal framework to generate synergies.

Together with its partners in developing countries, GTZ is looking for opportunities to combine the rules of the carbon market with other standards. This applies, for instance, to the certification of sustainable forest management in Ecuador and to the development of social and ecological standards for coffee cultivation in Kenya. The demand for certificates in the voluntary market has proven useful in this regard, as it presents opportunities to test new rules which, if successful, can later be taken up in the compliance market.

In support of the debate on sectoral approaches as an alternative to an expanded carbon market after 2012, GTZ also carries out pilot measures in the field. The GTZ recently helped to organise policy dialogues between the State and the energy and cement industries in Mexico. These aimed to explore the feasibility, opportunities and limits of sectoral baselines. In certain sectors such as power supply or cement production, baselines could serve to set specific emission factors, e.g. tonnes CO<sub>2</sub> emitted per megawatt-hour energy generated or tonne cement produced, which should not be exceeded.

### International cooperation—a partner of industrialised countries

The know-how gathered by the GTZ through its consultancy work in developing countries is also sought after by other Ministries in Germany and is tapped both inside Germany and elsewhere. For instance, GTZ was consulted during the development of a German CDM guideline for project developers and, on behalf of the BMZ, is working together with German industry in the emission trading working group established by the German Environment Ministry (BMU).

Cooperation between the BMU and GTZ intensified in 2007. The GTZ developed the strategy for the Ministry's CDM/JI Initiative. The purpose of this initiative is to boost uptake by German companies of the CDM and JI mechanisms, while at the same time fostering the further development of these instruments at the European and international level. **Efforts to increase the number of bilateral CDM projects involving German contributions are an important part of this work.** In the meantime, the GTZ has also been commissioned to implement this strategy in China, India, Brazil and North Africa, with the special goal of facilitating access to emission credits for smaller German companies. In parallel, GTZ also advises the German Federal Government on implementation of the export initiatives for energy efficiency and for renewable energies launched by the German Federal Ministry of Economics. As a result, linkages between the initiatives of the two Ministries mean that German technologies can increasingly be deployed in CDM projects.



### International cooperation—a partner of industry

In Germany, it is primarily the large energy companies such as RWE, E.ON, EnBW and Vattenfall, as well as the KfW banking group, a number of investment companies and several German financial service providers (First Climate, Dresdner-Kleinwort) which are operating in the international emission trading market as buyers of emission credits. Smaller German companies are presently also seeking access to the emission trading market in developing countries, for instance in India and Thailand. They are entering into emission trading contracts and, in some cases, are contributing to investments in CDM projects.

In India, international investors are increasingly taking an active role in CDM project development when the prices quoted by the Indian sellers of certificates are too high. German companies are also willing to engage in this way, but always as a partner in joint ventures with Indian companies, since a pure foreign investment in India would be too risky; Indian bureaucracy is not easy to deal with.

As the GTZ had already provided advisory services to Indian authorities about the CDM, including the DNA in the Ministry of Environment and Forestry, and had also carried out many training courses on project development for numerous Indian companies with German CDM specialists, the German private sector approached the GTZ with the request to make use of the networks it had formed in order to gain access to the emission rights of Indian CDM projects. Corresponding contracts with companies interested in buying certificates were concluded with GTZ International Services. As a result, GTZ is now working for the largest individual buyers of certificates in Germany, and contracts are correspondingly voluminous. **In order to handle the procurement of certificates in India and beyond, GTZ International Services has set up a Carbon Procurement Unit in Gurgaon near New Delhi.** Some of GTZ's clients not only seek certificates for the compliance market, but also wish to purchase Gold Standard certificates that make clearly measurable contributions to sustainable development in India.

PPP measures, also termed development partnerships with industry, are a special form of cooperation with the private sector. These are innovative and exemplary projects in developing or transition countries which the GTZ implements in cooperation with a private-sector company. The condition for cooperation is that the project is not a part of the core business of the private-sector partner, and that the partner delivers inputs that go beyond its core business. The private-sector contribution must amount to at least 50% of overall inputs. CDM-related PPP measures are currently being tested in Indonesia and Brazil.

In Indonesia, a PPP is being implemented within the context of a PoA for mini- and micro-hydropower. The private-sector partner not only provides technical implementation of the CDM component of the projects, but also makes a major contribution to on-site training. In addition, an Indonesian partner needs to be enabled to handle the PoA over its entire duration, manage finances and contracts, and support measures performed by programme stakeholders. A baseline, i.e. the emission situation without CDM support for micro-hydropower, is being developed jointly with an Indonesian university. The experience gained will be made accessible to the Indonesian and international expert community.

The GTZ is also an attractive partner for those companies wishing to offset their CO<sub>2</sub> emissions for reasons of Corporate Social Responsibility, i.e. those that wish to become "CO<sub>2</sub>-neutral". Such companies find in the GTZ a partner which can use its broad in-country networks to facilitate access to certificates. In contrast to buyers in the compliance market, these companies do not wish certificates to come solely from India and China, but also accept them from Africa or other developing countries. For them, the essential aspect is that, in addition to the greenhouse gas savings, the projects make a publicly visible contribution to sustainable development.

The GTZ is also a company with a stake in the voluntary carbon market. Through a voluntary Gold Standard CDM project, it plans to offset the unavoidable and non-substitutable CO<sub>2</sub> emissions that arise mainly from flights of its staff in its offices in Eschborn and Berlin.

### **The future of emission trading and carbon markets**

The private sector urgently needs signals that indicate the future climate regime post-2012.




**The international community needs an equitable and balanced climate agreement from 2013 in order to safeguard the basis for sustainable development.**

The 2007 Climate Conference in Bali launched the official negotiation process for a post-2012 climate regime. The goal of the German Government and of the EU is to integrate the USA and selected newly industrialising and developing countries in international emission reduction commitments, while at the same time improving and expanding the existing instruments such as emission trading and the CDM.

For a multilateral post-2012 climate agreement to be reached, it is crucial for all parties to be convinced that the international climate regime does justice to diverse interests, that obligations are distributed equitably, and that implementation proceeds transparently.

For emission reduction measures to be carried out cost-efficiently, a carbon market which has integrity and encompasses as many companies as possible is advantageous in order to prevent competition distortions. The sooner an agreement is reached, the greater the benefits will be for the international community.

In 2004, the GTZ supported a dialogue process involving sectoral and academic institutions from the industrialised and developing world which produced criteria for an equitable climate regime. The recommendation that emerged from the international expert group is that a mix of criteria should form the basis for commitments. These criteria should be the technical mitigation potential of the country, the historical responsibility of that country and its (financial) capability to mitigate. Per-capita emissions should be one determinant of mitigation potential. This is a demand that has been raised for some time by India and China and slowly appears to be gaining acceptance.

The outcomes of that dialogue process are now becoming increasingly important in the ongoing negotiations. They are thus making yet another contribution by international cooperation to an equitable climate agreement guided by the vision of sustainable development. 

# Social and Ecological Standards in International Trade: Impacts and Challenges

Maria Backhouse, Vera Scholz, Catherine Vogel and Julia Ranke



## Introduction

Since the first ecological and social standards, developed by the environmental and solidarity movements of the 1960s and 1970s, the number of voluntary certification, audit schemes and codes of conduct has steadily increased. Driven by initiatives from individual companies, NGOs and multi-stakeholder alliances, standards are no niche phenomena in international trade anymore but expanding with comparatively high growth rates. Due to this development, social and ecological standards are increasingly discussed as a meaningful market-based instrument to tackle the negative social and ecological impacts of globalisation.

**The German Federal Ministry for Economic Cooperation and Development (BMZ) considers social and ecological standards as a tool that contributes to improve livelihoods and to alleviate poverty.** Since the late 1980s, it has supported a number of standard-setting and sustainability initiatives in sectors ranging from forestry, agriculture and coffee to



textile. This article focuses on German Development Cooperations' experience in promoting voluntary social and ecological standards. In the first section, voluntary standards are briefly contextualised. The second section addresses the interventions and the role of the German Development Cooperation in supporting voluntary certification and codes of conduct, thereby highlighting practical examples. Finally, the impacts and challenges of voluntary standards are discussed on the background of a BMZ evaluation which has been finalised in autumn 2008.

### Background

The growing awareness of the negative social and environmental effects of globalisation has led to an increasing demand for innovative and practicable regulation instruments. In the course of the Rio Process, a complex regime of social and environmental agreements and conventions has raised and constituted the international framework for the implementation of sustainable development.

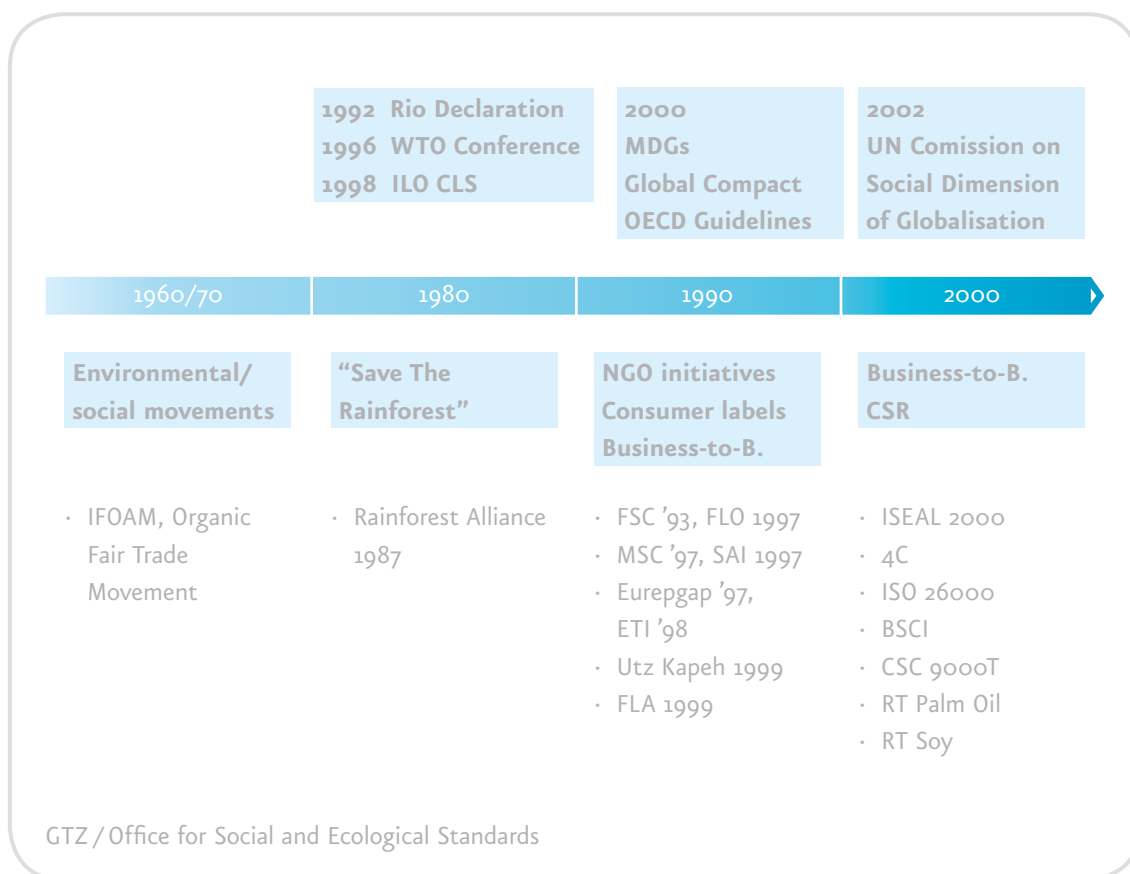
Yet, while few deny the need for further social and ecological development, there is a fairly significant lack of agreement concerning the question of how the ecological and social declarations and conventions should be implemented and enforced. At the national level, compliance with international and national labour law and environmental regulations often exceed national legislators' capacities. At the international level, a lot of agreements lack legally binding instruments and adequate enforcement mechanisms.

Voluntary certification and codes of conduct have been the reaction of different agents from the civil society and the private sector in order to alleviate the lack of international or national regulation, to encourage the enforcement of national rules, or to even go beyond legal compliance.



Although neither a commonly accepted definition nor valid information regarding the number of standards exist, the available data from various international sources suggest that the number of standards is steadily increasing (WTO 2005: 29). The field of standards is very dynamic and has been getting broader in recent years. While the first standards turned out to create niche markets, like organic and fair-trade products with very demanding criteria and

certification systems, there is now also an increasing demand for standards for the “mainstream market”, such as the coffee sector. The chronology below illustrates this development.



Market-driven social and ecological standards are introduced by stakeholders mainly from the private and civil society sectors. Their objectives are to introduce sustainability issues into international and local supply chains and to promote sustainable production and consumption patterns. **Voluntary certification and codes of conduct are complementary to international and national law and regulations.**

### Social and ecological standards in the German Development Cooperation

German Government considers voluntary certification and codes of conduct as a meaningful tool in its strategy for sustainable development, with a view to harmonising the structural change and growth process associated with globalisation. In this context, social and ecological standard initiatives should always refer to international conventions and agreements. This gives standard initiatives legitimacy and increases their potential to contribute to the implementation of international agreements. Furthermore, they should follow a participatory approach. This implies that the standard development process should be set by a multi-stakeholder initiative, including relevant actors of the concerned sector, i.e. private as well as civil society actors from developed and developing countries. Standard initiatives built on multi-stakeholder dialogues develop various practical steps to create, implement and measure

agreements between different agents of society. Measurability and unambiguity are the pre-conditions for the credibility of a standard, since they are the basis for an objective and consistent verification of compliance and for making this verification transparent. Credibility, in turn, is the crucial factor for the standards' acceptance in public and, thus, for their success.

The BMZ has realised the significance of voluntary certification and codes of conduct very early. In the 1980s, the German Development Cooperation already supported organic agriculture in several bilateral projects. Due to the fact that the rather ambitious civil-society-driven standards remained a niche phenomena and, thus, had a limited impact on the target group, BMZ has increasingly broadened its focus onto standard initiatives focusing on "mainstream" market with a high participation of the private sector.

In the course of the debates regarding the need for practicable action in order to achieve sustainable development, the need for closer cooperation with the private sector has become increasingly evident. In this regard, the cooperation with the private sector in public-private partnerships (PPP) has turned out as an innovative instrument since the year 2000. **In addition to the introduction of the PPP Programme, the BMZ has promoted the establishment of the Office for Social and Ecological Standards at the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH in 2001.** The GTZ office for social and ecological standards advises the German Government on voluntary certification and codes of conduct and is among others mandated

- a) to support standard developing processes and multi-stakeholder dialogues,
- b) to support the implementation of standards and codes of conduct via PPP projects, and
- c) to strengthen target groups and institutions by means of capacity development.

Furthermore, its tasks also include knowledge management within the German Development Cooperation concerning the issue of voluntary certification and codes of conduct.

#### **Ad a) Supporting standard developing processes and multi-stakeholder dialogues**

A participatory approach in standard development and implementation indicates a successful process because of a stronger ownership of the concerned actors. However, multi-stakeholder processes are often very challenging because of the stakeholders' different interests. The crucial question is how the participation of key interest groups can be guaranteed in the design, implementation and verification of standards. One prominent example is the support of a project targeting the mainstream coffee market, the Common Code of the Coffee Community (4C).

Initiated as a public-private partnership (PPP) project in 2003 with European Coffee Federation (ECF) and GTZ hosting its management and secretariat until the end of 2006, the 4C brought together the coffee sector's most important players—including roasters, traders, growers, grower organisations, NGOs and trade unions—in order to develop a joint understanding and a concept for the way towards more sustainability in the "mainstream" coffee supply chain. After four years of development in a consensus-driven stakeholder process,



which integrated the perspectives of more than 100 representatives of the most important actors in the coffee sector, originating in more than 25 countries, the 4C was transformed into an independent organisation: the 4C Association. This membership association, registered in Geneva with its office in Bonn, combines a code of conduct for continuous improvement towards more sustainability with comprehensive support services for farmers (such as trainings, educational sessions, tools, access-to-market information and support for more direct trading) and a participatory and transparent governance structure. With this unique concept of combining a minimum standard with broad assistance for its users, 4C is complementary to the existing certification schemes and assists the growers to get easier access to the more demanding systems.

**Today, the members of this still quite young organisation represent more than 65% of the world's potential coffee demand and a large portion of the world's coffee production sector.** Over 78,000 hectares of coffee production—or about 4.5 million bags of green coffee from licensed 4C Units (already more than 3% of the world coffee supply)—have been verified in 15 of the main producing countries. All in all, this project has, after a short operational period, already reached more than 30,000 individuals and about 15,500 business partners to date.

#### **Ad b) Supporting the implementation of standards and codes of conduct via PPP projects**

Social standards are an intrinsic part of Corporate Social Responsibility (CSR) and are being introduced on an ever-increasing scale by companies into their worldwide manufacturing facilities. In 2003, German Development Cooperation launched a public-private partnership (PPP) with the Foreign Trade Association of the German Retail Trade (AVE). The project objective was to improve the implementation of—and compliance with—labour and social standards through the introduction of a unified code of conduct into enterprises. The project focused not only on raising awareness among suppliers and conducting audits, but also on initiating and facilitating national multi-stakeholder dialogues or “Round Tables”. Set up in eleven project countries, the Round Tables served as a platform for the discussion of the relevance and impact of labour and social standards and other CSR-related topics. The focus was on supply chains, in a conscious effort to pave the way for a better cooperation among different stakeholder groups. In close cooperation with AVE, GTZ coordinated all activities in connection with the Round Tables. Thus, GTZ was responsible for the overall project management and the management of the eleven national Round Tables. Furthermore, GTZ supported the project process by moderating the discourse and facilitating mutual information as well as the initiation of dialogues between national stakeholders.

As the final project evaluation suggests (AVE/BMZ/GTZ 2007), both the concept and issues of the Round Tables generally encountered a high level of acceptance and support. All in all, GTZ and its partners conducted more than 65 Round Table meetings with over 250 participating decision-makers in the eleven project countries. These Round Tables reached hundreds of companies, with a total of about 1.25 million employees, as well as civil society and state organisations in China, India, Pakistan, Thailand, Bangladesh, Indonesia, the Philippines, Vietnam, Turkey, Bulgaria and Romania. Thus, this project achieved that the international

debate on CSR is not only driven by stakeholders based in industrialised countries anymore, but also from developing countries.

→ **The PPP with AVE contributed to the setting-up of the Business Social Compliance Initiative** (BSCI) as a common voluntary initiative of European commerce, aiming at the improvement of social standards in the supply chain in terms of credibility and transparency. There are now about 140 retailers, manufacturers and importers in eleven European countries using the BSCI system to improve the social compliance in their supply chain. The BSCI Annual Report 2007/2008 shows that the companies undergoing an audit and/or re-audits employ more than 1.8 million workers.

### **Ad c) Strengthening target groups and institutions by means of capacity development**

Current approaches to improve working conditions in global supply chains are often primarily directed at the control of compliance (e.g. through audits) and the qualification of individual suppliers. Training organisations that offer services for local companies at local prices are missing to a large extent. In addition to these structural problems, there is a methodological deficit: Most training approaches largely focus on the qualification of the management level, whereas the employees are not addressed to the same extent. An innovative three-year public-private partnership between GTZ and the private company Tchibo (2007–2010) is dedicated to the capacity development of local training providers and the qualification of a group of pilot suppliers. The main goals are to derive a reference model for a sustainable implementation of social standards at the supplier level, to contribute to a local market of training services, and to multiply the training tool for a broad base of suppliers and international enterprises. This project is directed at the non-food sector (e.g. companies producing textiles, jewellery, electronic devices) and is implemented in Bangladesh, China and Thailand. As a basis of improving social standards, technical training on the main social standards issues is linked with dialogue training for management and workers. Thereby, it leads companies to jointly tackle problems at the factory level and to agree on common solutions.

→ As the project just started one year ago, it is not possible to assess its impacts yet; however, **the available evidence suggests that the market-oriented approach of this three-year project is very well received by all relevant stakeholders** (e.g. suppliers, other training organisations, NGOs, international brands/buyers, development agencies). An impact assessment will be carried out at the end of the project.

### **Impacts and challenges**

To date, there is only a limited knowledge on how the implementation of voluntary certification and codes of conduct impacts on the livelihoods of those who are affected by them. Comprehensive impact analysis of standards and standard initiatives could help to identify critical factors for the success of such initiatives. They could also provide answers to the question of whether the instrument of voluntary standards could be adapted to achieve the goals of its promoters more effectively. Therefore, the analysis of standards' impacts is one of the key challenges so far.

However, this does not mean that there is no impact assessment which provides insights into standards' impacts. Impact assessment has moved ever closer into the focus of interest of certification bodies, institutions, government and donors. Furthermore, **impact assessments are a crucial instrument of the German Development Cooperation**. A recent evaluation regarding the impacts and challenges of standard initiatives which have been supported by German Development Cooperation suggests that social and ecological standards can contribute to more efficient, environmentally safer and socially more equitable production conditions around the globe (Como 2008). Thereby, standard initiatives can contribute on the social, ecological, political and economical level to the reduction of poverty. Some crucial impacts shall be outlined subsequent to the GTZ projects introduced above.



At the social level, for instance, improved working conditions raise the degree of producers' organisation and can lead to increased workers' income and food safety, and thereby contribute indirectly to poverty reduction. One important precondition for the adoption of social standards in the area of working conditions is to raise the companies', suppliers' and employees' awareness of the social and economic benefits of standards and to introduce a dialogue process among them. The multi-stakeholder dialogues regarding CSR of the above-mentioned AVE project have turned out as suitable and sustainable instruments in creating public awareness and initiating a fruitful discussion among the different stakeholders in several countries. In China, for instance, the Round Table became one of the most important CSR forums in the country within a short period of time. The number of stakeholders more than doubled over time and consolidated at a high level. Furthermore, two initiatives are rooted in the Round Table: the China CSR Map and CSR Donor Meeting, both of which aim to improve networking and cooperation among stakeholders active in the field of CSR (AVE / BMZ / GTZ: 2007).

At the ecological level, forest standards reduce deforestation, while agrarian standards reduce the use of pesticides or negative impacts through deficient waste and energy management. Thus, **they can contribute directly or indirectly to the preservation of biodiversity and to the protection of soil quality**.

At the economical level, social standards, for example, induce better market access for small-scale farmers or producers. Moreover, as the above-mentioned 4C project in the coffee sector shows, they raise productivity, quality, efficiency and competitiveness by improving management and technology.

Further impacts of the 4C project, for example, are already visible in the improved livelihood of coffee growers worldwide, which can be attributed to different project activities. The improved level of organisational structures achieved by these farmers has increased transparency, reduced fragmentation and, as a result, led to a better repartition of gains along the value chain. The sustainable practices at the farm level have induced not only better quality, increased productivity, more efficient management and reduced costs, but also less need for pesticides. Thus, they have contributed to the protection of the environment and to a reduction of costs while at the same time facilitating an easier access to higher-value markets.

→ **However, there is still a long way to go. To date, only a small fraction of companies are taking part in standard initiatives or are implementing codes of conduct. The same can be observed regarding the commitment of the governmental bodies especially in developing countries.** International standard initiatives are often seen as hidden non-tariff barrier of the Western countries. The lack of knowledge regarding the complementary character of voluntary standard initiatives and their potential to strengthen mandatory regulations impedes the necessary governmental commitment and, as a result, the effective spreading of these initiatives.

Another challenge is the fast increasing market of standards, which confuses producers, consumers as well as potential stakeholders and causes the risk of unnecessary additional certification costs because of repeated certification or building up parallel structures and counterproductive competition between standard initiatives.

One more challenge is the concentration of the standard initiatives on the export sector. Especially in developing countries, for example, most illegally harvested timber is consumed at the domestic market. So, the integration of standards in the export market does affect the domestic market only marginally.

Voluntary standards cannot replace international and national regulation and enforcement, but still can be crucial additional tools; i.e. they are rather market-based instruments which can supplement existing governance failure at the national and international level. Yet, their significance will increase because the economical globalisation proceeds faster than the development of an international and national regulation regime. Thereby, the challenge will be to link standards and international regimes to ensure that neither of them blocks the development and impacts of the other one. This also includes the need to maximise impacts and to enhance complementarity among voluntary initiatives.

Furthermore, **there is a need for a broader application (scaling-up) and mainstreaming of standard initiatives in order to raise private sector and government commitment, to reduce certification costs and, finally, to extend this useful governance tool to all relevant levels.**

The evaluation concludes that the interventions of German Development Cooperation with its support of social and ecological standards have contributed to the implementation of sustainable development in the different sectors. The strategy of adding cooperation with standards at the so-called “mainstream” market to its support of organic and fair-trade standards has been found appropriate. Accordingly, its interventions have been applied in the appropriate places in order to promote and support standard initiatives. Especially the PPPs are seen as a suitable instrument for cooperation with the private sector in a flexible manner. «

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# The Impact of Environmental Science on Political Strategy

Klaus Töpfer

Keynote address to the 4th BMBF Forum for Sustainability

“L2L Sustainable Neighbourhood—from Lisbon to Leipzig through Research”,

Leipzig, May 2007;

transcript of the oral presentation



“From Lisbon to Leipzig” provides a signal that cannot be underrated. I have read in the preparation paper for this conference that it is the aim of this conference “to position sustainability research as an engine for European competitiveness within the Lisbon Agenda.” What a sentence! An engine!

I have no doubt that this is exactly what we need: an engine. We do need a new driving force to increase our sustainability thinking and, by doing so, to increase well-being and competitiveness throughout Europe. But there is more to this. Actually, I think Europe, in these days, needs more than just one single engine. Up to recently, EU was in a crisis situation following the failed referenda on the European Constitution in France and the Netherlands in 2005. The so-called “period of reflection” has not brought about a solution that would satisfy all Member States.

Europe needs to come to grips with the long-needed institutional changes. Thus, we will need quite a couple of those engines: engines for the constitutional process, engines for the financing scheme and engines for the European social and environmental model.

We currently face a trend towards what I would call an oligopolisation of the world. As opposed to an ever more fragmented world that could only be assessed nation by nation or on the level of regions, we now see political blocks of nations entering the global agenda with their issues. Take the Mercosur—the rising common market in Latin America—as an example that will once live up to a political strength similar to the one the European Union has now. We should keep in mind that, at the times of Jean Monnet and Roger Schuman, Europe also started out as a joint endeavour of economies, as was best expressed by the then Montanunion.

If you take a closer look into the relation of the Bretton Woods financial instruments to the United Nations system and if you look into the ever-increasing trend of the globalised private sector, my point is: Whereas major economic trends are globalised, politics are fragmented or regionalised at best. Worse, **environmental politics on the global level are compartmentalised to an extent that makes integrated thinking a far-reaching goal**, but nothing you would see on a day-to-day basis.

I think what has to stand in the core of those change engines in Europe is the sustainability issue. The recent decision of the European Council on the climate objectives, biofuels and renewable energies from March this year is proof. The “three times 20” solution is a major move, indeed. It asks to increase renewable energies to a 20% market share, to reduce carbon emissions by 20% and to achieve 20% more resource efficiency. This decision is what I hope will turn out to be a tipping point. For both the environmental agenda and the agenda of European competitiveness, ambitious and front-running climate goals are engines.

Environmental politics have achieved a lot in Europe since the 1970s. But still, our generation will hand over a planet that we do not use in a way that could be sustained and is suitable for a population of somewhere between six and nine billion people that are putting an end to poverty and increasing life quality.

- Glaciers are retreating; we are “successfully” melting down the permafrost and get the Greenland West Antarctic ice sheets to vanish.
- Our impact on the Arctic and Antarctic ecosystems affects even the polar bear.
- The number of heat waves and the warming of rivers and lakes are increasing.
- We are changing the migration patterns of birds and fish.

This all is already happening in the Northern hemisphere. And this is only a fragment of the tremendous impacts climate change has on the social and economic vulnerability of people in Africa, the Small Islands and, in general, on people living under the conditions of poverty and already degraded water and soil resources.

The impacts of climate change will vary regionally, but are very likely to impose a net annual cost that will increase over time, as global temperatures increase. Climate change is about economics as much as it is about the ecology.

That is why we need to set ambitious long-term goals to drastically reduce CO<sub>2</sub> emissions. For the European Union, it is an ambitious goal to reduce carbon emissions up to 20 respectively 30% by 2020. Take the example of Canada and even some of our European neighbours: While others are disavowing their Kyoto commitments and are backing off their once proclaimed reductions targets, the European Union is sending the right signal. We have to get serious with greenhouse gas reductions.

I am positive that we even can do better. We can pursue more effective sustainability strategies. And we can deliver more CO<sub>2</sub> reductions than we did in the past. That is exactly where research and development come in as a new driver. Therefore, my sincere thanks go to the host of today's conference. It is innovative to provide this forum. It is good to link the sustainability debate to current research in this field. I expect the interaction between policy, economic and research communities to come up with future research issues and new ways of understanding between the communities. All this will help to better distribute research results, to foster cooperation and to speed innovative processes up.

If you travel the world, as I had the honour and the privilege to do in the last nine years, you will learn two things:

1. The world is in deep need of exactly what this conference is setting out to achieve. The world desperately needs a new momentum to sustainability research and sustainability initiatives.
2. **The world looks out for the European Union to, finally, maximise the effectiveness and impact of research to its renewed Sustainable Development Strategy.** In particular, the countries with emerging economies know about the key role of research for sustainable development, and they are carefully watching how we are linking research and stakeholder involvement, because they know that this is the key for excellence in producing real world results.

The title of my keynote asks me to predict future impacts of environmental science on political strategy. This is a demanding task. It is always difficult to describe what will possibly happen in the future. I feel always reminded of the great dictum by Niels Bohr, the Danish physicist: "Prediction is very difficult, especially about the future."

However, the good news is that there is another common saying. It defines the term "future" and it says that future, more often than not, is something that is already there even before we may reckon on it at all.

In essence, that is exactly true for the future impact of science on political strategies. What we are looking for is already there. Granted, it is there in small scale, maybe too weak, and clearly in some only emerging state of beginning. And, of course, the impact of sustainability



thinking is still somewhere in the margins of an otherwise indifferent mainstream relationship between science and politics.

What about the political impact of environmental science? In short, I am **advocating more scientific impact via more R & D output in terms of quantities and increased quality of sustainability science.**

Why do we need more research money, more researchers, more programmes? My point is that the problems and issues we are talking about will not disappear or weaken by themselves. On the contrary, they will stay right in our face, and they are very likely to increase and to challenge our society. More and more, it becomes obvious that global change is challenging the way we are consuming, travelling, and trading commodities and products, and the way we are thinking and communicating. All that will happen in conflict with vested interests. And it will demand new and innovative ways of transitional thinking and researching. Take the example of the challenging task to change our consumption and production patterns.

Scientific contributions to this endeavour are most welcome. However, they have to be brought forward in due time to be effective. That means we need scientific evidence and scientifically-based concepts to change production and consumption patterns well before those patterns have manifested in vested interests.



With increasing environmental damage in the future through our production and consumption patterns, we will have to increase in-depth analysis into effects, drivers and responses, adaptation and abatement.

With the Millennium Development Goals (MDGs), the United Nations addressed major requirements for a globally sustainable future, which the Johannesburg “Plan of Implementation” underlined in 2002. The MDG range from halving extreme poverty to halting the spread of HIV/AIDS, providing universal primary education, and ensuring environmental sustainability. These targets are to be achieved by 2015, which practically is the day after tomorrow. They have galvanised unprecedented efforts by the UN and on states level. But I can’t see how our current business-as-usual approach will successfully come to meet these requirements. On the contrary, economic growth is outperforming our nature capital on the global level.

The devastating political and social result of this can nowhere else be seen more clearly than in Africa, be it the failed states or be it the decrease of life expectancy people over there are facing in large areas.

→ Also in **Germany, we are far from addressing the sustainability challenge properly, although we definitely have made some achievements in nature protection and environmental quality.** We do not see any foam floating on Germany's rivers. We improved surface water quality drastically. The salmon is coming back, as is the wolf because of the large-scale biosphere reserves and national parks. We finally stopped the acid rain and we improved chemical hazards abatement.

This was achieved by political decisions that did not wait for a complete scientific consensus on causes, impacts and effects. In particular in environmental policies, politicians have to come up with decisions under uncertainties. The example of the extinction of species and the devastation of soils are showcases for the need to take decisions under uncertainty. If we would want to wait until science presents full certainty, our issues would simply be gone and we would have run out of options to safeguard the environment.

As I can tell from my own experience as an Environmental Minister, science can sometimes be very seductive. You always find scientists who pretend that it is too early to take action. They want to continue research and for them it is a horror to hear a politician saying, "Even if our knowledge is incomplete, evidence is there to take action." This statement can spoil research applications. And there are, of course, politicians who take the message of incomplete knowledge as an alibi for inaction.

Therefore, it was one of the most outstanding efforts of the 1992 World Conference in Rio de Janeiro that we succeeded in establishing the precautionary principle in paragraph 15 of the Rio Agenda. With the implementation of the precautionary principle, people began to understand that the scientific evidence that we need has to take probabilities into account, has to identify and assess the confidentiality of its findings, and finally has to improve communication with stakeholders and society.

While the precautionary principle required this new quality of science in dealing with uncertainties, sustainability policies require science to come up with an extra skill: the integration of knowledge.

→ "Integration" is exactly my key point today. I do not want to be misunderstood: **Integration is in no way opposed to disciplinary excellence. We need scientific excellence drilling deep into the issues,** with all scientific methods that sometimes seem a little bit reductionist, at least with the eyes of environmental policies. I am very much in favour of the recent initiatives to encourage scientific excellence in Germany. But at the same moment, we also need scientific work that puts the picture together and delivers integrated solutions. Otherwise, our scientific proposals will turn out not being sustainable. The current run on biomass energies might serve as an example. Some activists in biomass energies seem to approve biomass as a silver bullet for climate change policies, not noticing that biomass abates CO<sub>2</sub> emissions by

increasing the greenhouse relevance of laughing gas emissions (N<sub>2</sub>O), which has a comparably even higher climate impact at the same time. I am worried by the greenhouse impact of N<sub>2</sub>O that we will see increasing with the growing renewable fuel supply through bioenergies. The same is true for the greenhouse impact of methane from livestock.

There are so-called “no regret” measures for decreasing CO<sub>2</sub> emissions. “No regret” means that you will have to reduce carbon emissions anyway by way of replacing outdated industries or changing into new forms of energy supply. However, calculations of harvesting quota in greenhouse gases have to be integrative and comprehensive in order to take sometimes hidden side effects into account, or they would not make any sense.

The general lack of integrated solutions is instantly clear when you look at soils. In my mind, soils are the forgotten environmental compartment. That is because in soils all other environmental compartments integrate in ecosystems. However, we seem to continue to lose soil and habitats that are the basis for biodiversity. The land consumption for settlement and urban sprawl is persistently too high. So far, we did not reach a turnaround point.

Compared to the International Convention on Climate, the International Convention on Desertification and Soils has started out with no relevant financing mechanism and with no integration link to other international environmental regimes. Still today, **this deficit hinders soil protection policies to be integrated and effective.**

Integration of single-issue driven solutions is also needed in terms of the environmental impacts by new materials that we use in information and communication technologies. And it is clearly required when we look into our mobility infrastructure. Decentralised energy feed-in into the grid and new intermodal mobility options provide for new infrastructure concepts, in particular when applied to regions where demographic change leads to a decrease in population.

Historically, science and engineering is an asset for Germany. There is no doubt. After all, we are still a world leader in environmental R & D. I had a look into the abstracts provided on this conference’s website. My congratulation to the authors and to their research teams: the topics are well chosen. Almost all relevant fields of interest are covered. This should encourage the science organisations to continue efforts and investments into sustainability research, also reaching out to globally relevant issues.

The example of China shows us a paradigm for the emerging economies in the world. The emerging prosperity is challenged by environmental losses. China is the first country that mustered the braveness to come up with a “Green GDP”. This is a calculation of the gross national product that subtracts environmental losses from the Nation’s welfare. It shows: ecosystem losses outscore prosperity gains.

I know from many discussions with Chinese politicians that there are dedicated and well-educated people over there. They are really working hard to come up with some new and bright ideas about environmental policies. And they are watching out for what we do here in

Germany. To give you only one example: China is about to foster recycling schemes and even to introduce principles of a circular economy. And of course, they looked intensively into the German role model of the *Kreislaufwirtschaftsgesetz*. They want to know more about our lessons learnt and how we would update our concept of recycling today. And then, instead of high-level strategic debate and scientific up-to-date research into technologies and social innovation, all they get to know is some political filibustering and arm wrestling about what we call the “*Dosenpfand*”. This is not what they expect us to do.

It is the same with the topic of urban development. In general, German engineering is known for two things: the technological skill and the ability to integrate sectoral and single-issue techniques into an integrated solution. But in the field of environmental science, we do not live up to those expectations. Take the example of housing and urban development. Sectoral innovative technologies for energy-efficient building material, air conditioning, solar heating, geothermal systems are impressive. Now we have to integrate them into an overall greening of urban design. We have to deliver the embedded engineering.



As mentioned above, I advocate the qualitative side of sustainability science. We can build on some very good examples. For the Stockholm Conference on the Human Environment in 1972, the International Council for Science contributed a major report on global environmental monitoring at the request of Maurice Strong, the Secretary-General of the Conference. For the UN Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992, ICSU served as special science advisor to Maurice Strong. In preparation for the Rio Summit, ICSU organised a conference on an “Agenda of Science for Environment and Development into the 21st Century”. The document became well known as ASCEND21. It helped focus the efforts of the science community on issues related to science and sustainability, but ICSU did not have a formal role in the Rio de Janeiro Conference. A major difference at the Johannesburg Summit was a better involvement of the research community.

Thus, we already have some starting point. With Rio, it became clear that sustainability is an integrative and innovative concept. With ASCEND21, it became clear that sustainability strat-

egies give way for a new framing of research concepts and interpreting research results. The concept calls for the conceptualisation of research items and methods beyond disciplinary limitations of science. Rather, it lies at the foot of the hill. To make it part of the mainstream science, some say, would be an uphill battle. But I see some encouraging moves.

It is good to have the *Forschungsprogramm Nachhaltigkeit* FONA. It is good to have the Darwin Initiative in the UK, for example. It is good to have some well-known global crosscutting scientific consensus building mechanisms that already have an input on policy-making. I will only mention the Millennium Ecosystem Assessment and the Intergovernmental Panel on Climate Change.

In 2000, the UN commissioned the fundamental interdisciplinary research programme “Millennium Ecosystem Assessment (MA)”. The MA assesses the consequences of ecosystem change for human well-being and the scientific basis for action needed to enhance the conservation and sustainable use of those systems. Its focus on ecosystem services and their link to human well-being and development needs is unique. Thus, the assessments synthesise information that has previously technically been available, but has not been usable politically.

The assessment built a consensus view of a large interdisciplinary body. The examination and integration of existing information provides new insights that can only emerge when linked and assessed together. Synthesising contributes to political decision-making.

The Intergovernmental Panel on Climate Change (IPCC) assesses trends in the physical and biological environment and their relationship with climate changes. IPCC builds on previously available studies. It is a hybrid, with all consequences of hybrids. It was first set up to define and present the state of knowledge. Defining the state of the art is nothing extraordinary in science, because that is what scientists are doing all the time when assessing new research approaches. But for the first time ever, IPCC is doing this on a global level, with a scientific topic that is highly complex, and in an inclusive and transparent way. Later on, the working groups on impacts and consequences and a third one on action and policy options were added. All of them work under the overarching motto that IPCC is policy-relevant, but not policy-prescriptive.

IPCC has achieved high political influence and forms political processes. Advice is requested by politicians. As an intergovernmental panel, scientists are obliged to negotiate their findings with governmental representatives to jointly agree a summary for decision-makers. This task, sometimes seen as awkward, time-consuming and watering down the findings, makes sure that there is a political response to scientific evidence at all. Besides, it is the best guarantee IPCC could have to make news and to show up in headlines. IPCC in itself is a new model of providing scientific advice for politicians. As opposed to commissions with a restricted number of selected mandated members, IPCC applies the rules of inner-scientific quality assurance and debate of findings via the review system. Thus, IPCC is building scientific consensus by scientific methods that are transparent and reliable and that involve as much scientists as possible, and builds ownership.

Although, every now and then, some scientists from outside question the consensus of the IPCC, the baseline findings of man-made influence on climate of the Fourth Assessment Report are not subjected to any kind of doubts. IPCC shows the effectiveness and well-functioning of interdisciplinary work. It also underlines how useful it is to establish long-term research programmes and to allow for continuity of research. It displays integration of scientific thinking and economic- and policy-related arguments.

I think the world would be a better place if the science community had some more of these scientific integration schemes. Undoubtedly, it would make a lot of sense to tackle the problems of soil losses and land degradation, biodiversity or marine biology and fishery in a similar approach.

Most valuable, and maybe even more valuable than all programmes and research platforms, is what I perceive as a deep yearning among young scientists: to go for the big picture and to seek answers to unsustainable trends in ecology, economy and the social welfare. They are asking the right questions. They are motivated to look into highly complex matters. They have no doubts that they will carry out reductionist research methods singling out cause-effect relations. Their yearning is to put the puzzle together—as an interdisciplinary task. This curiosity is our asset for the future of scientific thinking.

We need excellence in all aspects. Science needs to go beyond our current approaches to find adequate responses to our collective choices. Specialisation is just as necessary to come up with innovation, as interdisciplinary and transdisciplinary synthesis is. Good science is participatory science in order to generate the benchmarks for collective action or inaction.

We have to overcome structural obstacles to interdisciplinary and transdisciplinary research. We need to address the coexistence of specialised and inter-/transdisciplinary research.

It is good to have the German High-Tech Strategy. It is a national strategy for innovation policy. It is good to speed up the dissemination of research results into products, processes and services. Creating platforms for dialogue between experts from government, industry, civil society and science is exactly what we need in order to enhance the German performance in the most important scientific fields, such as energy and resource efficiency, the cleaning-up of fossil energy supply, renewable energies and environmental technology.

I would like to encourage everyone in the Ministry as well as in the science community to go along this way and to completely link up with the challenge of producing benchmarks to our future. **Sustainability is a surprisingly good method of framing research problems, searching solutions and putting together what otherwise would remain mere sectoral approaches.** National Sustainability Strategies are built around targets, timetables and indicators that provide excellent opportunities for science to hook onto and to provide impact on the questions at hand.

To conclude my expectations on science and sustainability, let me point out that science is as much at the heart of good policy-making for sustainable development as it is for any other

policy-making. Providing evidence for decision-making helps us to find new policy solutions and to identify and tackle future issues. I believe that good science is crucial in maintaining a high quality of the Sustainability Strategy for Germany.

It was the British Prime Minister Winston Spencer Churchill who said, “Let our advance worrying become advance thinking and planning.” Indeed, with a strategy of targets, timetables and policies we can lead our way into the future and we can—and we must—encourage research and thinking to provide us with the appropriate solutions.

After having talked so much about science, excellence and other highly intellectual schemes to produce discoveries, I would like to end with a little hint as to the real life. I borrowed this from Albert Einstein: “Sometimes, the intellect has little to do on the road to discovery. There comes a leap in consciousness, call it intuition or what you will, and the solution comes to you and you don’t know how or why.” ◀



# Sustainable Development and Fragile Statehood

Angelika Reder and Albrecht Stockmayer



## What does fragile statehood mean?

In large areas of the world, above all in sub-Saharan Africa, in the Arab world, in the Caucasus, in Central and South-East Asia and in the Andean region, the everyday life of large sections of the population is characterised by the effects of fragile statehood.

→ **A defining characteristic of fragile statehood is that core state functions in the areas of security, welfare and the rule of law are not fulfilled, or are not fulfilled adequately.** The state is weak and has little capacity to perform well or achieve goals. Often, the state's actions discriminate against certain population groups (ethnic or religious minorities, women, children and youths, elderly people). The state is unable or unwilling to adequately provide the protective role of a state. In addition to this, the government in some of these countries has little or no legitimacy, and social cohesion is weak.

In comparison to other developing countries, those countries which are affected by fragile statehood are a long way from achieving the Millennium Development Goals (MDGs). States classed as fragile can be post-conflict states, countries in acute crisis, or non-crisis states. About a third of them are affected by conflict.



Fragility has various forms and dimensions. A key issue is whether the fragility is primarily a question of lacking capacity or rather of lacking political will to achieve sustainable, pro-poor development. The framework of action for German Development Cooperation is provided by the strategy paper *Development-Oriented Transformation in Conditions of Fragile Statehood and Poor Government Performance*<sup>1</sup> of the Federal Ministry for Economic Cooperation and Development (BMZ). There, the various strategies for action are set out, based on the criterion of governance level<sup>2</sup> and the trend of development orientation in the government performance in each case. The focus extends beyond peace-building and is, rather, on the stabilisation of the state and, above all, on long-term state-building.

**“Good governance and sustainable development are indivisible.”**

*Kofi Annan*

### **Why is sustainable development in the context of fragile statehood a special challenge?**

The principle of sustainable development, as it is understood by the *Deutsche Gesellschaft für Technische Zusammenarbeit* (GTZ)—and, thus, by this paper—encompasses three dimensions: sustainable development is present when people gain greater prosperity through economic growth, while at the same time natural resources are used in such a way that they will also be preserved for future generations, and when everyone—man or woman, rich or poor—has the same opportunities.

For GTZ, sustainable development is a holistic concept which encompasses all policy fields and all areas of society and which, therefore, requires collaboration between the state, the private sector and civil society.<sup>3</sup> This is a major challenge in the context of fragile statehood, as it is precisely a characteristic of many states affected that the government has little or no legitimacy, and social cohesion is also weak.

It is an essential precondition of sustainable development that disadvantaged groups get access to services such as education, healthcare, or water and sewage services. This, too, is of special relevance precisely in those countries which are affected by fragile statehood, as services there are often very poor or not at all existent.

### **How do we address sustainability in a fragile context?**

The many facets of sustainability—local/global, present/future—as well as those of the related issue coherence do not fit easily into a context of reform in states characterised by fragile statehood. Where the social fabric is thin, where the basis of policy-making is constantly shifting and where immediate concerns entirely determine public or private decision-making, considerations of sustainability tend to be relegated to the bottom of the priority scale and to the back of the daily agenda. To build bridges between a depressing post-conflict situation and a brighter future would be one way to overcome this dilemma. The cost of these bridges, however, is hardly measurable. The same is true for policies that are inclusive—in order to be more sustainable—or for administration that encourages civic participation—in order to increase citizens’ awareness but accepting a loss in terms of effectiveness.

Moreover, sustainability—in the long term—cannot be uniformly assimilated into the activities of active citizens, of private sector actors or of social institutions with a specific constituency.

If we take one definition of governance—“the formation and stewardship of the formal and informal rules that regulate the public realm, the arena in which state as well as economic and societal actors interact to make decisions”<sup>4</sup>—governance has to play an essential role in ensuring that what we gain on the one hand, e.g. through our local endeavours, should not, on the other hand, contribute to the negative external conditions that threaten the future for ourselves and the rest of the planet.

How can this task for governance—to create sustainable solutions in the context of fragile statehood—be defined? What are the major challenges?

The first is knowing the context. Peace-building and inclusiveness are important issues, but unless there is an understanding of the constraints upon them, they will hardly be effective. The second challenge is an understanding that a weak, poorly performing state is driven by informal relations and partisan affiliations, such as e.g. patronage, clientelism and ethnicity, rather than being based on equality and the rule of law. Actions are rooted in country-specific social and economic structures and are very likely to undermine structures that operate according to purely legal rules. The third challenge is that constraints against change are pervasive. Where societies are incapable of working together when conditions threaten to deteriorate and put pressure on communities to find solutions, the likelihood is that their resistance to change will grow. Development change is painfully slow because cultural and social behavioural patterns do not change quickly. How then can we expect these communities to take on board issues that transcend their daily pressing needs and include issues of sustainability in their decision-making and action?



**Promoting good governance in the context of fragile statehood is a multi-faceted endeavour including inter alia:**

- a process to negotiate relations between state and society, power relationships among elites and social groups and movements, and to enhance the capacity of institutions and the legitimacy of the state;
- a “virtuous circle” of legitimacy and service delivery and successful ways to manage the mutual expectations of state and society, reflecting the development of legitimacy;
- a minimum installed administrative capacity—to strengthen the public order, to be present and deliver and to mobilise resources.

Analogous to the development paradigm of transformation countries, strengthening governance in countries affected by fragile statehood builds on a political and social compact as a basis on which groups can bargain on core functions, security, the mobilisation of funds and applying a stable legal order—essential for the state and community to maintain an acceptable level of well-being—as well as on a minimum installed capacity to keep institutions run-

ning and responding to a level of functionality that is expected if citizens continue to believe that state governance is moving ahead.

There is no convincing evidence that a hierarchy of action exists between these arenas for action. All three need to exist in order to improve effective collective action, and all three need to be addressed in parallel in order to strengthen the social compact, e.g. to make it more inclusive, to consolidate the minimum functions of the state and to manage expectations actively—over and above the capacity to be able to respond to them.

As is the case with all issues of sustainability and coherence, improving governance in the context of fragile statehood is a balancing act. Coherence and sustainability as prime qualities of governance thus need to take simultaneously into account

- the dynamics of social actors, the way they mobilise, handle and possibly transfer power and resources;
- the capacity of institutions to act;
- the ability to convince, i.e. to set principles and maxims that, one day, may be agreed on and that may be representative of what people perceive as an output of a democratic state and government.

Unfortunately, there is little evidence that these patterns of reform activities have been followed. Quite to the contrary, it has been observed that interventions in fragile situations “have been addressed in ahistorical terms and as a result have failed to account adequately for what is specific to an individual country.”<sup>5</sup> More generally, there was little analysis of the underlying factors of fragility and the constraints that would need to be observed for outside intervention.<sup>6</sup>

So, what needs to be done, when does it need to be done, and how does it need to be done?

**Since there are no general and abstract ways of setting out means of securing sustainability even in situations of fragility, the only chance is to design processes that are adaptable and open to opportunities and constraints as they arise.**

A good starting point is to consider the phases of a potential reform process. In its arenas, details of the context and the content of cooperation come into play. These arenas are shaped by the variety of interests involved in a particular issue—e.g. in an issue relating to the professionalisation of police services that would be the policemen, lawyers, unions and/or other associations of law enforcement professionals, local government officials, convicted criminals, victims, and citizen groups—and the institutions, the rules and the pertinent structures that constrain the activities of those interests and their interaction—e.g. the structure of court systems, laws and regulations, the need for legislative approval of new laws and appointments.<sup>7</sup> Over time, reformers may have opportunities to work within these arenas, to associate themselves with institutions and interests, to affect such interests and, in some cases, the institutions, in ways that can promote change. Reformers may also want to consider opportunities for reform opponents in order to broaden the basis for reforms. And

they may avail themselves of opportunities to enter into a dialogue and convince others of the value of reform outcomes.

While much depends on the context, the strategic actions and choices of reformers can, at times, affect the prospects for more sustainable change. Yet, experience also shows that the more necessary sustainable action in the public realm is, the more difficult it is to achieve a minimum level of governance to drive the process in the right direction.



### **How should be proceeded in situations of fragile statehood, so as to support the sustainability of transformation processes?**

#### **Cooperation between the state, the private sector and civil society**

As has already been mentioned, the state, the private sector and civil society need to cooperate to make it possible for sustainable development to become reality. Given the characteristics of fragile statehood, it is of great importance precisely in the countries affected by this issue that a constructive relationship between state and society develops, and that improvements are achieved as regards the state's legitimacy and accountability.

So we are here talking about state-building. State-building is seen as an interactive process between state and non-state institutions. This process takes place amid specific historical, economic, social, political and cultural developments which produce different social orders. These orders determine the relations between the state and civil society, including the rights and duties of both sides. The goal of promoting state-building is not just to strengthen the state in the execution of its core functions (output legitimacy), but also to strengthen the cooperation of state and non-state actors, that is, *how* the state executes its core functions (input legitimacy). In the long term, state actors are only effective and efficient if they do not act in a way which is detached from human rights and the legitimate interests and needs of all sections of the population, but instead act in an accountable and responsive way. It is, above all, the capacity development<sup>8</sup> of the actors in both state and society that is necessary for state-building processes to proceed successfully.<sup>9</sup>

State-building processes are never short-term processes, particularly not in countries affected by fragile statehood. At the same time, however, state-building is a necessary and entirely

direct contribution to enabling the affected countries to develop sustainably. The *Principles for Good International Engagement in Fragile States and Situations*<sup>10</sup>, which were endorsed in April 2007 by the Ministers for Development Cooperation of the OECD Member States, define state-building as the principal goal of cooperation with states affected by fragility.

Because, in the matter of promoting state-building, there has so far been too little material from which lessons relevant to development cooperation practice could be learned, GTZ commissioned six country case studies<sup>11</sup>. The studies recorded the experiences German Development Cooperation can present in the matter of state-building. A synthesis of these studies subjected the individual studies to a comparative evaluation.<sup>12</sup>

The synthesis reaches the conclusion that, despite complex obstacles which may exist in a country, the cooperation with state agencies should be firmly pursued. However, this does not apply to cases in which it is to be expected that this approach would lead to a clear deterioration of the situation in the country.

State-building processes are only sustainable if institutions are also anchored socially. At the same time, the legitimization of political decision-makers is not limited to formal elections. Rather, it arises from constant processes of feedback and negotiation with civil society, the private sector and individual citizens. So, when trying to implement reform processes successfully, civil society and the private sector are indispensable partners.

The promotion of non-governmental organisations (NGOs) is therefore an important element of measures in the area of state-building. Civil society actors, in particular, can win acceptance for the state among the public, work as a control mechanism, initiate reform processes and effect changes of course on the part of governments. In this, the issue of which actors are possible partners in cooperation and which are not, must of course be carefully clarified in advance: it must never occur that actors are strengthened who themselves oppose state-building, and care must be taken that civil society organisations are not themselves agents of conflict.

Further, the support of NGOs should not lead to the creation of non-state parallel structures. The long-term goal should after all be the build-up of cooperative relations between state and civil society, not the permanent replacement of state functions by civil society. However, in practice there certainly are situations in which the implementation of measures outside state structures is unavoidable. When this is the case, there should at least be potential for a link-up with state structures, to avoid further weakening the state. This means, for example, that “side-stepping” onto NGOs should be avoided in cases where the NGOs would serve as partners in implementing projects because the state does not have enough political will to take on the task itself. For here is a danger that the cooperation will hinder state-building rather than support it.

Another decisive point is that the civil society partners should have a maximum degree of social anchoring. For this reason, external donors should not themselves found new NGOs but should, instead, work with a country’s existing civil society actors. Apart from NGOs, profes-

sional associations, unions and the media should also be important partners with regard to measures in the area of state-building. In this context, the specific promotion of the political participation of women should also not be neglected. After all, transformation processes cannot be sustainable if in a country a particular social group is subject to direct or indirect discrimination and is excluded from political and/or economic processes.

With reference to cooperation with the private sector, the synthesis finds that in certain contexts this is suitable for making a contribution to fighting poverty and achieving other development-oriented goals. Instead of promoting individual economic activities directly, it has been found sensible to support multipliers (such as professional associations and micro-finance institutions, for example).

To find out which social actors it makes sense to work with and in which way, their various interests need to be considered through an actors' analysis when planning the strategy for donor support in every individual case. Support should begin where a reform orientation is identifiable.

State and non-state actors each follow their own agendas. It is not in itself the antagonism of interests between the two groups of actors which can lead to fragility. Rather, fragility arises when no peaceful balancing of interests occurs. For this reason, **state-building requires spaces of interaction and cooperation between state and non-state actors**. These may be formal organisational forms—e.g. round tables, consultation processes and public-private partnerships (PPP)—or informal forms. How development cooperation can contribute to the formation of new spaces of interaction and cooperation, depends decisively on the starting conditions: where relations tend to be confrontational, it can count as a success if, in the first place, contacts have been made and confidence-building measures can take effect; in countries in which there are already good relations between state and non-state actors, in contrast, much more institutionalised forms of cooperation and more far-reaching measures can be carried out. Two things are central: on the one hand, it must be prevented that spaces of interaction and cooperation are used by the state to “take over” civil society; on the other hand, setting up such spaces should also not lead to civil society organisations increasingly carrying out tasks which permanently should actually be fulfilled by the state.

Further, it is true not only for NGOs but also for actors from the private sector that state agencies may attempt to misuse spaces of interaction to “take them over”. In this connection, it is development cooperation's task to dissuade state partners from personally motivated interventions in business, so that they limit themselves to creating an appropriate set of regulatory policies for economic activities.

Cooperation at the highest level is not always possible. In such cases, however, existing decentralised spaces of interaction should be supported for as long as is in any way possible, even under the most unfavourable general conditions: for, according to the country case studies, even in difficult circumstances there are at the local level positive experiences with bottom-up state-building processes at the interface between state and (civil) society actors. As it turned out, such processes are well suited to generate local legitimacy. At the national level,

however, where other actors are in play, other spaces of interaction exist and other topics are on the agenda compared to those of the local level, bottom-up state-building processes reach their limits.

### Access to public services

**Sustainable development, as understood by GTZ, is only possible if all people have the same opportunities. This applies, among other things, in particular to access to public services like education, healthcare, or water and sewage services.**

People have a right to these services, as states parties to the International Covenant on Economic, Social and Cultural Rights (ICESCR) are obliged to take steps in order to achieve progressively the full realisation of the rights recognised—which include among others the right to education (art. 13), the right to the highest attainable standard of health (art. 12) and the right to water (art. 11 and 12). The mere availability of schools, hospitals etc. is not sufficient: all people must also actually have access to them. The principle of non-discrimination must be implemented immediately. School teaching, health provision etc. must furthermore be of adequate quality and culturally acceptable.



As mentioned above, fragile statehood often involves poor or inexistent service delivery:

“The state’s ability to ensure the provision of social services to its citizens will be severely hampered if there is a lack of responsiveness, accountability, legitimacy and social coherence.”<sup>3</sup>

The manner in which services are or are not provided thus says a lot about the governance level of a country.

The special relevance of public services in the matter of fragile statehood lies, among other things, in the fact that improvements in service delivery can have a positive effect on the legitimacy, which a government often does not actually have in the eyes of the public. A greater legitimacy of the government can in turn be a starting point for further advances in

overcoming fragility. Regarding the spaces of interaction and cooperation between state and non-state actors, this can, for example, mean that there is a great readiness on both sides to (re-)establish relations or, if cooperation already exists, to institutionalise it more firmly. More generally, the topic of services is one which is very well suited to promote engagement and empowerment of civil society, because ultimately the quality of life of all citizens is dependent on it. In other words: good public services which are available to the entire population in a non-discriminatory way and which are also actually made use of contribute to the long-term goal of successful state-building.

Development cooperation must be able to deal with complex challenges if it acts in the area of service delivery in the context of fragile statehood. Ultimately, the services should accord with the criterion of sustainability. To this end, it is necessary that for each country a study is made of the specific conditions, which can then serve as a basis when planning the concrete design of service delivery. As it is very often the poor people who remain without access to services, it is crucial to analyse the specific nature of their difficulties.

Whether state agencies provide services themselves or whether this task is assigned to actors from the private sector, the state remains in both cases ultimately responsible to its citizens. Donors should therefore avoid reducing this duty of accountability through their involvement:

“Accountability plays a central role in service delivery. Yet, external aid can have the effect of diluting the state’s accountability for essential services and even weakening the governance framework over the long term. Misplaced paternalism on the part of the international community risks displacing the government’s policy making responsibilities and stalling the evolution of governance institutions that are at the core of sustainable development.”<sup>14</sup>

In situations of fragile statehood, it is often women’s organisations which exert themselves to maintain existing services. Measures which contribute to the greater prosperity of women and to their economic empowerment are therefore of importance also in the matter of services.



**An Example from Practice:****The Programme “Peace-Building by Promoting Cooperation between State and Civil Society” (CERCAPAZ), Colombia**

The programme (duration: beginning of 2007 to end of 2011) is a cooperative project between Technical Cooperation (TC) and Financial Cooperation (FC). It is a central element of the country focus on “Peace-Building and Crisis Prevention” in Colombia. The specific goal of the programme is to support actors from state and society that are relevant for the strengthening and extension of existing peace initiatives in such a way that they actively use their potentials to foster peace-building.

The contribution of Technical Cooperation comprises four components. One of them is about the development of common visions and strategies for peace-building which shall be shared by national, regional and local actors from state and civil society. Further, the use of transparent structures and processes of civic participation and accountability which have a positive effect on peace-building is to be pushed forward. State and civil society actors shall also be enabled to take on competently a responsible leadership in public on the topic of peace-building. In addition, the experiences of the peace initiatives shall be recorded and made available as lessons learnt.

What makes the programme particularly interesting is the fact that the cooperation with state and civil society actors does not take place in separate components or service packages; instead, the programme characterises itself by working *with both together* on certain themes and/or in certain regions.<sup>15</sup>

The programme links up strategically with the contributions of other donors (EU, WB, UNDP). It builds on two previous programmes: “Support for Decentralisation and Local Administration for Peace” (PRODESPA) and “Citizens’ Participation for Peace” (PACIPAZ). In the former programme the key question was: How shall public services be designed so that citizens who previously administered themselves (as a consequence of the political situation) will accept them? That is, it was concerned with promoting acceptance and reliability at the interface between state and civil society. The programme PACIPAZ aimed to improve the capacities and opportunities of important state and civil society actors as regards leading dialogue as well as promoting peaceful life together and constructive conflict management.



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## (FOOTNOTES)

- 1 BMZ (2007), Development-Oriented Transformation in Conditions of Fragile Statehood and Poor Government Performance.
- 2 The term 'governance' refers to the way in which a state reaches decisions, formulates and implements policies through the responsible cooperation of state and society. This includes institutions, mechanisms, processes and policies which govern the actions of state and non-state actors and which put them in a position to realise their goals through effective, efficient and sustainable application of resources.
- 3 GTZ (2005), Sustainable Development, pp. 2, 4.
- 4 G. Hyden and J. Court (2002), Governance and Development, p. 13.
- 5 D. Brinkerhoff and J. Brinkerhoff (2002), "Governance Reforms and Failed States: Challenges and Implications", *International Review of Administrative Sciences*, Vol. 68 (4), pp. 511, 517.
- 6 T. Carothers, "The End of the Transition Paradigm", *Journal of Democracy*, Vol. 13 (1), pp. 5, 8.
- 7 M. S. Grindle (2007), "Good Enough Governance Revisited", *Development Policy Review*, Vol. 25 (5), p. 553.
- 8 As GTZ understands it, 'capacity development' is "the process of strengthening the abilities or capabilities of individuals, organisations and societies to make effective and efficient use of resources, in order to achieve their own goals on a sustainable basis." (U. Ebeling, T. Kampffmeyer, A. Nolting and R. Poeschke [2007], "Capacity Development in Fragile States", in BMZ [ed.], *Transforming Fragile States – Examples of Practical Experience*, p. 309).
- 9 For more on the definition of state-building, see: OECD (2008), *State Building in Situations of Fragility. Initial Findings – August 2008*.
- 10 See: <http://www.oecd.org/dataoecd/43/48/38293448.pdf> (accessed: August 2008)
- 11 Covering different world regions and a wide range of situations of fragility, the studies examined the following countries: DR Congo, Guatemala, Nepal, Sierra Leone, Zimbabwe and the South Caucasus region.
- 12 The comments which follow in this section are drawn from the following source: GTZ (2008), *State-Building within the Context of Fragile Statehood and Poor Government Performance – Lessons Learnt of German Development Cooperation*. (forthcoming)
- 13 BMZ (2006), *Observations on Service Delivery in Fragile States and Situations – the German Perspective*, p. 7.
- 14 OECD (2008), *Service Delivery in Fragile Situations: Key Concepts, Findings and Lessons*, p. 8.
- 15 S. Kurtenbach, P. Riedle and M. Rösch (2007), "Promoting Collaboration between the State and Civil Society in Colombia", in BMZ (ed.), *Transforming Fragile States – Examples of Practical Experience*, p. 136.

# Prosperity





# Contributing to Asian Development: German Technical Cooperation and the Relevance of the Social and Ecological Market Economy

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## **Introduction**

The social and ecological market economy, the economic model that has shaped the economic and societal development of the Federal Republic of Germany, has resulted in comparatively stable economic performance, a reasonably equitable distribution of wealth (compared to other countries) and economic convergence between the Eastern and Western parts of the country. The model, which consciously combines economic, social and ecological goals, has clearly been a success in Germany. In 2007, the German Federal Ministry for Economic Cooperation and Development (BMZ) defined a framework of principles based on the German model of the social and ecological market economy as the basis for economic development cooperation.

As a German-Government-owned enterprise working in international cooperation, the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH supports the German Government in achieving its development cooperation objectives. Therefore, the principles of the social and ecological market are of utmost significance for our work. We believe this model is highly relevant to our work and to future perspectives on development in our partner countries. GTZ accompanies development and transition processes in more than 120 countries in Asia, Africa, Latin America and Eastern Europe. In Asia, GTZ is active in 15 countries.<sup>1</sup>

This article will describe how the model and the framework defined by the BMZ are embedded in our corporate philosophy, why we think the model is relevant for Asia and how we translate its principles into our work. Examples of our work will be presented in this reader, focusing on private-sector development, economic and social policies, financial-systems development, and vocational training and labour market policies. In Asia, the total volume of projects in these areas in 2007 was € 208 million.

### **The model of the social and ecological market economy and GTZ corporate philosophy**

With the adoption of the principles of the social and ecological market economy, the BMZ created a coherent, value-oriented framework for German Development Cooperation's commitment to sustainable development,<sup>2</sup> which constitutes the foundation of GTZ's mission and mandate.<sup>3</sup> The social and ecological market economy is built on the principle that sustainable development is only possible when economic, social and ecological concerns are taken into account. Thus, the objectives of the social and ecological market economy are welfare for all, social justice and environmental protection.<sup>4</sup>

The specific relationship among these three dimensions needs to be defined in a process of dialogue and negotiation between the state, civil society and the private sector. Implementation of the model thus implies (1) a holistic approach that involves support at different levels and cooperation with various stakeholders (multi-level approach: national, regional, local); (2) process orientation, for example, facilitating processes of negotiation among different stakeholders (public, private); and (3) value orientation, on the basis of the principles of a social and ecological market economy.

While the original model of the social market economy emerged in the 1950s as an attempt to link the principle of market freedom with social equity, the model has now been expanded to integrate the element of **environmental sustainability, which is a key requirement for long-term sustainable development**. The model is thus clearly flexible enough to change and develop in response to experience and new challenges.

The social and ecological market economy is by no means a purely economic model. It was developed in the specific social and cultural context of Germany and Europe and similarly must take into account the societal, cultural, political and institutional factors that shape the patterns and orientations of development in other economies. We are very much aware that simply transferring the formal institutions of the market economy, without making the necessary adjustments, can lead to a loss of credibility and even political instability. The model is

thus by no means intended to constitute a blueprint or a straightjacket. Rather, it is a value-based orientation that offers a range of policy options for the very specific economic, political and societal conditions in each country.

The model of the social and ecological market economy thus takes due account of the diversity of partner countries in Asia. In newly industrialising countries, which have specific priorities and concerns as a result of their integration into global structures and markets, it will take quite a different shape than in the poorer partner countries of German Development Cooperation. In countries such as India and China, world market integration, reduction of social inequality and the development of ecologically sound production processes dominate the policy agenda. These countries are thus increasingly requesting GTZ's advice in the fields of social security, introduction of ecological and social standards, and the use of renewable energies.

In the least developed countries and in fragile states, on the other hand, issues such as facilitating economic and social participation are the most pressing. Supporting inclusive and pro-poor growth and equality of opportunities in these countries means facilitating productive and equitable integration of marginalised groups into economic growth processes. Innovative concepts are required in these countries, for example insurance mechanisms that also protect poor people in the informal sector from essential risks (which may be the result of climate change).



The model of the social and ecological market economy also provides orientation in an increasingly globalised environment. **Globalisation and its effects on global structural policies, international trade, regional integration, and environmental and climate problems constitute new challenges for technical cooperation.** A new global approach is required to regulate competition in globalised markets, ensure free trade and address the challenges of climate change. Advisory services on questions of global structural policies, for example, related to the World Trade Organization (WTO) or the Global Environment Facility, must build on clear positions and values and a clear idea of how to address the global environmental challenges in our partner countries. The model aims to find the best possible match between global challenges and the specific national and local requirements.

For GTZ, all this implies that the principles of the social and ecological market economy translate into very different forms in our practical work. Their operationalisation depends on the specific patterns and stage of development of each country, that country's position in the global economy, but equally its cultural background, traditions and its own vision for development. For us, successful advisory services, therefore, are value-oriented and build on recognition of and respect for the value system and the principles and priorities of each society.

Value orientation, a holistic concept of development, a process- and dialogue-oriented approach to change and an emphasis on the importance of institutions are also essential underpinnings of GTZ's concept of capacity development. A market economy is built on capable and efficient institutions that ensure the functioning of markets as well as social cohe-



sion. Strengthening the capabilities of our partner countries to build the required institutions is one of the basic objectives of GTZ's capacity development support.

### Successfully implementing reforms: values and institutions

GTZ's long experience in technical cooperation has shown that two aspects matter most in achieving development cooperation goals and required reforms: (1) societal values and (2) the quality of institutions (their potential to develop and adjust to new circumstances). This view, which has accompanied our capacity development work for many years, has also been confirmed in economic research, most notably in "institutional economics",<sup>5</sup> which examines the values and institutions of societies that may foster or prevent developmental processes.

According to the institutional economists North and Denzau, not only is formal institutional development important for the development of societies, but also the "shared mental models" within a society.<sup>6</sup> According to them, these mental models tend to change less quickly than the formal institutions (institutions meaning both the regulatory framework and organisations). However, if the reforms and the socio-economic reality created by rapid development processes become incompatible with the mental models, there are losses in welfare, and political stability is at stake.<sup>7</sup> Thus, institutional economists claim that development processes are path-dependent, because cultural traditions and values determine the development path of a society. Not only do institutions matter, but history matters as well.<sup>8</sup>

This fact tends to be neglected in the world of development projects and programmes which usually have a comparatively short time horizon of two to six years. **Changes in the formal institutional setting can be achieved quickly, as we have seen in the Eastern European transition process, while changes in the mental models often take more time.** We also know this from our own experience in Germany, as recent reforms emphasising the responsibility of the individual and reducing the responsibility of the state in social policies have not been easily accepted by Germans.<sup>9</sup>

In our work, we believe it is necessary to be transparent about the values that we stand for and to enter into a long-term dialogue on principles underlying the institutional reform processes. This dialogue with our partners in Asian countries about mental models—which includes the articles in this reader—brings cultural and historical dimensions to the surface and contributes to better mutual understanding. Thus, such dialogue has a value in itself for development cooperation but also contributes to the sustainability of our assistance.

The values underlying the model of the social and ecological market economy—our mental models—are best reflected in the principles of

- solidarity,
- subsidiarity,
- individual spirit of achievement, and
- self-responsibility.

Although this may sound very much like conventional wisdom for any professional working in development cooperation, the relevance of each principle for individual partner countries depends on the respective cultural context in that country. A number of Asian countries are in fact multi-ethnic and multi-religious and therefore have a multi-faceted set of values.

The mental models of Asian culture usually include a much stronger focus on the community and harmony than Western culture. This is rooted in, among other things, Asian religions and ideologies such as Confucianism and Buddhism, which emphasise loyalty towards the family, corporation and nation, and which sacrifice personal freedom for the sake of the society's stability and prosperity. Although Asia has a wide range of cultures, values and religions, a certain level of generalisation is possible. The following values are typically considered characteristic for Asia:

- predisposition towards strong and stable leadership;
- respect for social harmony and an inclination towards consensus as opposed to a tendency towards dissent or confrontation;
- acceptance of broad and penetrating state and bureaucratic intervention in social and economic affairs; and
- preference for the welfare and collective well-being of the community over individual rights.

→ **Willingness to compromise is a precondition for the functioning of the social and ecological market economy and has resulted in many consensus-building mechanisms in Germany**, which also reflect the division of responsibility between the state, the private sector and civil society in the model. This has led some to label the German society a “consensus society”. The Asian preference for social harmony and non-confrontative solutions creates a common ground and an interest on the part of our partners for further exchange on the many mechanisms of dialogue and consensus-building the German model has to offer.

### **High-quality formal institutions**

Clearly, for a development path to succeed, the mental models of a society must be in line or gradually be brought into line with the desired reforms. However, high-quality formal institutions (meaning both the regulatory framework and the organisations responsible for designing and implementing that framework) are equally important, as the authors in this reader underline time and again. Least developed countries, but also, to a certain extent, transition countries need to build up their institutions for economic, social and environmental policy and regulations. Benecke outlines seven policy fields that require a regulatory framework and corresponding organisations to define the structure and course of action in the economy: (1) planning and coordination; (2) property regime; (3) monetary order; (4) enterprise order; (5) competitive order; (6) fiscal order; and (7) social order.

One of the most essential institutions in any development process is the state. The government or parliament will usually define a nation's development objectives, and the executive will be active in the implementation of measures to achieve those objectives. We are, of course, aware

that there is no agreement in the international discussion on the role of the state—on the areas in which the state should be active or which measures it should employ. In contrast with the Anglo-Saxon countries, the social and ecological market economy promotes an active and proactive state that provides public services, shapes the regulatory environment and undertakes to reconcile various interests through its interaction with the private sector and civil society.

The belief in an active state is shared by Asian countries—this adding yet another layer to our conviction that the social and ecological market economy is potentially a very interesting model for Asian governments to consider. However, there are also important differences between the Asian understanding of the role of the state and that of the social and ecological market economy: the social and ecological market economy stipulates that state monopolies in areas not characterised by public goods produce inefficiencies and contradict the principle of subsidiarity, while these monopolies can be found in many Asian countries.

**Subsidiarity,<sup>10</sup> one of the key values underlying the social and ecological market economy,** is particularly relevant to transition countries because it means that the state should not engage in activities that are more efficiently provided by the private sector. Subsidiarity limits the economic role of the state to providing public goods and setting the regulatory and—to some extent—the incentives' framework for the private sector and for civil society. It stipulates that the state should not engage in activities that are more efficiently provided by the private sector. This principle constitutes an important fundamental value underlying our advisory work in countries working to establish a market economy (for example, in the areas of economic policy, financial sector development and private sector development).

The State in Germany is most active in the areas of social policy, promotion of small and medium enterprises, regional policies and the promotion of new technologies, particularly environmentally friendly technologies. Approaches in these areas are mainly developed on the provincial level in Germany and are met by a keen interest on the part of our Asian partners, as they seek to find approaches to the challenges they are facing today.



### Development in Asia—sharing the benefits of growth

Asia-Pacific is a region of contrasts. It has some of the fastest growing economies in the world and, at the same time, a number of least developed countries (LDCs)<sup>11</sup> that continue to face persistent challenges. As a whole, the region has made significant progress in poverty reduction, already achieving some of the internationally agreed Millennium Development Goals (MDGs). China and India, which together account for nearly 40% of the world's population and rank among the fastest growing countries in the world, contribute most of this progress, along with the “tiger” economies of East and Southeast Asia.



However, also for those countries that have been successful in reducing their overall poverty levels, poverty remains a problem. Certain groups, mainly in the rural and more remote areas but increasingly also in urban locations, are not benefitting from the growth process:

- Almost one-third of the world's poor live in India, so that MDG 1 of halving poverty becomes very much an Indian challenge.<sup>12</sup> The Indian economy has grown steadily over the last two decades, resulting in a decrease of poverty from 54.88% in the 1970s to 25.7% in 2004/2005—but this quarter of the population still continues to subsist on \$ 0.40/day. Growth has been uneven with respect to different social and economic groups, geographic regions, and rural and urban areas. The Gini coefficient is at 0.368 (2004/2005).<sup>13</sup>
- High levels of inequality are found especially in China (with a Gini coefficient of 0.469 in 2004),<sup>14</sup> where the eastern coastal areas have witnessed successful, export-driven growth processes, while the other regions of the country increasingly lag behind.
- Even though in Vietnam the Gini coefficient of 0.344 (2004) is not excessively high, distribution of wealth has a clear regional and ethnic dimension. Poverty is increasingly concentrated among the ethnic minorities, where 52.3% remain poor, compared to 10.3% among the Kinh and Chinese majority. Most of the poor continue to live in rural areas (20.4% in rural areas vs. 3.9% in urban areas).<sup>15</sup>

Such rising income inequality is frequently accompanied by tensions. The situation is aggravated even further when ethnic and religious issues also play a role. In many countries in Asia, highly conflictive relationships exist between ethnic minorities and the government, for

example, in the case of the Hmong in the Vietnamese Highlands, the Chakma of Bangladesh's Chittagong Hill Tracts or the Muslims in Southern Thailand. While the main objectives of these movements appear from the outside to be political and cultural/religious, the underlying causes are often poverty, discrimination, marginalisation, lack of access to public goods like education, infrastructure, health etc., exploitation of the local and regional resources without fair allocation of government budgets, and lack of access to political representation. The governments frequently resort to force in order to handle the situation.

In many developing countries in Asia, a by-product of the impressive (but unequal) growth and job creation is the rise of labour conflicts. So-called wild strikes, motivated by violations of labour laws and workers' rights by the employers,<sup>16</sup> are becoming an increasing problem, also in the export and industrial processing zones. Often, there are institutional deficiencies, including weak or non-existent regulation and a general lack of dialogue mechanisms or social partnership arrangements. Thus, wild strikes are often the only way for workers to express their grievances and to make themselves heard. "Real" strikes are also on the rise as workers push for salary increases.

The strong overall growth performance of Asia tends to hide the fact that the development of the Asian LDCs is lagging behind, especially those in South Asia.<sup>17</sup> Asian LDCs account for almost one-third of the global population in all LDCs. They vary widely. Bangladesh is the largest, with a population of more than 130 million, while Bhutan is quite small with around 750,000 inhabitants. As a result of these differences, the experiences of these countries vary widely. Like the other countries in the region, the Asian LDCs are developing, but from a lower level. Some of these countries are successfully participating in the region's growth (for example, Cambodia with a 5.5% annual growth rate in per capita gross domestic product from 1990 to 2005 and Bangladesh, which is considered one of the lead performers among LDCs); others, such as conflict-ridden Nepal, have not been able to stimulate economic growth and thus foster human development.<sup>18</sup> For the region, the extremely dynamic development in some Asian countries represents both a challenge and an opportunity. It may result in increasing inequality leading to regional tensions, or it might generate additional resources and opportunities stimulating development in the Asian LDCs.

### **Challenges for Asia—ensuring future growth**

Those countries in Asia that have already achieved high growth rates now face the challenge of ensuring the continuation of that growth, while also making sure that the benefits of growth are increasingly shared among their citizens. And those countries that are still LDCs should reflect on the lessons learnt from the more developed countries,<sup>19</sup> as they design their development strategies. Issues of competitiveness, financial stability and the environment are taking center stage for both groups.

The competitiveness of Asian products and services has improved immensely. Globalisation and falling trade barriers, however, present a threat to many developing Asian countries (and especially their small and medium-sized enterprises [SMEs] and poorer parts of their population).

- First, industries that until recently were able to survive in markets protected by high tariff barriers will be wiped out if they cannot increase their competitiveness quickly and efficiently, or if they cannot move to more prosperous market segments.
- Second, in particular smaller firms may not have access to the know-how, technology, and finance they need to improve their performance.
- Third, competitiveness is often exclusively based on low labour costs, resulting in dependency on external know-how and inputs and often in an unsustainable “race to the bottom”, where profit margins are so low that exploitation of workers and resources is unavoidable.



**If governments do not react and develop strategies to support certain sectors or regions with effective structural instruments, whole sectors or industries may be wiped out,** leading to further unemployment, increasing regional inequality and migration to urban areas—all of this in countries without functioning social security systems. In these countries, firms need better access to information, know-how, new technology and innovations,<sup>20</sup> and governments need to develop a clear structural policy<sup>21</sup> to strengthen and sustain the competitiveness of their industries (beyond low labour costs), support structural change in accordance with WTO regulations, and transfer the workforce from non-competitive to competitive sectors.

In the financial sector, managing financial risks has become more important than ever, given the large volume of financial funds flowing to emerging markets in Asia. This phenomenon, which reflects the success of these economies, also represents major challenges for the monetary authorities who manage monetary and exchange rate policies in these countries. Institutional development, in terms of setting up an effective regulatory and organisational framework for financial market supervision, has not kept pace with these challenges in a number of Asian countries. This institutional deficiency now represents a major risk for the stability of the financial sector and the economy of various countries as a whole.

The problem of climate change must be dealt with on a global scale by all governments, but also at the national level by authorities in each country. South Asia, in particular, will probably be one of the most affected areas worldwide. The coastal population in South and Southeast Asia is already facing the problem of serious flooding due to rising sea levels caused by climate change. Even under conservative assumptions, the sea level could rise up to 40 cm higher than the present level by the end of the 21st century and submerge a huge area of the South and Southeast Asian coastal belt. Over 70 million people living along the coastal belt may be forced to relocate. In South Asia, the rapid melting of glaciers in the Himalayas is initially expected to cause excessive water flow and flooding in the region. Eventually, the full loss of glaciers would have a severe effect on the availability of fresh water in the Indus, Ganges and Brahmaputra rivers, which are the life-line for an estimated 500 million people in India, Pakistan and Bangladesh, many of them poor. The associated loss of farm production, water for human needs, fisheries, river transport and livelihood will be devastating and may completely wipe out the progress in poverty reduction achieved so far.

### The social and ecological market economy as a model for Asia

The extent to which the social and ecological market economy appears attractive to our partner countries in Asia—and thus is considered a potential model with which to address their own challenges—depends on whether or not Germany has been able to implement social, ecological and, of course, economic objectives. Asia, as far as we can see, views Germany with a certain respect due to the fact that Germany is world champion exporter, but also recognises that there are certain weaknesses in the German model and that there is still room for improvement. However, Asian observers are aware that, during the last two decades, the social and ecological market economy has provided conceptual space in Germany for necessary ongoing reforms—to meet the challenges of reunification between East and West Germany, globalisation and immigration<sup>22</sup> without social unrest.

Furthermore, even though this reader only touches upon the ecological aspects of the social and ecological market economy, it is important to highlight the fact that Germany has been more successful than most other countries in integrating ecological aspects into its regulatory framework. For example, the recent “climate package” of laws (December 2007) aims to increase the percentage of renewable energy used in electricity production, housing and fuel to 18% by 2020.<sup>23</sup> Industrial policy has been successfully employed in Germany to support the development of environmental technologies, providing the business sector with new markets and new business opportunities. The German example shows that adjustment to the challenges of climate change creates opportunities and does not necessarily harm competitiveness.

The institutions that had been developed on the basis of the model in West Germany, most importantly mechanisms to reconcile and unite different interests, have made these adjustment processes possible. **The social and ecological market economy brings together economic, social and ecological objectives, but the responsibility is shared**—for example, the private sector also has a social responsibility, which is embedded in the German constitution.<sup>24</sup> Thus, a system of social partnership unites employers and employees at the enterprise level, where they work together to further the company’s welfare—for example, the co-determination system gives employees one-third of the seats in the supervisory board of a firm, which allows them to participate in decision-making and at the same time to exercise an important control mechanism over the management board.

Social objectives are not only achieved through social security measures, like health services, pension systems and the like, but most importantly by providing equal opportunities to all citizens. The German Constitution calls for an equal standard of living for German citizens, no matter in which area of the country they live and work. This equality is pursued through the education system (most prominently, the dual system for technical and vocational training, where the state and the private sector take on a shared responsibility for educating the country’s youth),<sup>25</sup> regional development mechanisms (with the reunification between East and West Germany as the best example) and other instruments.

The specific structure of the German economy, with its multitude of small and medium enterprises (the so-called *Mittelstand*), is another way that the model attempts to provide welfare for all, one that has greatly interested many of our partners. There is a set of policies in Germany that specifically targets SMEs.

The model of the social and ecological market economy has clearly been successful in Germany, and it is also popular among Germans, precisely because it aims to provide welfare for all. However, there is also clearly need for further reform. A recent study on social justice that compared Germany to other groups of countries with a different welfare system shows a mixed picture: Germany is ranked a little higher than the average of the continental European welfare states, much higher than the Anglophone countries, but lower than the Scandinavian countries. The main problem according to the study is the inflexibility in the labour market, which creates high entry barriers for certain segments of the labour force. The debate in Germany focuses on the necessity for further reforms in social policies.<sup>26</sup>

There is a wide range of opinions: Hein and Truger,<sup>27</sup> on the one hand, argue that social achievements (including labour market regulation) do not harm the competitiveness of the German economy, and that unsatisfactory growth performance is mainly the result of strict monetary policies and failure to stimulate economic demand. Welzel and Vehrkamp,<sup>28</sup> on the other hand, point out deficiencies that still need to be addressed to enhance competitiveness, particularly in the area of labour laws and education.



Furthermore, the effects of globalisation have led to a widening of the income gap in Germany, refueling the debate on social justice and leading to calls for new instruments to achieve it. Certainly, there is need for further reform, particularly with respect to achieving a new balance between the economic and social goals of the German model. The debate on how to achieve more social justice while maintaining competitiveness is ongoing in Germany; however, all agree that for Germany the social and ecological market economy has provided a flexible framework for change. This debate and also the reforms implemented in the last years provide a wealth of ideas and experience that we can share with our partners in Asia.



It is important to underline that the German Federal Ministry for Economic Cooperation and Development's new Regional Strategy for Asia explicitly reflects the principles of the social and ecological market economy and specifies them further for the diverse and dynamic Asian context. Socially balanced economic development; ecologically sustainable development; and democratisation and human rights, good governance, and conflict reduction are the strategy's three core objectives. In order to promote sustainable economic development in Asia, the German contribution is structured around three modules: (1) strengthening economic competitiveness, especially in smaller and medium-sized enterprises; (2) developing and upgrading social security and service systems; and (3) mobilising the informal sector.

### **Outlook**

The objective of this article has been to reflect on the relevance of the model of the social and ecological market economy for Asia. It has given initial indications of how the model can respond to the challenges of globalisation and increasing inequality in Asia, and how values such as equal opportunity, social justice, fair competition and ecological sustainability can contribute to fair and sustainable development. It has also provided examples of how this orientation is translated into practical approaches to technical cooperation in different country contexts.

The articles in this reader delve into these issues in much greater depth. They endeavour to shed light on the relevance of the model for Asia from the three different perspectives that this article could just briefly touch upon:

- (1) From the perspective of academia: The reader contains contributions from German researchers who reflect on the further development of the social market economy in Germany and the ways in which Germany is dealing with some of the challenges it is facing at present; they also review how key principles and elements of the German experience translate into practical concepts of possible relevance for Asia.
- (2) From the perspective of Asian economists: Another set of articles examines the significance of the model from an Asian viewpoint in the context of different Asian countries. They assess how elements of the model can provide policy options under different circumstances, and how relevant aspects may already be reflected in ongoing debates on societal values in some of their countries (for example, market economy with a socialist orientation in Vietnam, the harmonious society in China).
- (3) From the perspective of development cooperation practitioners: Finally, several articles review how the elements and principles of the social and ecological market economy have translated into practical concepts and policy options for implementation of technical cooperation at the country level. These practical lessons from experience have frequently been elaborated in a joint effort between the GTZ advisors and their counterparts. At the same time, these articles reflect the range of relevant GTZ services and the areas which should be developed further in the light of the principles of the German model.

In a nutshell, the overall objective of this reader is to create a platform for dialogue and exchange between different perspectives, visions and experiences. The concept underlying this reader thus immediately reflects a fundamental principle of the social and ecological market economy and equally of GTZ's approach: the importance of stimulating processes of dialogue and exchange, and creating forums for a sustainable and effective discussion between the state, the private sector and civil society.

In GTZ's understanding, technical cooperation can only be effective and lead to sustainable results if it is based on a cooperative and dialogue-oriented approach between all partners involved. While official agreements on development cooperation are generally concluded between the German and the partner governments, effective implementation must involve and ensure ownership by all relevant stakeholders, including the private sector and civil society. Furthermore, cooperation with Asia increasingly builds on a two-way dialogue, in which Europe has as much to learn and benefit from Asian experience as vice versa.

To innovate further and hone its approaches, GTZ engages in an extensive exchange with academia and applied researchers, both nationally and internationally. We believe that only through close exchange with the research community can we develop our work in line with the best international thinking and research—and also critically reflect upon our approaches. For this purpose, GTZ has joined hands with leading development economists to create the Poverty Reduction, Equity and Growth Network (PEGNet). The PEGNet brings together researchers with an interest in issues revolving around the poverty-inequality-growth nexus in developing countries, and links them to the German development policy bodies.

Furthermore, we are also deeply engaged in international forums and networks with other development agencies and donors, for example the Donor Committee for Enterprise Development, where GTZ plays an active role on behalf of the BMZ. These allow us to learn from each other and harmonise key principles and approaches, but they also constitute a platform for bringing crucial concerns into the international discussion, for example the issue of whether or not there is a proactive role for the state to play in creating the preconditions for competitiveness in globalised and knowledge-intensive markets and in ensuring a pro-poor orientation of growth.

While this reader presents a range of cases where the principles of the social and ecological market economy have effectively helped to address key challenges and requirements of our partner countries and have been translated into sustainable policy options, I would also like to highlight a few areas which, in my opinion, deserve more attention in our work.

This article has already referred to the importance of specific cultural and historical patterns, in other words, the shared mental models, within each society. We need to pay even more attention to this field and deepen our understanding of these models. A systemic and value-oriented approach to capacity development must systematically consider the respective societal values and institutions and integrate the specific cultural, societal and historic values and development patterns.

We have seen the importance of dialogue and cooperation mechanisms for ensuring ownership and inclusion. So far, the emphasis has been on dialogue between the public and the private sector and, to a lesser degree, on ways to involve civil society. The experience of the social and ecological market economy teaches us the importance of involving representatives of the workers and trade unions; mechanisms of co-determination constitute an essential building block of the success of the German social market economy. Capacity development in shaping social partnerships as well as approaches for corporate governance which include elements of co-determination, for example, should therefore be integrated in private sector development.

Given the environmental challenges Asia is facing, supporting ecological sustainability is a clear priority. The lack of contributions to this reader on the environmental dimension indicates that economic development approaches need to consider environmental sustainability in a more integrated and systematic manner. For example, more thought should be given to ways of addressing ecological aspects within the framework of economic policy, perhaps by supporting partner countries in designing ecological tax reforms on the basis of the German experience and establishing a regulatory environment compatible with ecological sustainability.

To conclude, I would like to underline that I am convinced—and this reader fully supports my conviction—that for GTZ, the model of the social and ecological market economy constitutes a solid framework for our advisory services and for cooperation with our partner countries. For our partners, it hopefully presents a model that can help them reconcile the objectives of growth and welfare with their respective culture and value system.

We look forward to further developing this approach in close dialogue with our partner organisations as well as our international partners, both in the academic and the donor communities. In particular, we hope to continue the dialogue which has been initiated through this reader in an Asia-wide conference on the social and ecological market economy scheduled to take place at the end of 2008. «



## (FOOTNOTES)

- 1 Bangladesh, Cambodia, China, India, Indonesia, Laos, Malaysia, Mongolia, Nepal, the Pacific countries, Philippines, Sri Lanka, Thailand, Timor-Leste and Vietnam.
- 2 See <http://www.bmz.de/en/principles/aims/objectives/index.html>
- 3 GTZ, Concept for Sustainable Development (Eschborn: GTZ, 2005).
- 4 See Benecke in "The Social and Ecological Market Economy – A Model for Asian Development", GTZ, May 2008.
- 5 International Monetary Fund (IMF), World Economic Outlook (Washington DC: IMF, April 2003), p. 104.
- 6 See Arthur T. Denzau and Douglass C. North, "Shared Mental Models: Ideologies and Institutions", *Kyklos* 47, no. 1 (February 1994), p. 3–31.
- 7 See Joachim Zweynert, "Wirtschaftskultur und Transformation" (Economic culture and transformation), *Wirtschaftsdienst* 86, no. 12 (2006), p. 803.
- 8 Ibid.
- 9 See Welzel and Vehrkamp in "The Social and Ecological Market Economy – A Model for Asian Development".
- 10 In general, subsidiarity means that the higher-level entity only becomes active when the lower-level entity cannot solve a problem.
- 11 Afghanistan, Bhutan, Bangladesh, Cambodia, Laos, Maldives, Myanmar, Nepal and Timor-Leste.
- 12 Calculated for the 1990s, using the poverty line of US\$1 in purchasing power parity.
- 13 Indian Planning Commission, <http://www.planningcommission.gov.in/news/prmar07.pdf>. United Nations Development Program (UNDP), Human Development Report 2007/2008 (New York: UNDP, 2007), p. 283. Compare with Germany's Gini coefficient of 0.283 (2000).
- 14 Ibid., p. 282.
- 15 World Bank, Vietnam Development Report 2008 (Hanoi: World Bank, 2007), p. 3–4. Data is based on preliminary and unofficial information from the Vietnamese General Statistics Office.
- 16 Wild strikes are spontaneous work stoppages, implemented without any formal procedures.
- 17 UNDP, Human Development Report 2007/2008, p. 247.
- 18 Ibid., p. 279.
- 19 For example Malaysia, Thailand, China, Philippines.
- 20 In developed countries of Asia, governments, universities, research institutions, associations, and large and small firms in the private sector work hand in hand in order to make their economic sectors more powerful and more competitive. In addition, there is a range of instruments and programs and huge networks of commercially transferred services that can help a company or an entire sector to improve technology or marketing.
- 21 Please note that I am using the term "structural policy" in the sense of the German term *Strukturpolitik*, which is a collective term to describe all economic policy measures that aim to shape the structure of an economy. Structural policy may target either the sectoral or regional economic structure with the objective of preventing crises, for example, due to globalisation. The English term "structural policy" has a different meaning, implying a policy that addresses permanent market conditions; examples include tax incentives or labour market conditions ([http://www.fjn.gc.ca/gloss/gloss-s\\_e.html](http://www.fjn.gc.ca/gloss/gloss-s_e.html)).
- 22 According to the 2005 Micro-census, 18.6% of the residents in Germany are migrants or children of migrants. See [www-ec.destatis.de](http://www-ec.destatis.de), Fachserie 1, Reihe 2.2, Bevölkerung und Erwerbstätigkeit, Wiesbaden 2007.
- 23 [http://www.bmu.de/pressemitteilungen/aktuelle\\_pressemitteilungen/pm/40896.php](http://www.bmu.de/pressemitteilungen/aktuelle_pressemitteilungen/pm/40896.php) (29.02.2008)
- 24 The German constitution states that "property entails obligations" (*Eigentum verpflichtet*).
- 25 See Baur and Pfeiffer in "The Social and Ecological Market Economy – A Model for Asian Development".
- 26 See Wolfgang Merkel, "Soziale Gerechtigkeit im OECD-Vergleich" (Social justice compared in OECD countries) in "Soziale Gerechtigkeit – eine Bestandsaufnahme" (Social justice – taking stock), eds. Stefan Empter and Robert B. Vehrkamp (Gütersloh: Bertelsmann Stiftung, 2007), p. 233–257. Whether or not this level can be viewed as satisfactory is hotly debated in Germany at present.
- 27 See Hein and Truger in "The Social and Ecological Market Economy – A Model for Asian Development".
- 28 See Welzel and Vehrkamp in "The Social and Ecological Market Economy – A Model for Asian Development".

# Decoupling Economic Development from Resource Consumption

Detlef Schreiber and Stephan Paulus



## The Limits to Growth

The Report “The Limits to Growth”<sup>1</sup> presented to the Club of Rome in 1972 drew the world’s attention to the fact that the planet’s resources and its ecologic carrying capacity are not infinite. Soon afterwards, in 1973, the oil crisis aggravated fears that economic growth and industrialisation could come to a sudden end if fossil energy wasn’t available any more in sufficient quantities—be it for exhaustion of resources or blocked access due to political reasons. Rising prices of fuels and raw materials had an impact on the economy; at least for some years a trend towards smaller and more energy-efficient cars could be observed, and a search for alternative options started.

On a macro-economic scale, the vision of decoupling economic growth from resource consumption arose, standing for a more optimistic view and a way out of the dilemma. It suggests that economic development is also possible with much less pollution and lower resource consumption. In this sense, decoupling is a fundamental concept for development cooperation that is committed to poverty alleviation and sustainable development, looking for a balance of economic, ecologic and social aspects. Concepts like “factor 4”<sup>2</sup> have clearly shown that resource productivity can be increased significantly and even be multiplied by factors from 4 to 10, from a technological point of view.

The last three or four decades saw steady increases of energy and materials productivity at least in most of the developed countries. It must be admitted, however, that the efficiency gains do not cope with the ambitious goals of factor 4 or “absolute decoupling”. “Relative decoupling” is generally considered a first important step, marked by resource consumption rates that are distinctly lower than GDP growth. But a general change towards sustainable development would require decreasing resource consumption, emissions and waste generation in absolute terms in industrialised countries. This is all the more true, given the global justice issues involved with greenhouse gas emissions, as reflected in concepts such as “contraction and convergence” that call for equal per capita emissions.

Probably, the slow rhythm of increasing resource productivity can be attributed to the fact that oil and raw material prices came down in real terms after their peak at the very beginning of the 1980s that had stimulated the exploration of new deposits. As reserves had increased, prices for fossil fuel and most raw materials—as well as for food—remained relatively low until the first years of the 21st century. Then, the situation changed dramatically. In addition to a sharp rise in oil, food and raw-material prices, the world is becoming aware of fundamental environmental problems like climate change and loss of biodiversity. The latest report of the IPCC<sup>3</sup> clearly showed that man-made climate change is a reality and that urgent action is needed in order to stabilise temperature increase at 20° C and avoid the worst impacts.

It is also clear that developing countries and especially newly emerging economies like China and India will account for a large share of additional greenhouse gas emissions in the coming decades. In this sense, decoupling of economic development from GHG emissions has become a must, for the North as well as for the South. **The principle of Contraction & Convergence** with equal per capita emissions may prove to be a formula that serves as a key for the creation of the new future climate regime with common but differentiated responsibilities.

The need for reducing emissions in conjunction with high commodity prices can become a powerful driving force for decoupling, at least for energy and CO<sub>2</sub> emissions. On the other hand, decoupling stands for a more holistic model of a resource-efficient economy and should also apply for raw materials, water and land. International cooperation with developing countries has to play an essential role and has to face the challenge to provide appropriate solutions that reconcile economic growth with environmental protection and conservation of resources.

### **Growth and Resource Consumption in Developing Countries**

Cooperation with developing countries should contribute to improve living conditions of people and reduce poverty that largely depends on economic development. Even in the 21st century, **the global patterns of consumption and production are unsustainable,<sup>4</sup> characterised by severe environmental pollution, increasing resource consumption and accelerated climate change.** This has serious consequences, notably scarcer and more expensive basic resources such as water, farmland, food, energy and raw materials. Developing countries and poorer population groups are particularly hard-hit. Therefore, options for decoupling

economic growth from resource consumption are a key for finding a way out of the dilemma. Production processes need to become more efficient while drastically reducing their dependency on natural resources.

Industrialised countries should not only give an example and make big efforts to scale down their own resource consumption and CO<sub>2</sub> emissions. They should also provide support to developing countries. In this context, emerging countries play a vital role. Not only are they in the process of becoming a driving force in the global economy—their raw material and energy consumption is on the rise, and they account for a growing proportion of greenhouse gases. As climate change represents one of the most serious threats for the future of mankind, it is extremely important to integrate emerging countries in the efforts for mitigation. But so far, many developing countries are interested in adaptation to climate change and participate in CDM measures. Most of them are reluctant, however, in accepting responsibilities and commitments with respect to the future climate regime. And they even have good arguments pointing to the industrialised countries that still account for extremely high emission and resource consumption rates, especially on a per capita base. While an average US American emits almost 20 t CO<sub>2</sub> eq/a and a European about 10 t, Chinese per capita emissions are below 5 t/a, those of an Indian close to 2 t, and many African countries have per capita emissions of about 0,5 t. Total materials consumption shows a very similar pattern. However, in terms of resource consumption per unit of GDP, many developing countries show a high degree of inefficiency as compared to industrialised countries, resulting in meaningful “efficiency reserves” that could pave the way towards potential decoupling.

Taking climate change as the key challenge, it must be admitted that technical cooperation often can only slightly influence existing trends in the short term. While the impacts of individual projects, e.g. in the area of renewable energy, are often very positive, the general trend—with about one new coal-fired power plant per week only in China—clearly points to rising GHG emissions. This situation would only change with a new international framework on climate change with developing countries taking over own obligations for mitigations. International cooperation should help developing countries and, especially, emerging countries to be prepared for that moment. In this sense, well-targeted sectoral programmes for the promotion of renewable energy as well as more holistic approaches towards a resource-efficient low-carbon economy are justified. From a partner-country point of view, probably the most useful contributions are co-benefit or win-win strategies that combine increased economic efficiency with sustainable resource use and GHG reduction, contributing to cost reduction and innovation.

### **Experiences of technical cooperation with developing countries**

As a service provider for international cooperation, GTZ is committed to the vision of sustainable development and disposes of a broad range of instruments and methodologies that contribute to decoupling and environmentally sustainable economic development. Partner countries are supported with multi-level approaches that address policy issues as well as training and advice for target groups and stakeholders. The experiences are based on a number of programmes carried out mainly on behalf of the German Government and include support

to capacity development of environmental authorities and good institutional frameworks, which are a pre-requisite of effective environmental management and policies (e.g. Brazil, Algeria, Morocco, Tunisia, China, India etc.).

A number of projects were carried out in order to foster clean and eco-efficient production methods in specific polluting sectors, like tanneries, electroplaters, textile industry etc. (e.g. in Thailand, Chile, India, Indonesia). Though in almost every company options for improvement can be identified, a significant pollution abatement generally requires complementary action in order to create a coherent legal framework as well as economic incentives. In addition to pollution control, the more efficient use of raw materials, chemical substances, energy and water has become a central issue that also results in waste minimisation and possibilities for cost reduction.

Traditionally, small and medium-sized enterprises (SME) form a special focus of technical cooperation. For this target group, GTZ on behalf of the Federal Ministry for Economic Cooperation and Development had elaborated the methodology of “Profitable Environmental Management” (PREMA) that combines environmental and organisational improvements with cost reduction, aiming at a triple-win for involved companies. PREMA has been applied successfully in more than thirty countries, including China, India, Indonesia, Algeria, Egypt, Mexico and Brazil.



SME are generally also in the focus of energy efficiency projects for the industry (e.g. in Argentina, Brazil and Thailand). Due to the overarching importance of climate change, however, bigger GHG-intense industries might come more into the focus in the future. Yet, GTZ has started to monitor in more detail the reductions of CO<sub>2</sub> emissions achieved. In the case of measures for the phasing-out of ozone-depleting substances, GTZ has made very positive experiences in many countries, especially with substituting CFCs by natural gases, which do not have the harmful effects of other substitutes to the climate that HFCs and HCFCs have. Those technologies are more energy-efficient and combine protection of the ozone layer with GHG mitigation.



Additionally, so-called “sector-wide approaches”, sustainable value chains and public-private partnerships in the sense of alliances with the private sector might gain more importance. Another more recent area of work is the support of sustainable industrial zones and/or eco-industrial parks (e.g. in India, Thailand, Tunisia), including the PREMA-based tool “Sustainable Management of Industrial Areas” (SMIA).

According to GTZ’s experiences, the development of suitable policies and policy instruments that stimulate a more efficient use of resources as well as minimisation of pollution, waste generation and CO<sub>2</sub>-emissions is very essential. Since the 1990s, **GTZ has engaged in the development of market-based instruments, and lately is taking part in approaches towards an environmental fiscal reform appropriate for developing countries.**

### Perspectives

The need for decoupling economic growth from resource consumption is more urgent than ever. Record food, fuel and raw material prices are an indicator of the high resource intensity of the global economy. The present pattern of economic development could lead to serious problems not only concerning availability of basic resources and access to them, at least for the poor. It is also cause of climate change through elevated GHG emissions.


International cooperation is facing new big challenges and can play an essential role even before a new internationally agreed framework on climate change is in place. So far, industrialised countries account for large parts of resource consumption and greenhouse gas emissions, but newly industrialising countries are catching up. Though per capita emissions are still far below those of industrialised countries, countries like China and India are already among the main global emitters, and big proportions of the expected increases of GHG will come from emerging economies.

In 2006, the Stern Report<sup>5</sup> showed that mitigation efforts needed in order to stabilise warming at a maximum of 20° C are economically feasible and by far less expensive than non-action that would have catastrophic consequences. A study published by McKinsey<sup>6</sup> gave cost figures for different options of GHG mitigation up to a maximum of 40 €/t CO<sub>2</sub> reduction, pointing at energy efficiency as the cheapest mitigation option (with negative costs and very short pay-back periods, e.g. for building insulations). The majority of mitigation options including almost all forms of renewable energy is linked with additional costs. Therefore, it is improbable that relatively cheap coal (available in big quantities in China and other countries) will be replaced in a significant scale by renewables, unless international agreements set binding limits (for GHG-emissions).

Such an agreement should be based on the principle of Contraction & Convergence: convergence means that developing and developed countries will have equal emission rights on a per capita basis, while contraction stands for the necessity that global GHG emissions must start to shrink at some moment in the future. In this sense, contraction implies a strong absolute decoupling of economic development from GHG emissions. This would imply a new challenge for international cooperation. On the other hand, convergence or equal emission rights for

everybody could become the motor of a global development through large transfers from rich countries that emit more to poor countries that do not make use of all their emission rights.



As long as the new climate regime is not in place, **development cooperation should give special attention to co-benefit and win-win strategies, helping to improve energy and materials efficiency and go first steps towards a resource-efficient low-carbon economy.** Meanwhile in Germany, like most other countries, material costs have a significantly higher share in total production costs than labour costs. This is especially relevant for the new economic giants like China. As their economy largely depends from availability of energy and raw materials, models of decoupling economic growth from resource consumption and GHG emissions are in their vital interest. As they are of crucial economic and ecologic importance for the future of our planet, development cooperation should be continued with these emerging powers. 

(FOOTNOTES)

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| <p>1 Meadows, D. H. &amp; Meadows, D. L., 1972: The Limits to Growth. Universe Books.</p> <p>2 Weizsäcker, E. U. von; Lovins, A. B.; Lovins, L. H., 1997: Factor Four. Doubling Wealth – Halving Resource Use, Earthscan, London.</p> <p>3 International Panel on Climate Change (IPCC): Climate Change 2007. The Physical Science Base.</p> | <p>4 UN Summit for Sustainable Development: Implementation Plan – Chapter III. Johannesburg 2002.</p> <p>5 Stern, N., 2006: The Stern Review on the Economics of Climate Change. Cambridge, Cambridge University Press.</p> <p>6 Enquist, P.-A., Naucélér, T. and Rosander, J., 2007: A Cost-Curve for Greenhouse Gas Reduction. The McKinsey Quarterly.</p> |
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# Sustainable Bioenergy: Chances and Limitations of Social and Environmental Standards

Daniel May, Philipp Schukat and Laura Meissner



## Introduction

The perception of bioenergy has changed drastically from that of a climate saviour to that of a reaper of environmental havoc. Until summer 2007, bioenergy was widely perceived as the solution against rising energy prices, reducing dependency from oil imports as well as carbon emissions in the transport sector. The production of biomass was deemed to open an additional market for agricultural products, thus ending the long period of price and income decay that many farmers around the world had suffered from. But recently, increasing scepticism changed the discussion on bioenergy, connecting it to soaring food prices, rainforest destruction and a negative balance on greenhouse gas emissions.

**Sustainability criteria are seen as the solution for differentiating between useful and harmful biofuels.** As there are many potential negative impacts from bioenergy production as well as from other agricultural practices, there is a global consensus that the production of bioenergy has to comply with a certain set of social and environmental minimum standards if they are to deliver on their former potentials and promises. However, there is no consensus yet on the exact standards.



The design and set-up of sustainability standards is being undertaken at all policy levels: at the global level within the Global Bioenergy Partnership (GBEP), at supranational level within the EU and at national level in various countries worldwide. In addition, there are an increasing number of voluntary standard processes, which are defined by NGOs, civil society, industry, private sector etc. Because the production of the biomass for bioenergetic purposes is the crux of the sustainability aspects, most schemes have a strong focus on the production of feedstock that is used for bioenergy. It should be mentioned, however, that many of them originally have not been developed with a focus on bioenergetic use.

In many industries, the introduction of sustainability standards is already well underway. The process always should begin with a social negotiation process involving all stakeholders. This holds for corporate codes of conduct as well as ecological, fair-trade and sustainable-forestry certificates. The underlying intention is to find a compromise that is ecologically responsible, socially just and economically viable. So, standards are a successful development policy instrument because they translate the vision of sustainable development into practical steps that can be measured.

Setting standards is not easy. In this article we describe some of the ongoing challenges and weaknesses in setting standards for bioenergy. In the second chapter we describe the lessons learnt from other standard processes. In the third chapter the ongoing bioenergy standard and sustainability processes are illustrated. In chapter 4 and 5 we outline the chances and possibilities as well as the limitations of sustainability standards. Chapter 6 draws some conclusions.

### **Lessons learnt from other processes**

#### **Common Code for the Coffee Community**

The Common Code for the Coffee Community (4C) is an association of stakeholders representing producers, trade and industry, and civil society worldwide seeking to improve basic social, environmental and economic practices of coffee production. 4C started in 2002 and from the beginning, the 4C project was based on a multi-stakeholder approach in supporting social standards in coffee production. During the design, development and implementation process of the 4C code of conduct, representatives from over 20 countries were participating. Realising a structural market change needs the inclusion of all relevant actors.

Sustainability standards for bioenergy are not the first schemes developed aiming at socially, ecologically and economically sensible production and trade. Experiences of initiatives such as the Common Code for the Coffee Community, Forest and Marine Stewardship Council or Rainforest Alliance are providing valuable insights into opportunities and challenges. From their experiences a number of important lessons learnt can be drawn.

### Forest Stewardship Council

The Forest Stewardship Council (FSC) is an international organisation establishing binding principles for responsible management. FSC built up a network of currently 46 National Initiatives which promote FSC in their country and support the development of national or sub-national standards. The National Initiatives ensure that the worldwide scheme is accessible for local stakeholders and presents a platform for local representation.

**A fundamental lesson is that the development process of a sustainability scheme should include all stakeholders eventually affected:** producers, processors, traders, industry and exporters as well as NGOs, civil society, local communities etc. The coordination process of many stakeholders is complicated and needs time, a high degree of flexibility and coordination. The rewards are stakeholder support, transparency and credibility. All stakeholders have specific concerns and interests and contribute important aspects to be considered for the functioning and implementability of the scheme in the future. In the end, this can save great costs of reassessing parts of the criteria or the whole scheme. The main concern of producers is generally a better or more stable income. The private sector is driven by interests in quality and new markets. Adherence to social and ecological standards needs to be combined with economic incentives to ensure continuation. NGOs want to achieve social improvements and environmental protection.

For the design of multi-stakeholder processes, it is important to identify central, highly motivated persons to mobilise the initiative. The earlier important stakeholders can be integrated into the process, the higher its legitimacy and acceptance will be. At the beginning, an intense stakeholder analysis is vital. Clear agreement as to roles and responsibilities is also essential. As the build-up of trust increases the effectiveness of the process, seeking support by neutral moderators has been found helpful.

Experience of established sustainability schemes further suggests that transparent and representative governance structures are vital, otherwise initiatives risk losing credibility and lacking support of stakeholders. There are different designs of governance structures, yet what is important is that stakeholders are clear at all times whom to address, and that responsibilities are clearly marked out. One important aspect here is a transparent complaint mechanism. To achieve a high degree of social inclusiveness and equitability, capacity building demands of producers to reach compliance with the schemes, requirements should be identified and analysed. Some schemes establish support platforms for farmers, others request that standard holders do provide training to their suppliers.

No scheme will be perfect from the beginning; therefore, an important step in the development of every standard is to test it in the field, and it is useful to link up with implementation projects. Early and practical testing of the criteria is an efficient mechanism to understand the consequences and impacts of the scheme. Designing a scheme to be able to adapt to changes and be open to improvement is an important quality aspect.

### **Sustainability processes for bioenergy**

Numerous sustainability processes and efforts to establish certification systems for sustainable bioenergy have started. At the end of 2007, there were at least one dozen different initiatives and processes aiming for sustainability standards of bioenergy. However—with the exception of the Round Table for Sustainable Palm Oil (RSPO)—none of these certification systems are implemented yet.

The consolidation of the running processes is beneficial to all stakeholders, as they can concentrate on the most promising, advanced and elaborated sustainability processes.

There is the need to distinguish between voluntary certification schemes and setting standards, laws and regulations by governments. Voluntary standards enhance and prove the commitments by the private sector, such as codes of conduct or ethical labelling. These commitments are supported by the societies of industrialised countries, which increasingly demand sustainable modes of production and reward these with their purchase decisions. Standards, laws and regulations by governments at national, supranational or international level have to be complied with by all stakeholders.

### **Voluntary sustainability standards and processes for bioenergy**

Numerous voluntary standards for bioenergy are being developed. Those initiatives aim for the establishment of certification systems for all types of bioenergy (Biodiesel, Ethanol, straight vegetable oil, but also for traditional biomass such as timber). Currently, there is a strong focus on oilseeds and sugarcane production and industries, as the biggest market dynamics are in these commodities and industries.

The RSPO is currently the most advanced certification system for bioenergy-related commodities, and certification of production sites is already well under way. It is expected that the first RSPO-certified palm oil will be entering the market in 2008.

The RSPO process started in 2001, not having bioenergy as a focal market in mind, as more than 90% of palm oil is still used in the food, cosmetics and chemical industry. The process started in South East Asia, as Malaysia and Indonesia are the biggest palm oil producers worldwide and account for more than 80% of global palm oil production.

In a broad stakeholder process all relevant stakeholders, such as industry, NGOs, civil society and scientists, were included. The industry was composed of companies from all parts of the production chain, such as palm oil growers, palm oil processors, consumer goods manufacturers and retailers as well as banks and investors. They discussed and agreed on how to translate social and ecological demands into practice.

RSPO principles and criteria<sup>1</sup> include all relevant questions with regard to social and environmental standards. This includes protection of water resources, maintaining soil quality, preventing erosion, conducting environmental impact assessments, assuring biodiversity conservation in plantation areas as well as using energy in an efficient manner. Social criteria

include workers' rights, promoting health plans, open a transparent communication between workers and millers as well as with local communities. Furthermore, wages have to meet at least legal or industry minimum standards. Because, as mentioned above, not bioenergy was the market in mind, the RSPO to date lacks a principle on greenhouse gas balance requesting a significant reduction in the emission.

The process of the RSPO shows evidence that it is possible to achieve a broad consensus and agreement between all stakeholders on principles, criteria and standards, even though there are vested financial interests, strong environmental concerns such as the destruction of rainforests etc. **Key for this success was the provision of sufficient time for all stakeholders, broad structure of stakeholders, transparency and representative internal government structures.**

Another initiative is the Round Table for Sustainable Biofuels (RSB), which was formally launched in April 2007. It is a global initiative, having a broad focus on biofuels, and their aim is to “draft principles and criteria to ensure that biofuels deliver on their promise of sustainability.”<sup>2</sup> The RSB is committed to an equitable, open and transparent standard-setting process involving all stakeholders. Between April 2007 and Summer 2008, stakeholders have discussed the criteria in about fifty working group and expert group teleconferences; four in-person stakeholder meetings in Brazil, China, South Africa and India (totalling 200 participants); on-line via the Bioenergy Wiki and via direct e-mails and phone calls to the Secretariat at the Swiss Federal Institute of Technology in Lausanne.



In August 2008, the Version 0 of “Global Principles and Criteria for Sustainable Biofuels Production” was launched. All stakeholders have the possibility and the task to comment and discuss Version 0 in the next six months, aiming for Version 1 in April 2009. Compared to other ongoing sustainability and certification processes, this process takes much more time. But it is obviously the most promising running initiative, as it is one of the few which are aiming for broad stakeholder consensus and are displaying ensured transparency.

The RSB's principles and criteria include all relevant questions, such as the ones for legality, consultation, planning, and monitoring, greenhouse gas emissions, human and labour rights, rural and social development, food security, conservation, soil, water, air and land rights.<sup>3</sup>

→ **For international cooperation and GTZ, the chance to support sustainable development through supporting processes of sustainability standards entails manifold roles.** It supports those stakeholders involved in developing and implementing social and ecological standards, and passes on the experience gained through advisory services to development cooperation projects. An important function is the role of the mediator or neutral moderator. As mentioned above, a multi-stakeholder process is difficult and time-consuming and it is valuable to have an institution that is trusted on all sides. GTZ is also a partner and intermediary in dialogue with government agencies, the private sector, trade unions and non-governmental organisations. However, such activities on their own cannot establish standards as instruments of sustainable development in the long term. One of the primary aims is to find allies in this essential endeavour. Other development cooperation projects, but also the private sector and other social actors need to be mobilised into integrating standards development and implementation into their activities.

### **Government lead processes, laws and regulations**

In parallel to the development and establishment of voluntary sustainability standards and processes for bioenergy, governments are finally developing standards for bioenergy as well.

The European Union, as well as Governments of its Member States, started the promotion of bioenergy a few years ago and set up a broad mix of promotion instruments, such as obligatory blending quotas for fuels, incentive systems for producing renewable primary products such as rapeseed, incentive schemes for producing energy through renewable primary products, subsidies for bioenergy production etc. Due to these measures, the demand for bioenergy grew worldwide.

Rapidly criticism arose, mainly through NGOs which claimed bioenergy being inter alia responsible for rainforest destruction, soaring food prices and loss of biodiversity. These concerns were also accommodated by the public. The increasing public pressure on governments and politicians lead to immediate action, as they also see their specific responsibility for the current situation.

The German Government developed the *German Biomass Sustainability Regulation*.<sup>4</sup> The Dutch Government founded the Cramer Commission, which developed the *Testing Framework for Sustainable Biomass*.<sup>5</sup> The Government of the United Kingdom put the process of the *Renewable Transport Fuels Obligation*<sup>6</sup> in place. All processes aimed at least for environmental standards, some of them also including social standards.

To avoid differing legislations all over Europe, the European Commission took over the task of developing a joint standard for Europe which includes environmental and social standards. The aim is to finalise and ratify the directive in early 2009. Only bioenergy which complies with the set standards and regulations will then be eligible for subsidies, incentives and promotion schemes. As the use of bioenergy is in most cases not yet economically feasible, one can expect that these regulations will have a strong impact and that hardly any non-sustainably produced bioenergy will be used within the European Union. This would be in the interest of governments as well as of NGOs, civil society and industry.



The draft version of the EU regulation contains the most critical environmental and social issues which need to be included in such standards. However, from the viewpoint of development cooperation, some issues, such as many social standards, still have to be included, others should preferably be formulated much more obligatorily or defined more clearly.

The role of international cooperation and GTZ in this regard is to advise governments and their ministries on the impacts of regulations and obligations, especially with regard to developing countries. It supports the participatory development of such regulations, as they are only widely accepted if all stakeholders—also disadvantaged groups in developing countries—have the chance to raise their voice in such processes.

### **Chances of the ongoing debate of social and environmental standards for bioenergy**

The complex nexus of the production of biomass and the entailing massive drive, pressure and awareness from governments, civil society and industry in the discussion of challenges and constraints carries the potential to lead to significant changes in the organisation of sustainability schemes.

The ecological and social problems resulting from bioenergy production are in themselves neither new nor bioenergy-specific. The worldwide production of biomass for food as well as for other industries use causes by far greater social and environmental problems than the current biomass production for bioenergy (about 2 to 3% of currently used agricultural land). But the political opportunities are different.

Governments, therefore, have on the one hand a larger responsibility, on the other hand also a bigger influence on setting the general framework for the biofuels market.

A second reason is that one of the most important aims of supporting biofuels is to reduce greenhouse gas emissions. But this aim cannot be achieved by simply promoting biofuels alone, but the promotion has to be tied to the production process of those biofuels which really lead to reduced greenhouse gas emissions. Whether biofuels can contribute to this aim, depends very much on the production process. If forests are cut down, wetlands are dried or lots of fertilisers are used, the greenhouse gas balance will be negative.

Until now, most sustainability standards focused on a single commodity (coffee, forest, palm oil, soy, cotton etc.). In the case of bioenergy, there is a strong need for one single system which can deal with all of agricultural and forestry production, because any biomass could potentially be used as an energy source. Therefore, any system currently being developed by voluntary initiatives as well as government legislation can be seen as a catalyst for designing an international sustainability framework for agriculture and forestry.

**The debate on sustainability standards regarding bioenergy has the potential to give new impulse to the sustainability debate in WTO.** WTO is setting very strict limits on mandatory international sustainability standards set by governments. But in the case of bioenergy, the international market is highly depending on internationally recognised and mandatory



sustainability standards to prove inter alia the positive greenhouse gas balance. The production process is key to achieving a positive balance. The balance of bioenergy produced in tropical regions is a lot better than the greenhouse gas balance of bioenergy produced in other regions, therefore quite often giving a clear advantage for developing countries.

Currently, GBEP (Global Bioenergy Partnership) in the framework of the FAO is developing an internationally recognised methodology to measure the greenhouse gas balance of biofuels. Under these circumstances, it would even be possible to classify biofuels as an environmental good in WTO. Environmental goods benefit from a quicker liberalisation. Brazil, for instance, is pushing to classify biofuels as environmental goods. Obviously, biofuels can only be classified as environmental goods when produced sustainably. Therefore, only a close linkage of an internationally recognised sustainability standard would make such a classification possible.

→ **For the first time, processes for setting standards are based on two synergetic governance instruments which work in parallel:**

1. sustainability schemes of the private sector and civil society;
2. national regulatory policy implementing unilateral regulation or international agreements.



As described above, currently both private initiatives as well as governments are developing sustainability standards for bioenergy. Sustainability schemes developed by private sector and civil society can develop, independently of WTO, internationally recognised sustainability schemes in about two to four years. The requirements and the design of the verification system are developed by the value chain stakeholders themselves. These initiatives manage to create a market differentiation between sustainable and unsustainable goods. This is the precondition for responsible consumers to identify sustainable products and to be able to purchase them. The strength of these initiatives lies in the minor influence of governments (independent of WTO), of brakeman (voluntary consensus of the pioneers) and in the creation of market incentives. In many cases, these initiatives have proven to be more effective than the government regulations and enforcement.

However, national regulatory policy implementing unilateral regulation or international agreements is binding to all stakeholders. Therefore, this instrument can be much stricter

than voluntary standards, especially as the state can enforce the set requirements. However, law enforcement especially in the environmental and social sector is one of the big challenges in many countries worldwide.

The synergetic use of those two governance instruments is one of the biggest chances of the current development, as all stakeholders, including governments, are developing sustainability standards together and both are respecting that each governance instrument has its strengths and weaknesses. By combining them, it is much easier to achieve sustainability of bioenergy.

### **Limitations of voluntary social and environmental standards**

Voluntary sustainability standards containing social and environmental standards and certification systems are not the *one-size-fits-all* solution and will, as a single measure, not assure the sustainable production of bioenergy on a global scale. Sustainability standards and initiatives are directed towards companies and farmers. Consequently, they can only contain requirements whose implementation can be controlled by the private sector. These are, for instance, implementation of the core labour standards (regarding issues such as child or forced labour) or the use of certain pesticides or techniques to avoid erosion, or even whether they produce on land which was until recently covered by rainforests.

### **The central problems of bioenergy production need further support by governments.**

These relate to indirect effects of bioenergy production, such as indirect land use change, which has great impact on greenhouse gases, as well as biodiversity and food security. “Also recent agricultural commodity price increases can, for the most part, be attributed to factors unrelated to bioenergy production, such as increasing food and fodder demand, speculation on international food markets, and incidental poor harvests due to extreme weather events. High oil prices and related high costs of fertilisers also have an impact on the price of agricultural commodities. Deforestation and loss of biodiversity had already reached unsustainable levels before the recent surges in bioenergy demand, and it is difficult to link direct causality of land use changes in one region or country to bioenergy production in another.”<sup>77</sup> To avoid or minimise those indirect effects, governments have to play an important role. The action which needs to be taken by governments is very often not directly linked to the agricultural or energy sector. Action may be required in finances and business development as well as law enforcement, planning, the transport sector etc. Therefore, interministerial cooperation is required in the governments.

Governments can also define mandatory sustainability standards unilaterally for their own country or develop multilateral agreements. But these multilateral agreements take time, usually more than four years. Mandatory sustainability standards are extraterritorial requirements on the production process, with very limited possibilities at WTO.

Transparent and in the long term successful sustainability standards and their related processes take time, just as multilateral agreements between governments. Obviously, time is currently the most restricted resource in developing sustainability standards for bioenergy.

However, experiences in other processes have shown that the standards do not have to be perfect from the very beginning, but can start in “draft versions”.

Developing governance structures and combining the two instruments of voluntary standards and government regulation also takes time, as difficult negotiation processes are involved. The right mix may differ from case to case, but the international discussion favours a synergetic mix of both systems.

## Conclusion

Voluntary sustainability standards as such cannot guarantee the sustainable production of bioenergy, neither can laws and regulations. Only a combination of both instruments—making use of the strengths of both of them—can achieve the goal of sustainable production of bioenergy. This holds true, as globalisation has changed the balance of power between government, the private sector and civil society. In the absence of international institutions that could guarantee a socially just and ecologically sustainable market economy, voluntary sustainability standards can fill this gap, even though voluntary sustainability standards are not the *one-size-fits-all* solution, as they cannot replace governments and state power.

Nevertheless, there is still need for action, as sustainable production of bioenergy is by far not yet assured. But bioenergy has also to be seen in the much broader framework of agricultural production and agricultural expansion worldwide. As described above, the problems of producing bioenergy are neither new nor specific for bioenergy. Therefore, **instead of focusing on the niche agricultural markets of bioenergy, the debate should be used as a catalyst for the much larger sustainability problems in agricultural and forestry production as a whole.** Standards play an important role in this regard! «

### (FOOTNOTES)

- 1 RSPO principles and criteria can be reviewed at [http://www.rspo.org/resource\\_centre/RSPO%20Principles%20&%20Criteria%20Document.pdf](http://www.rspo.org/resource_centre/RSPO%20Principles%20&%20Criteria%20Document.pdf)
- 2 Round Table for Sustainable Biofuels <http://cgse.epfl.ch/page65660.html>
- 3 Version 0 of the principles and criteria of the Round Table for Sustainable Biofuels can be reviewed and commented at <http://cgse.epfl.ch/page70341.html>
- 4 The German Biomass Sustainability Regulation can be downloaded at [http://www.bundesfinanzministerium.de/nn\\_53848/DE/BMF\\_Startseite/Aktuelles/Aktuelle\\_Gesetze/Gesetze\\_Verordnungen/002.html?\\_nnn=true](http://www.bundesfinanzministerium.de/nn_53848/DE/BMF_Startseite/Aktuelles/Aktuelle_Gesetze/Gesetze_Verordnungen/002.html?_nnn=true) (in German only)
- 5 [http://www.lowcvp.org.uk/assets/reports/070427-Cramer-FinalReport\\_EN.pdf](http://www.lowcvp.org.uk/assets/reports/070427-Cramer-FinalReport_EN.pdf)
- 6 <http://www.dft.gov.uk/pgf/roads/environment/rtfo/>
- 7 Round Table for Sustainable Biofuels <http://cgse.epfl.ch/page65660.html>

# Conserving Biodiversity Requires a Change of Course in Worldwide Biomass Production

Hubert Weinzierl



Biodiversity is a key concept for understanding why there is life on Earth and how much of it there is, how human interventions impact on the natural environment, and how their adverse effects can be limited. The more species there are and the greater the genetic diversity, the more likely it is that plants and animals can adapt to changes in climate and the environment. So far, about 1.8 million species have been identified.

However, species are now dying out at a much faster than the natural extinction rate. There are many reasons for this—for instance, diversified landscapes are transformed into monocultures, river floodplains make way for housing, habitats are destroyed, and animals are endangered or wiped out by hunting and overfishing.

Germany has hosted the international summit on biological diversity this year. Its preservation calls for greater and more consistent effort from all the countries in the world, with the aim of ensuring a fair and equitable sharing of benefits and a biodiversity policy based on solid scientific foundations.

In the context of climate change and energy security, innovative technological solutions are imperative. Substituting oil with renewable energy from biomass is one such technology. Critical assessments, though, produced by scientists are warning of the adverse effects that excessive expansion of the biomass economy would have for worldwide species diversity, the global climate and environment, and for the poor populations in developing countries and middle-income economies.



Given these interlinkages, it will be of high significance how we address today's most important topic: **increasing concerns about the ecologically harmful effects of biomass production** for energy use.

In an effort to expand the biomass economy, EU policy has introduced a compulsory blending of agrofuels in petrol, with a quota to rise step by step from 6.75% in 2010 to 20% in 2020—provided that agrofuels, like all other energy paths, contribute significantly to the reduction of CO<sub>2</sub>, and they should be assessed according to their specific CO<sub>2</sub>-avoidance costs. All the costs involved in production, such as those for fuels, fertilisers and pesticides, should be included in the inventory analysis.

The production and utilisation of biomass, purposeful in itself, could have effects opposite to those intended. This would especially hold true at global level, if the demand for agrofuels in the industrialised countries led to ecologically problematic material flows, such as those associated with palm oil, soy and sugar cane production in Indonesia and Brazil and other developing countries. In Germany, a biomass boom accompanied by the increased cultivation of maize and rape could have a negative impact on the agricultural humus balance and on biodiversity and landscape diversity. In addition, an increase in large-scale biomass farming and the corresponding processing facilities could come into conflict with the value chains of an entrepreneurial and sustainable farming sector. We must decide how much land we want to set aside for energy use. Food production must take priority.

I take these concerns very seriously. They indicate a substantial conflict between valid economic, environmental and social objectives which is not easy to solve. On the other hand, it is important that we set up a biomass economy for energy production. This is currently only in its infancy—in technological terms, with respect to quite new envisaged purposes such as decentralised energy supply systems, and with regard to its linkages with rural economic development.

One of the declared targets of the German energy and climate policy is to triple biomass use for energy in the electricity, heat and fuel markets by 2020. The greatest increase is presently occurring in the fuel sector. These targets tie in with the ambitious goals to expand the use of renewable energies and to improve resource efficiency. Also, if we can capitalise on Germany's scientific and technical competence by strengthening agricultural research and developing cost-effective processes that help to solve the global energy problem, then this will give us an added industrial edge.

However, critical developments are currently at odds with these opportunities:

- **Low level of efficiency on climate protection:** When currently used as a biofuel, farmed biomass does little to curb climate change. It is more efficient in terms of climate change mitigation when used to produce electricity and heat. The key criterion for assessing technologies must be their global-warming impact. This is caused not only by carbon dioxide, but also by other greenhouse gases such as methane and nitrous oxide, which can contribute substantially to greenhouse gas emissions if the biomass is not produced in accordance with good practice. Land-use changes, cultivation processes including fertilisation with nitrogen, and the conversion process to produce the fuel determine the overall climate balance of biogenic fuels.
- **Limited land area and competition for use:** A bioenergy boom in the industrialised countries impacts directly on the area of land potentially available worldwide for agriculture. What applies in Germany also applies around the world: the plans to expand biomass cannot be achieved with the area of cultivable land available. It is not possible, however, to significantly increase the area of usable agricultural land worldwide. On the contrary, this is already under pressure from population growth, from rising demand and from land take for housing and transport infrastructure. Now, increased land-use pressure is intensifying competition between food and energy production. A conflict of biomass use between “pump” and “plate” is looming and would lead to ethically insupportable competition. The gap between rich and poor will be widened by food imports. Increasingly concentrating on a few agricultural crops for food and energy will further drive the loss of species diversity. At a global level, the rising competitive pressure and/or indirect land-use changes are extremely problematic where rich ecosystems and biological and genetic diversity in the territories of indigenous peoples have inadequate or no protection in property law. Loss of biodiversity, threats to carbon sequestration in soils, and the forced displacement of local people in favour of farmed biofuels are not compatible with the German Government’s sustainability goals.
- **The future of agriculture in Germany:** The production of first-generation biofuels encourages a tendency to construct centralised oil refineries and to increase the proportion of rape in crop rotation. This is an undesirable situation if it leads to a too short crop rotation, which is directly or indirectly detrimental to biodiversity. In order to ensure an entrepreneurial farming sector as a model of sustainable farming, the ecological and social criteria for biomass cultivation should concentrate in particular on ensuring the conservation of biotope diversity while taking intergenerational equity into account. I would warn against encouraging German farmers to become dependent, and note with concern that misplaced incentives are being handed out prematurely. Constructing more refineries for first-generation fuel production could prove to be a poor investment when those of the second generation become ready to market.

### Global repercussions

The negative impact on food production prices is already being felt, especially in countries which depend on food imports. Coupling the price of oil and food is threatening to undermine the basic human right to food as laid down by the United Nations. This is even more problematic in view of the fact that, as a result of increased demand from the emerging market countries and the growth in meat consumption, world grain reserves have dwindled to less than the recommended minimum. **Due to the uncertainties of flooding, drought and other weather anomalies which are expected to become more frequent as a result of climate change, food production should take priority over biofuels.** Political and economic incentives should be put in place as safeguards.

### What can be done? Recommendations for policy-makers

The German Council for Sustainable Development came up with a policy paper early this year addressing these challenges. We are calling on the German Government to subject the production of all renewable energies to a comprehensive sustainability assessment. Even technologies motivated by climate change policy should be subject to the strict criteria of such an assessment. With the conflicting goals of biodiversity conservation and sustainable biomass production, it is important to assess the long-term consequences in particular and to develop solutions that do justice to both objectives.

The finiteness of the cultivable land available and the irreversible character of biodiversity impacts require new political approaches and conflict resolution mechanisms. The participation of stakeholders, the inclusion of civil society, a certification of products that is effective on global markets, and policy decisions based on indicators are key elements for dealing constructively with conflicting goals.



- We urged national policy-makers to substantially **reduce the legally binding quota** for the admixture of bioenergy to automotive fuels, and to set strict criteria for assessing the sustainability of the cultivation and processing of biomass products. The Council would like to see a development of biomass production that does not proceed purely in favour of agrofuels, but rather **as part of a holistic strategy embracing all energy sources with the aim of finding the most climate-friendly solution.**



In view of the potentially grave repercussions of ambitious biomass targets, policy-makers are challenged to think seriously about causes and governance options. A legally binding quota arrangement should not be put in place until production is guaranteed to be sustainable, second generation agrofuels are available for supply, and their economic viability has been confirmed.

Accordingly, we recommend a research programme on biomass that is on a par with other international efforts. Research and development in particular should be fostered to enable us to assess the innovation potential and thus the “learning curve” of new technologies, and draw political conclusions from this information.

To achieve climate targets in the transportation sector, we recommend utilising the entire spectrum of technological and social innovations to make mobility sustainable, with special emphasis on reducing vehicle consumption. We need a fundamental transformation of the way energy is used for mobility. Biofuels are only a small part of the solution.

Regarding Germany’s leading role as host of the 9th Conference of the Parties to the UN Convention on Biological Diversity, we did recommend that the country should increasingly urge development of an international regime governing access to genetic resources and equitable sharing of the benefits arising from the use of the intellectual property and ecosystem resources of indigenous peoples. The rights of local communities, in particular, should be taken account of and be protected. It is also vital that biomass production is included in Clean Development Mechanism (CDM) and Joint Implementation (JI) programmes. For this purpose, we need qualitative benchmarks against which biomass concepts can seek approval as climate protection measures. We further recommend that Germany should initiate the negotiation process for a bioenergy protocol within the scope of the CBD, in analogy to the Cartagena Protocol.

It is crucial that the problematic impacts of bioenergies identified by science are counteracted at policy level. Until such time as effective criteria are available worldwide for sustainable farming and trading, biomass should preferably be cultivated in Europe, to avoid a situation where the supply of food and feed and the production of energy are safeguarded at the cost of arable land in emerging market countries and developing countries.

Policy-makers, the private sector and civil society should initiate a globally applicable, market-oriented quality assurance instrument for biomass production in order to pre-empt expensive environmental and social errors caused by farming maize, rape, palm oil and other biofuels of the first generation before the more climate-friendly second-generation biofuels (including “biomass to liquid”, BtL) come on stream. Setting up a **certification system for energy products from biomass requires discussion about sustainability criteria** along the entire value chain. The certification should provide evidence that, overall, imported biomass makes a significant contribution to climate change mitigation and biodiversity conservation. A certification system should not be restricted to agrofuel production. The conditions laid down for certification should include social and ethical standards and the definition of areas on which biomass cultivation is prohibited.

→ **A new instrument for the sustainable control of biomass production should be developed at a national level.** It could be structured on the latest ecological indicators used by the German Agricultural Society (DLG). An indicator of greenhouse gas emissions could be introduced as a measure of the climate efficiency of biomass production, similar to the one which governs the application of nitrogen.

The Council for Sustainable Development, with a strong focus on energy transition, is calling for the developing and strengthening of bioenergy-based value-creating strategies for rural areas. Combined heat and power generation should be expanded more vigorously. We should press ahead with the further expansion and construction of local heat supply networks to use the heat generated. Due to its baseload potential, biomass could be accorded a prominent role in decentralised energy supply systems—particularly in the heat market—and in combination with other renewable energies. Its contribution to the overall energy supply should not be overestimated.

It is essential that we undertake innovative research into the integration of biodiversity criteria in climate impact research, and in research on the cultivation and use of biomass. More crop rotation research is needed, along with other research approaches geared to conserving biological diversity. The further development of crop production research harbours innovation potential for future energy systems and biodiversity by using marginal locations, reintroducing intercropping, broadening the spectrum of crops through breeding, or planting fast-growing trees with positive impacts on the soil and water balance.

In future, strengthening the second pillar of the Common Agricultural Policy (CAP) will acquire major importance. Linking agricultural production with nature conservation standards will reinforce natural landscape elements (e.g. through strips of land sown in wildflowers, or belts of broadleaf trees). Ecologically effective efforts should be increasingly honoured as a management tool for encouraging biodiversity.

Society is prepared to use tax money to assist the rural areas. In return, however, it expects ecological services and, in terms of biodiversity, the conservation of cultural landscapes with their diverse biotope types. «

## Endangered Livelihood: Biodiversity and Development

Konrad Uebelhör, Rolf Mack, Annette von Lossau and Anne Katrin Heinrichs



Biodiversity—the diversity of genes, species and ecosystems—is the basis of life for all humankind. It is essential for the functioning of ecosystems and the provision of ecosystem services like clean water, fresh air or fertile soil. Ecosystem services are essential for food production, climate and disease regulation—thus inextricably linked to human well-being. The values ecosystem services constituted for the global society are influenced by human activities: **the modification of ecosystems accompanied by biodiversity loss is a major threat to the foundation of human development.**

Already in 2005, the Millennium Ecosystem Assessment (MA) stated that humankind is changing the diversity of life on Earth at an unprecedented pace, affecting the ability of ecosystems to meet the needs of future generations: approximately 60% of the Earth's ecosystems that have been examined have degraded in the last 50 years, with human impacts being the root cause. Scientists estimate that 26,000 species become extinct each year. At this rate, one species is lost—forever—every 20 seconds. According to the MA, the most important direct drivers of biodiversity loss and change in ecosystem services are habitat change, overexploitation of natural resources, pollution, invasive alien species and climate change.

### The Biodiversity Convention (CBD)

The adoption of the CBD during the 1992 UN Earth Summit in Rio de Janeiro was motivated by the growing concern over the rapid loss of biological diversity. To date, the Convention has been signed by 191 parties. Far more than a conservation treaty, the CBD encompasses three equally important objectives: the conservation of biodiversity, the sustainable use of its components, and the fair and equitable sharing of benefits arising out of the utilisation of genetic resources. These objectives reflect the commitment of the CBD to the guiding principle of sustainable development and poverty reduction. The Cartagena Protocol on Biosafety, a supplementary agreement to the CBD, makes provisions for the safe transport and correct handling of GMOs, focusing on the protection of biodiversity and human health against possible risks. The protocol entered into force as from 2003 and is the first legally binding international treaty that anchors the precautionary principle and permits Member States to impose import restrictions or a ban on genetically modified organisms, even if there is no conclusive evidence of possible dangers.

As a party to the Convention and the Protocol, Germany together with other industrialised countries shares an obligation to provide financial resources to developing countries and to support them in their efforts to implement the accord.

The increasing awareness of the fundamental role biological diversity and ecosystem services play in supporting human life is reflected in further measures and initiatives on the international level. On the occasion of the 9th Conference of the Parties to the CBD (CBD COP9), which took place in Bonn in May 2008, the German Federal Chancellor Angela Merkel pledged an additional € 500 million until 2013 in order to make progress in the area of biodiversity conservation and its sustainable management. From 2013 on, the German Government is planning to allocate half a billion euro a year to biodiversity conservation and management.

### Development needs diversity

All of us rely on functioning ecosystems and a broad variety of genetic resources. Particularly in developing countries, many people directly depend upon local ecosystem services for their livelihoods. Forests and other natural ecosystems offer the possibility to gather wild plants and hunt animals, thereby providing many rural inhabitants with a major supplementary food source, in particular when crop harvests are poor. They deliver firewood and construction materials as well as natural medicines. Biodiversity loss is thus not only an ecological problem, but has far-reaching social and economic consequences. Where plant and animal species become extinct, the genetic information they carry and the functions they have maintained are irreversibly lost.

In the past as well as in the future, humankind has to adapt to changing conditions. These adaptation processes can only be successful if there is a broad spectrum of options. What is considered to be without value today may be a life-saving element in the near future.

→ **Preserving biological diversity means keeping development options open both for the people alive today and for future generations.** Therefore, it is a priority issue for German

Development Cooperation. Since 1985, Germany has supported approximately 450 projects worldwide which contribute to the conservation and sustainable use of biological diversity. Almost 90% of all projects and programmes are executed on a bilateral or regional basis. The remaining 10% are supraregional projects. Every year, the German Federal Ministry for Economic Cooperation and Development (BMZ) provides between € 50 and 80 million in funding. Latin America is the largest recipient region for German Development Cooperation: 39% of all technical and financial cooperation projects related to biodiversity are implemented in Latin America, followed by Sub-Saharan Africa with 37% and Asia with 11%. Additionally, Germany is the third-largest donor to the Global Environment Facility (GEF), which helps developing countries fund projects related to biodiversity, climate change, land degradation and persistent organic pollution.

On behalf of BMZ, the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH advises its partner countries on sustainable use of agricultural and biological diversity. Key areas of bilateral cooperation are development-oriented nature conservation, long-term safeguarding of protected areas, access and benefit-sharing of genetic resources (ABS), biosafety as well as capacity development and regional cooperation. In addition, issues like climate change and environmental education are becoming increasingly important. Selected activities of GTZ are presented in the following sections.

### Protected areas

Protected areas are a pivotal element of efforts to address threats to global biodiversity. They greatly contribute to the protection of natural habitats and associated flora and fauna as well as to the maintenance of environmental stability of surrounding regions. Furthermore, protected areas can provide opportunities for rural development. They generate income and create jobs and they are important for research and monitoring, for environmental education and for recreation and tourism. It is a remarkable achievement that today, over 120,000 protected areas cover more than 12% of the terrestrial surface of the planet.<sup>1</sup>



Nowadays, it is widely accepted that protected areas must be managed as part of the broader landscape rather than as “islands”. They are in fact intrinsically tied to the landscape not only ecologically, but also economically, socially and culturally. Therefore, the legitimate needs and interests as well as the knowledge and practices of people living in and around

→ protected areas must be taken into account. **Experience suggests that protected areas necessarily need the acceptance of the local people.** Environmental education is a crucial tool in this context; yet, successful protected area management will eventually depend on true participation by local people in decision-making, and on tangible benefits for them.

Another important aspect is the question of how protected areas can be sustainably financed. Payments for Ecosystem Services (PES) can serve as an incentive to shift towards sustainable, environmentally friendly patterns of land use and directly promote the conservation of natural resources and ecosystems. Thus, the environmental services that protected areas provide can support them financially.

Also, “trust funds” have become a popular tool for resolving the financial constraints of protected areas—especially if conceived as “endowments”. Such funds leave the capital stock itself untouched (ideally in “real terms”, i.e. retaining a buffer to compensate for annual inflation) and only utilise interest gains to finance protected area operations.

#### **Banc d’Arguin National Park in Mauritania**

Fringing the Atlantic coast, the Banc d’Arguin National Park occupies two-thirds of the northern half of the Mauritanian coast; it comprises coastal swamps, small islands and shallow coastal waters. Since 2002, the German government has supported the Banc d’Arguin National Park through a technical cooperation project. It aims at a management that guarantees the conservation of biodiversity and its sustainable use according to park objectives and in collaboration with local populations. It ties in with the CBD and international agreements in support of nature conservation, like the World Heritage Convention, the Convention on Migratory Species (CMS) and the Convention on Wetlands (Ramsar). The programme operates at different levels: improvement of framework conditions and promotion of strategic issues, organisational development of the park administration, sustainable financing, and strengthening of the capacity of the indigenous Imraguen population in co-management and ecotourism. Aspects of good governance such as transparent management also play an important part.

#### **Access and Benefit-Sharing of Genetic Resources (ABS)**

→ In the industrialised countries, many areas of the economy have an interest in biodiversity as a source of (new) products. The modern methods associated with biochemistry, molecular biology and, above all, gene technology have yielded rapid growth in the demand for genetic information for various fields of application. **While in most cases the genetic information is supplied by countries of the South with their enormous biodiversity, the technologies necessary for utilisation of genetic resources are predominantly available in the countries of the North.** Moreover, traditional knowledge of indigenous people and local communities about the possible uses of biological diversity is an important source of information. In order to achieve the equitable sharing of benefit between resource users (e.g. industry) and providers (e.g. the countries of origin or inhabitants of a distinct region), access to resources

must be transparently regulated and the illegal appropriation and use of resources or traditional knowledge—otherwise known as biopiracy—must be prevented.

So far, international discussions have focused on political issues such as bioprospecting, marketing and the prevention of illegal appropriation of genetic resources or associated knowledge. Links to poverty alleviation have not yet been fully addressed. **An international ABS regime, which has to be concluded under the CBD by 2010, could provide the necessary regulations at national, regional and international levels and prove ABS as a powerful instrument to reduce poverty.**

#### **The ABS Capacity Development Initiative**

In 2005, the Directorate-General for International Cooperation (DGIS) of the Netherlands Ministry of Foreign Affairs and the GTZ have joined forces to build human and institutional capacity in developing countries to deal with the complex ABS issues. In the long run, the Dutch-German ABS Capacity Development Initiative for Africa can be considered as an iterative process that supports the vision of ABS as an instrument for poverty reduction in Africa, positively impacting on:

- increased awareness of African policy-makers and legislators on ABS matters;
- a meaningful participation of all relevant stakeholders at all stages of the negotiation, development and implementation of ABS regulations at all levels;
- improved regional cooperation on ABS issues among African countries.

By achieving these direct impacts, the initiative will contribute in the long term indirectly to achieving food security and the Millennium Development Goals (MDG) via the fair and equitable sharing of benefits generated from the use of biological/genetic resources.

#### **Agrobiodiversity**

Agricultural biological diversity—or agrobiodiversity—is the result of thousands of years of efforts by farmers in selection and breeding and in developing appropriate production systems and methods. It embraces all components of biodiversity of relevance to food and agriculture, including all organisms that contribute to sustaining the key functions of agroecosystems. **Agricultural biodiversity is essential to satisfy basic human needs for food and livelihood security.**

Agriculture has a major impact on ecosystems and to some extent positively affects biodiversity: a variety of landscape structures serving as habitats for plants and animals have been created by different ways of utilisation. But while agriculture can contribute significantly to conservation and sustainable use of biodiversity, it is also a major driver of biodiversity loss. In recent years, agricultural plants and farm animal species become extinct with an increasing speed. According to the FAO, it is estimated that about three-quarters of the genetic diversity found in agricultural crops has been lost over the last century. Throughout history,

humans have used some 10,000 plant species for food, whereas today, due to the introduction of a small number of modern commercial varieties, our diet is based on just over 100 species.

Plant and animal genetic resources are the source material for the future development of crop varieties and animal breeds by farmers and breeders. Especially the small farmers of Africa, Asia and Latin America depend upon the diversity of genetic resources. **A rich diversity of native plant varieties and locally adapted animal breeds can enhance food security under difficult climatic conditions as well as in dry or upland regions.** Traditional genetic resources can be utilised mostly with minimum agricultural input, hold quality characteristics that correspond to needs and additionally often play an important cultural role for the local communities.

#### **The Sino-German project “Sustainable Management of Agricultural Biodiversity”**

The Sino-German project “Sustainable Management of Agricultural Biodiversity” is highly relevant for China—a country of mega biodiversity where genetic erosion of crops and livestock has reached an alarming dimension with increasing social and economic activities. It was launched between China’s Ministry of Agriculture and GTZ, commissioned by the BMZ. It provides a platform for the development of measures to cope with the degradation of agricultural biological diversity in China, whilst complying with various international agreements. The project elaborates and tests strategies and methods for the successful conservation and management of agrobiodiversity at village and county level in the Provinces of Hunan and Hainan. This outcome will provide the basis for advisory support to national decision-makers in agrobiodiversity policy development and implementation. In the long run, the preservation of agricultural ecosystems sustains the Chinese cultural landscapes, which are also attractive for tourists. Agrotourism can be an additional source of income for farmers and thus an incentive to maintain agricultural diversity.

#### **Biodiversity and climate change**

According to the Intergovernmental Panel on Climate Change (IPCC) and the MA, climate change is expected to exceed the adaptive capacity of many ecosystems. This will result in the loss of species and ecosystem services, threatening the livelihoods of people who depend on them.

Ecosystems and biodiversity also have an important impact on the climate system on local, regional and global level: oceans store about 95% of the overall CO<sub>2</sub>, while terrestrial ecosystems store up to 20% of the emissions from the combustion of fossil fuels—changes in land-use accounted for 18% of global greenhouse gas emissions in 2000 (Stern Report). Additionally, biodiversity affects the water cycle and the radiation.

At the same time, biological diversity contributes to the adaptation to climate change impacts, e.g. by providing a “safety net” of genetic resources such as dry-resistant crops, or by the protection of coast lines from flooding and erosion through mangrove forests and coral reefs.



Biodiversity directly decreases the vulnerability of the socio-economic systems of local people to climate change by providing ecosystem goods and services such as clean drinking water, energy and food.

In German Development Cooperation, strengthening the linkages between biodiversity and climate change is an emerging issue of increasing relevance. **Biodiversity considerations need to be integrated into climate change policy and practice.** On the one hand, investments in biodiversity conservation in development projects must be reconsidered under the conditions of climate change. On the other hand, it must be ensured that biodiversity is not compromised by measures for mitigation and adaptation to climate change. Furthermore, the coherence between the three Rio Conventions must be fostered in order to generate co-benefits.



### Communicating for sustainable development

Biodiversity loss is one of the major challenges our world faces today. Environmental education and awareness-raising are important tools in support of a more conscious and responsible management of biological diversity. In order to encourage changes in behaviour, it is essential to communicate and promote the vision of sustainable development. The United Nations has underlined how important education is for a just and peaceful global development by declaring the years 2005–2014 as the Decade of Education for Sustainable Development. **Education enables us to better understand ourselves and our links with the natural and social environment.** The Ecological Footprint<sup>2</sup>, carbon justice<sup>3</sup> and their interdependencies with biodiversity and climate change are comprehensive concepts that help to illustrate more complex matters such as global equity, worldwide resource consumption and poverty reduction. They demonstrate the importance of conserving biodiversity and the impact of consumer behaviour in industrialised countries on the living conditions in developing countries.<sup>4</sup>

On behalf of BMZ, GTZ supports the dissemination of knowledge and experiences relating to the conservation and sustainable use of biodiversity in industrialised and developing countries. In cooperation with other organisations, GTZ also aims at raising awareness among the German public and encourages debates on the significance of biodiversity, ways to conserve it, and our shared responsibilities in doing so. For that purpose, a variety of different approaches and communication tools (exhibitions, booklets, video material, competitions etc.) and campaigns like the Youth Summit “Go 4 Biodiv” or the International Biodiversity Day are being applied.

### **Biodiversity Day**

The “Biodiversity Day”—initiated by the GEO magazine and carried forward internationally by GTZ and its partners—has been held in eight countries so far. In keeping with the motto “You only protect what you know”, local communities and authorities together with researchers spend the day taking a close look at the flora and fauna in a certain area. In 2008, the Biodiversity Day (BDay) took place in the Kruger to Canyons Biosphere Region (K2C) in South Africa. It was chosen as location for the BDay because of its exceptional variety of landscapes and ecosystems. The K2C extends over the grassland, forest and savannah biomes and includes a diversity of land uses ranging from wildlife and conservation-based activities to agriculture, forestry and mining. During the BDay, several events were arranged on biodiversity, food security and poverty reduction as well as on the future potential uses of biodiversity and the equitable distribution of income from related resources.

### **Challenges and outlook**

According to the MA, the impact of the main direct drivers of biodiversity loss currently remains constant or is even growing. In addition, the indirect drivers—demographic and economic factors, politics and institutions, and scientific interventions—will continue to put increased pressure on ecosystems and biodiversity. Global population already doubled in the last 40 years and is projected to reach 8.1 to 9.6 billion by 2050. Moreover, the impacts of global climate change are likely to become the major direct drivers of biodiversity loss by the end of this century. Given that climate change and biodiversity are closely interlinked, both topics need to be more effectively joined and addressed at the international, national and local level.



Policy formulation and implementation needs to take into account the multiple dimensions of sustainable development and its interdependencies in order to bring about win-win situations. The concept of sustainability primarily builds on the limited availability of natural resources. In contrast to the social and economical dimensions of sustainable development, natural and biological resources are exhaustible resources which are not replaceable if they are once lost. Biodiversity and the ecosystem services it provides are the absolutely indispen-

sable basis of human well-being and development. Without them, sustainable development is no longer feasible.

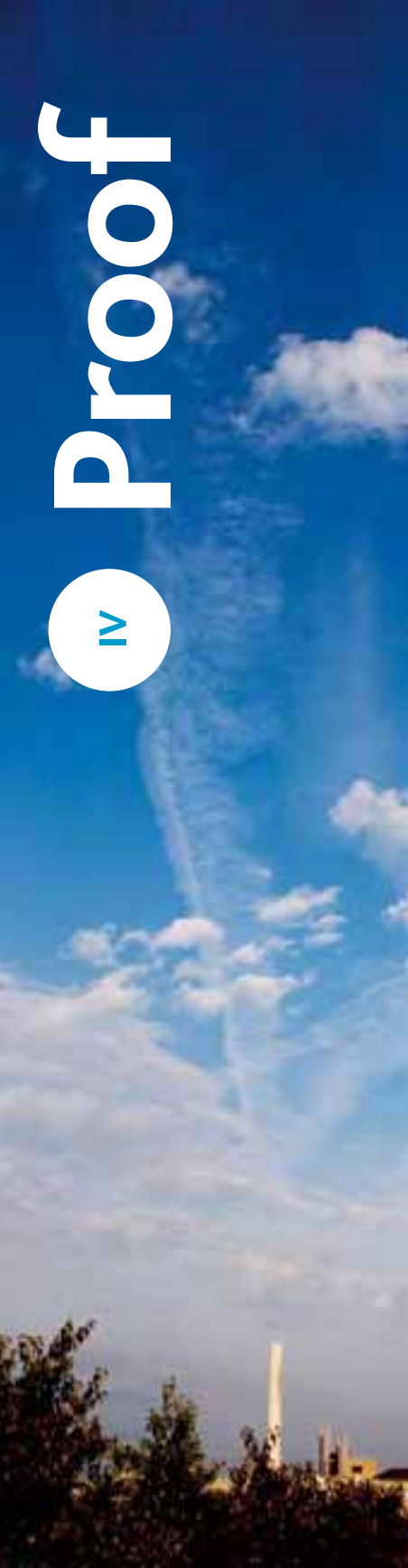
Hence, policy needs to address trade-offs among competing goals more consciously. It is important to consider that the value of ecosystem services lost to human society may greatly exceed the short-term economic benefits that are gained from transformation activities (e.g. conversion of tropical forest into biofuel plantations). So far, decisions are mainly based on incomplete information, as many ecosystem services are not captured in financial markets. If we are to find solutions to the problems we face, we need to understand how changes in ecosystems and thus biodiversity affect the goods and services they provide. Better quantification of the benefits derived from ecosystems can create greater incentives for biodiversity conservation and management.

Ecosystems with their biodiversity are our life support systems. Though the MA pointed out very clearly the consequences of biodiversity loss, the existing problems yet intensified and increased within the last years. Deforestation, land degradation, pollution and invasive species are still the major challenges endangering the attainment of the MDGs and the goal of sustainable development. **Therefore, development policy must aim with the highest priority to conserve biological diversity and to bring about a just distribution of benefits arising from its utilisation.** Considering and further developing mechanisms of informed decision-making will help to trade off all costs and benefits which are connected with different decision options. **Ultimately, the conservation of ecosystems and biodiversity is a matter of societal choice.** «

#### (FOOTNOTES)

- 1 Equivalent to the territories of the Republic of India and the People's Republic of China together
- 2 The Ecological Footprint is a resource management tool that measures how much land and water area a human population requires to produce the resources it consumes and to absorb its wastes under prevailing technology. Using this assessment, it is possible to estimate how many planet Earths it would take to support humanity if everybody lived a given lifestyle.
- 3 The principle of carbon justice is striving for a long-term convergence to equal-per-capita emissions rights accomplished through a medium-term multi-stage approach accounting for differentiated national capacities.
- 4 The CBD includes communication in its Programme of Work on Communication, Education and Public Awareness (CEPA). This programme serves to assist contracting parties, educators, and civil society in communicating the aims of the Convention in a language that is accessible to many different groups.

# IV Proof





# Influencing Policy on Energy and Consumption: The Role of the Sustainable Development Commissions in Germany and the UK

**Volker Hauff**

*Meeting with the UK Sustainable Development Commission,  
London, 27 February 2007*



Europe is a difficult institution. It is not a motherland—neither for you nor for me. But we both need it to ensure prosperity and peace—in the future even more than in the past.

Sometimes it seems like a paradox. Although the European perspective is more or less accepted, we still find ourselves in the need to increase and speed up our European work. European politics are on the fringe. I see the current way of policy-making on the sides of the Commission and the Member States as not adequate. Challenges of modern society have increased, the stake is high. My thesis is:

- Modern policies have to increase the involvement of civil society and the business community.
- What we need are more long-term policy concepts.

Political institutions have to learn how to play an additional efficient role as facilitator in a process-oriented and dialogue-oriented endeavour. The topic of my lecture is a twofold: the role of SDCs and the issues of policy on energy and consumption. I will start with some remarks on the role of SDCs.

Such advisory councils—at least twelve similar national bodies exist in Europe—have a rather unconventional standing in the traditional political frame. Our influence might be limited with regard to the dramatic problems that we observe: the national and international energy and consumption scenarios, a biosphere jumping the rails, an increasing geo-strategic resource struggle and an enormous technological progress. Our voice as experts and stakeholders can offer a “relevant independence” that others cannot. SDCs are a “pressure group for good arguments”. Just look to your Commission in the UK.

That’s why even in Germany some interested parties have taken note of the UK SDC’s advices on the Energy Review, and of its consumer dialogue project. For they give good examples of how such a tightrope walk between pragmatism and sense of urgency can be realised. It is my task today to give you an impression of how we in Germany as *Nachhaltigkeitsrat* have tried to realise similar positive effects.

The German Council for Sustainable Development, at the interface of science and politics, tends more towards the political side of the coin through a form of what we could call “soft representation”: the German Chancellor appoints the members *ad personam*, using their experiences in different fields of our society and economy with SD.

**Soft representation for solution-finding and deliberation of statements work rather differently from classical corporatistic negotiations.** None of us in the Council represents, or shouldn’t represent, a kind of standard opinion of his or her institutional background. The six years of work that lie behind us have taught us how to reconcile these backgrounds with intellectual flexibility and openness towards the other’s point of view. I call this a “search area” where we look out for the best available solutions.

We are given the task of helping to launch and to monitor the German SD Strategy as a demand for just that: stimulating and carrying on an informed debate on emerging and ongoing topics for which no “silver bullet” is at hand and sometimes not even in sight. Sustainable Development, in this sense, for us is a process much more than a formula. In fortunate cases, the controversy leads to new ownership among stakeholders and gives us, as the Council, the room for qualified and effective advice to the Government and other actors. Sometimes the advices themselves trigger discussions, but have no immediate effects in the political arena. And in very few cases, our own search failed in obtaining such results and, subsequently, there was no advice that we could publish.

As for the Council, our second term is ending next month and we have used the opportunity to take stock of our activities. The bottom line of our assessment is that the set-up of the Council successfully ensured the establishment and implementation of the German SD Strategy. But **we have also evaluated where the Council failed**. There is a very special case

where we failed to agree on an advice. This case relates to eco-taxation. It did hurt, because of the intense working process that was lost and because of the missed opportunity of agenda-setting.

Another deficit is the following. Due to our limited capacity, we are not in the position to set up a meaningful follow-up mechanism for our own advices on private consumption, on international trade, on energy efficiency—to name only a few. We observe that we are losing the thematic leadership after issuing those advices.

I do not want to go into details on this. I'd rather give you some good news as well—of which we have plenty. Our very clear focus on going public has paid off. The advices of the Council have been widely spread into the respective expert public spheres and beyond. In three thematic areas, we have been able to reach certain opinion leadership and set agendas, and to trigger further policies and implementation in the private sector, namely:

- (1) Climate change and the role of „clean coal“ for energy supply
- (2) Corporate Social Responsibility
- (3) Land consumption and its relation to all three dimensions of sustainability

For these topics, the public debate has proven to be a clear advantage in the quest for public relevance. We brought a broader public into this search area, for example by underpinning our advices with previous public consultations and dialogue forums. We have proven the case that communicating SD is no second-rate task. It is of prime importance when it helps to create acceptance—and to force different stakeholders to confront their points of view on a higher level than just the usual exchange of blows.

An important element of this “procedural” approach to SD is the annual conference the *Nachhaltigkeitsrat* has been hosting since 2001 regularly in Berlin, with up to thousand participants each. They combine high-ranking political representation and diversified expert discussions. The Chancellor participated in all our conferences, politicians from all parliamentary parties have showed up, and important representatives from business, academia, churches, and even the normally hesitant mass media. The discussions covered a broad range of SD issues from land consumption to media politics, from Local Agenda 21 to Corporate Social Responsibility. We always intended to, and sometimes succeeded in, shaping these discussions in a way that was neither “elitist” nor “arbitrary”. Our strategy of “going public” reaches clearly beyond the inner circle of SD experts.

At the heart of any sustainability strategy is the issue of energy. If you would ask me, “What is the strategic key question today for sustainable development?” my answer would be a variation of a famous saying of the Clinton administration: “It's energy, stupid.”

Today, we know that whatever solution for our energy transition we might come up with, it cannot be seen as a national solution exclusively, and it cannot be seen as serving only today's generation. I might briefly explain what I mean by saying this. As a matter of fact: Huge media pressure to succeed is placed on politics; only few resist and the rest opt for quick solu-



tions even when solutions require a longer view. Short-sighted policy circles tend to scandalise the issues, provoke the public, stir up the media, may even suit political careers—but they do not solve any problem. At the end of the day, you will find them belonging to the problem side of the thing instead to the solution side.

As a pressure group for good arguments, we insisted on a coordinated approach to the energy policy challenges that necessitates using a coordinated strategy with quantified objectives and management tools. In the past, the national strategy for SD declared highly aggregated targets—e.g. doubling energy productivity from 1998 until 2020 and reducing the greenhouse gases by 30% till 2020, just to mention two examples.

A reliable energy strategy would need much more specified targets related, above all, to energy efficiency in the different sectors. And: it would require far more concrete management instruments than the general document of the German SD strategy is currently offering.

The management by objectives, indicators and temporally differentiated monitoring tools would have to severely balance the saving of any single CO<sub>2</sub> ton and the contribution made by individual governmental and societal programmes to this saving. Such a strategy may not resolve all of the contradictions built into the German energy policy. However, following a conscious decision-making process, it should prescribe the direction that an energy policy needs to take. This specific direction and framework is necessary for all players, and especially for investors—whether they want to establish the business case for energy efficiency, or they want to invest into renewables, power plants or research activities.

The German Council for Sustainable Development has actively participated in the discussion of SD targets. This was already required by its initial task to take part in the development of the SD Strategy in 2002. The major goals of energy policy communicated by the Council after its 2001 kick-off meeting were: a 40% reduction in CO<sub>2</sub> emissions by 2020 (as compared to 1990); the end of coal subsidies by 2010; and the development of renewable energies. I'll come back on the coal issue later on. And you'll notice that the 40% CO<sub>2</sub> target was far more ambitious than anything realised later in Germany and Europe.

To make my point related to energy efficiency: In 2001, we formulated the challenge to increase energy efficiency—or, as I would prefer to call it: energy productivity—by 3% yearly. And when we said “yearly,” we had something different in mind than the 30% target which has been debated recently within the European Commission, although both measures are not so far from each other when it comes to absolute amounts of reduction. Yearly targets imply annual controlling, and that's how the national budget works and how any serious governmental programme uses to be evaluated. **Targets that are settled just there “in the air” and which have no regulatory foundations are worthless.**

What we still need more than any number of well-designed projects is a *Quantensprung* into a political management that builds societal pressure and expectation, creates a business case for energy efficiency, lines up scientific capacity and uses this to introduce a transparent monitoring of public and private efforts.

The measures taken might include regulatory approaches where, after several years, no sustainable development has begun to materialise through the market mechanism. Flexible standards are a good idea, as the Japanese example shows; the Council, therefore, has been calling, since 2004, for the implementation of the so-called top-runner approach for mass-produced products that consume energy. (I think you prefer the terminus “product road map” here in Great Britain.)

The new coalition in Germany has, so far, pronounced itself very positively on such ideas as the top-runner approach I just mentioned. The implementation of the EU Energy Efficiency Action Plan, whose start is now in the hands of the German EU Presidency, will show whether these pronouncements are more than lip service.

The revision of the eco-design directive should bring as a result a four-years cycle of application of best-efficiency ratings to all energy-intensive products. I could mention, in this regard, other fields of legislation: the controversial cars directive or the directive on the energy performance of buildings. All of them form part of the overarching challenge of letting converge the so-called Lisbon and Gothenburg Strategies into a path of true ecological modernisation. This path can't be taken by countries like Germany and the UK alone, and even less it will be found by the more recent accession countries, without a strong leadership from Brussels.



In the “Energy Summit” the German Federal Government set up in 2006 in order to restructure the national energy policies, Klaus Töpfer and I participated as members of the Council. We have been pressing on energy productivity as priority number one. We urged the government to push further the energy-related lighthouse projects of the National SD Strategy: the large-scale refurbishing of existing buildings in an energy-efficient fashion and the contracting campaign which helps regional and local authorities to provide their own properties with more efficient energy services.

Moreover, we have called attention to the fact that oil and gas bottlenecks for Europe will become even tighter, once fast developing countries like China start to cartelise in order to skim oil and gas resources. Therefore, we've argued that only those countries will remain competitive in the longer term which succeed in letting their renewable energy markets grow above average.

The red-green Government in Germany has triggered such growth auspiciously with the renewable energies law and its feed-in tariffs, but further action is needed in order to really exploit the technological potential, which in the case of wind power is estimated by experts to range up to 20% of global electricity production in 2025 and in the case of biomass even up to 30%.

I said I would get back to the issue of coal. As the pressure of public opinion and strong political movements in Germany have led to a phasing-out of nuclear power plants—on the basis of a contract between government and industry—until 2020—a development the *Nachhaltigkeitsrat* hasn't attempted to question in spite of internal tensions regarding the subject—we have taken up the issue of coal use as early as in 2003.

Next to hydropower, lignite is our only significant economic domestic energy source. It has serious disadvantages, such as the destruction of nature, affecting the groundwater and requiring partial resettlement measures. Its extraction puts a permanent burden on the environment and mankind. We therefore found it necessary to draw up environmental impact assessments for all mining sites.

We clearly supported, in our statement, the use of coal in Germany, as firstly it promotes the advance of domestic power plant technology, which should be applied as widely as possible around the world, and secondly because the global distribution of coal reserves would reinforce supply security. But we clearly stated that there was one condition: that the climate protection requirements could be met by the middle of the century. The construction of coal-fired power plants with the highest attainable level of technical efficiency of up to 50% as reference power plants alone would not be enough to develop a sustainable electricity supply structure. Such plans would have to integrate the option of capturing and storing CO<sub>2</sub>.

We were, in 2003, quite heavily attacked for this “promotion of coal”. **Main critics came from the environmental NGOs on one hand and from nuclear industry on the other.** As the latter insist in promoting their technology as the one and only viable path for reaching a low-carbon economy, the plea for a new bridging technology didn't suit them very much. Well, that's not surprising. More difficult to handle was the partly fundamental opposition from “green” people who were afraid of a new “grand technology”, ignoring the fact that climate change needs a CO<sub>2</sub> reduction now—and that renewables will not yet be able to realise it. Of great help in this regard was the presence of very moderate and dialogue-oriented environmentalists within our own Council—a presence that opened doors where no mere government strategy could have even found some. This was a success story of what I called the soft representation in the Council.

**Energy efficiency, as a source of productivity and CO<sub>2</sub> avoidance, is far less contentious. I would say that this lack of contentiousness is one of the key problems efficiency faces: everyone agrees with the words, but action is being taken only by few. This situation is bizarre because it means that the mainstream of governance and business decisions neglects the clear business case for energy efficiency.**

The Council had an intense discussion with Amory Lovins in this last month. We still came to no simple conclusion about a definite list of main obstacles. The “time to consumer” for efficient products is far too long, and some of the regulatory approaches I mentioned earlier will be necessary to shorten it. Labelling and transparency are other important aspects as well. Politically, at least in Germany, the fragmentation of responsibilities between several ministries does not help either.

Introducing binding emission trading for large-scale energy converters could provide an important impulse towards attaining energy efficiency—but there are serious doubts whether the current National Allocation Plans are actually contributing towards that goal. Within the Council, we have not yet systematically pondered the pros and cons of current carbon trading. We only agreed in principle that the emission trading regime and the allocation of emission certificates should, in the future, be designed in such a way that a real market is created and maintained. That would require a maximum of transparency for the market entry, as few exceptions as possible that could falsify the motivating effect of avoiding CO<sub>2</sub>, and a “phasing-in” of emerging economies from India and China and of the US-American economy. Scientific research into how to manage a worldwide trading scheme is needed. Research is needed to understand how such a worldwide scheme would translate into culturally different life support decisions of industries and the lifestyle of people in the respective countries and regions. We are also looking with interest at the Individual Carbon Trading study your Environment Ministry had commissioned last autumn, and will anticipate its political follow-up. Maybe, the political climate in the UK is particularly favourable to rather “radical” explorations, like that of individual carbon trading. I think, others will benefit from a front-running performance.

The public attention to climate change might be higher among British citizens at the moment than among Germans. This shows even in one of the most sensitive subjects covered by the Eurobarometer polls, namely the individual willingness to pay. Responding to the question whether they would pay more for energy produced from renewable sources than for energy produced from other sources, last year almost half of the British respondents said that they indeed were prepared to do so. In Germany, only 32% did. Without giving such snapshots too much weight, they sure indicate a general climate of awareness. In Germany, problem solutions often use to be delegated by the people towards the State, instead of taking them into their own hands. This certainly has a positive history, too.

With regard to waste recycling, for instance, or to sewage treatment—classical environmental issues—the German policies with strong public responsibility have proven to be more efficient than those of many other countries for the last, let’s say twenty years. But when it comes to the complex panorama of sustainability and to its implications for everyday consume and behaviour, governmental action is not enough.

Our Council has illustrated that in the context of a project we called the “Sustainable Shopping Basket”, four years ago. The project has led to an awareness-raising campaign carried on by the German Consumer Protection Ministry. Unfortunately, the Government failed to expand the research and experimental aspects of our project. It has so far missed the opportunity

to show the actual viability of daily sustainable consumer choices. In this context, there is plenty to do within the very next years.

The aspects of lifestyle are not marginal to sustainability. As “soft” factors, they might prove to be even more powerful than the “hard” ones in a medium term. For they will prove—or will fail to prove—whether people in the industrialised world are really willing to correct their path of development. This “demonstrative” aspect in sustainability applies to issues as the already mentioned emission trading as well. Most of the members of the *Nachhaltigkeitsrat* agreed with Sir Nicholas Stern on this particular point when he visited us last November. The further development of European emission trading will be crucial just not only because of its direct CO<sub>2</sub> avoidance results, but also because of its signal and pioneer function for the rest of the world.



In cooperation with the *Deutsche Gesellschaft für Technische Zusammenarbeit* (GTZ), the German Council for Sustainable Development set up a dialogue process with high-ranking representatives of the BRICS countries—Brazil, Russia, India, China and South Africa—on sustainability strategies and their relation with economic growth. One of the collateral outcomes of this project is a new project of our Research Ministry on sustainable technology and system solutions with the fast-emerging economies, to be started this year. Without such elements taken into account, truly sustainable energy policies on our planet will not be feasible.

When the Brundtland Commission, which I had the honour to take part in, published its report here in London twenty years ago, many of the governance aspects we addressed remained vague, especially concerning the national levels. This was because we recognised that a blueprint approach would not do it. It is virtually impossible—I quote—“to propose an approach that would be valid everywhere.” We sure addressed the need of comprehensive and cross-sectoral approaches and even the idea of SD “ombudsmen” or councils.

But we wouldn’t have dared to imagine the real dynamics the idea of SD Strategies and Councils would gather after the Rio Summit. The German Government was one of the laggards in this respect. While the local agenda initiative began to flourish in the mid-nineties,



the red-green government only woke up on the eve of the Johannesburg Summit regarding a National SD Strategy. **While at the beginning they tended to perceive it as a rather formal task without much political implications, they quickly started to realise the possibilities** of modern political management this tool can offer—especially in the Chancellery, where the coordination unit of the strategy is located.

With all the difference we have been making so far, SD Strategies are still unfinished business. The single most needed element is maybe the provision of an overarching vision for political action that encourages commitment in business community, civil society and private sector. I do not see any country so far where the potential of SD Strategies is truly exploited. We will explore some of the SD Strategy-related chances and hindrances at the Conference “European Sustainability Berlin 07”, which the German Council will be hosting in the context of the German Presidency this June. I expect this meeting to deepen the dialogue between Member States and European representatives, both from the executive and the legislative policy level. I take our exchange of views today as an element of such an ongoing European dialogue, and I am grateful for it. «

# The German Case: Linking Global Commitment to Domestic Performance

Angelika Zahrnt



Sustainability aims to provide a guiding principle for a wide range of areas, including energy and environmental policy, business and finance, social welfare and research all of which relate in one way or the other to issues of global responsibility.

In a globalised world, any national or domestic policy is linked to multilateral issues. This is especially true for Germany's export-oriented economy. On the other hand, any national government that tries to establish some global political case is well advised to build up its credibility on the issues. It is better to make sure that the domestic policies are proof for "walking one's talk". This, again, is true for Germany and, e.g., for any ambitious climate policies that are challenging the continued trends of global carbon emissions.

The German Federal Government compiles the German sustainability objectives in the National Sustainability Strategy, which was presented in 2002 and was updated regularly since. The twenty-one objectives that have been laid out by the federal government play an important role in sustainable development. Introducing measurable criteria is a new way of policy-making. Managing by objective is a governance concept that, at the beginning, was predominantly perceived as a concept for the private sector following the saying, "**You can only manage what you can measure.**" With the rethinking of approaches and concepts for a more transparent and reliable public management, the concept of management by objectives entered the public policies.



Furthermore, quantifiable objectives and indicators make it possible to underpin what is meant by “sustainability”. Without quantifiable goals and indicators, “sustainability” would be in great danger of becoming merely an empty word which opens all sorts of greenwashing or window dressing. The indicators serve as a means of assessing the development of the economy and society. Indicators are a core element of any sustainability strategy because they invite people to ask the tough questions: Are we on the right track to achieve our medium-term sustainability targets? Or have we failed to change direction quickly enough? Or could it even be that real developments are heading in a totally different direction than the one that we have targeted?



The German Council for Sustainable Development encouraged the Federal Government to come up with **quantified indicators, timetables and clear targets**. Sustainability Strategies have to challenge the old way of policy-making that all too often reduces itself to programmatic announcement with only little delivery. The Council follows closely the statistical record on what the trend data deliver towards the indicated targets and timetables.



As an advisory board, the Council relies on the official statistics independently put together by specialised agencies, such as the data of the German Statistical Office from 2006. With this background data, the Council issued a review on progress, using red, yellow and green **traffic lights that symbolise a general indication of whether we are on track to achieve sustainability goals or not**:

- Red: The target cannot be attained without fundamental political changes. Here the trend is going in the wrong direction. Indicators are also rated “red” when things are headed in the right direction but the interim objective clearly cannot be achieved.
- Yellow: A heightened level of awareness is necessary, because the goal cannot be reached without additional measures. For instance, the indicator for climate protection has a yellow light, because additional measures are still required to attain the targeted limits of greenhouse gas emissions, despite the fact that there is a broad consensus that this objective can be achieved.
- Green: The trend is positive, interim goals have been achieved, and thus, it is possible to attain the targets.

We base our assessment on the year 2006 or earlier, depending on the data available from the Federal Statistical Office. Statistical reports on the Sustainability Strategy are an important tool that should be enhanced. Our evaluation simplifies today’s often complex trends. However, the traffic lights draw attention to the enormous need for action that is revealed by a transparent and clear analysis of the thirty-two sub-indicators for the twenty-one targets for sustainable development:

- Only ten indicators have a green light.
- Two-thirds of the indicators have either a yellow or a red light.

Meanwhile, the 2008 relaunch of the Federal SD Strategy will feature a renewed indicator assessment. The assessment is based on new data, as of 2007, and a more thorough in-depth



analysis with four instead of only three assessment categories (differentiating the red into two categories). Nevertheless, the new assessment confirms the bottom line of the Council's assessment. It underscores that politicians are called upon to boldly enhance the effectiveness and commitment of their own steps toward sustainable development, and to create operational fields for those that are not yet, or insufficiently, addressed by political leaders.

The Sustainability Strategy can only become effective if the German states and communities actively participate and put sustainability on the social agenda. The German Council for Sustainable Development recommends that the Federal Government places greater emphasis on the activities of the individual German states.

In addition to focusing on the average value for Germany as a whole, it is important to examine the different developments in each German state. This draws attention to the fact that significant developments can be primarily or solely driven by state policies.

The Council gave the federal states an opportunity to provide a self-assessment of the indicator performance in their particular region that deviates positively from the national average. State and regional governments have reacted differently to this offer. The German Council for Sustainable Development would like to thank all of them for the attention that they gave to this matter.

The positive trends that were cited by the states reveal the extensive options available to state policy-makers and they show the diverse nature of the overall picture in Germany. They are an invitation to enhance regional sustainable development approaches in an enriching atmosphere of competition. Positive deviations from the national average concerning certain indicators were cited by the states of Berlin, Bremen, North Rhine-Westphalia, Rhineland-Palatinate, Saarland and Schleswig-Holstein. North Rhine-Westphalia also illustrated additional comprehensive practical approaches for sustainable development. Other states did not take part. Bavaria indicated that the efforts of the German Council for Sustainable Development to include the states were a positive move, at least in principle. However, the Bavarians referred to the upcoming contribution of the German states to the 2008 progress report, which was still work in progress at the time the Council started the assessment. A number of states rejected the offer to participate, based on political or data processing reasons. Due to concerns of what they perceived as a comparison or "ranking" of the sustainability policies of different states, and after pointing out that statistical and methodological data from the Federal Government and the states could not be compared, the states of Baden-Württemberg, Bavaria, Brandenburg, Hamburg, Hesse, Mecklenburg-West Pomerania, Lower Saxony and Saxony-Anhalt, along with the Berlin Department for Health, Environment and Consumer Protection, declined to provide a response. Thuringia also referred to statistical difficulties, yet emphasised that, in a comparison of different regions within the state, it had made particularly good progress in some areas, such as climate policies and agriculture.

The German Council for Sustainable Development sees the lack of data comparability as a serious problem. This situation prevents the required coordination at the various state levels and is a bottleneck for any commitment to the Sustainability Strategy. This lack of coherence has

to be taken seriously, but, at the same time, does not provide a valid reason for refusing to take ambitious measures on the topic of sustainable development.

Furthermore, the German Council for Sustainable Development also surveyed sixteen state capitals on their local sustainability strategies and energy efficiency. The Council feels that cities play a key role in positive competition and the search for ways and concepts for sustainable development. This became clear during the “Local Agenda 21”, which was formulated as a follow-up to the UN Conference in Rio de Janeiro. Nowadays, important activities to promote sustainable development have become firmly anchored in city policies. The challenge for cities remains, however, to establish a coherent and comprehensive strategy.

The quality of life in the cities of the future will depend on how we shape the dynamic forces of the economy, our social and cultural coexistence and the environmental conditions. A dedicated Sustainability Strategy in the cities can make a considerable contribution to the prosperity of an entire region. The state capitals have a very special appeal. Their role as a model has been totally underestimated by politicians. In actual fact, cities and their initiatives within their respective states constitute an extremely important driving force, even at a national level. «

# Looking Back into the Future: The Sustainable Shopping Basket and Corporate Social Responsibility Should Take Us into a Sustainable Economy

Marlehn Thieme



If sustainable development is to be more than a global formula, economic, social and ecological responsibility must be more firmly anchored as the basis of our actions than they have been to date. This applies equally to states, social institutions and companies in their respective fields of activity. It appears all too easy for ordinary people to be left out of the picture. Counteracting this is the aim of the area of activity entitled “Sustainable Management and Consumption” that the German Council for Sustainable Development covers in a working group.

Up to now, the areas of Sustainable Consumption and Corporate Social Responsibility (CSR) have been viewed in isolation. In its “Sustainable Shopping Basket” project completed in 2003—and relaunched in a completely revised draft edition in 2008—the Council for Sustainable Development attempted to get to the bottom of the question of obstacles to buying products with the established seals. The shopping basket of the Federal Statistical Office Germany comprises over 750 products and services. For a large proportion of them the Council

→ found **sustainable products or alternative consumer behaviour options in the areas food and nutrition, living and household, textiles and clothing, mobility and traffic, tourism and travel, and financial services.**

The Council's project also pursued the goal of making the rather inaccessible term "sustainability" easier to put into practice. The basis for this was the assumption that consumers who would like to consume responsibly and contribute to sustainability are insufficiently informed about whether a product meets sustainability requirements.

A practical phase, during which families tested the shopping guide and adapted their everyday consumption to sustainability criteria, provided some interesting results.

- Three quarters of households indicated that they applied the recommendations from the Sustainable Shopping Basket as consumers and enjoyed going shopping.
- In actual application, the suggestions most often considered were those for saving energy and water (85%), purchasing regional products (79%), avoiding products in disposable packaging (79%) and buying products in season.
- The respondents criticised the limited range of ecological and socially acceptable goods available and the poor quality of advice available in many regions and supermarkets. Only 23% of households said that the products recommended were readily available in the shops.

Despite the shopping guide, things did not go any further: implementing the recommendations for action requires a high degree of initiative, since in many situations requiring a decision; consumers do not feel they have sufficient information from the producers and service providers.



Sustainable development demands far-reaching change on the part of policy-makers, businesses and consumers. Up to now, however, hardly any serious will to implement sustainable development has been evident. The recommendations of the Council for promoting sustain-

able consumption included the adoption of the topic in schools and occupational training for commerce and the service sector. Good food and nutrition are part of a good life. Knowing this can make a special contribution to society's feeling of well-being. The subject gains virulence from the impressive lack of knowledge about healthy eating in large sections of the population. The German Government sees itself required to conduct campaigns on both overeating and malnutrition. But we have to tackle the root of the problem.

To do so, it is essential that politicians themselves set a good example and **gear both services and public procurement to sustainability criteria**. The Council for Sustainable Development has presented six specific recommendations for this matter. Public spending has a volume of around 360 billion euro, which is roughly 17% of the gross domestic product, and therefore plays a significant role in the national economy on important markets for goods and services.

The Council for Sustainable Development recommends a comprehensive approach to modernising public procurement that also enhances Germany's competitiveness. It recommends realising all possible CO<sub>2</sub> savings in areas such as public buildings. In this area, investments can contribute to reducing consumption, saving taxpayers' money and to climate protection. Unfortunately, concerns about whether this will pay off prevail in public spending, too. The German Government is therefore called upon to carry out sustainability checks for individual areas as examples demonstrating the advantages of sustainable procurement. Specific proposals include paper, official cars and energy for heating federal buildings. Unfortunately, as yet, in none of these areas goods/services are assessed and procured according to sustainability aspects.

Yet, our ideas go even further. It would be a welcome development if the proportion of products were systematically assessed in terms of sustainable procurement in the annual reports of the German Federal Audit Office. The Federal Audit Office has a great interest per se in making savings. Furthermore, the German Government could appoint a "sustainability officer" to combine the approaches within the German Government to sustainability in public procurement. In order to guarantee transparency, the German Government should also regularly draw up a social responsibility report, as many companies do already.

Sustainability can ultimately be a growth strategy for Germany's economy, if the principle is taken seriously and actually put into practice.

- We will see an increasing trend towards reports from environmental and consumers' associations or from the German consumers' organisation *Stiftung Warentest* being used for publicising specific purchasing recommendations. In this way, information reaches the general public and initiates a change in consumer behaviour.
- In future, Corporate Social Responsibility will be a key strategic competitive factor for companies, representing not only an opportunity to reduce their business risks and enhance their reputations, but above all a stimulus for product and process innovations. Partnerships that germinate in stakeholder processes can provide the foundation for innovations that open up new markets.

Sustainable management can mean lasting success through the credible integration of both social and ecological aspects in economic necessities. For the population of an economic area, sustainable management can offer reliable life-support systems and guaranteed long-term prosperity for all sectors of the population.

Companies face the challenge of giving consideration to the different and, in some cases, opposing interests of their stakeholders, for example customers, capital investors, employees, suppliers, and non-governmental organisations. Consumer awareness and the growing interest in socially responsible investment (SRI) on the capital market are increasing the need to take up and communicate the demands for sustainability in a credible fashion. At the same time, we have to safeguard corporate responsibility and the international competitiveness of the German economy.

→ Companies in Germany have good starting conditions for using **CSR as an opportunity**. They have extensive experience in constructive dialogues with the employees as stakeholders. The tried-and-tested paths of dialogue between the social partners (including codetermination) form a good framework for this. Then there is also the fact that the large majority of companies in Germany are SMEs, active at either the national or the international level, often with an exemplary tradition of social commitment. For instance, they assume responsibility for training young people, or become active in promoting local culture and business. But, unfortunately, this contribution to sustainable development has not been sufficiently evident so far.

The goal of the Council for Sustainable Development is to promote and develop CSR in Germany.

→ The Council for Sustainable Development's recommendations for corporate responsibility aim to make this contribution more clearly visible. **Competition should be encouraged between companies for the best sustainability solutions**. This also means guiding companies towards this topic that have not yet introduced strategic approaches into their core business.

Large-scale implementation of CSR in global companies leads towards economic and social sustainable development, because CSR

- provides incentives for innovation and saving resources;
- underlines the quality image of companies worldwide and creates companies' licence to operate;
- leads to a better risk culture in companies;
- enhances companies' acceptance and reputation;
- can improve working and living conditions.

Ultimately, the issue is the competitiveness of companies and what contribution we can make to sustain economic development and wealth on a global level. Support is already available in the existing recommendations and guidelines, such as those of the Global Compact and the OECD for multinational companies. The intensity of the debate surrounding corporate credibility and values shows that it is enormously important to hold this discourse in the political sphere while involving the public. For this reason, the Council for Sustainable Development is taking action at its annual conferences and in dialogues. It keeps its sight on the business sector and also on politics, because sustainability is not only a licence to operate for companies, but also for politicians and parties. Those who avoid the challenges are ultimately fleeing from the decisive questions of the future. And, ultimately, it is the policy-makers who have to provide the general conditions for a sustainable economy. «



# Germany's Debate on Sustainability and Energy: An Issue Growing More Serious than Domestically Often Perceived

Volker Hauff and Klaus Töpfer

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The debate over nuclear power continues to divide Germany, but it has not made us any wiser. The louder people talk about operating periods for nuclear power plants, the more this supersedes the genuinely interesting issues surrounding our future energy mix. This has prompted us to call for a German “Apollo energy programme”—a bold plan for the energy infrastructure of the 21st century.

→ At first glance, talking about **extending the operating periods of nuclear facilities to buy time** for establishing a basis for renewable energy may seem like a reasonable approach. But the underlying facts remain unclear. Which nuclear plants will have to be taken off the power grid much earlier than legally required due to old age or a lack of profitability? Which



of Germany's seventeen nuclear power stations are even suitable to operate longer? How much extra money would be required to make them secure? Given that extending the operating periods for nuclear power plants would significantly slow investments in alternative and renewable sources of energy, what could the Government do to rectify this situation? How many stranded investments in alternative sources of energy will be produced by extending the operating periods? And how much higher will electricity prices rise because of this? How can we categorically rule out that extending the operating periods will entail an option to building new nuclear facilities?

Proponents maintain that nuclear energy is a technology that can bridge the gap to achieve climate protection goals, but nothing is said about where this bridge will take us. It has been promised that more nuclear power will generally lower the price of oil and energy costs, but it remains unclear how this desire, which has always remained a myth, could become a reality this time around. Nuclear power plants are called unpopular climate protectors, but there is no plan for how the construction of new nuclear power plants should contribute to meeting the 40-percent reduction in CO<sub>2</sub> emissions that is required by the year 2020. This is also true in other countries around the globe: If one hundred new nuclear power plants were to be built from one moment to the next, it would quickly become clear that this is practically impossible. The economy would see to it that the facility costs would rise immeasurably, not to mention the fact that we would not even have the capacity to build these plants.

From an international security policy perspective, the nuclear power option would only be feasible if it were combined with fundamental technological advancements that would make proliferation and plutonium abuse practically impossible, and reliably resolve the problem of ultimate waste disposal. In a number of decades, people will glance back and **recognise serious errors that politicians made at the end of the millennium when they failed to put a stop to nuclear proliferation**. If we are to prevent countries that build nuclear power plants from also gaining access to the bomb, we must find a structural solution that prevents weapons-grade atomic material from being passed on. However, there is no solution in sight and proliferation remains our highest potential threat over the long term.

The more people vehemently defend the phasing-out of nuclear power, the more this overshadows the fact that the phase-out has been eroded for many years now. After all, the phase-out agreement dates from a world that no longer exists today. At the time of its introduction, the energy markets were still more or less self-contained domestic entities. Nowadays, the European energy grid is becoming more closely networked. From an energy sector perspective, Germany no longer has national limits. In the future, nuclear power from beyond our borders will play a role in the "German energy mix". This means that the nuclear phase-out will require a European dimension if it is to have a future. But we are still worlds apart from such a situation.

For decades now, Germany has no comprehensive energy programme. Instead, the political parties and institutions have aligned themselves according to various interests and sectoral approaches, leading to fragmented and sundry alliances, while the energy providers cleverly weasel their way between EU market liberalisation and domestic legal loopholes—and their

high profits would seem to indicate that they have made the right choice. Subliminal opposition to change and *Schadenfreude* have more influence on decisions than open dialogue and transparent lobbying. In Great Britain, it would be possible to appoint a Royal Commission. In Germany, we are only familiar with the Chancellor's round-table talks at energy summits, which, despite three attempts, have brought us nothing that would not have been accomplished otherwise.

The energy issue touches the heart of a society, particularly in a country that is highly industrialised. Anyone who is used to only seeing parts of the whole does not have a plan to meet this challenge. **The nuclear debate is driving our open and democratic society into a dead end and a never-ending conflict.** It replaces our willingness to reach a consensus with a camp mentality. Outside of the camp, creative initiatives for sustainability in energy and climate policy are seen as dubious deviations and, at best, such measures are simply ignored. This weakens the social consensus for upholding freedom, justice and solidarity. Occasionally, such a climate also causes damage in the public sphere, for example when energy provider E.ON announced its intention to sell its own grid and thus undermined the German Government's negotiating strategies in Brussels at those times.

But things get even worse when the conflict fossilises to become a structural blockade. Such a blockade obstructs main navigational channels for political and business leaders, and all parties fall back into their old entrenched positions. This is what has happened with the energy supply and the country's power plants.

Climate change has supplied the coordinates for a new navigational course. The danger threshold has been placed at a warming of 2°C in the earth's atmosphere. In order to remain below this level, the CO<sub>2</sub> in the atmosphere must be stabilised at 450 ppm. A reduction in greenhouse gas emissions in the industrialised countries of 80% by the year 2050 (based on 1990 levels, in other words not taking into account the interim growth) is indispensable. An average emissions level of two tons of CO<sub>2</sub> per capita becomes a measure of global justice in order to make knowledge, growth and the right to development the guiding principles of a democratic social order. This situation is exacerbated by the continuously rising emissions of newly industrialised countries and food and oil shortages on the global market, but also shortages of steel, fertiliser and raw materials. Such fluctuations reflect the development of economies in Asia and Africa, with all their positive and negative effects.

This heralds a major adjustment. An economy in a changing climate is fundamentally different from the economy that led to the climate change. Comprehending this is a learning process that involves a great deal of trial and error. There are no ready-made blueprints for success.

Renewable energy is an example of such a learning process. This is where Germany plays an internationally recognised leadership role. But this leadership is lacking in other areas. The issue surrounding operating periods for nuclear power plants should focus the debate on Germany's energy mix, both in terms of the supply of energy and consumer demand for energy services. Only then will new options surface.

The operating period debate has been sparked by the dreaded energy gap which will arise, mathematically speaking, by calculating that at the point in time when the nuclear power plants are shut down, no new coal-fired power plants have been built, in other words, when the nuclear phase-out is directly followed by a coal phase-out. Six new construction projects for coal-fired plants have already been halted, and the fate of other planned facilities remains uncertain. In addition to organised resistance, the uncertain economic conditions surrounding this area constitute the main factor leading to a coal phase-out. Rising costs for plants, soaring coal prices and, presumably, from 2013, the full expense of auctioning all CO<sub>2</sub> emissions certificates make it more difficult to calculate the operating costs of new coal power plants.



All this talk of an energy gap is not entirely out of place, although the term is misleading, because shortages and power rationing are not anticipated. The issue actually concerns changes in the energy mix. It centers on the question of whether reductions, efficiency and renewable sources of energy are the answer to the dual phase-out, assuming that carbon dioxide emissions have to be reduced to an even greater degree over the coming twelve years than over the past eighteen years, where the deindustrialisation of the GDR made a significant contribution to diminishing emissions in Germany.

Last year, reductions in power consumption made it possible for the first time to achieve the objective of a three-percent annual increase in energy efficiency. But it remains to be seen whether this was an anomaly, or whether it represents a long-term trend or constitutes an ideal example, such as the one that appears to have been set by the Swiss strategy on energy efficiency. The development of renewable energies has not progressed quickly enough to allow it to replace on its own the power that will no longer be generated by conventional sources. Replacing old wind generators with more efficient and larger units, a process known as repowering, has not made wind power the driving force for renewable energy. On the German coast, the installation of wind energy units is progressing slower and is more technically complex than anticipated. Of the 3,000 planned off-shore wind turbines, 2,988 have not yet been financed. The technology is totally new. Despite global investors coming on board, there

has been no real progress. Some 800 kilometres of high-voltage lines still have to be built to transport the electricity from the coast. And to top it all off, there is resistance among the population to the construction of new wind turbines and power lines.

A coal phase-out over the medium term would be a wrong move. Instead, we have to make coal-generated power part of the solution for our climate policy. This is a colossal project. However, it is necessary to win over Kyoto sceptics such as China, India and the US to a promising worldwide energy project. This can only be achieved with an Apollo energy programme. Lawmakers have to lead the way. They have to determine the administrative framework for the energy mix. In this sense, extending the operating times could play a productive role, if only to finance this major transformation in energy production. In many parts of the world, coal is readily available in large quantities and will continue to be used. Coal meets nearly one-third of the world's electrical power needs, but is responsible for 75% of CO<sub>2</sub> emissions.

→ Burning coal cleanly, in other words, **removing the CO<sub>2</sub> is now technically feasible for the first time and can be achieved if Germany is willing to pay the price of becoming a global pioneer in this area.**

Nonetheless, as things currently stand, German and European energy policy has not seized this opportunity as a credible option for 2020. Europe does not have the means; in Germany, there is a lack of political will. The market will not be able to do this on its own. In order to achieve the climate objectives of Germany and of the EU, we need groundbreaking new initiatives.

Mandatory regulations for clean coal have to be introduced by the year 2015 in order to achieve medium-term goals for CO<sub>2</sub> reduction. Carbon dioxide separation and disposal must be legally required of every fossil fuel power plant by the year 2020. Companies will not invest in this energy mix without a signal to the market. For example, the State should make it clear that after 2015 no coal-fired power plant will be approved without CO<sub>2</sub> separation and that, when an understanding is reached on a Kyoto follow-up agreement, in other words, in 2010, every new fossil fuel facility will have to be upgradable. All fossil fuel power plants that emit more than today's average for existing coal and lignite power plants should undergo official compulsory retrofitting.



A state limit for the CO<sub>2</sub> emissions of electricity generated using fossil fuels leaves it entirely up to operators to decide whether they want to improve their “fleet consumption” through clean technology, the burning of biomass, cogeneration or similar approaches. It does not prescribe a specific technology. Such a proposed limit provides a more solid foundation for investment planning than emission trading. The options for action can be clearly illustrated with figures: The oldest German lignite power plants operate with an efficiency of 29%, which works out to 1,400 g CO<sub>2</sub>/kWh, whereas the newest run at 43%. This works out to a difference of 450 g CO<sub>2</sub>/kWh. What's more, a new brown-coal power plant produces 210 g CO<sub>2</sub>/kWh less than the average lignite power plant in use today. Every new coal-fired power plant releases 20% less CO<sub>2</sub> emissions than the oldest facility for the same amount of power generation. The oldest coal power plants have an efficiency of 35% (the equivalent of 950 g CO<sub>2</sub>/kWh), while the newest (state-of-the-art) technology offers 46% (750 g CO<sub>2</sub>/kWh). A new coal power plant releases 110 g CO<sub>2</sub>/kWh less than the average coal power plant in use today. Depending on whether coal or lignite is used as fuel, a new power plant produces between 110 and 210 g CO<sub>2</sub>/kWh less emission than the average facility used in Germany today.

We should not limit our climate protection policies to the realm of high-tech solutions that produce low emissions. By the same token, we should not allow the extension of operating periods for nuclear power plants to create the illusion that this relieves Germany of its climate policy liabilities.

Even based on the most optimistic expectations of currently available renewable sources of energy, only a fundamental and immediate breakthrough in nuclear fusion technology or solar thermal energy would forestall the necessity of employing clean-coal technology, assuming that global energy demand continues to grow at the current pace. We can hope that this demand will diminish, but this is a dangerous wish that would entail conflicts of another nature.

From the point of view of newly industrialised countries, two things do not appear credible: the argument that nuclear power is the answer to their energy problems, and recommendations for immediate decarbonisation. They know very well that this entails billions in investments. There is no point in presenting arguments that do not hold water.

Whether we like it or not, CO<sub>2</sub> is a common good that must be addressed by climate policy. Phasing out the fossil-fuel-CO<sub>2</sub> burden presents a test of Europe's ability to act in the public interest. Nothing less is at stake, especially in view of the Irish “no” vote on the Lisbon Treaty.


New power plants may have a higher degree of efficiency, but they still remain conventional power plants. In order to introduce clean fossil fuel power plants, a wide range of daunting environmental and cost issues have to be addressed. The main areas of focus here are technical and economic issues concerning facility development and ecological questions surrounding environmental compatibility and the infrastructure required for storing carbon dioxide. For example, the German Government should have developed official procedures for the underground storage of carbon dioxide a long time ago.

Underground storage must be seen as a transitional solution until we can, as quickly as possible, find better options for dealing with CO<sub>2</sub>. Thirty years of experience in environmental policy have taught us that some things need to be thoroughly questioned in order to find new solutions. It was not until the 1970s that the notion of recycling led to new trends in how we deal with waste products. That was an impressive achievement that generated jobs and gave rise to innovative programmes. Today, the question is whether we should store this waste product (CO<sub>2</sub>) underground in a manner that is both questionable and fraught with risk, or whether we should try to find uses for it as a raw material.



**We need to close the carbon circle**, in other words: to do with carbon emission what we successfully have done with sulphur emission from power plants.

Nothing less than inventing a means of artificial photosynthesis would solve this problem, and that would require a massive research programme. This is one of many areas where the new National Academy of Sciences could make a contribution. The way out of the climate predicament and the problems generated by shortages of scarce resources should lead to “a new industrial metabolism,” as was recently said by the Nobel laureates at the Potsdam Institute for Climate Impact Research. In order to achieve this, we will have to dramatically improve our scientific capabilities and ensure more academic exchanges and greater creativity. But, above all, we will need new political forms and formats that serve as a forum for reflecting on long-term options for energy and climate policy. This approach should encourage outstanding ideas with open debates and binding decisions.

The Apollo energy programme will have to boost our efficiency in meeting energy demands, speed up technical developments in regenerative forms of energy, make fossil fuels CO<sub>2</sub>-neutral, introduce across-the-board use of separated CO<sub>2</sub> as a raw material, retain Germany's nuclear energy expertise and put it to work in support of non-proliferation policies. 

# Climate Proofing in Development Cooperation: Up-to-Date Practical Experiences

Michael Scholze, Jan Peter Schemmel and Alexander Fröde



## The need to adapt

It is a largely undisputed both across the scientific and the political spectrum that climate change is already taking place and that there is a need for urgent and far-reaching action. The Fourth Assessment Report of the IPCC has illustrated how devastating the impacts of an unstopped climate change can be. There is a long list of physical and socio-economic impacts aggravating or newly appearing in many countries: water scarcity, more and more intense extreme weather events, substantial biodiversity losses, migration and conflicts, floods, heat waves, health threats etc. Due to their biophysical features, but also due to their relatively low adaptive capacity, developing countries will suffer most under climate change.

The intensity of the climate change impacts will depend on future temperature increases and therefore on the global greenhouse gas emission (GHG) reductions that can be achieved over the next decades. Germany and the EU have declared their target to stabilise the global temperature increases at +2° C. The GHG reduction challenge will be enormous, as all large developed and developing countries have to join their efforts.

Although the intensity of climate change can still be largely influenced by today's decision-makers, even under a +2°C scenario several further negative climate change impacts are expected. Therefore, development cooperation is challenged today to support partner countries in adapting to the negative impacts of climate change tomorrow.

### **The efforts of German Development Cooperation so far**

The German Federal Ministry for Economic Cooperation and Development (BMZ) already attends to this challenge. In 2007, it has spent € 450 million (US\$ 700 million) for climate change action in development cooperation (both adaptation and mitigation). In 2008, this will double for the BMZ alone amounting to € 900 million (US\$ 1.4 billion). In addition, the German Government, through the Federal Ministry for the Environment, will further on fund climate protection activities in developing countries also by earmarking a share of the proceeds of selling rather than “grandfathering” emission reduction permits. In 2008 alone, this additional funding amounts to € 120 million.

### **The need for climate-proof development**

Several new programmes on adaptation to climate change have been started or are currently under development. Nevertheless, not only new single standing adaptation programmes are needed, but **climate change has to be integrated into many existing programmes and country portfolios**—they have to undergo a “climate-proofing” process. The reason is simple. Many programmes' sustainability is threatened due to climate change risks—or to put it positively: if well designed, many programmes can assist partner countries in increasing their adaptive capacity. Several recent studies illustrate these risks:

- The World Bank (2006: 120) estimated that 25% of its projects are exposed to serious climate risks.
- In a survey of six countries, the OECD (2005: 16) argued that global warming may negatively affect between 12% (Tanzania) and 65% (Nepal) of all official development assistance (ODA) in a given partner country.

### **The political background**

Political decision-makers already have met this challenge. In April 2006, the OECD Environment and Development Ministers adopted the “Declaration on Integrating Climate Change Adaptation into Development Cooperation”. In the same line, the EU foresees an active linkage between adaptation and development cooperation in its “Action Plan on Climate Change in the Context of Development Cooperation”.

### **Climate-proofing efforts of other institutions**

Several donor organisations have also already started to develop climate-proofing methodologies and instruments. The Dutch DGIS, e.g., has tested so-called “Quick Scans” of their projects in which experts assess the climate risks during a short-term project visit. The focus



of DFID's approach is rather a whole country portfolio than a single project. Their so-called ORCHID tool contains sophisticated assessments including cost-benefit analyses of different adaptation options. There are also computer-based tools like CRISTAL, jointly developed by Intercooperation, IISD, SEI and IUCN. This tool provides a structure for the assessment of climate change risks for rural livelihoods. The World Bank ADAPT tool—that so far has not been placed online—provides the user with a risk assessment based on detailed information that has to be fed into the computer programme. All of these instruments and tools are in pilot or early stages of development.

### **The German effort**

Against this background, the [German Federal Ministry for Economic Cooperation and Development has asked GTZ to develop proposals for integrating climate change into development cooperation](#). It asked to design practical tools for climate-proofing development efforts.

### **An overview of the “Climate Check”**

GTZ therefore developed jointly with the Potsdam Institute for Climate Impact Research its so-called “Climate Check”. This methodology is still work in progress. As it is a comprehensive approach to mainstream climate change into development cooperation, it does not only consist of a climate-proofing tool but also contains two other tools called “Emission Saving” and “Portfolio Screening”. While the main focus of this article is on the climate-proofing tool, the other two should still be illustrated shortly (Box 1).<sup>1</sup>



### **1. Climate Proofing**

The climate-proofing tool focuses on adaptation to climate change. Today's and future climate risks for programmes are identified and reduced by increasing the adaptive capacity of stakeholders or by reducing the risks through concrete adaptation measures. (Objective: minimise climate risks.)

### **2. Emission Saving**

The emission-saving tool focuses on mitigation—the reduction of GHG emissions. The potentials of programmes to contribute more to mitigating climate change are identified. Adjustments in the approach and the direction of the advisory services of the programmes result in contributions to larger emission reductions. (Objective: maximise contribution to GHG emission reductions.)

### **3. Portfolio Screening**

The portfolio-screening tool focuses on the overall portfolio in a country or a sector. The screening includes comparison of the existing portfolio with the main mitigation potentials and adaptation needs in the partner country. The results are recommendations for the climate-related optimisation and further development of the portfolio.

## **The climate-proofing tool**

The climate-proofing tool consists of four consecutive steps. The tool provides an important structure to analyse climate change risks and potentials for the increase of adaptive capacity. It is not static but highly flexible. It can be applied in many different contexts and with different degrees of participation and intensity. Depending on the circumstances, resources and time available, it can be carried out in a one-day workshop or in a two-weeks process. The participation of climate change experts is very helpful but not obligatory.

### **1. Prescreening—before the programme appraisal mission**

The prescreening gives a first rough assessment whether the programme is subject to significant climate risks. A project supporting judicial reforms in Central Asia probably will not be threatened by climate change, nor can it increase the adaptive capacity of the society. It can be assumed that several development programmes are not facing any or only low climate risks. It is an imperative of efficiency to subject only those projects to a climate-proofing process in which negative climate impacts or high potentials for an increase of the adaptive capacity can be expected. A list of vulnerable sectors, regions and actors serves as a basis for a programme's likelihood to face low, medium, high or unknown risk. Depending on the results, the next step has to be carried out.

### **2. Detailed climate risk analysis—during the programme appraisal mission**

If climate risks are likely to be high, medium or unknown, a detailed climate risk analysis is carried out. The procedure is as follows:

**Table 1: Elements of a detailed climate risk assessment**

STEPS	EXAMPLES
Assessment of climate stimuli	<ul style="list-style-type: none"> <li>· Temperature increase</li> <li>· Decrease of water availability</li> <li>· Increase of extreme weather events ...</li> </ul>
Assessment of “exposure units”	<ul style="list-style-type: none"> <li>· Agriculture</li> <li>· Forestry</li> <li>· Infrastructure ...</li> </ul>
Direct impacts (physical)	<ul style="list-style-type: none"> <li>· Destruction of infrastructure</li> <li>· Shifts of ecosystems</li> <li>· Coastal erosion ...</li> </ul>
Indirect impacts (socio-economic)	<ul style="list-style-type: none"> <li>· Income losses</li> <li>· Migration</li> <li>· Social tensions and conflicts ...</li> </ul>
Links to the development programme	<ul style="list-style-type: none"> <li>· Objectives, impacts, outcomes that could be effected</li> </ul>
Adaptive capacity (partner/resource)	<ul style="list-style-type: none"> <li>· Weak institutions</li> <li>· Low income level ...</li> </ul>
Priorisation of adaptation needs based on a risk assessment	<ul style="list-style-type: none"> <li>· Which positive socio-economic development processes and impacts of the programme are most threatened and where does climate change open up new opportunities?</li> </ul>

### **3. Development and priorisation of adaptation options—during the programme appraisal mission**

In those areas prioritised in step 2, adaptation options are developed. If several options exist, again, a priorisation is necessary. Important selection criteria are e.g. the urgency of needs of target groups, cost-benefit assessments, no- or low-regret measures, political and economic feasibility etc.

### **4. Integration in programme concept, monitoring and evaluation—during programme implementation**

The last step is from analysis to action. One important precondition is that the adaptation measures identified are integrated in the programme concept. In the German context, they ideally should be mentioned in the key documents (appraisal report and programme planning document). In many cases, the analysis should be taken up again and probably deepened in the operationalisation at the beginning of the respective programme, when concepts become more clear and data more accessible. Climate risks and the foreseen adaptation measures also should become part of the regular monitoring and evaluation. Adaptation is a continuous and iterative process and therefore should regularly be reconsidered in the light of new findings.

### Conceptual deliberations on the formal integration of the climate proofing

→ **As the climate proofing is expected to be part of a comprehensive mainstreaming of climate change into development cooperation, it can learn from other mainstreaming processes.** There is already a large range of mainstreaming topics in the international development cooperation, like gender, HIV-AIDS, environment etc. Many practitioners complain about an overload of topics to be tackled.<sup>2</sup> Due to this mainstreaming fatigue, it is proposed to formally integrate the climate proofing in already existing categories and processes. In the German context, every programme has to assess potential risks threatening the successful implementation and expected impact of the programme. That is where the climate proofing should come in. Furthermore, instead of single standing assessments, it should be integrated into appraisal missions that are carried out anyway. The respective experts should be trained to fulfil this new task and be equipped with a guidance and manual on how to efficiently check the proposed programme design for climate risks. Once fully established, much speaks in favour of making such a climate check obligatory. As the tool screens out those programmes with low climate change risks in the first step, and as the tool can be applied in different intensities, the additional work load should be manageable. A small internal adaptation fund of the German Development Cooperation could be considered to provide the additional resources needed for the climate proofing and/or the adaptation measures in the programmes and for collecting and systematically evaluating lessons learnt in integrating adaptation into German Development Cooperation.



### Experiences from the first pilot applications of the tool

The climate-proofing tool has been tested in Morocco, India, Vietnam and Brazil so far, further pilot applications are scheduled.

#### Morocco

The tool was applied in a GTZ desertification and nature conservation programme. Several exposure units could be identified relevant for the GTZ programme in Morocco that are facing climate risks, like e.g. tourism, water management, agriculture (specifically medicinal plants and bees) etc. Adaptation options prioritised were e.g. measures of soil protection and an advanced watershed management. With the analytical steps, the tool helped to gear the programme towards a stronger focus on adaptation.

**India**

The climate proofing was carried out in three natural resource management (NRM) programmes of GTZ (one in cooperation with KfW). The NRM sector in many areas of India is vulnerable to climate change impacts. Many programme measures already deal with climate variability, one of the most important bottlenecks of the sector being water availability. Therefore, GTZ has a long and successful tradition of engagement in watershed management programmes. They can already be seen as an effort of adaptation to a decreasing water availability in many regions of India—not only but also due to climate change. Nevertheless, the climate proofing made clear that climate change projections have not been taken into account in the design of these programmes. By doing this, the impacts of these programmes as well as the adaptive capacity of its target groups could be increased and maladaptation be prevented. The same applied for a GTZ programme with the National Bank for Agriculture and Rural Development. In the forestry programme in the Eastern state of Tripura, the shift of ecosystems was identified as a high risk. Although the pilot proofing workshop could not come up with concrete countermeasures, the need for more detailed studies on the climate sensitivity of trees was identified.

**Brazil**

In Brazil, the climate-proofing tool was applied in three GTZ programmes on forest conservation, on energy and urban-industrial environment protection and on integrated regional development in the Northeast. In the context of the forest conservation programme, the risk was identified that the current conservation strategies could become inadequate due to changed reproduction and migration patterns of species. Furthermore, sustainable land use measures and fisheries promoted by the programme could become economically unviable in the future. Therefore, proposed adaptation measures were, e.g., the inclusion of climate change in regional and local development planning as well as in biodiversity conservation strategies, the promotion of forest recovery in the Eastern Amazon to protect rainfall systems in the Central and Western Amazon region, and an increased emphasis on diversification of farm household systems. Furthermore, the need to expand the knowledge base on the impacts of climate change and a systematic capacity development to make use of this knowledge were identified. The latter was also true for the integrated regional development programme, where also an advanced disaster management was prioritised. One of the key threats to the energy programme are longer and more frequent droughts, since 74% of national electricity is generated through hydropower. There are already several research initiatives under way to improve water resource prediction in the relevant watersheds and to assess the climate change impacts on the energy supply. The programme, therefore, should evaluate the possibility to become involved in these or at least make use of their results.

**Vietnam**

During a climate check pilot in Vietnam, a closer look has been taken at the waste and wastewater programme, the forest programme and the poverty reduction programme. Focusing here on the latter, the predominant climate stimuli impacting the identified exposure units of the programme (water resources including irrigation systems, agriculture, rural infrastructure and settlements) are water-related (sea level rise, increased typhoons and rainfall variability, and changes in river flow). Direct and indirect impacts putting the sustainabil-

ity of the programme's impacts (sustained contribution of agricultural markets to welfare, piloting and upscaling an improved model for community planning) at risk are primarily salt water intrusion and flooding, resulting in loss of agricultural production, damages to rural infrastructure and settlements, including health problems. Related risks are higher in the neighbouring areas of the Mekong river delta. However, this might lead to additional indirect impacts on the programme region (e.g. through migration from areas hit harder or changes in the region-wide hydrological system). Adaptive capacity is fairly high with respect to droughts, as irrigation provides sufficient water throughout the year in the pilot region. With respect to floods, drainage systems in the pilot region to date are sufficient to cope with rainfall and river flows in normal years. Adaptive capacity in the region is low regarding limited flexibility of the whole agricultural system (including options for diversification), as the irrigation system requires complex and region-wide governance and there are no policy incentives for diversification. Incidence of poverty is high, which restricts financial opportunities and flexibility of individuals in preparedness, response and recovery. Risk on project success is considered high with respect to agricultural markets contribution to welfare. Also, the upscaling potential for the planning tool piloted in the programme region will depend on whether the higher risks and climate change impacts in neighbouring areas closer to the sea and rivers are systematically assessed in the planning model. Prioritised and realistic short-term adaptation options to be implemented as part of the programme were identified to be e.g. introducing a risk evaluation tool in the component on local planning or considering climate change in market analyses (factor markets, agricultural markets) and adapting the support to the marketing of agricultural goods respectively. In the medium-term adapting rural infrastructure, the diversification of income opportunities or introduction of insurance schemes could be further options.

### Challenges of climate proofing

The current GTZ approach, as every climate-proofing tool, has to deal with several challenges. The most important ones should be briefly discussed here.

#### Cost versus detail

For identifying adaptation options, ideally several regional climate models should be run and several impact assessments should be carried out. This would take years and several hundred thousand dollars. The results should be widely discussed with all stakeholders, and consequences should be derived. Although some projects really could follow such a procedure (e.g. a GTZ programme supporting a national adaptation strategy in Tunisia), obviously this effort is not possible for a "normal" climate proofing of a programme focusing on other topics than climate change. Thus, **there is a trade-off between the costs and the intensity and detail such a climate proofing can provide**. The tool developed tries to account for this by being highly flexible and promoting an iterative process rather than a single-point exercise.

#### Diversity of programmes

GTZ programmes are highly diverse and range from construction of large-scale infrastructure to advisory services for national reforms. The methodology tries to consider this by choosing

a very open approach, providing a lot of flexibility and sector-specific guidance notes. Other tools, like e.g. the World Bank's ADAPT, prescribe many analytical categories in order to come up with an automatised risk assessment. This would not be applicable in the GTZ context.

### **The time dimension of climate change**

Although the first impacts of climate change are already taking place due to a global temperature increase of approximately 0.7°C since the beginning of temperature recordings, for many decision-makers climate change still is an abstract concept. **The tool therefore also serves as an awareness-raising means** by embedding the scientific knowledge and scenarios into the individual context. Many users confirmed that it opened their eyes for the problems to come.

Another aspect of the time dimension is that investment decisions have different life cycles. While a hydro dam is expected to deliver energy for the next fifty years, an agricultural crop is only planted for one year. This differing degree of flexibility and path dependency created by investments and decisions is important to consider while designing adaptation measures.

### **The “old wine in new bottles” argument**

A common argument of practitioners is that the whole adaptation issue is just old wine in new bottles. One part of the argument is correct. Many measures that are already well established are also good adaptation measures. Watershed management cannot only help to tackle climate variability but also climate change. Many income-generating activities can be expected to increase the adaptive capacity, as financial resources are one important determinant to deal with future changes. Many environmental threats like degradation, soil erosion and desertification are worsened by climate change. Countermeasures also can be seen as adaptation. Thus, **the need to adapt in many cases reinforces other already well-established sustainable development strategies**. But several aspects of adaptation to climate change are also new:<sup>3</sup>

First of all, many regions will experience climate conditions that are unprecedented in modern human history. They exceed the variability experienced in the past and, in some cases, not only gradual but qualitative changes: e.g. hurricanes that appear where they never appeared before, or shifts and fast transitions of ecosystems. Furthermore, the rate of change is unprecedented, challenging the adaptive capacity of socio-economic as well as of biological systems. Third, there is an unprecedented knowledge about experienced and expected change. This knowledge provides the opportunity to the current generation for planned, and even proactive, adaptation (Hay and Mimura 2006). Four, the current approach to deal with climate risks, e.g. in disaster management or water resource management based on stationary assumptions derived from historical experiences, is not adequate any more. This poses new methodological challenges. Five, there are new actors, as climate change will require action by people who have not explicitly considered climate in their past decisions. Six, there are a couple of challenges that have not been faced by complex human societies in the past, as e.g. the sea level rise and the melting of the glaciers. And finally, climate change triggers new options for coping with the new conditions, like e.g. the construction of floating settlements

that can sustain repeated flooding (van Ogtrop et al. 2005; de Graaf et al. 2006). So we should watch out not to establish too hastily misleading metaphors that will blind ourselves in a way that in the end our actions might indeed be not much more than “old wine in new bottles”.

### Climate change information



**One of the main challenges of climate proofing and adaptation in general is the information basis.** Although climate change and earth system sciences have made very significant progress, the local or regional knowledge of climate change and its impacts is related with some uncertainties. They mainly derive from the fact that future development of mankind and their related GHG emissions that determine the impacts cannot be known today. But there are other reasons like certain limits of climate models as well. Therefore, adaptation decision-makers never will overcome uncertainty—instead they have to manage uncertainty. This is nothing specific for the adaptation community—many other sectors have to deal with uncertainties. One would rather believe a scientist’s projection of the climate for the next fifty years than an economist’s stock market prognosis for the next five years.

Nevertheless, even existing scientific and practitioners’ knowledge on climate change is not easy to assess. The Potsdam Institute for Climate Impact Research and GTZ therefore plan to create a Global System on Adaptation Information (GSAI) in which such knowledge would be condensed.

### Perspectives



Given the challenges inherent in adapting to climate change, some of which have been outlined above, it becomes clear that **strengthened capacities to access and use climate data and to assess and prioritise risks and options in conditions of uncertainty are key.** Such capacities will need to be developed particularly in developing countries, and development cooperation can contribute to such an urgent build-up. Hence, and not only building on the experiences of the climate check, GTZ will advise e.g. the Indian Government on mainstreaming adaptation into large public development investment programmes. At the same time though, within development cooperation itself there is still a need for further mainstreaming of adaptation, which should of course be informed by the experiences in the field. One important step in that direction has been taken with the decision to develop an OECD-DAC Guidance on Integrating Climate Change Adaptation into Development Cooperation, the development of which GTZ, on behalf of BMZ, supports as partner in the respective drafting group. «

#### (FOOTNOTES)

<sup>1</sup> For more information please see: <https://www.gtz.de/en/themen/umwelt-infrastruktur/23930.htm>

<sup>2</sup> With the ever increasing number of mainstreaming issues, it should be considered how to get back to a better manageable degree of complexity. One way ahead might be not to try to mainstream each and every issue in each and every programme or process. Rather on a case-by-case basis main-

streaming, priorities could be decided and deducted from a substantive and a political point of view. This would allow the prioritised mainstreaming issues to be taken up more thoroughly. Sometimes “less is more,” as a nice German proverb states.

<sup>3</sup> Adapted from Fuessel 2007, Adaptation planning for climate change: concepts, assessment approaches, and key lessons.





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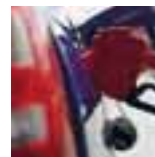
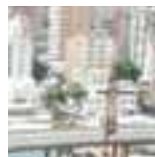
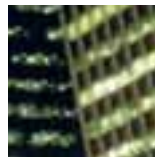
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